

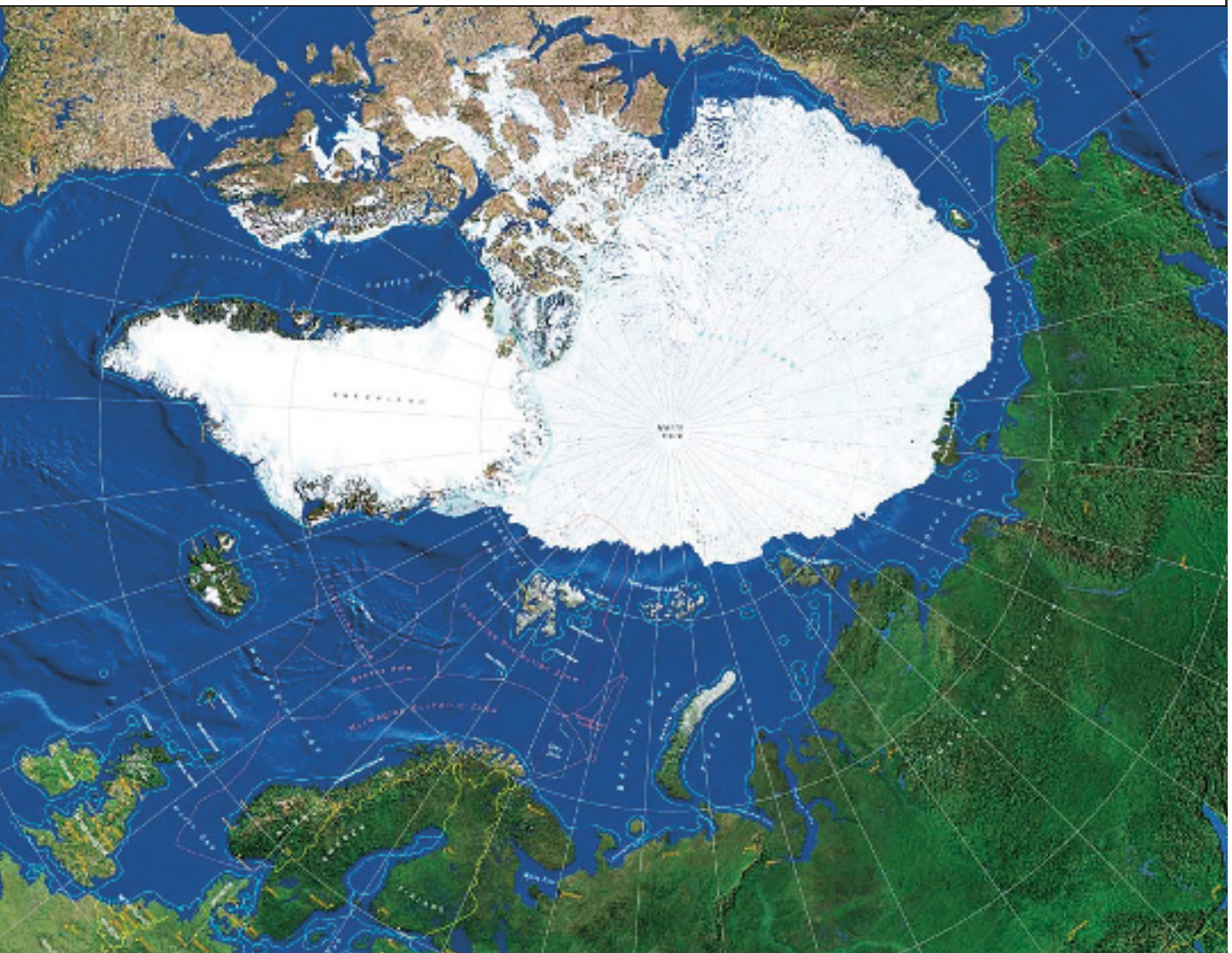


NORWEGIAN MINISTRY
OF FOREIGN AFFAIRS

Meld. St. 7 (2011–2012) Report to the Storting (white paper)

The High North

Visions and strategies





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Contents

<p>Part I Strategic objectives and policy instruments 7</p> <p>Introduction 9</p> <p>1 Achievements in Norway's High North policy. The way forward and overall objectives 10</p> <p>2 Strategic priorities and results 20</p> <p>2.1 Main objectives of the High North policy 20</p> <p>2.2 Strategic priorities and results 21</p> <p>3 An integrated High North policy 32</p> <p>3.1 A targeted High North policy 33</p> <p>3.2 Geopolitics in the High North 34</p> <p>3.3 Climate change: a warmer Arctic . 36</p> <p>3.4 Knowledge is at the core of our High North policy 38</p> <p>3.5 The indigenous dimension of Norway's High North policy 44</p> <p>4 Instruments of Norway's High North policy 46</p> <p>4.1 The High North Strategy and New Building Blocks in the North 46</p> <p>4.2 Policy instruments for the High North 47</p> <p>4.3 International dialogue 52</p> <p>4.4 National dialogue 55</p> <p>Part II A responsible actor in the High North 57</p> <p>5 International legal framework 59</p> <p>5.1 A basis for stability and predictability 59</p> <p>5.1.1 The Law of the Sea 60</p> <p>5.1.2 Norway's 200-mile zones 60</p> <p>5.1.3 Svalbard and Jan Mayen 60</p> <p>5.1.4 Unresolved issues related to jurisdiction 62</p> <p>5.2 Borders 62</p> <p>5.2.1 Norway's land borders in the north 62</p> <p>5.2.2 Delimitation of the continental shelf and the economic zones 62</p> <p>5.3 Treaty with Russia on maritime delimitation and cooperation in the Barents Sea and the Arctic Ocean 65</p> <p>5.4 The rights of indigenous peoples . 66</p>	<p>6 Security and defence 68</p> <p>7 Cooperation in the High North 73</p> <p>7.1 Russia 74</p> <p>7.2 The Arctic Council 83</p> <p>7.3 The Barents Cooperation 86</p> <p>7.4 The Northern Dimension 92</p> <p>7.5 Nordic cooperation 94</p> <p>Part III Growing activity in the High North. Opportunities and challenges 95</p> <p>8 Environmental protection and environmental problems 97</p> <p>8.1 The natural environment as an essential basis for welfare and value creation 98</p> <p>8.2 Pressures and impacts on the environment in the High North 98</p> <p>8.3 A long-term, integrated environmental management regime 100</p> <p>8.4 Targeted regional and global environmental cooperation 101</p> <p>9 Knowledge-based integrated marine management 103</p> <p>10 Maritime safety, oil spill preparedness and response, and search and rescue capacity 105</p> <p>10.1 Maritime safety and preparedness and response to acute pollution 105</p> <p>10.2 Search and rescue 108</p> <p>11 Fisheries, aquaculture and marine bioprospecting 111</p> <p>11.1 The fisheries industry in the High North 112</p> <p>11.2 Aquaculture in the High North 114</p> <p>11.3 Marine bioprospecting 116</p> <p>12 Oil and gas activities 118</p> <p>13 Business development and value creation 123</p> <p>13.1 Knowledge and innovation as a basis for business development ... 123</p> <p>13.2 Infrastructure for transport and electronic communications 126</p> <p>13.3 Electricity infrastructure and renewable energy 129</p>
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13.4	New prospects for the maritime sector	130	13.8	Arctic agriculture and reindeer husbandry	139
13.5	Mineral extraction in the High North	133	14	Economic and administrative consequences	142
13.6	Space-related activity	136			
13.7	Tourism	138			

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approved in the Council of State the same day.
(white paper from the Stoltenberg II Government)*

Part I
Strategic objectives and policy instruments

Introduction

This white paper presents a comprehensive overview of the Government's High North policy. It outlines visions, objectives and policy instruments.

The Government takes a long-term approach to the High North policy, viewing it as a process that will span generations. The Government reports on and formulates key elements of policy in connection with the annual budgets. The national budgets contain information on the status and progress made in the various areas. But the impact and results of the annual initiatives must also be viewed from a longer-term perspective.

The previous white paper on the High North, *Opportunities and Challenges in the North* (Report No. 30 (2004–2005) to the Storting) laid the foundation for much of the High North policy. In autumn 2005 the Government's policy platform identified the High North as Norway's most important strategic foreign policy priority, and the scope of the policy was broadened, the ambition level raised and policy instruments strengthened.

In 2006 the Government presented its *High North Strategy*. This was followed up in 2009 with the publication of the report *New Building Blocks in the North – the next step in the Government's High North Strategy*. These documents form the basis for the Government's High North policy.

The main focus of the present white paper is on foreign policy. Particular emphasis is given to the role Norway's strategic, long-term efforts in the High North can play in strengthening the basis for value creation and welfare throughout the country.

The present white paper provides an in-depth foreign policy analysis and sets out Norway's priorities in the context of a changing international agenda. It is not a white paper about North Norway. Nor is it a review of regional policy. The focus of the High North policy is on strengthening Norway's position in the High North by drawing on experience, knowledge and resources from all over the country. We will seek to safeguard Norwegian interests, enhance the basis for value creation, ensure sustainable management of the environment and sound exploitation of resources, and strengthen our presence and cooperation in the High North.

The white paper outlines the policy direction and ambitions in a number of selected areas. The relevant ministries report to the Storting on implementation in the various policy areas. The measures outlined in this white paper must be viewed in connection with the most recent white paper on Svalbard (Report No. 22 (2008–2009) to the Storting), the *First update of the Integrated Management Plan for the Marine Environment of the Barents Sea–Lofoten Area* (Meld. St. 10 (2010–2011)), the white paper *An industry for the future – Norway's petroleum activities* (Meld. St. 28 (2010–2011)), the *National Transport Plan 2010–2019*, and other planning documents in relevant sectors. The basic structure of the white paper is as follows:

Part I describes how the High North policy has taken shape over the past 20 years. It sets out the role Norway has played in setting the agenda for political developments in the High North, an area that is now attracting considerable international attention. It provides an outline of the main objectives of Norway's High North policy for the next 20 years as well as an overview of the results achieved and future priorities in 15 strategic priority areas.

Part II reviews key foreign policy issues associated with Norway's role as a responsible actor in the High North, with a focus on the international legal framework, clarification of border issues, security policy trends, the role of the Norwegian Armed Forces, and the development of cooperation with Russia and other states in the High North, for example through circumpolar and regional cooperation forums.

Part III reviews the relevance of the High North policy in other key areas. The Government will take steps to facilitate increased activity and value creation in the High North. This section of the white paper discusses the environmental framework for business activity and the importance of integrated marine management and maritime safety, as well as fisheries and aquaculture, petroleum activities and a few key land-based industries.

1 Achievements in Norway's High North policy. The way forward and overall objectives



Figure 1.1 North Cape, Finnmark.

Photo: Johan Wildhagen / www.visitnorway.com

From the vantage point of 2011, we can look back and identify some of the main features of developments in the High North up to today. Our policy provides guidelines for both domestic and foreign policy initiatives through planning documents, increased use of resources and active interaction with private actors, regional and local partners and other countries. The High North has become a recognisable framework for Norwegian policy – both domestic and foreign policy.

Now that a framework has been established through a broad range of national, regional, local and international initiatives, we can look ahead and consider which areas are likely to be in focus in the next 20 years.

1990–2010: The High North policy takes shape

Norway's High North policy in its present form has been developed since the end of the Cold War, but is also based on experience gained many years ago. Since 2005, our explicit political ambition has been to strengthen Norwegian policy to promote knowledge of, and activity and presence in, the High North. Practically every ministry and a wide range of public and private actors set themselves goals in this area, and are involved in formulating and implementing our High North policy.

Over the years, seven major themes have emerged as key elements in the development of our current High North policy.

1) Deepening and renewal of cooperation with Russia

Our relations with Russia are one of the mainstays of Norway's High North policy. In the course of two decades, the nature of these relations has changed from one of confrontation, as was the case during the Cold War, to one of greater confidence, a wider range of contacts and closer cooperation.

During this period, the mistrust that marked the Cold War years has to a great extent been replaced by normal, good neighbourly relations. In addition to their role as regional forums, the Barents Cooperation and the Arctic Council have become important meeting places for Norway and Russia, where our countries are finding common interests in more and more areas. Through people-to-people cooperation in the High North, contacts have been established in most areas and new networks are constantly being developed. This gives Norway's relations with Russia a whole new dimension.

The bilateral relations between Norway and Russia are good, and have been improving steadily in recent years. Nonetheless, we still encounter demanding challenges because of differences between our respective political and administrative cultures. Russia is facing a number of challenges in relation to its political system, democracy, the rule of law, respect for human rights and the framework for the business sector. These are issues Norway has to deal with while developing even closer cooperation with this neighbour and major power to the East.

Our membership of NATO has helped to provide stability and predictability in our neighbouring areas.

2) Development of broad-based High North diplomacy

When Norway took the initiative for the establishment of the Barents Cooperation in 1993, it was considered important to include countries outside the region as well. The idea was that this would make it easier to deal with political and economic challenges in the region.

The Barents Cooperation has become one of the mainstays of the formal regional cooperation in the north. Close ties between people in North Norway and northwestern Russia have been an important supplement, and at times a corrective, to the diplomacy practised in the capitals. These ties have also facilitated economic growth and helped to strengthen people-to-people contact.

The Arctic Council was established in 1996 as a forum for circumpolar cooperation throughout the Arctic. The successor to the Arctic Environmental Protection Strategy, the Arctic Council was initially a forum for environmental cooperation, and has since been expanded to include sustainable development as well. This cooperation is increasingly focusing on climate change and the serious impacts it may have in the Arctic. Today, cooperation within the Arctic Council encompasses shipping, integrated management of resources, oil and gas, tourism, education, research, health, and economic and cultural issues in addition to climate change and the environment. The Arctic Council is the only circumpolar body and the leading political body for Arctic issues.

Norway has systematically sought to maintain and further develop ties with countries outside the Arctic region as well, for example through a series of High North dialogues. The Norwegian authorities have used these dialogues to inform key partners on a regular basis about Norway's views and assessments and discuss challenges and opportunities.

Previously, there were few countries or major economic actors outside the region that were engaged in Arctic areas. This is changing. The EU, key EU countries and several Asian countries are now developing their own Arctic policy, as all the countries that border directly on the Arctic Ocean have already done. At the turn of the millennium, there were few countries outside the Arctic that had the expertise and resources needed to operate in the north. Now, on the other hand, we see that an increasing number of countries are focusing on the region, and are therefore building the necessary expertise and capacity to do so. International organisations and commercial actors are doing the same.

3) Knowledge of the alarming pace of climate change

Climate issues were placed firmly on the international political agenda in the 1990s with the negotiation of the Climate Change Convention and the Kyoto Protocol. As a result of the focus on global climate change, the High North also received more attention. The reason for this was firstly that change was apparent in the Arctic earlier than elsewhere and was more rapid, and secondly that change in the Arctic would influence the global climate system. A major Arctic Council assessment of climate change in the Arctic (ACIA) improved knowledge of the interactions between

regional and global climate change and provided an important contribution to the Fourth Assessment Report from the Intergovernmental Panel on Climate Change (IPCC), which was published in 2007.

Climate change is putting growing pressure on the flora and fauna and entire ecosystems, and making it difficult for indigenous peoples to maintain their traditional way of life and livelihoods. However, the impacts of the changes we are observing in the north may be at least as severe and have very serious consequences for people's living conditions in other parts of the world. For example, rising sea levels caused by the melting of inland ice sheets will have a major global impact.

At the same time, the melting ice is providing greater access to resources in the High North and opening up new opportunities for shipping. This in turn is leading to growing interest in exploiting resources in the Arctic and an increase in maritime activity. For centuries, the Arctic Ocean has been shrouded in mystery and only explored by the boldest Arctic travellers. In recent years, we have seen ships make the first commercial journeys along the Northeast Passage, carrying goods between Europe and Asia.

The rapid pace of climate change and growing economic activity mean that it will be even more important to integrate environmental policy into all sectors.

4) Integrated marine management has safeguarded resources

The management plan for the Barents Sea–Lofoten area was the first management plan developed for a Norwegian sea area. It was a ground-breaking effort, putting the concept of an integrated, ecosystem-based management regime into practice and finding a balance between different user interests within this framework. Norway chose to develop the plan for the Barents Sea–Lofoten area first because it is a rich, clean area of sea where considerable new activity was anticipated. The plan has provided a starting point for work on integrated management plans for other Norwegian sea areas. Our work on integrated management plans has attracted considerable international attention, and provides a model for regional cooperation on marine management in the High North.

Norway is responsible for managing vast sea areas that are home to some of the world's most abundant fish stocks. Marine resources have

always been an important basis for viable local communities and settlement along the Norwegian coast. And the further north you go, the richer the marine resources.

There have been major structural changes in the fisheries sector in recent decades, including the discontinuation of various government financed support schemes. The resource base is robust as a result of long-term management in accordance with the principles of sustainable harvesting. The conventional fisheries are now a modern, thriving and profitable industry. There has also been huge growth in the aquaculture industry since the 1970s and 1980s.

The fisheries sector is Norway's second largest export industry, after the oil and gas industry. And for many years, Norway has been among the world's top two or three exporters of fish and fish products. In 2010, the export value of Norwegian seafood was NOK 53.8 billion, setting a new record for the seventh year in a row.

Today the Barents Sea is home to the world's largest cod stock, the haddock stock is at a record level, and the capelin stock is also strong. During the past 10–12 years, close cooperation on long-term management strategies for the shared Norwegian–Russian fish stocks based on the precautionary approach has given very good results. In the past few years, Norway and Russia have also completed the harmonisation of regulatory measures for the fisheries on both sides of the border.

The Norwegian and Russian authorities have made a concerted effort to combat illegal, unreported and unregulated (IUU) fishing in the Barents and Norwegian Seas in recent years.

At the same time new knowledge about marine organisms offers exciting future opportunities for sustainable value creation based on marine bioprospecting.

5) The contours of a new oil and gas -province

Estimates indicating that a large share of the world's undiscovered oil and gas resources is to be found in Arctic areas are an important reason for the growing interest in the region.

The Barents Sea is one of the areas where considerable petroleum resources are expected to be found. In 1986, large discoveries were made in the Shtokman field in Russian waters. The Snøhvit field in Norwegian waters was discovered in 1980, and this was the first field to be developed in the Barents Sea, starting in 2001. The Skrugard and Norvarg fields were discovered in 2011, which further heightened expectations.

Previously, the unresolved issue of the maritime delimitation between Norway and Russia prevented exploration activities in parts of the Barents Sea. Following the entry into force of the treaty on maritime delimitation between Norway and Russia on 7 July, 2011, new possibilities for oil and gas exploration in the southern Barents Sea opened up. There are many opportunities for cooperation between Norway and Russia. However, growing oil and gas activity will entail new environmental challenges in marine areas with vulnerable ecosystems.

In response to the prospects of oil and gas production in the north, large parts of the Norwegian offshore and supply industry have been building up expertise and making strategic investments. This has also sparked a broad public debate on the spin-off effects that can be expected for local communities and the business sector in North Norway.

6) Acceptance for the principles of the Law of the Sea

In recent decades, important issues concerning jurisdiction in the Norwegian Sea, the Barents Sea, and the Arctic Ocean that affect Norway have been clarified. For all practical purposes, the outstanding issues concerning the maritime delimitation of areas under Norwegian jurisdiction have now been resolved. In the Southern Part of the Banana Hole of the Northeast Atlantic, the final delimitation will be determined in accordance with the arrangements made in 2006 once the neighbouring states (Iceland and Denmark/the Faroe Islands) have received the final recommendations on the outer limits of their continental shelves from the Commission on the Limits of the Continental Shelf.

Norway is the first of the Arctic states to have had the outer limits of its continental shelf clarified in accordance with the UN Convention on the Law of the Sea.

Thus, for the first time we know the full extent of the geographical scope of the Kingdom of Norway – on land, at sea and on the seabed. Norway is responsible for a marine area seven times larger than its total land area. The five states bordering on the Arctic Ocean confirmed, in a ministerial declaration (the Ilulissat Declaration) in 2008, that the Law of the Sea provides the legal framework for clarifying issues related to jurisdiction and management in the Arctic sea areas. This is very important.

The Ilulissat Declaration corrected the notion held by certain key actors that the Arctic was an

unregulated area where open conflict on resources could be expected. Its emphasis on the applicability of the Law of the Sea in the Arctic Ocean lays the foundation for orderly, predictable relations between the coastal states, while at the same time signalling to the rest of the world that the coastal states are taking their responsibility seriously. One of the Government's primary aims has been to play a part in bringing about this clarification.

The Law of the Sea gives Norway jurisdiction over substantial resources. This also means that Norway has a major responsibility for sound management of these areas. There is general agreement that in order to develop a sound management regime, we must first have adequate knowledge of the resources and environment on the seabed, in the water column, and on the surface of the sea. Integrated management plans are important as they provide a basis for increased use of resources within an environmentally sustainable framework.

7) A cooperation network is taking shape

Since the end of the Cold War, a number of cooperation forums have emerged in the north, both the circumpolar Arctic Council and regional forums such as the Barents Euro-Arctic Council.

Relations between Norway and Russia have been developed bilaterally, as well as through the Barents Cooperation and the Arctic Council. The traditional Nordic cooperation has also focused more attention on High North issues since the 1990s, when developments in the Baltic Sea region dominated the agenda. Indigenous issues are a key area of cooperation within the Arctic Council, the Barents Euro-Arctic Council and the Northern Dimension, and in the bilateral High North dialogues with Russia and Canada. The Sami Parliament (Sámediggi) has representatives in the Norwegian delegations to the Arctic Council and the Barents Euro-Arctic Council, and plays an active part in the Indigenous People's Research Network.

In the past few years there has been renewed interest in closer cooperation between the Nordic countries on foreign and security policy, which has resulted in clear guidelines for policy development in the High North. The 2009 Stoltenberg Report, *Nordic Cooperation on Foreign and Security Policy*, outlines specific proposals for cooperation in 12 different areas and for a Nordic declaration of solidarity. The Nordic Foreign Ministers endorsed the proposals set out in the report, and

they are now being followed up in a number of areas.

The Northern Dimension is a partnership between the EU, Russia, Norway and Iceland. It was originally developed in connection with the northern EU countries' efforts to strengthen the EU's engagement in the north. This cooperation has served to intensify the EU's political and economic engagement in the north, just as the EU's participation in the Barents Euro-Arctic Council ensures close contact with the EU. It consists of partnerships in various priority sectors (e.g. environment, transport, health, culture). A number of jointly financed projects have been carried out under the Northern Dimension, for example on improving environmental and health conditions for the inhabitants of the region.

There are close ties between the various cooperation forums. They all take a pragmatic approach, and give priority to dealing with tasks of importance for the economy, the environment, transport and cooperation between countries and regions in the north.

2011–2030: The way forward and overall objectives

There have been rapid developments in the High North over the past 20 years. Nevertheless, 2011 may well go down in history as the first year of the High North decade. In the Government's view, developments in the High North have great potential for strengthening the long-term basis for employment and economic activity not only in North Norway but in the rest of the country as well.

One of Norway's overall objectives is to provide a framework for increased value creation in the High North. This must be done in a way that takes account of the environment, climate and interests of indigenous peoples. We must therefore facilitate the coexistence of different industries and interests within an environmentally sustainable framework. This will require knowledge, expertise and, not least, a close dialogue between the various parties.

During the past few decades, political initiatives have helped to ensure peace and stability, clarify and confirm the legal framework for national jurisdiction and activity in the High North, and develop sound political cooperation structures and extensive people-to-people cooperation. With all this firmly in place, the Government considers that a foundation has been laid that makes it appropriate to focus even more on

those parts of the cooperation that will increase value creation and improve the lives of the inhabitants of the region.

In order to succeed in this, we have to mobilise knowledge, individual actors, centres of expertise and capital. We must forge fruitful partnerships between public and private actors. Cooperation between central government, regional and local authorities must be further developed. And we must develop networks between Norwegian and foreign actors.

Knowledge is at the core of our High North policy. It is people's knowledge and day-to-day work that make it possible to exploit and develop the potential that lies in the north in a sustainable, far-sighted way to the benefit of society. The Government has taken concrete steps to promote the systematic building of knowledge and knowledge infrastructure at the universities, university colleges and other knowledge institutions, for example by providing annual grants from the Ministry of Foreign Affairs through the Barents 2020 programme. The Government considers it important to consolidate and further develop these and other knowledge communities. Division of labour, cooperation, critical mass and quality are keywords. In the Government's view, it is important to engage with knowledge institutions in other countries and facilitate staff exchanges with innovative companies and institutions in relevant fields.

The Government views Norway's High North efforts in a generational perspective. Specific projects will be developed on an ongoing basis through new plans and annual budgets. But we also need a wider horizon that defines our direction and our overriding aims – in relation to both the trends we believe will determine the way forward and the aims we are seeking to achieve.

On this basis, the Government has outlined seven development trends that will shape the initiatives and priorities of Norwegian High North policy.

1) A new energy province in Europe

The Barents Sea seems likely to become an important European energy province. How rapidly it will develop and how important it becomes will depend on market conditions, technological developments, the size of any commercially viable discoveries of oil and gas, and how fast renewable energy sources are developed. The development of oil and gas activities must also be weighed against considerations of other industries and

interests within the framework of integrated, ecosystem-based management. Oil and gas deliveries from this region can improve European energy security and make an important contribution to global energy supplies, and at the same time provide a basis for developing industry and services in North Norway. This has important economic and foreign policy implications.

There is also a potential for renewable energy developments in this region, including hydro-power, and wind and wave power. Long distances, market-related issues, the need for new infrastructure and environmental and safety issues will pose challenges. All the evidence suggests that the energy dimension will be the most important driver of increased interest in this region in political and business circles in other parts of the world.

In our contacts with other states and foreign commercial interests, issues related to access to energy and energy security will become increasingly important both in themselves and as part of foreign and security policy. Environmental standards, technology, the protection of particularly valuable areas, and emergency preparedness and response will be particularly important, as will opportunities and challenges related to the development of technology for Arctic waters.

Norway has geographical advantages and extensive experience and knowledge of energy production at sea, and the Government intends to build on this. The Government considers it important to enable Norwegian knowledge institutions and companies to play a leading role in developing the new energy province.

Norway and Russia are, as coastal states, responsible for regulating activity on their continental shelf areas in the Barents Sea. The Government will boost the potential of this energy province through the development of closer cooperation between the authorities in the two countries and between industry and supplier industries and knowledge institutions.

Gas from the Barents Sea may become an important European energy resource. Both the EU and individual countries in Europe are drawing up plans for further development of energy supplies in the period up to 2050. Common features are the development of renewable energy sources and energy efficiency measures. At the same time, there is general recognition that there will be a considerable need for other energy sources as well during this period. The International Energy Agency (IEA) has highlighted the advantages of making more use of natural gas as a

replacement for coal. Norway and Europe are long-term gas partners. We will continue exploration for gas – particularly in the High North.

If new major discoveries are made in the Barents Sea and market conditions are suitable, we will consider the potential for the profitable use of gas in onshore industries and look at how new infrastructure can be developed.

Expectations of rising activity levels may pave the way for extensive Norwegian–Russian offshore cooperation. The petroleum potential of the Barents Sea also provides a basis for building up knowledge clusters that can contribute to value creation, employment and spin-off effects in northern parts of Norway and Russia.

2) A new industrial age in the High North

The natural resources of the High North have been there since time immemorial; it is knowledge and the growing demand that is making it possible to utilise them. The Government will give priority to the development of knowledge relating to new opportunities for industry, value creation and employment in the High North.

Sound use of oil and gas resources offers a particularly great potential. The Government's aim is for development of the oil and gas industry to open up opportunities for local value creation and development.

Sustainable management of fisheries resources will continue to be a key element of industrial development in the north. New aquaculture opportunities are likely to emerge in the years ahead. Through its focus on marine bio-prospecting, the Government is promoting industrial development based on new knowledge about marine organisms. New products and processes will be developed, with a potential for value creation and employment.

With rising oil and gas production and mineral extraction and a convenient location in relation to new transport routes, it may become more attractive to establish other types of industry in the High North as well. As indicated in the white paper on Norway's petroleum activities, the Government will facilitate increased industrial use of gas in Norway. The alternative value of the gas is its market price. Industrial use of gas in Norway must therefore be profitable, with market-based gas purchase agreements. The Government's point of departure is that the industry is developed in an environmentally sound way and within the framework of Norwegian climate policy.

The potential for increased industrial activity makes it even more interesting to develop economic cooperation with Russia, Sweden and Finland in the north.

The Government will facilitate close, broad-based industrial cooperation with Russia. In addition to industrial cooperation, steps to reduce practical barriers relating to visas, labour migration, customs duties, taxation, border procedures, legal issues and property rights will be of key importance.

At the same time, there are exciting opportunities for closer cooperation between the Nordic countries on industrial development in the north. The Government will seek to further develop business cooperation, particularly with neighbouring areas of Sweden and Finland, but also with other countries in and outside the High North. It will also be necessary to increase cooperation with other countries to assess the impacts of new activities and identify environmentally sound solutions for joint projects.

The Government will maintain close contact with the regional authorities and the Sami Parliament on these issues.

3) *Pioneering work on integrated marine management*

There is already extensive cooperation on environmental protection and sustainable management of living marine resources in the north. We have put in place management plans to ensure long-term integrated management of Norway's sea areas and encourage value creation within a framework that maintains the structure, functioning and productivity of their ecosystems. The Government's ambition is to be at the forefront of developments in this field in the years ahead.

Climate change, ocean acidification and increasing levels of activity will give rise to new challenges for the authorities responsible for environmental and natural resource management, and they will have to meet new demands for knowledge and adaptation. Norway must therefore develop its knowledge-based environmental and resource management regime. We need to succeed in this so that the inevitable processes of change do not cause degradation of important habitats and ecosystems or depletion of living resources that we need as a basis for development and welfare in the future.

Sound environmental and natural resource management also requires closer cooperation

between the Arctic states and with other states and actors that are engaged in activities in the High North. Cooperation within the framework of the Arctic Council and further development of cooperation with Russia on fisheries and marine management in the Barents Sea are of key importance here. This cooperation will be important for harmonisation of standards and legislation on sound management of the northern sea areas.

4) *The growing attraction of the Arctic Ocean*

At some point in the future, ice may no longer be a barrier to transport between Asia, North America and Europe through the Arctic Ocean.

There is no immediate prospect of year-round shipping in these waters, where harsh weather and ice will continue to cause difficulties. But even today, merchant ships operating under normal commercial conditions are using the Northeast Passage to cut travel times and costs. There is reason to believe that the volume of shipping will increase. Russia will face a number of challenges in connection with traffic along a coastline where little infrastructure has been developed. Norway will have to deal with the risks involved in increased traffic along its coast, but will also have opportunities to provide services for these ships.

In the near future, however, transport to and from Russia and petroleum-related activities are expected to account for most of the increase in transport volume. Increasing activity will make it necessary to develop cooperation between Norway and Russia on improving the safety and efficiency of maritime activities.

These developments will have geopolitical consequences. Countries such as China, Japan, South Korea and Singapore are also showing interest in the possibilities of using Arctic sea routes, and a new window of opportunity is opening up for cooperation and exchange with these countries. This will give considerable room for developing expertise, infrastructure and networks that make spin-off effects in Norway more likely. Shorter transport distances and lower prices may improve the competitive position of Norwegian actors in Asian markets.

All these trends combined will increase the strategic importance of Norway's coastline and port capacity.

Growing activity may increase the need for regulation in the northern sea areas and may have implications for search and rescue capacity and oil spill preparedness and response.

5) Source of knowledge about the environment and climate change

The High North is a crucial source of knowledge about the Arctic environment and climate, which has implications far beyond the region itself.

Knowledge about the Arctic climate is important for global climate policy and for taking the decisions needed to reduce global warming. Knowledge gained in the Arctic is already of crucial importance for understanding the functioning of the climate system at global as well as regional level. At the same time, knowledge about climate change and ocean acidification and the impacts these will have in the High North is an essential basis for management of the environment and natural resources and for adaptation of future activities in the region.

Norway has systematically built up centres of expertise that are well placed to develop and disseminate new knowledge. The Centre for Climate Dynamics at the Bjerknes Centre for Climate Research, the research communities associated with the University of Tromsø and the Fram Centre, the University of Nordland, CICERO (the Center for International Climate and Environmental Research – Oslo) and other leading research groups put Norway in a good position to play a prominent role in international research cooperation on the Arctic climate and the impacts of climate change. The Government considers it very important to support these knowledge communities so that they can maintain their position as internationally leading centres of expertise.

Svalbard is a unique platform for national and international polar research, with advanced scientific infrastructure in Ny-Ålesund and at the University Centre in Svalbard (UNIS). In the years ahead, Svalbard will be further developed and strengthened as a platform for research, higher education and monitoring.

The recent establishment of a permanent secretariat for the Arctic Council in Tromsø will put Norwegian centres of expertise in an even better position to play a part in setting the agenda for international climate diplomacy in the future.

The environment of the High North is very vulnerable, and there are serious problems related to inputs of long-range pollutants and to hazardous waste, including nuclear waste, on the Russian side of the border. The situation has been improved through international cooperation, but a clear focus on these problems must be maintained in the years ahead to ensure that economic and industrial activity is within safe ecological limits.

6) Close and innovative cooperation in the High North

The system of regional cooperation in the High North is pragmatic and focuses on resolving practical cross-border challenges.

The Government's aim is for the Arctic Council, the Barents Euro-Arctic Council and the Northern Dimension to be further developed and strengthened. Many challenges can best be addressed through close cooperation, and all the countries involved have expressed a desire to strengthen cooperation. The Government wishes Norway to continue to play a leading role in deepening and expanding this cooperation, with open channels to non-Arctic states and partners outside the region.

Contact and cooperation between academic and other knowledge institutions across national borders in the north have resulted in the development of a stronger network that has also helped to bring about sound political solutions between states. In the years ahead, the Government will promote the expansion and strengthening of knowledge networks between Norway and neighbouring countries, and North American, other European and Asian countries.

While the management of petroleum resources and the determination of conditions for exploration and extraction activities are a national responsibility, the development of knowledge regarding the environment and security is a field where international cooperation is advantageous.

Norway and Russia have started cooperation on establishing a joint environmental monitoring programme and developing the basis for an integrated management plan for the Russian part of the Barents Sea, based on the same principles as the Norwegian plan.

Cooperation under the Arctic Council has been steadily expanded over the years, and the Council has helped to put important issues on the agenda, especially as regards the environment and climate change, but also in areas such as shipping, oil and gas, and tourism. In 2011, this was supplemented when the member states concluded the Arctic Search and Rescue Agreement, the first legally binding agreement to be negotiated under the auspices of the Arctic Council. More such agreements can be expected in the years ahead. In autumn 2011, the member states started negotiations on oil spill preparedness and response in Arctic areas, led by Norway, the US and Russia.

It is important to respond consistently and predictably to the increasing interest in the Arctic on the part of states and actors outside the region.

Norway recognises other states' legitimate interests in the Arctic and welcomes new permanent observers to the Arctic Council provided that they meet the criteria that have been established.

The situation of indigenous people will always figure prominently in regional cooperation in the north. Bodies such as the Arctic Council and the Barents Euro-Arctic Council are forums where indigenous peoples' interests can be safeguarded and further developed in a large geographical area across national borders.

The Barents Cooperation will celebrate its 20th anniversary in 2013, during Norway's chairmanship. A great deal has happened and extensive experience has been gained, both regionally and globally, since the Kirkenes declaration in 1993. Now it is natural to look ahead, and Norway will take the initiative for a new declaration that sets out the visions and direction for cooperation over the next 20 years. A number of suitable areas for closer cooperation are emerging: development of the mineral industry, closer people-to-people contacts, gradual labour market integration, education, environmental protection and research, and other areas of significance for the environment, living conditions and business development. Regional authorities, indigenous peoples' organisations and the Barents Secretariat are important drivers of this cooperation.

7) New geopolitical centre of gravity in the High North

For more than 40 years, strategic and geopolitical interest in the High North was shaped by the logic of the Cold War and the region's inaccessibility.

The High North is still an area of strategic military interest, among other things because a large proportion of Russia's nuclear forces are located there and the region is used as a site for military exercises involving important aircraft and naval units. In NATO, Norway has promoted a renewed focus on the Alliance's core areas – including those in the north – based on long experience that a clear security policy creates stability and predictability for all parties.

Norway considers it important to continue the development of close, predictable cooperation with Russia in the north. Our vision is to develop our neighbourly relations to the same level of openness and trust we enjoy with our Nordic neighbours.

The Norwegian Joint Headquarters has been moved to Bodø, and the focus of the Armed Forces' resources and activities has been moved

northwards. This is not a response to a military threat; rather it was a natural way of underscoring the responsibility Norway has in the north by virtue of its geographical location. In the time ahead, the armed forces will focus increasingly on their tasks in the north.

In the years ahead Norway will continue its long tradition of hosting Allied exercises in our territory, also in the north. It will also be natural to further develop cooperation between Norway and Russia in the military field and as regards fisheries control in the Barents Sea.

At the same time, the strategic picture is changing: the traditional climate of confrontation between East and West is giving way to greater cooperation with, and signs of interest from, more actors – North American, European and Asian. They are interested in new transport routes, access to resources and knowledge about climate change, the melting ice and changes in the marine environment.

Northern waters are becoming more accessible due to the melting ice and new transport and surveillance technology. There will be an increase in commercial activity in waters where there was previously scarcely any traffic, and we must be prepared for both desirable and undesirable traffic. There will be a greater need to maintain order in our northern sea areas and greater demands on the search and rescue capacity of coastal states.

It will continue to be important for Norway to ensure compliance with fundamental principles of international law and respect for the special rights and responsibilities of coastal states. The fact that the coastal states agree on the international rules is a good starting point. It will be important for Norway to further strengthen and consolidate this consensus internationally through its High North diplomacy.

The Government has used the catchphrase "High North – low tension" in developing its High North policy and presenting the main features of this policy internationally. During the Cold War, the High North was marked by the risk of confrontation between the major powers. Nonetheless, Norway and Russia were able to resolve practical problems in a pragmatic way. Close, pragmatic cooperation between Norway and Russia will continue to be an important priority in the years ahead.

Climate change, greater access to natural resources and growing human activity suggest that the High North will be a region of considerable geopolitical interest. The Government's overall objective is to make use of the opportunities

this offers, and at the same time manage the environment and natural resources sustainably, and maintain the High North as a peaceful and stable region. Norway will therefore continue to exer-

cise sovereignty in a consistent and predictable manner in the years ahead, and will be a driving force for cooperation with other countries in a spirit of openness and trust.

2 Strategic priorities and results



Figure 2.1 Bridge between Sommarøy and Hillesøy in Troms.

Photo: iStockphoto.

2.1 Main objectives of the High North policy

The High North is Norway's most important strategic foreign policy priority, as set out in the Government's first and second policy platforms.

In Chapter 1 the Government outlined the main elements of the High North policy for the period 2011 to 2030.

The key policy objectives of Norway's High North policy are:

- to safeguard peace and stability and provide predictability;
- to ensure an integrated, ecosystem-based management regime that safeguards biodiversity and provides a basis for sustainable use of resources;

- to strengthen international cooperation and the international legal order;
- to strengthen the basis for employment, value creation and welfare throughout the country by means of a regional and national effort in cooperation with partners from other countries and relevant indigenous groups.

The Government's High North strategy can be summed up in three words: *knowledge, activity and presence*.¹

Knowledge: The Government's ambition is for Norway to be a leader in the field of knowledge in and about the High North. Knowledge is

¹ The Government's High North Strategy (2006).

defined as being at the core of Norway's High North policy.

Activity: The Government's ambition is for Norway to be at the top of the league in key areas of economic activity and the best steward of the environment and natural resources in the north. This requires close cooperation between national, regional and local authorities, and businesses and relevant research communities.

Presence: The Government's ambition is for Norway to have a presence in all parts of Norwegian territory and in Norwegian sea areas in the High North through policies to encourage settlement, value creation, nature management, employment and culture in North Norway, both by using civilian capacities and by maintaining a military presence.

2.2 Strategic priorities and results

In order to achieve the main objectives of its High North policy, the Government has identified a number of strategic priorities that can be summarised in 15 points. The following is an overview of the most important results achieved so far and the Government's future priorities for each of the 15 areas.

1. The Government will seek to ensure that Norway is a leader in the field of knowledge in and about the High North

Results:

- A considerable boost for climate and environmental research. The Fram Centre (High North Research Centre for Climate and the Environment), based in Tromsø, is a leading international research hub that was opened in 2010. It consists of 19 institutions, including the Norwegian Polar Institute's Centre for Ice, Climate and Ecosystems (ICE). These institutions are cooperating on research in five priority areas involving about 500 scientists.
- Substantial annual funding to close gaps in knowledge so that we can address challenges and take advantage of opportunities in the High North. The grant scheme Barents 2020 was established in 2006. From the first payments in 2007 and up to and including 2012, a total of NOK 303 million has been allocated to 56 projects.
- A new polar research programme under the Research Council of Norway was established in 2011 with an allocation of NOK 45 million.
- Norway played an active role in the establishment of the world's largest ever polar research programme, the International Polar Year (IPY 2007–2008). The Storting allocated NOK 330 million to Norwegian efforts under IPY, including 27 Norwegian research projects and research cruises with the vessel *G.O. Sars* in the Southern Ocean.
- Research projects on geopolitics in the High North and Asia's role in the High North have been established under the Research Council, and are being supported via Barents 2020, with grants totalling NOK 28 million over a five-year period and NOK 15 million over a three-year period, respectively.
- Closer educational and research cooperation with Russia, Canada and the US, including 196 High North grants awarded since the scheme was established in 2007.
- Active follow-up of labour and trade associations and education and research institutions to build up knowledge about challenges and opportunities in the High North.
- Strong North Norwegian networks have been established through closer cooperation between institutions in the region as part of Norway's general policy for improving higher education and research.
- Focus on research through the establishment of a system of regional research funds. In North Norway, projects on climate change adaptation, regional welfare and cross-border regional developments have been given priority.
- Development of centres of expertise in Svalbard, including improvements to research infrastructure and capacity at the University Centre in Svalbard (UNIS). The Universities of Tromsø and Nordland increased the number of student places in 2009 and 2011.
- International research activity in Svalbard has reached record levels. Ten nations have research stations in Ny-Ålesund, and almost half the students at UNIS are foreign nationals.
- Norway has initiated the establishment of the Svalbard Integrated Arctic Earth Observing System (SIOS), a unique system in which almost 20 countries are involved.

Future priorities:

- Further develop the institutions involved in the Fram Centre in Tromsø so that they can maintain their position as internationally leading centres of expertise in climate and environmental research in the High North.

- The Government intends to acquire a new ice-class research vessel based in Tromsø. More information about the timing of this acquisition will be given later.
- Increase the involvement of research groups in North Norway by ensuring that at least 50% of grant funding through the Barents 2020 scheme goes to projects in which such research groups are included.
- Initiate a survey of the performance of Norwegian knowledge institutions in education and research related to the High North, with a view to developing closer cooperation and coordination between them, and finding a sound division of responsibilities to ensure high quality and good use of resources.
- Research and higher education will continue to be one of the pillars of Norwegian activity in Svalbard.

2. The Government will ensure that Norway exercises its sovereignty and authority in the High North in a credible, consistent and predictable manner

Results:

- The focus of the armed forces has been shifted northwards: the Norwegian Joint Headquarters has been moved from Stavanger to Bodø, and the headquarters of the Coast Guard will be located in Sortland from 1 January 2012.
- The Government has strengthened Norway's capacity to exercise sovereignty and authority in the north by increasing operational activity.
- Five new frigates have been purchased, improving Norway's capacity in the vast sea areas in the north.
- The Coast Guard's fleet structure has been updated through the purchase of modern multi-purpose vessels. In particular, surveillance capacity and mobility have been improved, and will be improved further as NH-90 helicopters are phased in for use on helicopter-capable vessels.
- Entered into an agreement on cooperation in the field of security, defence and preparedness with Iceland (2007), which encompasses cooperation on search and rescue services, civil emergency preparedness and defence activities.
- Extensive contact has been established between Norwegian and Russian forces in the north. Joint Norwegian–Russian maritime exercises – the “Pomor exercises” – were carried out in 2010 and 2011.

Future priorities:

- The helicopter base at Bardufoss will be further developed by concentrating helicopter capacity for maritime operations at the air station there.
- Exercise activities in the north with allies and also with other important partner countries will be further developed.
- The army is planning to expand its exercise activities in 2011 and 2012. Much of this activity will take place in the north.
- The Coast Guard gives priority to the northern seas, and according to plan will dedicate almost 2?500 patrol days a year to these areas in 2011 and 2012.
- The activity of the Coastal Squadron (frigates, Skjold-class corvettes, mine-clearance vessels, submarines) in the north is rising steadily as new vessels are phased in. Sailing time (days) is expected to double from 2008 to 2012.
- The NH-90 helicopters will continue to be phased in.
- In 2012, construction of the first of two new border stations for the border guards on the Norwegian–Russian border will be started.
- Military cooperation with Russia will be further developed.

3. The Government will seek to ensure that Norway is the best steward of the environment and the natural resources in the High North

Results:

- A management plan for the Norwegian Sea and an updated management plan for the marine environment of the Barents Sea–Lofoten area have been drawn up. The management plans have attracted international attention and are resulting in a greater focus on resource management in the High North.
- Jan Mayen and its territorial waters have been protected as a nature reserve, and the Bjørnøya nature reserve has been extended to the 12-nautical-mile territorial limit.
- A prohibition on the use of heavy bunker oil by ships sailing in the protected areas in Svalbard has been introduced.
- The new Act relating to the management of biological, geological and landscape diversity (the Nature Diversity Act) has been passed.
- 53 000 km² of the seabed has been mapped under the MAREANO programme in the Barents Sea–Lofoten management plan area.

- The research initiative on the impacts of climate change on fish stocks, ecosystems and aquaculture has been continued, for example within the framework of a research programme under the Institute of Marine Research.
- Efforts to build up knowledge on the management of wild living marine resources within the framework of broad-based cooperation programmes involving various institutions have been intensified.
- A joint Norwegian–Russian environmental status report for the Barents Sea has been drawn up, and work has started on joint Norwegian–Russian environmental monitoring activities for the Barents Sea.

Future priorities:

- Follow up national targets and international commitments related to the climate and environment, and continue to set high environmental and safety standards for commercial activities, based on the precautionary principle, the principle that cumulative environmental effects must be assessed, the provisions of the Nature Diversity Act on conservation and sustainable use, and the Svalbard Environmental Protection Act.
- Continue to play a leading role in developing an integrated, ecosystem-based marine management regime, and encourage all countries with jurisdiction over sea areas adjacent to Norwegian areas to develop integrated management plans.
- Work towards the inclusion of climate change adaptation as a key topic for the Arctic Council and other cooperation forums in the High North, and towards the development of Arctic climate change adaptation strategies.
- Establish targeted global and regional cooperation to ensure protection of particularly vulnerable areas and species.
- Take steps to reduce emissions of short-lived climate forcers in the High North.
- Seek to ensure that knowledge about climate change in the High North is disseminated and is given priority in the international climate negotiations.
- Strengthen cooperation with Russia on the marine environment with a view to establishing an integrated Norwegian–Russian monitoring programme for the Barents Sea.
- Aim to complete mapping of the seabed in the Barents Sea–Lofoten area by 2020.

- Cooperate with Finland on measures for sustainable fisheries and to rebuild the weak salmon stocks in the Tana river system.

4. The Government will improve monitoring, emergency preparedness and response and maritime safety systems in northern sea areas

Results:

- A vessel traffic service centre was established in Vardø in 2010. This is a national centre of expertise on maritime safety, oil spill preparedness and response and monitoring.
- Substantial strengthening of oil spill response capacity through systematic replacement of oil spill equipment since 2006.
- Barents Online: the Norwegian National Coastal Administration is coordinating work on the maritime surveillance and information system BarentsWatch, which is designed to provide reliable services for both public and private users.
- Norway has been at the forefront of efforts to draw up the first internationally binding agreement to be negotiated under the auspices of the Arctic Council – the Arctic Search and Rescue Agreement, which was signed at the ministerial meeting in Nuuk in May 2011. The agreement sets out the geographical area for which each country is responsible.

Future priorities:

- The BarentsWatch public information portal will come into operation in 2012, and work on the closed system will be continued in close cooperation with government agencies that have operational responsibility at sea. The operation and development of the public information portal will be based in Tromsø.
- Norway is at the forefront of efforts to develop binding rules for shipping in polar waters (the Polar Code) under the auspices of the International Maritime Organization (IMO).
- Further development of oil spill preparedness and response.
- Norway will promote closer regional cooperation on oil spill preparedness and response through the Arctic Council.
- Improving maritime safety:
 - Start operation of the new meteorological radar at Gednje on the Varanger Peninsula.
 - The introduction of pilot services in Svalbard has been proposed.

- Stronger presence:
 - Continue work on the acquisition of new rescue helicopters with a view to having them in place by 2020.
- Strengthened capacity in Svalbard:
 - As of 2014, the Governor’s helicopter service is to have two large helicopters and better response time.²
- High level of preparedness:
 - Continue efforts to improve maritime safety and emergency preparedness and response for acute pollution in the High North.
- Better knowledge:
 - Continue charting activities based on priority needs for research and transport in the region, for example through the cooperation on Arctic nautical charting.

5. The Government will strengthen and further develop cooperation with Russia

Results:

- After 40 years of negotiations, a historic agreement has been concluded with Russia on maritime delimitation in the Barents Sea and the Arctic Ocean. The clarification of the delimitation line is a milestone and opens up new opportunities for cooperation. Norway and Russia now have a land border from 1826 and a maritime boundary from 2011.
- Trade has increased from NOK 13.6 billion in 2005 to NOK 17 billion in 2010.
- Substantial increase in cross-border contact. The number of border crossings at Storskog has increased from around 8 000 in 1990 to 107 000 in 2005, and is expected to be around 190 000 in 2011.
- After a slow start, economic cooperation in the north has increased considerably: 40 Norwegian companies have now established operations in Murmansk.
- An honorary consulate was re-established in Arkhangelsk in September 2010.
- Norway’s diplomatic presence in Russia has been strengthened through a reallocation of resources in the Foreign Service.
- An agreement has been negotiated on local border traffic permits that facilitate cross-border contact for those who live near the Norwegian–Russian border.
- A strategic energy partnership has been developed on the basis of an extensive energy dialogue with Russia that includes follow-up of the delimitation agreement with regard to any offshore oil and gas discoveries that extend across the delimitation line.
- Extensive contact has been established between Norwegian and Russian forces in the north. Joint Norwegian–Russian maritime exercises – the “Pomor exercises” – were carried out in 2010 and 2011.
- Important steps have been taken to make things easier for businesses and individuals involved in cross-border cooperation with Russia, for example through the provision of work permits for unskilled labour and simpler visa procedures (the “Pomor visa”).
- The Barents Secretariat’s cross-border projects (3 200 projects since 1993) have contributed to a considerable strengthening of people-to-people cooperation with Russia.
- Norwegian–Russian cooperation in areas such as education, environment, health, fisheries management and business operations has been strengthened.
- Support has been provided for Norwegian fisheries organisations’ cooperation and dialogue with their sister organisations in Russia.
- Nuclear cooperation in northwestern Russia: Norway has contributed to the dismantlement of five decommissioned nuclear submarines, one of these together with the UK. All of the 180 radioactive power sources for lighthouses have been removed and replaced by solar panels.
- Substantial increase in the number of Russian students in Norway – from 526 in 2005 to 1 175 in 2010.
- The Norwegian Ministry of Education and Research and the Russian Ministry of Education and Science have signed an MoU on cooperation in the field of higher education.
- Environmental cooperation with Russia has been strengthened in the areas of integrated marine management, biodiversity and environmental monitoring in the border areas, as well as responsible management of persistent, bio-accumulative and toxic substances.
- Broad cooperation has been established in the field of health, for example on infectious diseases, coordination of primary and specialist health services and the promotion of a healthy lifestyle.

² See Prop. 146 S (2010-2011).

- Extensive cooperation has been established through the multilateral programme *Children and Youth at Risk in the Barents Region (CYAR)*.

Future priorities:

- The Government intends to build a new border station at Storskog in Sør-Varanger. More information about the timing of this will be provided at a later stage.
- Capacity at the border control station at Storskog will be increased through immediate measures to be implemented during the winter 2011/2012. These include increasing the number of in-coming and out-going lanes and control booths, installing equipment for electronic passport control and language training. An increased police presence at Storskog in 2012 has been proposed.
- The Government will review the visa application process with a view to further easing visa procedures for Russian citizens within the framework of the Schengen cooperation during the current parliamentary term.
- The Government aims to implement the local border traffic regime in the first half of 2012.
- The Government will continue its efforts to ensure that the major emissions from nickel production in the Pechenga region of the Kola Peninsula are eliminated.
- The Government will follow up the many concrete proposals for cross-border cooperation set out in the joint declaration on cross-border cooperation³ and the work plan for strengthening Norwegian–Russian cross-border cooperation for the period 2011–2015.⁴
- A strategy for business sector cooperation with Russia will be presented in 2012.
- Efforts will be made to further increase labour mobility between Norway and Russia.

³ Joint declaration by the Norwegian and Russian foreign ministers on strengthening Norwegian–Russian cooperation (2 November 2010).

⁴ Work plan to create favourable legal, trade, economic and other conditions for strengthening Norwegian–Russian cross-border cooperation, 2011–2015 (February 2011).

6. The Government will strengthen and further develop cooperation with the other Arctic countries and intensify dialogue with other partners who share our interests in the region

Results:

- Through our High North diplomacy, Norway has helped to increase international attention on and understanding of developments in the north.
- Norway has strengthened its position as a key player in the High North.
- We have established extensive High North dialogues with the member states of the Arctic Council, and we have held dialogues with emphasis on energy with Germany, France, the UK, Spain, Poland, the Netherlands and Italy.
- We have started dialogues with certain Asian countries (China, Japan, South Korea) on issues relating to the High North.
- We have entered into a cooperation agreement with Iceland on High North-related research, and have established a three-year guest professorship at the University of Akureyri.
- Norway maintains close contact with various EU bodies on developments in the High North.
- We have signed a declaration on -cooperation with the Home Rule Government of Greenland (Naalakkersuisut).

Future priorities:

- Help to shape the agenda and promote Norwegian views and interests in the High North and the Arctic.
- Establish a coordination forum for the leaders of Nordland, Troms and Finnmark county councils and the President of the Sami Parliament to exchange information and facilitate the implementation of large-scale projects. This is to be led by the Minister of Foreign Affairs.
- Continue existing dialogues with emphasis on developing concrete cooperation projects with other countries.
- Enter into an agreement with the UK on closer cooperation on polar research and cultural heritage.
- Intensify the dialogue with the countries and organisations that are seeking permanent observer status in the Arctic Council (China, Japan, South Korea, Italy, the European Commission).
- Strengthen concrete cooperation with North Sweden and North Finland.

7. The Government will seek to strengthen cooperation in the Arctic Council and in regional forums such as the Barents Cooperation and the Northern Dimension

Results:

- A permanent secretariat for the Arctic Council will be established in Tromsø by 2013. This will strengthen cooperation in the Arctic Council as well as Norway's position in Arctic cooperation and policy development.
- The first legally binding agreement between the member states of the Arctic Council has been entered into (the Arctic Search and Rescue Agreement).
- The Arctic Council's global role has been strengthened through the establishment of criteria for the admission of permanent observers.
- Partnerships in the areas of environment, health, transport and logistics, and culture have been established through the Northern Dimension (cooperation between the EU, Iceland, Norway and Russia).

Future priorities:

- Norway is to be a driving force in strengthening the Arctic Council and is to work for more binding cooperation on relevant areas between members and observers.
- Negotiations on oil spill preparedness and response in Arctic areas. A report on the status of this work is to be presented at the Arctic Council's ministerial meeting in 2013.
- We will work for the admission of more countries as permanent observers to the Arctic Council.
- The Barents Cooperation will be further developed through Norway's chairmanship of the Barents Euro-Arctic Council in 2011–2013. The main priority is to promote the Barents region as a region for innovation and environmentally sound management of resources based on knowledge.
- A new, updated political declaration is to be drawn up for the 20th anniversary of the Barents Cooperation in 2013 outlining our future cooperation.
- We will promote closer coordination of and synergy between the various regional forums for cooperation.
- We will seek to strengthen the parliamentary dimension of Arctic cooperation.

8. The Government will continue to promote implementation of the Law of the Sea and to further develop standards and legislation in relevant areas

Results:

- Through its active High North diplomacy, Norway has contributed to the understanding of the fact that the Law of the Sea constitutes the overall legal framework for the Arctic Ocean.
- At a meeting in Oslo in October 2007 between the five coastal states bordering the Arctic Ocean a common understanding was reached regarding the basic legal principles governing the Arctic.
- Norway participated actively in the development of the Ilulissat Declaration (2008), which sets out that the five coastal states bordering the Arctic Ocean (Canada, Denmark, Russia, the US and Norway) recognise that the Law of the Sea provides the framework for national measures and cooperation in the Arctic Ocean, and that they remain committed to the orderly settlement of any possible overlapping claims.
- Final clarification of the extent of our continental shelf. Norway is the first Arctic state to receive recommendations from the Commission on the Limits of the Continental Shelf.
- The maritime delimitation treaty with Russia entered into force on 7 July 2011.

Future priorities:

- The Government will continue to work for full implementation of the Law of the Sea and to help to increase respect and support for its principles through active diplomacy.
- The Government will contribute to the development of binding requirements for shipping and maritime operations in Arctic waters through the establishment of the Polar Code under the auspices of the International Maritime Organization (IMO).

9. The Government will facilitate the further development of a sustainable fisheries and aquaculture industry in the High North

Results:

- Large-scale illegal, unreported and unregulated fishing (IUU fishing) has been eliminated in the Barents Sea through successful cooperation with Russia. In 2009 and 2010, no IUU fishing of cod or haddock was registered.

- A national strategy for marine bioprospecting was launched in 2009. The Government will promote innovative value creation through targeted work on marine bioprospecting,
- The Government has been involved in the establishment of a breeding centre for cod, an aquaculture research station and fish health laboratory in the Tromsø area and a national centre for capture-based aquaculture at Nofima in Tromsø.

Future priorities:

- Continue the close Norwegian–Russian cooperation on management of the fish stocks in the Barents Sea, and seek to develop cooperation with other countries and relevant organisations to improve the management regime further.
- Encourage further restructuring and innovation in the seafood industry.
- Facilitate growth of the aquaculture industry in North Norway within environmentally sustainable limits.
- Enhance expertise in the seafood industry, and strengthen recruitment.
- Implement the national strategy for marine bioprospecting.
- Continue monitoring of contaminants in fish from the northern sea areas and farmed fish.
- Continue the cod breeding programme run by Nofima.

10. The Government will facilitate the sound utilisation of the oil and gas resources in the High North

Results:

- A record level of oil and gas activity has been reached in the north, and new areas have been opened up for exploration. The framework for petroleum activities is set out in the white paper on petroleum activities and the updated management plan for the Barents Sea–Lofoten area.
- Geological surveys of the area west of the delimitation line between Norway and Russia in the Barents Sea have been started.
- The opening process and environmental impact assessment for the Jan Mayen area have been initiated. Seismic surveys have been started.
- Survey of the suitability of ports in eastern Finnmark for a new oil terminal. Several ports have been assessed, but Kirkenes is the only existing port that meets the requirements.

Future priorities:

- Facilitate expansion of oil and gas activities in the Norwegian part of the southern Barents Sea, among other things by initiating an impact assessment in accordance with the Petroleum Act, with a view to granting production licences for the previously disputed area west of the delimitation line in the southern part of the Barents Sea (south of 74° 30' N).
- If this is justified by the conclusions of the impact assessment, the Government will present a white paper recommending that these areas should be opened for petroleum activity.
- Build up knowledge about potential impacts of petroleum activities in the unopened parts of Nordland IV, V, VI, VII and Troms II and collect geological data on the unopened parts of Nordland IV.
- Facilitate increased activity that will have spin-off effects in North Norway, including boosting employment and building up knowledge clusters.
- Ensure that new discoveries result in maximum value creation for society and promote local and regional spin-off effects.
- Promote the development of expertise and cooperation so that Norwegian companies can take part in the expected activity on areas of the continental shelf under other countries' jurisdiction in the High North.
- If major new discoveries are made, consider the potential for the profitable use of gas in onshore industries and look at how new infrastructure can be developed.
- Play a part in the development of health, environment and safety standards for Arctic oil and gas activities.

11. The Government will facilitate safe maritime transport and maritime business activities in the High North

Results:

- The Centre for High North Logistics (CHNL) has been established as an international knowledge hub for businesses, research institutions and authorities so that they can develop effective and sustainable logistics solutions for northern sea areas.
- Concerted effort to boost maritime education in North Norway:
 - Maritime education programmes at the University of Tromsø and a number of

North Norwegian technical colleges have been strengthened.

- A professorship in sustainable maritime transport has been established at the Department of Marine Technology at the Norwegian University of Science and Technology (NTNU).
- A bachelor programme in international preparedness has been started at the Norwegian Fire Protection Training Institute, in cooperation with Narvik and Harstad University Colleges.
- The Government's maritime strategy has resulted in the allocation of substantial funding for the development of expertise on maritime activities in the High North.

Future priorities:

- Northern marine and coastal areas are becoming increasingly accessible for shipping. The Government will establish a group of experts to examine how Norwegian interests can best be safeguarded in the light of this.
- Norway will play an active role in the development of international rules, industry standards and knowledge and in information sharing to reduce the risk of accidents and acute pollution.
- The Government's maritime strategy and MARKOM2020, which is a cooperation project within higher maritime education, will be implemented.
- Allocations for building up expertise will be continued.

12. The Government will promote onshore business development in the High North

Results:

- We have ensured that the scheme for differentiated employers' national insurance contributions can be continued in agreement with the EU.
- We have initiated a survey of mineral resources in Nordland, Troms and Finnmark (by the Geological Survey of Norway (NGU)) with a view to possible industrial development and value creation.
- Nordnorsk Reiseliv AS has been established to strengthen the profile of the tourism and travel

industry and international marketing of North Norway.

- Support has been provided for studies on the importance of the mineral industry for the High North and the potential for Nordic cooperation.
- Support has been provided for the establishment of a professorship in economic geology at the University of Tromsø.

Future priorities:

- We will facilitate increased value creation and human activity in the north while ensuring that environmental value and biodiversity are maintained.
- The Government announced in a white paper on state ownership that it would put forward a proposal on the establishment of a number of new country-wide seed money funds. One of these will be established in North Norway.
- We will facilitate the utilisation of mineral resources in the High North through the presentation of a strategy for the mineral industry in spring 2012.
- The mineral sector will be one of the main priorities of the Norwegian chairmanship of the Barents Euro-Arctic Council in 2011–2013.
- Continue the five-year programme (NGU) to survey mineral resources in the High North, 2011–2015.
- Continue development of the knowledge base for incorporating environmental concerns into onshore business development.
- Further develop business cooperation with Russia, between North Norway and neighbouring areas of Sweden and Finland, and with other countries within and outside the High North.
- Continue efforts to promote entrepreneurship and innovation among young people, giving priority to travel and tourism and Arctic technology.
- Maintain focus on the travel and tourism industry in North Norway and Svalbard.
- Promote further cooperation and coordination between actors in the travel and tourism industry, and support the development of Nordnorsk Reiseliv AS as a tool in this work.

13. The Government will further develop infrastructure in the High North, both independently and in cooperation with our neighbouring countries, with a view to supporting business development

Results:

- Considerable increase in investment in new roads and maintenance of the road network in North Norway.
- The project on infrastructure in the north, *Ny infrastruktur i nord*, has submitted its report and proposed a number of measures to improve infrastructure in the north. The report was commissioned in connection with the preparation of a new national transport plan for 2014–2023.
- The space-related infrastructure has been further strengthened with the launch in 2010 of the first Norwegian satellite (AISSat-1), designed to receive AIS signals from ships.
- The AIS satellite has improved surveillance of maritime activities in northern waters.
- Norway has participated in the development of the European satellite navigation system Galileo.

Future priorities:

- Follow up the National Transport Plan 2010–2019, which includes a number of projects of major strategic importance for the development of the High North.
- Work to establish transport infrastructure between Norway and our neighbouring countries to link different parts of the Barents region more closely together.
- Follow up proposals for concrete improvements to the transport infrastructure in the north in connection with the national transport plan for 2014–2023.
- Further develop the electricity infrastructure in the north with a view to improving security of supply and meeting growing energy needs. This will be done both by upgrading the transmission grid between southern Norway and North Norway and through cooperation with our neighbouring countries.
- Maintain focus on space-related activity in the High North.
- Continue Norwegian participation in the development of the European satellite navigation system Galileo.
- Clarify whether there is a commercial basis for upgrading the Ofoten iron ore railway line and

an interest on the part of the mineral-based industry in other measures, and intensify cooperation with our neighbouring countries on the Ofoten Line.

14. The Government will seek to ensure that Norway's High North policy continues to safeguard the culture and livelihood of indigenous peoples

Results:

- Regular meetings have been held with the Sami Parliament (Sámediggi) on High North-related matters. The Ministry of Foreign Affairs has regular half-yearly consultations with the Sami Parliament at political level.
- Grant schemes have been introduced to enable representatives of indigenous peoples to participate and have a say in the regional political processes in the Arctic Council and the Barents Cooperation.
- It has become established practice for the President of the Sami Parliament to deliver part of the Norwegian statement at ministerial meetings in the Arctic Council and the Barents Euro-Arctic Council.
- Norway and Russia signed a joint declaration in 2010 where the focus is inter alia on strengthening contacts between indigenous groups, revitalising and preserving indigenous peoples' traditional culture and livelihoods and safeguarding their quality of life.
- We have helped to ensure that Sami culture and indigenous culture are one of five focus areas in the three-year cultural cooperation programme between Norway and Russia for the period 2010–2012.
- The Sami Science Centre in Kautokeino has been completed. We have implemented measures to strengthen tuition in the Sami languages and improve recruitment to Sami teacher training programmes.
- A pilot project entitled *Árbediehtu* has been started at the Sami University College on documentation, preservation and use of traditional Sami knowledge.
- We have provided support for a number of measures aimed at promoting the culture and livelihoods of indigenous people.
- The International Centre for Reindeer Husbandry (ICR) has been established to strengthen international cooperation on reindeer husbandry in Arctic areas in cooperation with reindeer herders and their organisations.



Figure 2.2 Cod fishing, Røst.

Photo: Berit Roald / Scanpix.

- The Centre for Northern Peoples opened in Kåfjord in Troms in 2011.

Future priorities:

- Ensure that representatives of indigenous peoples' organisations are given sufficient opportunity to participate in processes and decisions that affect indigenous peoples.
- Intensify international cooperation on research on the impact of climate change on indigenous peoples' livelihoods.
- Ensure that business activities that affect indigenous peoples' interests are carried out in a sustainable way, and that there is a close dialogue between the companies, authorities and indigenous people's organisations concerned. Seek to ensure that increased industrial activity in indigenous peoples' areas also creates jobs for the indigenous population.
- Initiate a cross-border regional project to document traditional Sami knowledge in the Nordic countries and Russia.
- Start developing ethical guidelines for economic activities in the north.

15. The Government will further develop cultural and people-to-people cooperation in the High North

Results:

- The BarentsKult fund has been established to provide support for a large number of Norwegian–Russian cultural projects.
- A large number of people-to-people projects have been supported by the Barents Secretariat.
- Active support has been provided for various cultural festivals: the Northern Lights Festival and Tiff in Tromsø and Barents Spektakel in Kirkenes. Efforts are being made to strengthen these festivals' international networks.
- Support has been provided for voluntary initiatives with a view to fostering broad engagement and strengthening civil society in the region.
- Through the Barents Euro-Arctic Council's working group on youth policy cooperation, close cooperation has been established to promote and provide administrative and economic support for exchanges of groups of children and young people in the Barents region. Fund-

ing is also provided for other multilateral projects for children and young people.

Future priorities:

- Support will continue to be provided for people-to-people projects through the Barents Secretariat.
- Support will be provided for Russian civil society and environmental and human rights organisations, and for efforts to promote a free press. Support will also be provided for Norwegian–Russian trade union cooperation.
- Greater emphasis will be given to measures to strengthen economic ties and growth with a view to strengthening the basis for employment and settlement.
- Support for cultural projects in the Barents region will be continued.

3 An integrated High North policy



Figure 3.1 The Arctic Ocean.

3.1 A targeted High North policy

The High North today is characterised by stability and cooperation. However, in the time ahead, significant climate change, a growing demand for natural resources and more intensive use of sea areas are expected in the region. The region is facing significant changes related to the climate, the growing demand for natural resources and increased use of the sea areas. In the Government's view it is essential to maintain and intensify the close cooperation that exists in the region today and to continue to disseminate knowledge about developments in the region to the international community. This is being done, for example, through active High North diplomacy and cooperation aimed at putting Arctic issues on the agenda in important international processes.

The High North is home to abundant natural resources and offers considerable opportunities, but it is also vulnerable to many different environmental pressures. The Government's aim is to facilitate close and inclusive cooperation with actors that wish to participate in developing the potential of the region. The Government will give higher priority to the value creation dimension in its High North policy. The main drivers of development of the region must be the interests and needs of the states in the High North and the people living there. The aim should be to promote sustainable social, cultural and economic development and respect for the environment and indigenous peoples' interests and rights.

Both the general public and the business sector are strongly engaged in developing contact and cooperation in the Barents region. Regional authorities, indigenous peoples' organisations and the Barents Secretariat play an important role in coordinating and furthering this cooperation. It is crucial that regional and local actors are actively involved in defining the objectives for the development and management of the High North and that they themselves devise policies and tools for realising the opportunities and meeting the challenges there.

In the Government's view, it is particularly important to intensify cooperation between Norway's three northernmost counties. However, a wider perspective is needed. In order to safeguard

Norway's interests in the High North, the entire nation's knowledge, resources and experience must be mobilised. Restricting participation to groups and interests in North Norway would undermine Norway's influence in the High North.

This is why the Government will seek to intensify cooperation between relevant knowledge institutions and business communities throughout Norway. It will also encourage closer cooperation with similar actors in other countries. A good example of this is the cooperation agreement concluded between Rogaland county and Murmansk oblast on sharing experience, developing policy, network building and business cooperation in the petroleum sector,¹ which has also been signed by Finnmark and Troms counties.

There are close links between Norway's High North policy and its policy in other areas. For example, Norway's regional, transport, business, petroleum, environmental, fisheries and Sami policy – and policy in many other areas – are all vital for settlement, employment and value creation in North Norway. The High North perspective must also be integrated into policy development in other areas in order to ensure an integrated High North policy.

As described in the introduction, the present white paper focuses primarily on the foreign policy dimension, while other aspects of Norwegian policy in the High North are dealt with in other white papers. The most recent white paper on Svalbard (Report No. 30 (2008–2009) to the Storting) sets out the main features of the Government's policy for the archipelago. The overall objectives of Norway's Svalbard policy were established by the white paper and the subsequent Storting debate and recommendations (Recommendation S. No. 336 (2008-2009)). For example, all activity in Svalbard must be carried out in accordance with the ambitious environmental targets established for the archipelago.

The present white paper therefore deals with those aspects of Norway's Svalbard policy that it is natural to discuss when taking a High North perspective, but within the framework of the overall objectives established as described above.

¹ Signed in Murmansk on 11 February 2011.

Table 3.1 Economic and social conditions in Arctic regions

Region	Total population	Population density	Indigenous peoples	Young people	Life expectancy	Education	Personal disposable income
	1000s	People/km ²	Indigenous peoples as share of total population	Children aged 0–14 years as share of total population	Years	Tertiary education graduates as share of total population	USD, corrected for purchasing power parity (PPP)
	2008	2008	%	%	2008	%	2008
Alaska	688	0.46	13.1	21.5	77.1	24.7	40 031
Arctic Canada	108	0.03	67.5	29.1	75.8	15.4	31 535
Greenland and Faroe Islands	105	0.25	48.0	23.9	74.0	10.5	16 442
Iceland	319	3.18	-	21.8	81.3	23.5	22 367
North Norway	463	5.49	1.4	19.6	80.2	21.8	18 075
North Sweden	508	3.30	1.8	15.9	80.8	16.5	17 335
North Finland	652	4.36	0.2	18.8	78.7	22.1	16 532
Northern Russia	7 081	0.80	2.0	18.6	67.8	14.2	14 407
Total	9 925	0.67	3.8	19.0	71.0	16.2	17 108

Table 3.1, which is based on the work of Professor Ilmo Mäenpää of the University of Oulu, shows statistics for the Arctic regions of the five Nordic countries, the US, Canada and Russia.² As indicated in the table, more than 70 % of the total Arctic population lives in Russia. However, the population density is highest in the three northernmost counties of Norway, followed by the northern regions of Finland and Sweden.

The Arctic regions of Canada clearly have the highest proportion of people of indigenous origin (more than two thirds)³. The percentage of children aged 0–14 years varies considerably from

country to country, ranging from some 16 % in North Sweden to 29 % in Arctic Canada. Life expectancy at birth varies from 68 years in North Russia to 81 years in Iceland. The percentage of the population who have a university or college education may be used as an indicator of the level of educational attainment in the population. Alaska has the highest percentage of people with a higher education (almost 25 %), whereas Greenland and the Faroe Islands have the lowest (just over 10 %).

3.2 Geopolitics in the High North

The priority Norway is giving to the High North must also be seen in a geopolitical context. Actors such as Russia, the US, the EU and China have interests in the region and are attaching increas-

² The division into regions in this table is the same as that used in the report *The Economy of the North*, which was drawn up by Solveig Glomsrød and Iulie Aslaksen, both researchers in Statistics Norway in 2008. The only region of the US included in the table is Alaska. Canada: the Yukon Territory and the Northwest Territories, Nunavut. Denmark: Greenland and the Faroe Islands. Norway: Finnmark, Troms and Nordland. Sweden: Norrbotten and Västerbotten. Finland: Lapland, the Oulu region and Kainuu. Russia: Murmansk, Karelia, Arkhangelsk, Komi, Yamal-Nenets, Khanty-Mansia, Taimyr, Evenk, Sakha, Koryak, Magadan and Chukchi. The whole of Iceland is included.

³ It should be noted that the figures for indigenous peoples in the northern regions of Norway, Sweden, Finland and Russia are estimates, as there is no census data in these countries that indicates the ethnic background of Sami or other indigenous peoples.



Figure 3.2 The population is growing in Svalbard as well.

Photo: Mari Tefre

ing importance to them. Norway must keep abreast of developments and take them into account in safeguarding its interests in the High North. The shifting balance between centres of power that do not always share the same values also has relevance for the High North.

The Arctic seas are still important in geopolitical terms in the strategic nuclear weapons policies of the US and Russia, in which US warning systems and the Russian Northern Fleet in particular have a central place. This means that the relations between the major powers in the High North and the strategic military significance of the Barents Sea for Russia continue to be important factors in Norwegian security policy.

The EU and key EU countries are showing increasing interest and engagement in the High North. This relates especially to research and environmental policy, but also to fisheries and fisheries resources, energy, maritime transport, climate change and industrial development, and creates both opportunities and challenges for Norway. However, as long as the fundamental rules in the High North and the existing division of responsibility between the actors are respected,

as the European Commission has made plain that they are, increased activity on the part of the EU and other international actors is in Norway's interests.

While the geopolitical centre of gravity is shifting eastwards, climate change is helping to shorten the travel distance to Asia via the North-east Passage. Countries in North-East Asia (China, Japan and South Korea) make up a global power centre that is putting its mark on developments in the Arctic through political involvement and investments in business and technology combined with long-term research efforts and knowledge-building activities. It is important to maintain close dialogue with these countries in order to ensure that Norway is able to position itself as an agenda setter and to gain respect and understanding for Norwegian views and interests in the High North.

Although achieving rapid reductions in global emissions of greenhouse gases is an overriding goal, fossil fuels will continue to be needed far into this century. It is believed that there are considerable energy resources in the High North. Whether or not it will be possible to exploit these

resources will depend on their anticipated future price, technological developments, physical access to the resources, and environmental challenges. A number of countries have strategic interests in how the energy reserves in the Arctic are used in the years ahead.

The amount of food needed to feed the world's ever-growing population will continue to increase. This means that access to sources of protein from the sea will be of crucial importance, which in turn underlines the importance of a sound fisheries management regime both at country level and between countries and of a clear understanding of the interactions between the extraction of energy resources, the development of new transport routes, and the fisheries. Some of the richest and best managed fish stocks in the world can be found in Arctic waters.

Cooperation between the Arctic states is good, and it is increasing. In recent years, Norway has taken a leading role in efforts to consolidate the existing legal order in the Arctic. Norway has been instrumental in strengthening cooperation between the five Arctic coastal states and between all eight members of the Arctic Council. There is widespread agreement that it is the UN Convention on the Law of the Sea that defines rights, responsibilities and obligations in the Arctic marine and coastal waters, and that the Arctic Council is the main forum for circumpolar cooperation.

The Government has focused strongly on putting across its message "High North – low tension", and in its view international understanding of this perspective is clearly growing, both among the Arctic countries and in the wider international community. This concept is fundamental to Norway's High North policy.

Although cooperation and low tension prevail in the region today, there is always a possibility that different countries and actors will have conflicting interests. Sound cooperation structures based on trust and openness and an understanding that any disputes will be solved peacefully in accordance with the Law of the Sea will reduce the potential for conflict.

3.3 Climate change: a warmer Arctic

Over the last decades, temperatures in the Arctic have risen twice as fast as the global average. The annual mean temperature in the region is 2°C higher than it was a hundred years ago. It is also possible to see changes in the Arctic weather sys-

tems and ocean currents, for example in the form of a stronger inflow of warm Pacific water through the Bering Strait.

This is causing rapid changes to the physical environment. The transition to an ice-free Arctic Ocean appears to be occurring much faster than the Intergovernmental Panel on Climate Change (IPCC) projected in its Fourth Assessment Report in 2007. The summer sea ice cover in the Arctic has been reduced by about a third compared with the average for the period 1979–2000. The ice thickness and the extent and duration of snow coverage on land have also decreased significantly. The temperature of the permafrost has risen by up to 2°C, and the southern limit of permafrost in Russia and Canada has retreated 30–130 kilometres northwards.

Recent modelling results indicate that the Arctic seas could be almost ice-free during the summer in as little as 30 years, but there will continue to be wide variations from one year to another. The Greenland ice sheet and other ice sheets are expected to melt faster than they are doing today. The thawing of permafrost and reductions in snow coverage are also expected to continue, and ocean circulation and weather patterns will probably change considerably.

Reduced ice cover will improve conditions for shipping and give easier access to natural resources, which in turn may lay the foundation for new industrial activities. This makes it all the more important to regulate human activity, focusing on measures that reduce the risk of pollution and accidents. The Government will enhance search and rescue capacity and emergency preparedness and response for acute pollution (see Chapter 10). It is making this a priority both nationally and internationally, through the Arctic Council, in cooperation with Russia, and in international organisations such as the International Maritime Organization (IMO).

Global warming is one of several factors influencing ecosystems and living resources in the High North. The rising concentrations of CO₂ in the atmosphere are also leading to ocean acidification. This could have a major impact on ecosystems, and it is anticipated that it will have consequences for fisheries and other commercial activities based on the harvesting of marine resources.

An increase in maritime traffic and more intensive resource use may put further pressure on ecosystems and species that are vulnerable to climate change. This increases the need for an integrated approach to managing the northern sea areas, based on the principle that cumulative envi-



Figure 3.3 The edge of the Austfonna ice cap, Svalbard.

Photo: Svein Wik / Scanpix

ronmental effects must be assessed. Climate change is therefore an important consideration in the further development of the management plans for Norwegian sea areas, and for cooperation with the other countries in the region on integrated marine management.

Climate processes involving snow, ice, permafrost and ocean circulation in the Arctic will also have a strong influence on how rapidly and in what way the climate changes globally. The reduction in snow and ice and cover in the Arctic intensifies both regional and global warming by increasing absorption of solar energy by the Earth's surface. This is because areas that were previously covered by snow and ice, which reflect most of the solar radiation reaching the Earth's surface, are replaced by open sea and bare ground. Such areas are darker, and reflect far less solar radiation. Furthermore, the warming of the Arctic can lead to a substantial increase in emissions of the greenhouse gases CO₂ and methane from melting permafrost on land and on the seabed, and in the long run this may result in changes in global ocean circulation. More than 40 % of annual sea level rise globally is now due to

the melting of the Greenland ice sheet and Arctic glaciers. According to the latest report from the *Snow, Water, Ice and Permafrost in the Arctic* (SWIPA) assessment⁴ under the Arctic Council, the global sea level can be expected to rise between 0.9 and 1.6 metres above the 1990 level by 2100.

On the basis of the IPCC's conclusions, the scale of the emissions cuts needed to avoid climate change having very serious impacts has been quantified (cf. the target of limiting global warming to two degrees Celsius). Norway is working towards a global climate agreement that is sufficiently ambitious to make achieving the two degrees Celsius target possible. In this context, Norway will undertake to reduce global greenhouse gas emissions by the equivalent of 30 % of its own 1990 emissions by 2020. According to the agreement on Norwegian climate policy reached by most of the political parties in 2008 (Recommendation No. 145 (2007–2008) to the

⁴ Snow, Water, Ice and Permafrost in the Arctic (SWIPA), April 2011, by the Arctic Monitoring and Assessment Programme (AMAP).

Storting), a realistic target is to reduce Norwegian emissions by 15–17 million tonnes CO₂ equivalents relative to the reference scenario presented in the 2007 National Budget, when CO₂ uptake by forests is included. The targets set out in the agreement on Norwegian climate policy were based on mitigation analyses drawn up by the Climate and Pollution Agency (then called the Norwegian Pollution Control Authority), current policy instruments and sectoral climate action plans. At the same time, it was made clear that the sector targets were based on estimates, and would have to be reviewed in response to any changes in projections, costs, technological advances and other relevant factors. The Government intends to present a new white paper on its climate policy in 2012.

The climate studies coordinated by the Arctic Council are improving the knowledge base for the international climate negotiations and the scientific basis for the IPCC's work. The 2005 *Arctic Climate Impact Assessment* and the 2011 SWIPA assessment are examples of groundbreaking research on the impacts of climate change in the Arctic, the retreat of the sea ice, the melting of the Greenland ice sheet and the reduction in permafrost and snow cover. Together with the other Arctic countries, Norway has a responsibility to disseminate knowledge and share its experience of developments in the Arctic in a credible and convincing way in the global climate negotiations.

The Norwegian Government is furthering knowledge about climate change in the Arctic and its global and regional impacts through national research initiatives at the Fram Centre in Tromsø and the Bjerknnes Centre for Climate Research in Bergen. The Government is also giving high priority to expanded regional cooperation on monitoring, research and the dissemination of information to decision-makers and the general public, for example through the Sustaining Arctic Observing Networks process under the Arctic Council. Although the basic links between greenhouse gas emissions and global warming are well established scientifically, uncertainty remains as to how fast and in what way the climate will change, and as to the environmental and social impacts of climate change globally and regionally. The overall impacts of climate change may therefore turn out to be either more or less serious than current knowledge and models suggest. The Arctic is an important source of better and more reliable knowledge regarding these issues, and cooperation between the Arctic countries is crucial for obtaining a sound knowledge bases. The Govern-

ment has therefore emphasised cooperation between the Arctic countries, for example within the framework of the Arctic Council.

The Government will continue to give priority to these initiatives, and views them as both a contribution from the Arctic countries to international efforts to address climate change and as a way of preparing for the changes that will occur in the region. In the Government's view, this is an important area for cooperation in the Arctic Council and for other international cooperation in the High North. In this context, the Government will also focus attention on emissions of particulate matter and gases with a short atmospheric lifetime, such as soot (black carbon) and methane, which have a significant warming effect. Action to reduce these emissions could therefore help to limit temperature rise, also in the short term.

All those who live, work or are engaged in business activities in the High North will have to adapt to climate change. This will require sound social planning based on the best available knowledge on the probable impacts of climate change. With the NorACIA report on climate change in the Norwegian Arctic and the report *Adapting to a Changing Climate* from a government-appointed committee, the Government has made a good start on climate change adaptation at national level. The Government will address this topic in greater detail in the planned white paper on climate change adaptation.

The Government will work actively for the inclusion of climate change adaptation as a key topic for the Arctic Council and other cooperation forums in the High North. It will also promote the development and implementation of Arctic climate change adaptation strategies. The Government has taken the initiative for an overall assessment under the auspices of the Arctic Council of the combined impacts of climate change and other change in the Arctic, focusing on how to limit environmental damage and ensure the well-being of the people living in the High North.

3.4 Knowledge is at the core of our High North policy

Norway has a greater proportion of its population and economic activities north of the Arctic Circle than any other country in the world. It therefore has a particularly pressing need for knowledge about the High North, and a responsibility to obtain such knowledge.



Figure 3.4 Research cruise to Svalbard, 2010.

Photo: Norwegian Polar Institute

Both the Government's *High North Strategy* (2006) and the report *New Building Blocks in the North* (2009) place knowledge at the core of Norway's High North policy. For Norway to play a leading role in sustainable management and development of the High North, we must have broad-based expertise in and about the High North.

Since the launch of the High North Strategy in 2006, the Government has been promoting the generation of knowledge and expertise on the High North. According to the Nordic Institute for Studies in Innovation, Research and Education, total private- and public-sector funding for High North research amounted to NOK 2.7 billion in 2009. A number of initiatives of importance to social development, value creation, management and foreign policy in the High North have been launched.

In 2010, the Fram Centre (Fram – High North Research Centre for Climate and the Environment) was established in Tromsø as an umbrella organisation for cooperation between a number of research institutions. The Fram Centre is intended to be at the forefront of High North

research internationally. It also aims to promote interdisciplinary research, higher education and the dissemination of information in the fields it covers. The Centre for Ice, Climate and Ecosystems, which was opened in 2009 in Tromsø at the Norwegian Polar Institute, is one of the Fram Centre institutions. The Centre will make a significant contribution to research on questions relating to melting ice and snow. These issues are very important in international climate efforts.

Activities under the five flagship research programmes at the Fram Centre are well under way. The Centre encourages interdisciplinary research and close cooperation between the natural sciences, technology and the social sciences. The dissemination of research results and strengthening the links between recruitment, education and research are key elements of its activities.

Norway has also given strategic priority to the Bjercknes Centre for Climate Research, which is a national Centre of Excellence in Bergen. The Bjercknes Centre and the Fram Centre are cooperating to make use of their complementary expertise.

If Norway is to be at the forefront of knowledge and research on the climate and environment in the polar regions, access to an ice-class research vessel is crucial. A project organisation has been established, and cooperation agreements on running and managing a vessel of this kind have been concluded. According to the quality assurance procedures that have been carried out, the project is ripe for realisation, and the recommendations from the quality assurance process will be followed up.

On this basis, the Government has decided in principle that it intends to acquire a new ice-class research vessel based in Tromsø. More information about the timing of this acquisition will be given later.

The changes that are taking place in the High North are creating new opportunities for economic and social development. Knowledge is the key to realising the opportunities in the High North within an environmentally sound framework and to limiting the ecological footprint of economic activity in a vulnerable environment.

Better knowledge about the climate and environment is therefore of crucial importance for management, climate change adaptation and social planning in the High North, and will put Norway in a position to further improve the management of its sea and land areas in the region and the resources found there. Since Norway has direct access to Arctic sea and land areas, as well as the infrastructure required for conducting research in the High North and major research communities, it can make important contributions to international efforts to address climate change.

More interdisciplinary research and cooperation between natural scientists, technologists and social scientists is needed to address complex challenges. It is also essential to give priority to training and the development of expertise to support the research being undertaken.

There is growing international interest in the High North, also on the part of countries without land territory in the region. This is also resulting in greater interest in cooperation on research and higher education. International cooperation, makes it possible to tap into other countries' knowledge and expertise, enhances knowledge about shared environmental problems, and helps to ensure high quality and good use of resources. Norway has internationally leading research communities in a number of fields that are important for developments in the High North, in particular in the fields of climate change, the environment and energy. Geographical and natural conditions

in North Norway provide a good starting point for international cooperation. Svalbard is in an exceptional position due to its unique accessibility and research infrastructure.

Knowledge institutions and businesses throughout Norway are involved in our High North efforts. North Norway has a well-developed network of universities and university colleges, which together with a varied research institute sector plays an important role in developments in the High North. In 2011, North Norway gained its second university, the University of Nordland. However, research groups at several of the institutions in the region are still too small and vulnerable. In the Government's view, closer cooperation and a clearer division of responsibilities between the various research and educational institutions is needed in order to ensure high-quality research and a critical mass of researchers. The Government has therefore allocated considerable funds in order to encourage closer cooperation between the institutions in the region, as part of Norway's general policy for improving higher education and research. This includes cooperation on the range of courses offered, infrastructure and administrative services. A pilot project has been launched with a view to coordinating and strengthening the knowledge institutions and developing a social contract between the universities and university colleges in North Norway and workplaces and businesses in the region (see Chapter 13.1). This will serve as a framework for the work and roles of these institutions in regional knowledge development. The Government's aim is for this to improve the quality and relevance of research, and lead to closer contact between knowledge institutions, society and the private sector. Higher quality and larger research groups will make the institutions more attractive for students and researchers from all over the world and as partners for knowledge institutions in other countries.

It is important to be able to provide relevant education and training to the sparse population in North Norway, in order to meet the region's need for expertise. The Government will give priority to the institutions in North Norway when the national programme for supporting education and research, eCampus, is launched. The intention is to enhance the flexibility of the training programmes offered and improve access to higher education. The eCampus programme will develop Norway's ICT infrastructure, and give universities and university colleges simple, user-friendly ICT tools for teaching, better ICT support for



Figure 3.5 The Fram Centre, Tromsø.

Photo: Ann Kristin Balto, Norwegian Polar Institute

research, and greater opportunities for providing digital learning resources.

The Government has implemented various measures to strengthen tuition in the Sami languages and improve recruitment to Sami teacher training programmes. A national recruitment strategy for Sami higher education was launched in spring 2011. Moreover, a Sami teacher training region has been established, with the aim of improving teachers' qualifications in the Southern Sami and Lule Sami languages. At the same time, the teacher training reforms safeguard Sami needs in a whole new way, and lay a better foundation for achieving equal access to education for the Sami minority.

A committee been appointed to report on Sami research and higher education in a broad regional, national and international perspective. The committee is chaired by Nils Butenschøn (University of Oslo), and it is to review how research and higher education can play a role in setting the agenda for and promoting Sami social development. The committee is to submit its recommendation on 31 December 2011.

The Government intends to improve knowledge about environmental and climate-related challenges in the High North and opportunities for development by placing greater emphasis on research that is relevant to the region, for example through the Research Council of Norway. This includes research on the development of sustainable local communities and industries in the region, and on Norwegian and international High North policies.

This will strengthen knowledge-based management of the High North and provide a better knowledge base for the private sector, which it needs in order to optimise its activities.

In 2009, a system of regional research funds was established. In 2011, North Norway received around NOK 32 million, and projects on climate change adaptation, regional welfare and cross-border regional developments have been given priority. The Research Initiative for Northern Norway (NORDSATSING) is also intended to strengthen and further develop research capabilities in North Norway, particularly in the fields of Arctic technology and tourism.

Much of what we consider to be knowledge relating to the High North concerns topics that are cross-border in nature, such as climate change, the environment, marine and polar research, and issues relating to indigenous peoples. It goes without saying that international cooperation is essential in fields such as these. Our cooperation with Russia, and also with Canada and the US, stands out. Norway has entered into a cooperation agreement with Russia on higher education, and the first meeting in the joint working group was held in spring 2011. A revised strategy for higher education cooperation with the US and Canada was launched in autumn 2011. The High North Fellowship Programme promotes cross-national cooperation and mobility between educational institutions in Norway, Russia, the US and Canada. Cooperation with the other circumpolar countries, the members of the Arctic Council, key EU countries and large countries that have an active presence on Svalbard is also very important. The University of the Arctic is a network of higher education institutions in the circumpolar countries, which is partly financed by grant schemes and funding for developing joint study programmes. The Government intends to strengthen international cooperation on research and higher education in the High North. This covers both bilateral cooperation, for example with Russia, and multilateral cooperation, not least with other European countries through the EU's framework programmes for research.

Research and higher education is and will continue to be one of the pillars of Norway's activity in Svalbard. Capacity at the University Centre in Svalbard has been increased in recent years, and in both 2009 and 2011 funds were allocated for 20 new student places at the Centre. Research infrastructure is an essential basis for research and knowledge development in the High North. Svalbard provides unique opportunities for observing the effects of climate change where they are most apparent, and where the natural environment is most vulnerable to rapid change. Moreover, the archipelago already has a well-developed infrastructure for observation, research and teaching and a broad international research community, based mainly in Longyearbyen and Ny-Ålesund. The SvalSat satellite station at Platåberget in Longyearbyen is the only satellite station in the world that is close enough to one of the poles to receive data from all satellites in polar orbits.

The geodetic observatory in Ny-Ålesund is an important northern node in a global network. From here, movements of the Earth's surface, the

Earth's rotational velocity and its exact position in space are monitored. These measurements provide a basis for locating and surveying satellite orbits and thereby improving the accuracy of all satellite-based activities. This in turn has an impact on the quality of the data we obtain and the accuracy we achieve in areas such as satellite-based communication, Earth observation, climate research and monitoring. International cooperation on activities at the observatory will be continued, including measurements relating to global climate change, sea levels and movements of the Earth's surface.

There is considerable international activity in Svalbard: ten countries currently have research stations in Ny-Ålesund, half of the students at the University Centre in Svalbard are foreign nationals, and almost 20 countries are participating in the Svalbard Integrated Arctic Earth Observing System (SIOS) project, which was initiated by Norway (see box 3.1).

The research communities in the High North have made important scientific progress, but they are to a large extent dependent on public financing. This is partly because few knowledge-intensive businesses are involved in research cooperation. In the Government's view, steps should be taken to build up a more knowledge-based business sector in the High North. This is discussed in more detail in Chapter 13.1.

In the Government's view, an increasing share of the funding for research in North Norway should be obtained through competition in national and international arenas. This is important for ensuring that we have strong research communities that carry out high-quality, relevant research.

Knowledge hubs

It is important to make the most of the comparative advantages of various knowledge institutions through the special expertise they have acquired, whether as a result of their geographical location, specialisation, or infrastructure they have built up. Kirkenes occupies a unique position in Norway's cross-border cooperation with Russia. The international Barents Secretariat and the Barents Institute are based there, as is the Norwegian Barents Secretariat, which organises a wide range of activities and extensive project cooperation with Russia. The Government wishes to strengthen the position of Kirkenes as a base for regional cooperation and regional knowledge about Russia. The

Box 3.1 Svalbard Integrated Arctic Earth Observing System (SIOS)

By improving the organisation of research, providing easier access to observations and research data from Svalbard and facilitating the shared use of such data, Norway will be able to offer the world's research communities a valuable resource. This was the rationale behind Norway's decision to launch the SIOS research infrastructure project. SIOS is listed in the European Strategy Forum on Research Infrastructures Roadmap as one of the pan-European projects that should be established as quickly as possible. The project, which is led by the Research Council of Norway, has received funding from the European Commission for its three-year preparatory phase. The main aim of SIOS is to have an optimised observational infrastruc-

ture which can match advanced Earth System models with observational evidence and provide near-real-time information on Arctic change to relevant stakeholders. By promoting research cooperation and the sharing of data, the project will increase the value of research activities, and reduce the risk of overlap and unnecessary environmental pressure in Svalbard. SIOS will include upgrading of infrastructure, a limited number of new observation platforms, and a new Knowledge Centre in Longyearbyen. It will also strengthen Svalbard's role as an international research platform. SIOS is mentioned in *New Building Blocks in the North*, and it is a priority project for the Government. It is intended to be operational by the end of 2013.

focus is on further developing people-to-people cooperation in the Barents region in a number of areas, including culture, health, sport and youth exchange programmes. The annual Kirkenes conference and cultural festival Barents Spektakel are examples of the strong engagement that exists and the breadth of cross-border cooperation.

The University of Tromsø is a leading institution as regards issues relating to the High North. With around 500 researchers focusing on polar issues, climate change and the environment, Tromsø has become a centre for Arctic issues, both in Norway and internationally. Around 800 of the University's 9 000 students are foreign nationals. The establishment of the ICE Centre for Ice, Climate and Ecosystems and the Fram Centre shows how important the Government considers Tromsø to be as a centre for knowledge and research. The fact that the Arctic Council's permanent Secretariat will be located in Tromsø further consolidates the city's position as an Arctic powerhouse.

The University of Nordland has strong research groups in the social sciences, business, and marine biosciences. It has become a leading institution with regard to cooperation with universities and the private sector in Russia. The establishment of the High North Center in 2007 has resulted in further development of expertise and cooperation with Russia in various fields – energy, trade, fisheries, tourism and other sectors. The Government intends to strengthen Bodø as a centre for the development of knowledge on business

opportunities in the High North, in particular in the context of cooperation with Russian centres of expertise and business. The University of Nordland is developing its cooperation with the MGIMO University in Moscow in the area of energy management, for example through the Norwegian and Russian Education and Research Consortium for International Business Development in the Energy Sector (NAREC). The University of Nordland is also responsible for the research project Northern InSights, which is intended to contribute to value creation in the tourism industry. Many tourism companies in North Norway are participating in the project, along with the Nordland Research Institute, Harstad University College, the University of Tromsø, Bioforsk Nord and the Northern Research Institute (Norut) Alta. Finnmark University College also has considerable expertise in education and research relating to the tourism industry.

Another important priority area is cold climate technology. Through the NORDSATSING initiative, the Government has been involved in the establishment of a competence centre in Narvik for cold climate operations and infrastructure. In general terms, cold climate technology covers most aspects of construction, operations and living in the Arctic region. The ColdTech sustainable cold climate technology project focuses on developing cooperation between industrial partners and research and educational institutions. Research groups in Narvik and Alta

are taking part, along with DNV, Statoil and the SINTEF Group. Thus, Norway's top experts are joining forces to address challenges in the High North.

If we are to succeed in the High North, we must draw on experience and special expertise from knowledge institutions throughout Norway. Geographical proximity to the region is not enough in itself. The emergence of industries and knowledge institutions throughout the country has resulted in a regional division of labour, where different regions have capitalised on their comparative advantages to establish new activities. The momentum in the petroleum industry is strongest in the Stavanger region, while the Bergen region has special expertise in the areas of operations and maintenance and marine research. In the Kongsberg/Asker region, there is underwater technology expertise. Eastern Norway and the regions of Sunnmøre and Sunnhordland in Western Norway are known for their shipowners and shipbuilding, while Southern Norway has the business cluster Norwegian Offshore & Drilling Engineering (NODE). All of these expert communities are important for the further development

of the High North. The strong technology community in Trondheim will also participate actively in building up knowledge on and for the High North.

3.5 The indigenous dimension of Norway's High North policy

The indigenous dimension is a central part of the Government's High North Strategy. Norway's High North policy is intended to play a role in safeguarding and developing indigenous peoples' languages, cultures, livelihoods, traditions and societies in the High North. Increasing internationalisation, expanding business activities and growing exploitation of natural resources create new opportunities, but also put more pressure on the cultures and livelihoods of indigenous peoples. It is vital that the rights of indigenous peoples are safeguarded in the utilisation and management of natural resources and the environment in the High North. Integrated resource management includes protection of the basis for indigenous peoples' livelihoods, languages, culture,



Figure 3.6 A Norwegian Sami with two Nenets on the tundra near Narjan-Mar in the Nenets Autonomous Okrug, which is the northernmost part of the Barents region.

Photo: BarentsObserver

traditional knowledge and reindeer husbandry areas, as well as protection of the coastal environment and of traditional sea-water and salmon fisheries. The Government will seek to develop ethical guidelines that make sure that indigenous peoples' interests are taken into account when economic activities are carried out in the High North, in accordance with the current state of Norwegian law.⁵

The Government will facilitate participation by indigenous peoples in planning, decision-making, management, monitoring and research, so that they are able to take advantage of the opportunities the future development of the High North may provide. It is essential that positive developments in the High North are also experienced as positive by the indigenous peoples affected by them. The Government attaches importance to cross-border indigenous projects focusing on languages, traditional knowledge, the development of cultural industries, capacity and competence-building in Sami institutions and organisations, research, dissemination and cultural exchange. It is also natural for the Sami people to be involved in the wider, cross-border people-to-people and cultural cooperation in the High North. This includes projects for children and young people, and cooperation in the areas of health, sport, voluntary activities, languages, culture, film and other forms of cultural expression, for example festivals.

The Government holds regular meetings with the Sami Parliament (Sámediggi) on matters related to the High North. Indigenous issues are a key area of cooperation within the Arctic Council, the Barents Euro-Arctic Council and the Northern Dimension, and in the bilateral High North dia-

logues with countries such as Russia and Canada. The joint declaration on cross-border cooperation between Norway and Russia (2010) has been followed up with a joint work plan (2011) including specific cross-border indigenous projects.

Indigenous peoples have valuable knowledge about nature, the environment and traditional practices. They are stewards of cultural values and have specialised knowledge of ways of making a living under marginal conditions in subarctic conditions. The Arctic Climate Impact Assessment (ACIA) shows that the temperature is rising faster in the Arctic than previously thought, and indigenous communities are those that will be affected first, and most severely. New challenges for reindeer husbandry, agriculture and sea-water and inland fisheries in Sami areas may arise as a result of global climate change. Many of the challenges facing reindeer husbandry are common to all the Arctic countries. In the light of this, and in order to strengthen international reindeer husbandry cooperation in the Arctic, the International Centre for Reindeer Husbandry was established in Kautokeino.

Research and knowledge development will make it possible to develop climate change adaptation strategies based on the traditional knowledge of the Sami and other indigenous peoples. Sami institutions and organisations have broad contact networks and extensive experience of international and cross-border cooperation, which are of great value for promoting the interests of indigenous societies in the High North. One of the purposes of the Ministry of Foreign Affairs' Barents 2020 grant scheme (see Chapter 4.2) is to create new arenas for cooperation on knowledge generation between Norwegian and foreign centres of knowledge, business interests and public bodies. The scheme is also relevant to Sami interests.

⁵ For further details, see *New Building Blocks in the North*, Chapter 7.3.

4 Instruments of Norway's High North policy



Figure 4.1 Artscape Nordland, Leirfjord. "Omkring" (Around) by Waltercio Caldas (Brazil).

Photo: Guri Dahl / tinagent.com

4.1 The High North Strategy and New Building Blocks in the North

The Government presented its *High North Strategy* on 1 December 2006. This document provided a summary of the Government's ambitions in the High North. In March 2009 the strategy

was further developed in the report *New Building Blocks in the North – the next step in the Government's High North Strategy*.¹ This identified spe-

¹ These documents are available on the Government's High North portal: www.regjeringen.no/en/dep/ud/campaigns/the-high-north.html?id=450629

cific action points for the implementation of a number of strategic projects over a 10–15 year period. The priority given to the various action points and the order and speed of their implementation are considered on an ongoing basis, and are described in the Government's annual budget proposals to the Storting. Efforts in this area are adapted to activity in the Government's other priority areas, and to the economic situation in each budget year.

Over the past few years the Government has proposed allocations for High North-related projects totalling more than NOK 1 billion per year. However, the overall amount of public funding that goes to the northern parts of Norway is far higher. It is almost impossible to calculate the overall amount of public funds used broken down by geographical area. The identification of a series of priority areas in the High North is intended to enhance knowledge and activity in strategic areas. The considerable increase in funding for projects in the High North in recent years has led to significant activity in many of these areas.

4.2 Policy instruments for the High North

Ministry of Foreign Affairs' grant schemes

The Ministry of Foreign Affairs' grant funding for the High North and cooperation with Russia has also increased in recent years and in 2011

amounted to approximately NOK 348 million. These funds are used strategically to achieve the goals set out in the High North policy and for the realisation of relevant projects.

Barents 2020

The grant scheme Barents 2020 was established under the Ministry of Foreign Affairs' budget in 2006. Its purpose was to make financial resources available that could be used to fill gaps in our knowledge and bring about cooperation across sectors in the High North. Barents 2020 has proven to be a flexible and effective tool for providing rapid support to initiatives in which private actors participate to supplement public funding (public-private partnerships). Most of the projects fall within four categories: *research and higher education, social science research, natural science research* and *projects outlined in the Barents 2020 report*.²

The Government is seeking to increase the involvement of research groups in North Norway by ensuring that at least 50 % of grant funding through the Barents 2020 scheme goes to projects in which research groups in North Norway are included.

Research and higher education: The Ministry of Foreign Affairs has given priority to providing

² Arve Johnsen: *Barents 2020 – A tool for a forward-looking High North policy*, September 2006

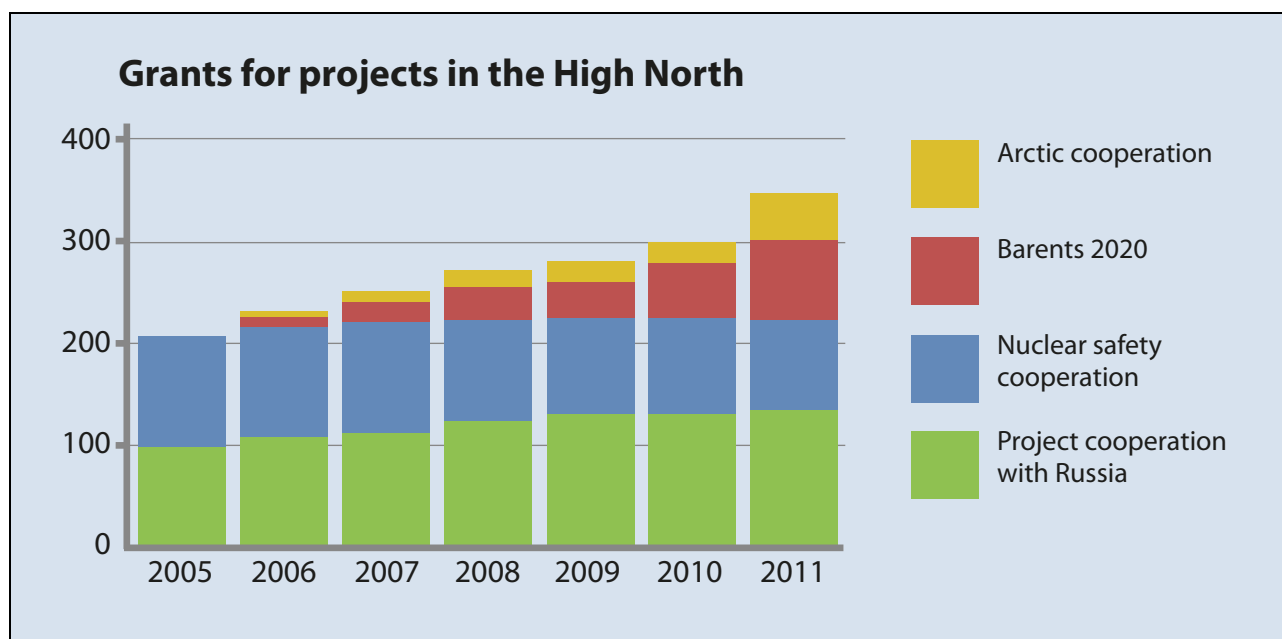


Figure 4.2

Source: Ministry of Foreign Affairs' annual budget proposals



Figure 4.3 DNV and Gazprom led the Norwegian-Russian Barents 2020 project on the harmonisation of health, safety and environment standards for petroleum activities in the Barents Sea.

Photo: Graham Davies

funding for guest professorships and study grants. The High North grants, which are designed to boost exchange and cooperation between educational institutions in Norway and similar institutions in Russia, the US and Canada, fall into this category. Students from the partner countries are awarded grants to participate in study programmes relevant to the High North at higher education institutions in North Norway. The grant scheme was launched in 2007 and is now in its second three-year period (2010–13). In this second period, funding is also being provided for travel grants for teaching staff at educational institutions in North Norway. The grant scheme is administered by the Norwegian Centre for International Cooperation in Higher Education.

In 2009, funds were set aside through a public-private partnership for the establishment of several guest professorships at Norwegian knowledge institutions. The position of Finnmark University College as a centre for research and expertise in the field of Arctic tourism has been

strengthened by the establishment of a three-year circumpolar research project focusing on destination development, networking and working methods in Arctic tourist destinations. The Ministry of Foreign Affairs also provided funding for the establishment of the Barents Remote Sensing School, a research school in Earth observation and remote sensing at the University of Tromsø. In addition, the Ministry has contributed funding for the establishment of a centre for research on climate change and health with particular emphasis on the health impacts of climate change on vulnerable groups in the circumpolar areas, also at the University of Tromsø.

Funding has been provided for the establishment of a joint German-Norwegian professorship at the University of Stavanger in the field of energy in the High North. Support has also been provided for the establishment of a joint masters degree programme in petroleum technology by the University of Stavanger and the Gubkin Russian State University of Oil and Gas. In cooperation with the Ful-

Box 4.1 Barents 2020: GEOPOLITIKK-NORD

The GEOPOLITIKK-NORD project is an international, Norwegian-led research project involving cooperation between a number of leading Norwegian and international institutions. The focus of the project is on international relations in the High North in the light of climate change and increasing economic activity. Studies of key actors – the US, Russia and the EU – and their interests in the region, as well as the implications of their policies for Norway are a key component of the project. Analyses of the various actors' policies and interests, including international legal issues, governance, energy, climate issues and the environment serve to enhance our understanding of the geopolitical significance of the High North, with a particular focus on the present situation and future scenarios. The GEOPOLITIKK-NORD project generates research-based and politically relevant knowl-

edge about the High North for use in the academic and public debate in the form of written publications and through international conferences, seminars and the project's website www.geopoliticsnorth.org. The project is running from 2008 to 2012 and is headed by the Norwegian Institute for Defence Studies. The international partners are the Center for Strategic and International Studies in Washington DC, the German Institute for International and Security Affairs in Berlin and the MGIMO University in Moscow. The University of Oslo, the Fridtjof Nansen Institute and the University of Tromsø are active partners in the project and a number of other research groups whose affiliation to the project is weaker also participate. The GEOPOLITIKK-NORD project is funded by the Research Council of Norway under the Ministry of Foreign Affairs' Barents 2020 grant scheme.

bright Program, a scheme has been set up to promote the exchange of Norwegian and US researchers from the University Centre in Svalbard, other Norwegian universities affiliated to University Centre in Svalbard and US universities in fields related to the High North, in particular through the establishment of a Fulbright Arctic Chair whose focus is on climate change. The purpose of the scheme is to enhance knowledge of the High North, raise Svalbard's profile as a platform for international research and promote the internationalisation of higher education and research.

Social science research: A Research Institution-based Strategic Project, GeoPolitics in the High North (GEOPOLITIKK-NORD) (see Box 4.1), has been established. The primary objective of the project is to generate new knowledge on foreign policy issues related to the High North and to strengthen Norwegian research groups working in the field. The Ministry of Foreign Affairs also provides funding for a project on Asian perspectives on the High North. This was prompted by the growing interest in the High North and the Arctic shown by Asian actors. The Norwegian authorities, the Norwegian business sector and the research community will benefit from gaining a better understanding of and from keeping themselves up to date on the drivers and reasons for the increased Asian interest in the High North.

Through the Research Council of Norway, the Ministry provides funding for a social science

research programme, Russia and the High North/Arctic (NORRUSS), whose primary objective is to generate knowledge on Russian society, politics and industry and international relations in the High North.

Natural science research: The Ministry of Foreign Affairs supports projects in the natural sciences of relevance to the High North, in cooperation with other relevant ministries. The Nofima research institute has received funding under the Barents 2020 scheme. The Research Council of Norway has provided support for research in the field of marine bioprospecting, also with funds allocated under the Barents 2020 scheme, as follow-up to the 2009 national strategy for marine bioprospecting. In addition, funds have been earmarked to scale up research and analytical capacity in the field of Earth observation. This field is particularly relevant to the High North and for use in areas such as climate monitoring, mapping of land use and resources, pollution from the petroleum industry and maritime transport, monitoring and sustainable management of the polar regions and monitoring of threats to the environment. In cooperation with the Research Council of Norway, funding has also been allocated to research on ecosystem change in the Barents Sea as a result of climate change and on subsequent adaptation measures in the management models. This research is conducted primarily at the Centre for Ecological and Evolutionary Synthesis

(CEES) at the University of Oslo. The Ministry of Foreign Affairs also provides funding to the Fram Centre (High North Research Centre for Climate and the Environment) in Tromsø for the promotion of international research cooperation.

The Barents 2020 scheme co-finances the Norwegian and Russian Education and Research Consortium for International Business Development in the Energy Sector (NAREC), which seeks to strengthen cooperation between Norwegian and Russian educational institutions and research groups in order to promote business development in the energy sector. The project is being carried out under the auspices of the High North Center at the University of Nordland and the MGIMO University in Moscow in cooperation with a number of industrial partners. The Ministry of Foreign Affairs also provided funding for a review of the potential for industrial value creation based on geological resources in the High North (GeoNor), drawn up by the SINTEF Group, the Northern Research Institute (Norut), the Geological Survey of Norway (NGU) and the Norwegian University of Science and Technology (NTNU) with input from industrial actors (for more details see Box 13.3).

Follow-up of the Barents 2020 report: This includes a project led by DNV on the harmonisation of health, safety and environment standards for Norwegian and Russian petroleum activities in the Barents Sea. The project has generated considerable interest and serves as a reference for other similar projects that seek to strengthen efforts on health and environmental standards in the High North, based on close public-private cooperation.

Barents 2020 is an important seed money scheme for initiating projects and initiatives for which other ministries have primary responsibility. This applies for example to the integrated maritime surveillance and information system BarentsWatch (see Box 10.1) and the research infrastructure project Svalbard Integrated Arctic Earth Observing System (SIOS).

Other grant schemes

The Ministry of Foreign Affairs also allocates funding under three other grant schemes designed to further its High North policy. These grant schemes for project cooperation with Russia, cooperation on nuclear safety and Arctic cooperation respectively are key funding schemes for Norway's High North efforts. In 2011, a total of NOK 348 million in funding was available under

Box 4.2 Norwegian-Russian research and knowledge cooperation

In 2011 the Ministry of Foreign Affairs signed a new five-year agreement with the Norwegian Centre for International Cooperation in Higher Education designed to strengthen Norwegian-Russian cooperation on knowledge development in priority areas such as petroleum, energy, the sustainable use of resources, business development, the humanities and social sciences. The aim is to facilitate Norwegian-Russian cooperation on addressing the common challenges facing the two countries, as these are described in the Government's High North policy. The agreement has a budgetary framework of NOK 45 million. The Ministry of Foreign Affairs is also entering into a new agreement with the Research Council of Norway, whose overall objective will be to generate knowledge on political, economic and social developments in Russia and to develop long-term strategic expertise on Russia in Norway. The agreement will have a budgetary framework of NOK 45 million. The Ministry of Foreign Affairs is also seeking to sign an agreement with the Research Council on research more specifically related to the High North, which will provide for NOK 45 million in funding under the Barents 2020 scheme.

Barents 2020 and these three grant schemes combined.

The grant scheme for project cooperation with Russia was launched at the beginning of the 1990s to promote Norwegian-Russian cooperation. The scheme has played an important part in promoting people-to-people contacts and contacts between centres of expertise and regional actors in the Barents region. The priority areas are environmental protection, energy, business development, health, education, research and the promotion of democracy. Some 70 % of the funding is administered by external bodies. This enables the Ministry to benefit from the expertise of external actors.

The Norwegian Barents Secretariat allocates funding from the Ministry of Foreign Affairs for Norwegian-Russian project cooperation on an annual basis. The purpose of the projects is to strengthen ties between people in the north.

Since 1993 the Norwegian Barents Secretariat has provided a total of approximately NOK 380 million in funding and has supported some 3 200 joint Norwegian-Russian projects.

The grant scheme for Arctic cooperation was established as a separate budget item during Norway's chairmanship of the Arctic Council (2006–09). The scheme plays a crucial role in ensuring that Norway is a driving force in efforts to develop knowledge and formulate policy on the Arctic. Funding allocated under the scheme includes support to cover the running costs of the temporary secretariat for the Arctic Council in Tromsø, funding for the Snow, Water, Ice and Permafrost in the Arctic (SWIPA) assessment and projects in the field of environmental monitoring. The aim of the funding is to raise Norway's profile as a polar nation and to promote Norwegian priorities, such as environmental protection and sustainable development, in Arctic cooperation.

The Government's plan of action for nuclear safety and the environment was first drawn up in the 1990s to follow up challenges related to nuclear installations and nuclear material in northwestern Russia. A number of important measures have been implemented, including the removal of radioactive power sources from lighthouses along the coasts of the Barents Sea and the White Sea. The County Governor of Finnmark and the Norwegian Radiation Protection Authority are the Ministry of Foreign Affairs' most important partners in the region. Other priority areas for cooperation will be the removal of spent nuclear fuel from Andreyev Bay, measures related to safety and emergency preparedness at the Kola and Leningrad nuclear power plants and environmental monitoring. The G8 Global Partnership against the Spread of Weapons and Materials of Mass Destruction provides an important framework for the cooperation.

Public funding agencies at national and regional level

Traditionally, the focus of Norway's High North efforts has been on Norwegian sea and continental shelf areas. These will continue to be key areas of Norway's High North policy. At the same time the Government emphasises the fact that knowledge development and value creation on shore are an integral part of the policy.

The counties play a key role in promoting regional social and business development. Their efforts are coordinated with the activities of the national public funding agencies, such as Innovation Norway, the Industrial Development Corpora-

tion of Norway and the Research Council of Norway. The Industrial Development Corporation of Norway seeks to enhance innovation and business development through investment in infrastructure and the development of dynamic regional centres of innovation and value creation across the country. Innovation Norway provides products and services intended to promote innovation in business and industry nationwide, foster regional development and profile Norwegian industry and Norway as a tourist destination. Among other things, it administers an investment fund for northwestern Russia and a grant fund for economic cooperation with northwestern Russia.

In addition, the Ministry of Local Government and Regional Development can provide funding through the public funding agencies for activities in areas where coordination between counties is appropriate and for thematic projects in North Norway. The Ministry of Education and Research also provides funding through the regional research funds and through instruments related to the High North under the Research Council of Norway and the universities and university colleges.

The Government will focus its efforts on those areas where Norway and the various regions of Norway have particular advantages and are well-placed to succeed. The Government is seeking to facilitate changes in industrial structure both through its general business policy and through local initiatives. The establishment of a network of industrial clusters is one of several means of enhancing the competitiveness of North Norway. In a regional project on promoting a knowledge-based North Norway – a joint project between the University of Tromsø, the Northern Research Institute (Norut), the University of Nordland and Menon Business Economics – extensive research is being carried out to improve our understanding of how business clusters are developed in the region and the role the public sector can play to promote the formation of these clusters.

An action zone for Finnmark and northern Troms was established in 1990 in response to the negative population and business development trends. The Government considers it important to develop the action zone into an attractive region for settlement, work and business activities. A review of the action zone is underway to chart the effects of the scheme and the relevance of the policy instruments and to determine whether there is a need for adjustments or new measures that can improve the scheme's effectiveness. The review is due to be completed by the beginning of 2012.



Figure 4.4 During the High North Study Tour in 2009 the participants visited the EISCAT facility near Longyearbyen. Hu Zhengyue, Assistant Minister of Foreign Affairs, Chinese Ministry of Foreign Affairs, and Shang Zhen, Second Secretary, Chinese Ministry of Foreign Affairs.

Photo: Line Aune, Ministry of Foreign Affairs

4.3 International dialogue

The Government's aim is for Norway to play a role in shaping and influencing the international agenda in the High North. For this reason, conducting strategic dialogues with selected states on issues related to the High North is a key component of Norway's High North policy.

The previous white paper on the High North, *Opportunities and Challenges in the North* (Report No. 30 (2004–2005) to the Storting) called for the promotion of Norwegian views on the High North vis-à-vis key countries and organisations. This has been followed up through Norway's active High North diplomacy. Since 2004 dialogues on the High North have been initiated with a number of countries.

In 2004 the High North was not a prominent feature of the political agenda in most countries. There was therefore a great need both to provide information about developments in the High North and to promote Norwegian views as to how the new challenges and opportunities in the High North should be met.

The High North dialogues are important for Norway for several reasons. Norway is seeking to:

- shape the agenda in the High North and position itself as a major player;
- gain respect and understanding for its views and interests in the High North;
- develop concrete cooperation projects with other countries;
- encourage other countries to allocate more resources and direct more attention to the High North.

Through dialogue with other countries Norway is seeking to make its mark on the international political agenda in the High North. The dialogues focus increasingly on developments in the Arctic. We are seeking to convey a message of cooperation in the Arctic, a region where we share a common interest in preserving peace, stability and predictability. We wish to counter the idea that there is a race for the Arctic and to highlight the fact that the Arctic is an area regulated by international law where the necessary treaties are in place to enable us to meet current and future chal-

lenges. Through the dialogues and through relevant cooperation projects, we are seeking to demonstrate Norway's full commitment to promoting environmentally sound, sustainable management of renewable and non-renewable resources throughout the region, at the same time as maintaining respect for the livelihoods of indigenous peoples.

The High North dialogues are tailored to focus on the issues that are most important in Norway's bilateral relations with each of the countries concerned and on areas where they have particular interests and expertise. The most common topics are:

- *Climate change*: The impacts of climate change in the Arctic, climate and polar research and research cooperation in the Arctic, for example in Svalbard.
- *Shipping*: Financial savings to be made by increased use of the Northeast Passage for transporting goods between Europe and Asia.
- *Resources*: Potential new discoveries of petroleum and minerals in the High North, which are key to these countries' economic development.

The High North is a natural item on the agenda in political forums and talks at different levels. Norway maintains particularly close contact with the member states of the Arctic Council (Russia, the US, Canada, Denmark/Greenland, Iceland, Finland and Sweden). These countries have the strongest and most wide-ranging interests in the High North and it is with these countries in particular that Norway must work to find effective and comprehensive solutions in the future to achieve the overall aims of maintaining peace and stability and ensuring sustainable resource development in the region.

The Government will intensify its dialogue with the countries that are seeking permanent observer status in the Arctic Council. This will help to promote a common understanding of developments in the Arctic and clarify how these countries can contribute to the work of the Council based on the criteria for the admission of new permanent observers that were established at the Ministerial Meeting in Nuuk in May 2011 (see Chapter 7.2 on the Arctic Council).

The specific characteristics and interests of the various countries must be taken into account in the development of these dialogues. Whereas initially the High North dialogues were often wide-ranging and informative in nature, their focus has gradually been narrowed down and tar-

geted more specifically to reflect Norwegian interests vis-à-vis the individual countries. This applies to Norway's dialogue with Russia, where the focus is on fisheries, the environment, oil and gas, to our dialogue with Sweden and Finland, where the focus is on the development and transport of minerals, and to our dialogue with Canada, which focuses on a number of areas such as fisheries, indigenous peoples, research, management of sea areas and oil and gas. Security policy consultations are also held with a number of the Arctic states.

In addition, close dialogue has been established with key EU countries such as France, the UK, Germany, Spain, Poland, the Netherlands and Italy. All these countries have a long tradition of polar research and also strong interests in oil and gas supplies from Norway and Russia. With the exception of Italy, all of them are also permanent observers to the Arctic Council. Our dialogues with these countries, particularly with France and Germany, began as broad-based discussions on issues relating to the High North, but are now focusing more closely on energy, the most relevant issue in our relations in this context. The energy dialogues, conducted in cooperation with the Ministry of Petroleum and Energy, have also been successful. These dialogues address topics such as gas exports, renewable energy and energy efficiency.

In Iceland, a white paper on the High North was presented to the Allthingi in January 2011, and Norway has since initiated a dialogue with Iceland on closer cooperation on issues relating to the Arctic. Potential areas of cooperation are exchanges between Icelandic and Norwegian universities and knowledge institutions and cooperation on projects in the fields of climate change, the environment and marine resources. A memorandum of understanding on cooperation on Arctic scientific research was signed by the countries' foreign ministers in September 2011.

In January 2011 Prime Ministers Jens Stoltenberg and David Cameron signed a bilateral and global partnership agreement. Expanding cooperation in the field of polar research was one of the areas included in the agreement. To achieve this, joint projects in the field of polar research and on cultural heritage conservation at shared sites in the polar regions are being developed. The UK, which has four year-round stations in the Antarctic and a research station in Ny-Ålesund in Svalbard, is a leading polar research nation.

All this illustrates how dialogue and cooperation with other countries is being developed and

adapted in terms of form and content to focus more specifically on areas of mutual interest and benefit.

The EU is playing an increasingly active role in matters related to the High North and is currently developing its own strategy for the High North. Norway has already established close dialogue with various EU institutions on High North issues, both through talks at political level and at a series of events and meetings held in recent years. In the years to come, ensuring close and broad-based dialogue with the EU on the High North will continue to be one of Norway's priorities. The Government is seeking to strengthen cooperation with the EU in the High North in areas of common interest. This applies in particular to cooperation on research and knowledge development. Norway will seek to ensure that the EU research programmes give priority to projects that are relevant for the High North. This could also enhance knowledge development in Norway and open up new opportunities for research cooperation in the High North, for example within the EU priority areas of climate change and the environment. Norway has taken a number of initiatives vis-à-vis the EU, for example as regards cooperation on research infrastructure in Svalbard (Svalbard Integrated Arctic Earth Observing System), see Box 3.1. The Joint Programming Initiative for Healthy and Productive Seas and Oceans (JPI Oceans), a large-scale joint European programme carried out in cooperation with Spain and Belgium, is another Norwegian initiative. It does not focus exclusively on the High North, but encompasses cross-cutting marine and maritime issues related to European seas.

Asian countries have also shown a growing interest in the High North, with countries such as China, Japan and South Korea establishing their own research stations in Ny-Ålesund. The Northeast Asian countries have both the financial means and the expertise in research and technological development to play a greater role in the Arctic than is currently the case. Companies from Japan, South Korea and China are already involved in offshore activities on the Norwegian continental shelf. These actors are also following the potential for the opening up of new fields in Arctic waters. Moreover, South Korea, China and Japan are the world's three largest shipbuilding nations and play a key role in the development of icebreaker technology, which could lead to an expansion of trade relations along the Northeast Passage. Several Northeast Asian shipping companies are included among the ten largest ship-

ping companies in the world. In this respect, the High North is more than a strategic priority for Norway; it is also of crucial importance to the economy and foreign trade of the world's most densely populated and dynamic region.

The Government is also seeking to intensify dialogue on High North issues at parliamentary level and will therefore propose annual dialogues between the Ministry of Foreign Affairs and the parliamentary assemblies that are relevant to the High North, in which Norwegian parliamentarians participate (the Arctic Parliamentary Committee, the NATO Parliamentary Assembly, the Parliamentary Assembly of the Nordic Council and the Northern Dimension Parliamentary Forum).

The High North dialogues at political and senior official level are supplemented by a number of targeted measures designed to communicate Norway's views on the High North to key decision-makers in a number of countries. Study tours to Norway that focus on Norway's High North policy are one important tool. Since 2006 the Ministry of Foreign Affairs has organised international study tours to Svalbard on an annual basis, in cooperation with the Norwegian Polar Institute, the Norwegian University of Science and Technology, the SINTEF Group and the University Centre in Svalbard. Since the study tours were first started, over 60 international participants from 11 countries, as well as representatives of the EU, have taken part in a High North Study Tour. The tours have given the participants an insight into our thinking on the High North and have enabled them to gain more knowledge and understanding of the opportunities and challenges in the High North.

The annual High North conferences, including the Arctic Frontiers Conference (Tromsø), the Arctic Dialogue Conference (Bodø) and the Kirkenes Conference are important arenas for discussing topical High North issues at both political and expert level.

In recent years several countries have developed their own High North strategies (see Box 4.3). This is a positive development. Broad consensus on the fundamental legal and political issues has developed over time. Although the national strategies naturally contain some differences in emphasis, there are many similarities between the various High North strategies in terms of visions and priorities.

Firstly, all the countries that have developed High North strategies appreciate the importance of maintaining peace, stability and predictability. Secondly, there is a strong emphasis on sustain-

Box 4.3 Selected countries' High North strategies

Canada: *Canada's Northern Strategy: Our North, Our Heritage, Our Future* (March 2009)

and: *Statement on Canada's Arctic Foreign Policy* (August 2010)

Denmark: *Kingdom of Denmark – Strategy for the Arctic 2011–2020* (August 2011)

Finland: *Finland's Strategy for the Arctic Region* (July 2010)

Iceland: *A Parliamentary Resolution on Iceland's Arctic Policy* (March 2011)

Russia: “*The fundamentals of Russian state policy in the Arctic up to 2020 and beyond*” (September 2008) (Russian only)

US: *Arctic Region Policy* (January 2009)

EU: *The first step in the development of a policy for the Arctic was the Communication from the Commission to the European Parliament and the Council on the European Union and the Arctic Region of November 2008. The Council discussed the Commission's communication in December 2009. The European Parliament adopted a resolution on a sustainable EU policy for the High North in January 2011.*

Sweden: *Sweden's strategy for the Arctic region* (May 2011)

able development and the development of renewable and non-renewable resources in the High North. Thirdly, great importance is attached to respect for the Law of the Sea and the UN Convention on the Law of the Sea as the international legal framework for the Arctic. The five coastal states bordering the Arctic Ocean emphasise the importance of the special duties and rights they have under the Law of the Sea. Fourthly, the Arctic Council is referred to as the most important circumpolar forum for dealing with issues relating to the High North. There is also broad agreement that the Council needs to be strengthened.

4.4 National dialogue

The Ministry of Foreign Affairs is responsible for coordinating the Government's High North policy. This involves cooperation with other relevant ministries and extensive contact and dialogue with regional authorities, the Sami Parliament

(Sámediggi), the research community, the private sector and other actors. The Ministry of Foreign Affairs has appointed two committees to further the development of a dynamic High North policy. The Government's Expert Committee on the High North was appointed in January 2006 and delivered its final report in June 2008.³ The report served as an important basis for the Government in following up its High North Strategy and for the preparation of the report *New Building Blocks in the North*.

Based on the success of the Expert Committee it was decided to establish a new committee as a dialogue partner for central and regional authorities on the High North Policy. The High North Committee⁴ was appointed by the Ministry of Foreign Affairs on 30 April 2010 for a period of two years. Its term was later extended by one year, until June 2013. The committee was established to provide input to the Norwegian authorities as to how the new opportunities opening up in the High North can be used to safeguard Norway's interests, with particular focus on creating a better basis for value creation in North Norway.

The High North Committee has held a number of meetings with actors from the private sector and civil society across the region, which have generated input and ideas about the possibilities for increasing value creation in the north. The meetings were organised around specific topics: knowledge and expertise, natural resource management, logistics and infrastructure, culture and tourism, industry and industrial clusters and partnerships.

The committee participates actively in the public debate on issues related to the High North and works on a number of areas discussed in this white paper, such as knowledge, research, education, emergency preparedness, minerals, fisheries, aquaculture and space-related commercial activity.

Information about the work of the High North Committee can be found on the committee's website: www.nordområdeutvalget.no.

The Government is seeking to further strengthen coordination and dialogue with regional authorities on its High North policy. The establishment of a coordination forum for the

³ The Government's Expert Committee on the High North was chaired by Jarle Aarbakke, Rector of the University of Tromsø.

⁴ The High North Committee was chaired by Frode Mellemvik of the University of Nordland until February 2012 when he was replaced by Hans Olav Karde, CEO of Sparebank 1 Nord-Norge.

Box 4.4 Norway's High North policy – selected reference documents

1. Knut Frydenlund, Foreign policy address to the Storting, 1 November 1974, reproduced in the Ministry of Foreign Affairs information bulletin *UD-informasjon*, no. 53, 8 November 1974. This was the first documented use of the term “nordområdene” (at the time translated as “northern areas”) by the Ministry of Foreign Affairs.
2. *MFA Circular no.61*, 28 December 1977: *Behandling av spørsmål vedrørende nordområdene*. This announced the establishment of an internal working group to improve the coordination of work on questions concerning the northern areas.
3. *Protecting the Riches of the Sea* (Report No. 12 (2001–2002) to the Storting).
4. *Look North! Challenges and opportunities in the northern areas*, Official Norwegian Report NOU 2003:32. Report from the Government's Committee of Experts on the Northern Areas, submitted on 8 December 2003.
5. *Opportunities and Challenges in the North* (Report No. 30 (2004–2005) to the Storting)
6. *Political platform of the majority government formed by the Labour Party, the Socialist Left Party and the Centre Party*. Report published on 20 December 2005.
7. Jonas Gahr Støre, *A sea of opportunities – A sound policy for the High North*, speech/article, University of Tromsø, 10 November 2005.
8. *Integrated Management of the Marine Environment of the Barents Sea and the Sea Areas off the Lofoten Islands* (Report No. 8 (2005–2006) to the Storting).
9. Arve Johnsen, *Barents 2020 – A tool for a forward-looking High North policy*, report published on 19 September 2006.
10. *The Norwegian Government's High North Strategy*, Ministry of Foreign Affairs, Oslo/Tromsø, 1 December 2006.
11. *Sluttrapport fra regjeringens ekspertutvalg for nordområdene* («Aarbakke-utvalget») (*Final report of the Government's Expert Committee on the High North*), June 2008. (Norwegian only)
12. *Svalbard* (Report No. 22 (2008–2009) to the Storting).
13. *New Building Blocks in the North – the next step in the Government's High North strategy*. Oslo/Tromsø, 12 March 2009.
14. *Nasjonal strategi 2009: Marin bioprospektering – en kilde til ny og bærekraftig verdiskaping* (Norwegian strategy for marine bioprospecting), (Norwegian only).
15. Jonas Gahr Støre: “Most is north”. *The High North and the way ahead – an international perspective*. Lecture at the University of Tromsø, 29 April 2010.
16. *Nordområdesatsingen – Status oktober 2010, (The High North policy – status report, October 2010)*, (Norwegian only), Ministry of Foreign Affairs, October 2010.
17. *First update of the Integrated Management Plan for the Marine Environment of the Barents Sea–Lofoten Area*, Meld. St. 10 (2010–2011).
18. *An industry for the future – Norway's petroleum activities*, Meld. St. 28 (2010–2011).
19. Research Council of Norway: *Research Strategy for the Arctic and Northern Areas*, Revision 1 (forskning.nord.to) 2011–2016, June 2011.

leaders of Nordland, Troms and Finnmark county councils and the President of the Sami Parliament has therefore been proposed. The forum will meet twice a year. Its main purpose will be coordination

and exchange of information with an emphasis on the foreign policy and cross-border dimensions of the High North policy.

Part II
A responsible actor in the High North

5 International legal framework

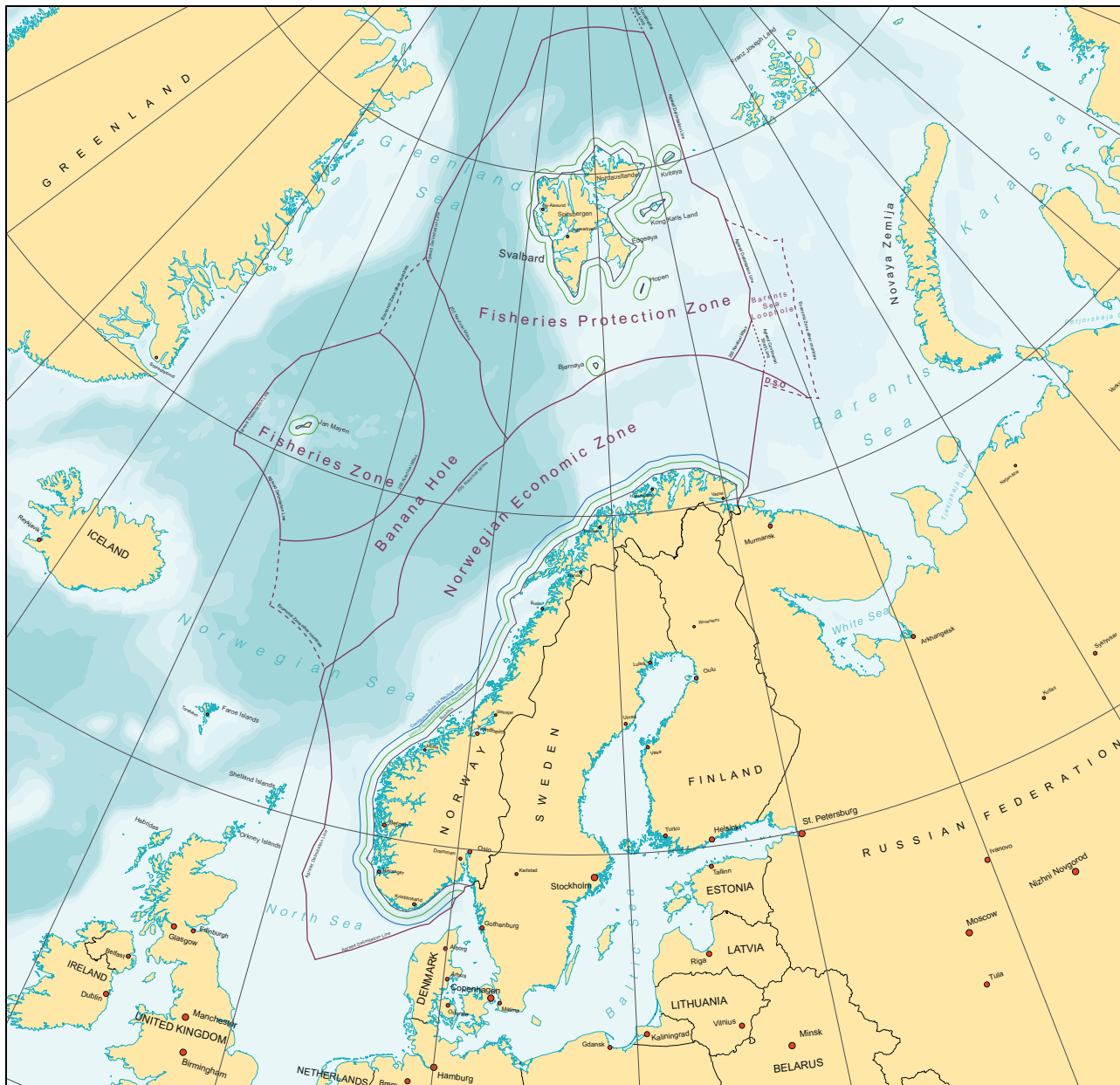


Figure 5.1 Norwegian maritime boundaries.

Source: Norwegian Military Geographic Service

5.1 A basis for stability and predictability

In order to maintain predictability and stability, it is essential that all states respect international law

and international rules. This is the case in the High North. There is broad international agreement that the UN Convention on the Law of the Sea constitutes the basic legal framework for the Arctic Ocean. This is of crucial importance for

preventing and avoiding disputes and potential conflicts in the region. Although various players have differing military and strategic, energy and transport interests in the High North, there is currently no race for the Arctic or for the resources in the region, which are almost without exception in areas where there are no overlapping claims. The High North is a peaceful region in which states display a willingness to cooperate and to resolve contentious issues in accordance with the principles of international law. Respect for international law is essential for achieving the Arctic states' common goal of maintaining stability and predictability.

5.1.1 The Law of the Sea

With the emergence of the modern Law of the Sea came the need to establish maritime boundaries. After the Second World War the coastal states gradually extended their jurisdiction, which involved both an extension of their territorial waters and a move towards the establishment of zones for different purposes. Through its three Conferences on the Law of the Sea (1958, 1960 and 1973–82), the UN sought to codify and further develop the Law of the Sea by establishing global conventions, such as the Convention on the Continental Shelf of 1958, which formed the basis for the current rules on the delimitation of continental shelves. The last UN Conference on the Law of the Sea led to the adoption of the UN Convention on the Law of the Sea in 1982.

The UN Convention on the Law of the Sea takes a broad, integrated approach to questions of maritime law and enjoys almost unanimous global support. The Convention represents a historic compromise between the desire of the coastal states to extend their jurisdiction and the principle of freedom of navigation. Even though the Convention contains many innovative provisions, large parts of it are regarded as a codification of customary international law. This applies particularly to the key provisions on the exclusive economic zone and the continental shelf.

The international legal framework for the Arctic was further clarified in May 2008 with the signing of a ministerial declaration by the five coastal states bordering the Arctic Ocean – Canada, Denmark, Russia, the US and Norway. The Ilulissat Declaration confirms that the Law of the Sea provides the legal framework for activity in the Arctic Ocean, for instance with regard to environmental protection, research, the delimitation of the outer

limits of the continental shelf, and shipping. It is a binding expression of the coastal states' recognition of their obligations and responsibilities under the Law of the Sea in the Arctic, including their commitment to the orderly settlement of any possible overlapping claims. The treaty on maritime delimitation between Norway and Russia is a good example of the application of these principles in practice.

5.1.2 Norway's 200-mile zones

In 1976 Norway established an exclusive economic zone extending 200 nautical miles from its baselines.¹ Under the Convention on the Law of the Sea, Norway has sovereign rights in its exclusive economic zone for the purpose of exploring, exploiting and managing both the living and non-living natural resources.

In 1977, in accordance with the Act of 17 December 1976 relating to the Economic Zone of Norway, a fisheries protection zone was established around Svalbard.² The Fisheries Protection Zone is a 200-nautical-mile zone around the Svalbard archipelago. The regulatory measures for fisheries in the zone are non-discriminatory and take into account previous fishing patterns in the area.

In 1980 Norway established a fisheries zone around Jan Mayen, also under the Act relating to the Economic Zone of Norway.³ The fisheries zone extends 200 nautical miles from the baselines apart from where it meets the zones of Iceland and Denmark (Greenland).

5.1.3 Svalbard and Jan Mayen

Norwegian sovereignty over Svalbard was recognised under the Svalbard Treaty of 9 February 1920. The Svalbard Treaty entered into force on 14 August 1925, and from the same day Svalbard became part of the Kingdom of Norway, in accordance with the Act of 17 July 1925 relating to Svalbard. Norway's sovereignty over Svalbard is undisputed and generally recognised. Under the Svalbard Treaty, Norway undertook certain specific obligations under international law related to

¹ Under the Act of 17 December 1976 No. 91 relating to the Economic Zone of Norway and appurtenant regulations.

² Regulations of 3 June 1977 No. 6 relating to the Fisheries Protection Zone around Svalbard.

³ Royal Decree of 23 May 1980 No. 4 relating to the establishment of a fisheries zone around Jan Mayen

Box 5.1 The international legal framework in the Arctic Ocean

Whereas Antarctica is a land mass regulated by the Antarctic Treaty, the Arctic is an ocean surrounded by nation states. Even though parts of the Arctic Ocean are covered by ice, the Law of the Sea applies fully in this region, as it does in other sea areas around the world. The international legal framework for all activity in the Arctic Ocean is set out in the Convention on the Law of the Sea, which clarifies questions relating to jurisdiction in the area, as well as rights and duties. Under the Law of the Sea the coastal states bordering the Arctic Ocean have special duties and rights in the area. Speculation about a “race for resources” and the Arctic Ocean as an “area of lawlessness” does not reflect the actual situation.

The Convention on the Law of the Sea sets out comprehensive rules for the exploitation of resources on the continental shelf and in the 200-mile zones, and concerning shipping, environmental protection and research. The Convention is supplemented by multilateral environmental agreements and other international instruments, for example those regulating the shipping and fisheries industries. Key instruments include the United Nations Fish Stocks Agreement¹, which implements the provisions of the Convention on the Law of the Sea relating to the conservation and management of straddling and highly migratory fish stocks, and conventions adopted by the International Maritime Organization (IMO), such as the International Convention for the Safety of Life at Sea and the International Convention for the Prevention of Pollution from Ships.

The melting ice and expected increase in activity in the Arctic Ocean will make cooperation on the implementation of existing instruments and the development of supplementary rules in various areas essential. At the initiative of the Arctic Council, for example, a new agreement has been negotiated between the Council's

eight members² on search and rescue in the Arctic. The Arctic Search and Rescue Agreement was signed in Nuuk, Greenland in May 2011. Another example is IMO's work on the development of a mandatory international code of safety for ships operating in polar waters (the Polar Code). The Polar Code is expected to be completed in 2014, and to enter into force in 2015 or 2016.

Norway has a strong tradition of conscientiously implementing and complying with its obligations as a coastal state on its own continental shelf and in zones under Norwegian jurisdiction as well as with flag state obligations for Norwegian ships. Petroleum activities on the Norwegian continental shelf are subject to the strictest safety and environmental standards. The Norwegian fisheries management regime is based on scientific knowledge and is strictly enforced to prevent illegal, unregulated and unreported fishing. Routeing and traffic separation schemes for shipping have been established along vulnerable parts of the coast so as to reduce the potential for damage and key environmental considerations are taken into account in the work on the management plans for Norwegian sea areas. These national efforts are being continued at the international level, for example under the North East Atlantic Fisheries Commission, the Joint Norwegian-Russian Fisheries Commission, the Convention for the Protection of the Marine Environment of the North-East Atlantic and IMO. Norwegian activities in the Arctic Ocean will naturally be based on the same tradition and the same principles.

¹ Full name: The United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (4 August 1995).

² The five Nordic states, the US, Canada and Russia.

the archipelago, including ensuring equal treatment of all nationals and companies of parties to the treaty as regards certain activities within the geographical scope of the treaty.

In the Svalbard Treaty, Svalbard is defined as the islands situated between specified geographical coordinates. Some of the provisions also apply

to the territorial waters, which now extend to the 12-nautical-mile limit. Norway annexed Jan Mayen in 1929 and the Act of 27 February 1930 relating to Jan Mayen gave the island status as part of the Kingdom of Norway. Norwegian sovereignty over Jan Mayen is undisputed.

5.1.4 Unresolved issues related to jurisdiction

The continental shelf is the natural submarine prolongation of the land mass of a coastal state. Under the Convention on the Law of the Sea all coastal states automatically have sovereign rights over the continental shelf to a distance of 200 nautical miles from the baselines. These rights also apply in cases where the continental shelf extends beyond the 200-nautical-mile economic zone. The Convention on the Law of the Sea sets out detailed rules for the delimitation of the outer limits of the continental shelf. The outer limits of the continental shelf beyond 200 nautical miles can only be determined following the recommendation of a separate commission – the Commission on the Limits of the Continental Shelf – which has been established for this purpose under UN auspices. In 2001 Russia was the first state in the world to submit documentation to the commission. It has since been asked to provide additional documentation. Canada has a deadline of 2013 for submission of documentation, and Denmark a deadline of 2014. This issue does not apply to the US as it is not yet a party to the Convention on the Law of the Sea.

Whereas Russia, the US, Canada and Denmark are still collecting and organising information about their continental shelves in the Arctic Ocean, Norway has already received the recommendations of the Commission on the Limits of the Continental Shelf. Norway submitted its documentation in 2006 and the Commission issued its final recommendations in 2009. Norway is thus the first Arctic state to receive the Commission's recommendations.

Very few issues related to jurisdiction in the Arctic Ocean remain unresolved, particularly in view of its size. There are, however, some questions remaining related to whether the Lomonosov, Alpha and Mendeleev submarine ridges, for example, are a natural prolongation of the coastal states' land mass and can thus be defined as part of their continental shelf. If they can, this raises the question of which state's continental shelf these ridges belong to and how the boundaries between them should be drawn. The issue of the legal status of the ridges in relation to the rules governing the continental shelf set out in the Convention on the Law of the Sea must be considered by the Commission on the Limits of the Continental Shelf on the basis of documentation provided by the coastal states, while the delimitation of

national continental shelves must be resolved between the relevant coastal states.

The US and Canada have one delimitation issue that remains unresolved, in the Beaufort Sea, and both Canada and Denmark (Greenland) claim sovereignty over the small Hans Island. In 1990, the US and the Soviet Union negotiated an agreement on maritime delimitation in the Bering Sea. This agreement has not yet been ratified as it has not yet been approved by the Russian Duma.

5.2 Borders

5.2.1 Norway's land borders in the north

The borders of modern Norway are drawn in accordance with agreements with our neighbouring countries and the provisions of the Law of the Sea. Up until the 1700s the borders between Norway, Sweden and Russia in the sparsely populated Sami areas in the north remained fluid. The oldest border agreement that is still applicable is with Sweden and was concluded in 1751. The land border between Norway and Russia was established in 1826. In 1924 the border between Norway and Finland was established on the basis of the agreement with Russia.

There were two codicils⁴ to the border treaty with Sweden, one relating to the movement of reindeer over the state border and the other relating to border markings and maintenance. The practice of moving reindeer herds between seasonal pastures had been carried out for hundreds of years, unhindered by state borders. Since 1751 cross-border reindeer husbandry has been regulated by various conventions, which also contained (and continue to contain) provisions relating to grazing rights. The 1972 Reindeer Grazing Convention expired in 2005 and a new convention between Norway and Sweden was signed in 2009. Consultations on the convention were held in October 2010, and work is now underway to submit a proposal requesting the Storting's consent to ratification. The convention will enter into force only after it has been approved by the parliaments of Norway and Sweden.

5.2.2 Delimitation of the continental shelf and the economic zones

In cases where a state's economic zone and/or continental shelf overlap with those of another state, delimitation agreements are needed. Under

⁴ Addenda to the treaty.



Figure 5.2 Russian border post No. 220 and a Norwegian border post at the Elvenes border station.

Photo: Norwegian Defence Media Center / Torbjørn Kjosvold

Articles 74 and 83 of the Convention on the Law of the Sea, which relate to the exclusive economic zone and the continental shelf respectively, agreements of this kind are to be based on international law so as to achieve an equitable solution. According to case law established by the International Court of Justice, the starting point is that the delimitation line should follow the median line between the two states' coastlines. The Court has, however, indicated that certain objective geographical factors, such as the length and direction of the coastlines, may, under certain conditions, call for an adjustment to the median line. Norway has signed delimitation agreements in the High North with Iceland, Denmark (Greenland) and Russia.

In 1980, following extensive negotiations, an agreement was concluded with Iceland on the establishment of a Conciliation Commission on the Continental Shelf area between Iceland and Jan Mayen. The Commission presented its recommendation, which was subsequently put into effect, in 1981. Negotiations with Denmark on delimitation of the area between Jan Mayen and Greenland were conducted from 1980 to 1988, when Denmark brought the case before the Inter-

national Court of Justice. The Court delivered its judgment in 1993, and the agreement on the delimitation of the continental shelf and the boundary between the fisheries zones in the area was signed in 1995. The International Court of Justice was not able to consider the issue of a smaller sea area between Jan Mayen, Greenland and Iceland because Iceland was not a party to the case. Delimitation of this area was agreed in 1997 following negotiations between the parties. With this, the entire extent of the fisheries zone around Jan Mayen was settled.

In 2006 an agreement was concluded between Norway and Denmark together with the Home Rule Government of Greenland on the delimitation of the continental shelf and the fisheries zones in the area between Greenland and Svalbard. The same year agreed minutes were signed on the delimitation of the continental shelf beyond 200 nautical miles between Norway, Iceland and the Faroe Islands in the southern part of the Banana Hole of the Northeast Atlantic. These establish a basis for delimitation of the continental shelf in the southern part of the Banana Hole. Final delimitation agreements will be concluded once the Commission on the Limits of the Conti-

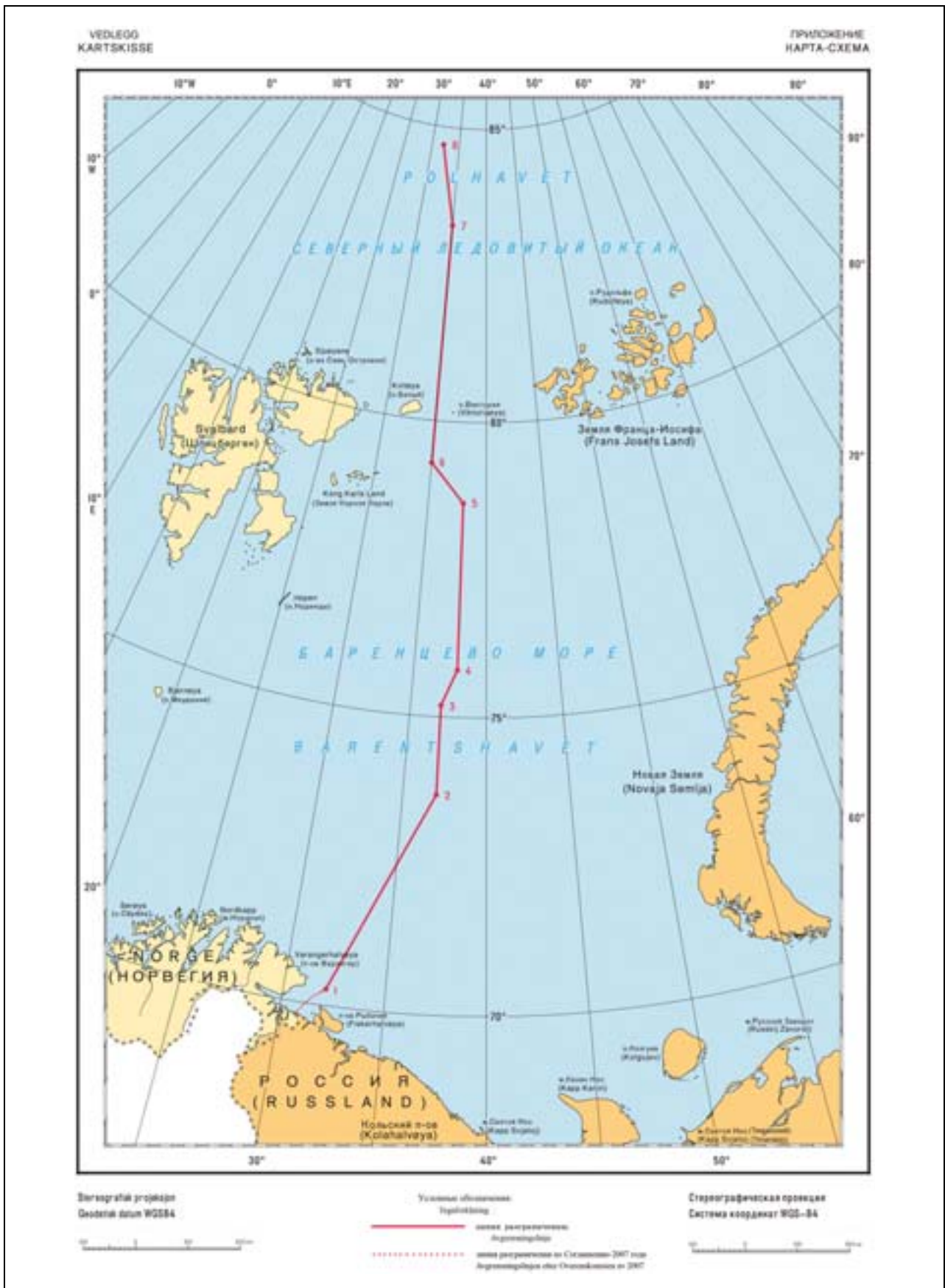


Figure 5.3 Schematic chart showing the delimitation of the continental shelf and the economic zones in the Barents Sea and the Arctic Ocean between Norway and Russia. (Dotted red line: delimitation in the 2007 agreement. Solid red line: delimitation line between the coordinates in the 2010 treaty)

mental Shelf has made its recommendations. The final boundaries will have to be formalised in a separate agreement based on the agreed minutes.

The maritime boundary with Russia in the Varangerfjord area was agreed between Norway and the Soviet Union in 1957. Under the agreement the breadth of Norway's sea territory was set at four nautical miles, while Russia's was set at 12 miles. With effect from 2004, the breadth of Norway's territorial sea was extended from four to 12 nautical miles and a contiguous zone extending to 24 nautical miles was established. This gave rise to a need to determine a delimitation line for the territorial seas, the exclusive economic zones and the continental shelf between Norway and Russia in the Varangerfjord area. Agreement was reached on a 73 kilometre-long delimitation line in 2007.

5.3 Treaty with Russia on maritime delimitation and cooperation in the Barents Sea and the Arctic Ocean

The issue of maritime delimitation between Norway and Russia in the Barents Sea and the Arctic Ocean was the object of extensive negotiations for 40 years. In 2010, however, tentative agreement

was reached on maritime delimitation between Norway and Russia in the whole of the previously disputed area. The Treaty between the Kingdom of Norway and the Russian Federation concerning Maritime Delimitation and Cooperation in the Barents Sea and the Arctic Ocean was signed by the foreign ministers of the two countries in Murmansk on 15 September 2010. Under the agreement, the disputed area of 175 000 square kilometres was divided into two parts of approximately the same size, each of about 87 000 square kilometres.

In addition to establishing the delimitation line, the historic agreement contains provisions that ensure the continuation of the close Norwegian-Russian fisheries cooperation, as well as provisions concerning cooperation on the exploitation of any transboundary hydrocarbon deposits. Further details are set out in the treaty's two annexes. With the entry into force of the treaty on 7 July 2011, the Grey Zone Agreement⁵ no longer

⁵ Agreement between Norway and the Soviet Union on a Temporary Practical Arrangement for Fishing in an Adjacent Area in the Barents Sea (the Grey Zone Agreement). The agreement was first concluded on 11 January 1978 as a provisional practical arrangement pending agreement on maritime delimitation in the Barents Sea, and was extended for a year at a time until 7 July 2011, the date on which the Treaty concerning Maritime Delimitation and Cooperation in the Barents Sea and the Arctic Ocean entered into force.



Figure 5.4 Exchange of ratification instruments for the maritime delimitation treaty. Akershus Castle, 7 June 2011.

Box 5.2 Negotiations on the Maritime Delimitation Treaty

In 1967, Norway proposed to the Soviet Union for the first time that the two countries should start negotiations on delimitation of the continental shelf in the Barents Sea. An informal meeting was held in 1970, and talks at senior official level began in 1974. The Norwegian starting position for the negotiations was that the delimitation line should follow the median line. The Soviet Union's position was that the delimitation line should follow straight lines running along longitudes 32 and 35° E, in accordance with a Soviet decree of 1926 which stated that all territory, discovered and undiscovered, to the east of this belonged to the Soviet Union. The differing views of the two countries meant that there remained a disputed area of approximately 175 000 square kilometres to which both parties laid claim.

The process of establishing the legal principles for delimitation of the continental shelf and 200-mile zones has been one of the most controversial issues in international law. The International Court of Justice has helped to clarify the rules of international law in this area, particularly since the beginning of the 1990s. Basically, the Court has consolidated a coherent method where the first step is to mathematically compute a hypothetical median line. The next step is to assess whether there are any geographical peculiarities that would render a median line solution inequitable. There may be reason to adjust or move the delimitation line, particularly in cases where there are major disparities in the

lengths of the parties' coastlines. In this case, the relevant Russian coastline was considerably longer, and called for certain adjustments of the delimitation line in a westerly direction in relation to the computed median line, particularly in the southern part of the area.

From 2006 onwards the discussions were intensified, and in July 2007 the two parties signed an agreement on maritime delimitation of a coastal area at the mouth of the Varangerfjord. On 27 April 2010, the Norwegian and Russian foreign ministers signed a joint statement announcing that the negotiating delegations of the two countries had reached preliminary agreement on the remaining maritime delimitation issues. The Treaty concerning Maritime Delimitation and Cooperation in the Barents Sea and the Arctic Ocean was signed by the two countries' foreign ministers in the presence of Prime Minister Jens Stoltenberg and President Dmitry Medvedev on 15 September 2010. The treaty defines the boundary between the Norwegian and Russian continental shelves and the two countries' 200-mile zones, over a distance of 1 680 kilometres.

The Norwegian Storting gave its consent to ratification of the treaty on 8 February 2011. The Russian Duma took the decision to ratify the treaty on 25 March 2011, and the Federation Council approved ratification on 30 March 2011. The instruments of ratification were exchanged on 7 June 2011 and the treaty entered into force on 7 July 2011.

applies. The Maritime Delimitation Treaty has resolved the most crucial outstanding issue in our bilateral relations with Russia, and paves the way for the further development of Norwegian-Russian cooperation.

5.4 The rights of indigenous peoples

The Sami are recognised as an indigenous people in Finland, Norway, Sweden and Russia. They have lived and used the land in these countries since before the nation states were established. International legal standards have been developed to ensure the participation of indigenous peoples in political processes and to safeguard and

enhance the development of their culture, livelihoods and way of life. Norway's Sami policy is based to a large extent on these international legal obligations.

Indigenous peoples are not typically the dominant group in the larger society to which they belong. Thus, majority democratic rule does not necessarily safeguard their rights as a people. Indigenous peoples have the right to self-determination both in the form of self-government in matters relating to their internal and local affairs and through participation in public decision-making processes. The establishment of the Sami Parliament (Sámediggi) must be viewed as a recognition of this. The Norwegian Government has transferred administrative responsibilities to the

Sami Parliament and established separate procedures for consultations between the central authorities and the Sami Parliament. Law relating to indigenous peoples also encompasses issues related to land and water rights, cultural activity, language and education.

Norway has signed several international conventions, declarations and agreements that have relevance for indigenous peoples. The International Covenant on Civil and Political Rights, the International Covenant on Economic, Social and Cultural Rights, the UN Convention on Biological Diversity and the UN Convention on the Rights of the Child all have considerable significance for indigenous peoples. These conventions have all been incorporated into Norwegian law under the Human Rights Act and take precedence over other legislation that may conflict with them. The international instrument that deals specifically with the rights of indigenous peoples is ILO Convention No. 169 concerning Indigenous and Tribal Peoples in Independent Countries. The Declara-

tion on the Rights of Indigenous Peoples adopted by the UN General Assembly in 2007 contains important guidelines for further work on understanding the rights of indigenous peoples, although it is not a binding document in international law.

A number of other conventions including the European Convention on Human Rights, the European Charter for Regional or Minority Languages and the Convention on Biological Diversity also have implications for Sami policy. The objectives of the Convention on Biological Diversity are the conservation and sustainable use of biological diversity and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources. The Convention recognises the close dependence of indigenous peoples on biological resources and Article 8 (j) sets out that states are required to respect, preserve and maintain the traditional knowledge of indigenous peoples that is relevant for the conservation and sustainable use of biological diversity.

6 Security and defence



Figure 6.1 Norwegian Coast Guard vessels Sortland and Barentshav on patrol in the Barents Sea.

Photo: Norwegian Armed Forces Media Centre/Fredrick Hoffeker/Norwegian Coast Guard

The High North is attracting growing international interest. There is a high degree of common understanding in the region and constructive dialogue and increasing cooperation between the various actors, particularly the Arctic states. As things stand, the potential for conflict is limited. This is quite different from the situation that prevailed during the Cold War, when military and strategic considerations shaped developments in the region. Today, there are other driving forces behind developments in the region, but at the same time the situation is more complicated and less clear-cut, due to increased civilian and commercial activity.

Climate change, easier access to natural resources and growing human activity mean that more attention is being focused on the High North, and that there is greater potential for both cooperation and conflicts of interest. Security pol-

icy therefore needs to be based on an extended security concept¹, in the High North in the same way as in other regions. Growing human activity in the region as the sea ice melts and retreats is accompanied by a higher risk of accidents at sea, pollution, and environmental degradation as a result of a growing volume of shipping and more use of resources. Key elements of Norway's security policy include working towards implementation of the UN Convention on the Law of the Sea by all countries, cooperation in international and regional forums, and practical bilateral cooperation to address new challenges. This chapter focuses on the need for an increased presence in the High North as a result of the changes that have taken place in recent years, and on the role

¹ Territorial security, ecological security, economic security, social security and political security.

of the Norwegian Armed Forces and their interaction with other actors.

The Norwegian Armed Forces in the High North

According to the Government's High North Strategy, Norway will continue its tradition of predictable exercise of sovereignty. Moreover, Norway will exercise its authority in the sea areas that are under its jurisdiction in a credible, consistent and predictable way. As the Arctic becomes more accessible and the level of activity in the region increases, it will be more important than ever for all states involved to act predictably and in accordance with the Law of the Sea.

The Norwegian Armed Forces' growing presence and higher level of activity in the region are an integral part of the Government's High North strategy. In the long-term plan (2009–12) and the Strategic Concept for the Norwegian Armed Forces, the Government has given developments in the High North a central place in terms of organisation, planning and resource use. The Norwegian Joint Headquarters has been established in Bodø, the Coast Guard has been strengthened and the main focus of army activities has been consolidated in the north, all of which testifies to the priority the Government gives to the High North. The importance the Government attaches to greater Norwegian visibility in the northern sea areas can be seen in the increase in the operating budgets for the Coastal Squadron and Coast Guard, and the phasing in of new vessels. The Norwegian Intelligence Service plays a key role in surveillance in the High North and has received increased resources.

What is meant by a "presence" in the High North?

In recent years, the Government has given priority to modernising the Navy and the Air Force, with a view to maintaining an appropriate presence and gaining better situation awareness in our sea areas. Key capabilities have been strengthened, for example new frigates and new coast guard vessels have been acquired. Moreover, new maritime helicopters are being procured for frigates and coast guard vessels. The maritime helicopter fleet is concentrated in Bardufoss in Troms, with a detachment in Haakonsværn near Bergen to support the frigate flotilla. The planned procurement of new combat aircraft to replace the current F-16s will enhance Norway's surveillance and rapid reaction capabilities in the High North. The Armed Forces' presence is not directed at

any other state; rather, it reflects the fact that Norway has important assets and interests to defend. Showing a presence is a goal in itself. Norway promotes stability by having a clear military presence and operating in a consistent and predictable way. Today, the Armed Forces' presence in North Norway is a permanent part of the status quo. Norway must also have the capacity to prevent difficult situations arising, and to handle any situations that do arise adequately, using appropriate means.

Through the Coast Guard, the Armed Forces have well-established cooperation with the fisheries authorities. Every year, the Coast Guard carries out 1500–2000 inspections of Norwegian and foreign fishing vessels. Living marine resources are a strategic resource for Norway. It is therefore important to ensure compliance with Norwegian legislation in this area.

The Armed Forces' aircraft have the capacity to detect oil spills. A number of coast guard vessels are equipped with oil booms, and in cooperation with the Coast Guard, high-risk vessels sailing along the coast are kept under close surveillance.

The Armed Forces currently have 14 vessels specially built for coast guard tasks. In 2012, the Navy will have a total of six new Skjold-class fast attack craft which are known for their speed and adaptability in operations in littoral waters. In addition, there are five new frigates. The Orion aircraft are being upgraded, and once completed will function as state-of-the-art airborne surveillance platforms.

The Armed Forces have an important role to play in terms of surveillance and intelligence, the exercise of sovereignty and authority, and incident and crisis management. The Norwegian model for civilian–military cooperation gives a better understanding of the situation and enhanced operational preparedness when dealing with cross-sectoral issues and ensuring civilian and military security. Maintaining a military and civilian presence, combined with appropriate capabilities and a good understanding of the situation, promotes stability and provides a good foundation for international cooperation in the region, including under the auspices of NATO. Our military presence is also essential for civilian purposes, in connection with preparedness and response, search and rescue, the environment, and access to information.

The Government will facilitate a greater allied presence in the region through exercises in areas close to Norway, and there are annual military exercises involving Norway's allied and partner countries.

Nordic cooperation

Nordic security and defence policy cooperation has increased in recent years. In concrete terms, Nordic defence cooperation includes fighter aircraft training in the High North, and the Swedish–Norwegian joint procurement of the Archer artillery system. The Finnish procurement of the Norwegian Advanced Surface-to-Air Missile System 2 (NASAMS II) also paves the way for expanded cooperation. Sweden and Finland are in the process of joining NATO's Air Situation Data Exchange (ASDE) programme, which will greatly enhance the air situation information available to the Nordic countries. In the Nordic declaration of solidarity, which was signed by the Nordic foreign ministers on 5 April 2011, the countries state their willingness to assist one another in the event of natural or man-made disasters, cyber attacks or terrorist attacks. Any assistance of this kind will be in accordance with the national policies of each country, and will come in addition to their participation in European and Euro-Atlantic cooperation structures.

In the 2009 Stoltenberg Report, Nordic Cooperation on Foreign and Security Policy, the Nordic countries show their intention and willingness to strengthen their cooperation on foreign and security policy within the frameworks of their respective memberships of the EU and NATO. This is part of a new trend towards closer cooperation throughout Europe, but the history of the Nordic region means that it has particular advantages. In the High North, it is in our relations with Finland and Sweden that we see the greatest opportunities for closer cooperation. The Government will seek to deepen this cooperation, in line with strong Nordic traditions of making strategic choices and following them up with concrete action.

The role of NATO

Through NATO's integrated air defence, the Alliance participates in surveillance in North Norway and helps Norway exercise its sovereignty. It is important for Norway that our allies understand and are well-informed about developments in the High North. Norway has therefore put the High North on the agenda in NATO, for example in discussions in the North Atlantic Council, in which Norway has on a number of occasions briefed our allies on key developments in the region. The aims of Norway's core area initiative are reflected in NATO's new Strategic Concept, which puts greater emphasis on security challenges in the

member states and neighbouring areas, with a particular focus on situation awareness, military planning and presence, for example in the form of exercise and training activities. The Government considers it important for NATO to develop a closer regional focus and to maintain its presence in the High North through exercises and training. This should be done in a transparent and predictable way that does not increase the level of military tension. A powerful NATO that conducts exercises in the High North is in no way incompatible with the development of good and close neighbourly relations between Norway and Russia. Rather, NATO's presence should be seen as one of a number of factors that contribute to stability and predictability in the region.

Cooperation with Russia

Norway's border with Russia is not just a border between two states, it is also the external border of the Schengen area. The Norwegian Armed Forces are responsible for exercising sovereignty along the border, and the border guards assist the police, who are responsible for border control. To an increasing extent, Norway is cooperating with Russia's armed forces, border guards and coast guard, and both countries have expressed an interest in further strengthening this cooperation. Since 2001, Norway and Russia have drawn up an annual bilateral military activity plan. This plan helps to facilitate military cooperation between the Norwegian and Russian armed forces, and includes high-level meetings between the Commander of the Northern Fleet and the head of Norwegian Joint Headquarters, vessel visits in Norway and Russia, meetings between junior officers and bilateral maritime exercises. Russian military activity in the High North has increased considerably in recent years from a low level in the period immediately following the Cold War. The increased level of activity is not considered to be directed at Norway, but is seen as a reflection of Russia's strategic objectives in the region. Nevertheless, Norway is following developments closely.

Military cooperation with Russia is important in building trust between our two countries. Most of our cooperation focuses on the High North, where we are facing a number of shared challenges. Norway aims to further develop military cooperation with Russia, so that the focus is no longer on activities organised in connection with visits, as is often the case today, but rather on activities that increase our capability to collaborate in



Figure 6.2 Russian Admiral Nikolay Mikhaylovich Maksimov, Chief of Staff of the Western Military District, and Lieutenant General Bernt Iver Ferdinand Brovold, head of Norwegian Joint Headquarters, outside the Royal Palace in Oslo following an audience with His Majesty King Harald V.

Photo: Norwegian Armed Forces Media Centre / Anton Ligaarden

this area, such as small-scale land, sea and air exercises. Cooperation, transparency and predictability will enhance our ability to collaborate when dealing with any future crises, including by

military means. In addition to Norway's existing maritime cooperation with Russia, efforts are under way to organise joint training activities with small Russian military units in 2012.

Box 6.1 The Incidents at Sea Agreement

Since 1990, Norway and Russia have held regular consultations based on the bilateral Incidents at Sea Agreement. The purpose of this agreement is to prevent dangerous situations from arising when Norwegian and Russian naval vessels and military aircraft are operating in the immediate vicinity of one another. The agree-

ment applies outside territorial waters, and sets out prohibitions, requirements and communication procedures for vessels and aircraft. Both countries consider the agreement to be an important tool for preventing incidents from arising and for resolving shared challenges.

Box 6.2 The Pomor exercises

In June 2010, Norway and Russia carried out a joint maritime exercise, called the Pomor exercise, in an area extending from Bergen to the Russian port of Severomorsk. A second Pomor exercise was carried out in the period 9–17 May 2011, starting in Severomorsk and ending in Tromsø. These exercises have focused on common challenges and solutions relating to collaboration on maritime security operations. They include a range of operations, from navigation and communication procedures to shooting,

boarding operations and air defence cooperation. Several branches of the armed forces are involved. The name Pomor is used in reference to the Pomor trade, the close trade relations between northwestern Russia and northern Norway from 1740 until the Russian revolution. The motto for the Pomor exercise in 2011 was “friendship – cooperation – security”. The Pomor exercises are an important step in further development of cooperation between Norway and Russia.



Figure 6.3 Norwegian Coast Guard vessels Sortland and Barentshav meet a Russian destroyer at 72°N 14°E in the Barents Sea.

Photo: Norwegian Armed Forces Media Centre / Fredrick Hoffeker / Norwegian Coast Guard

7 Cooperation in the High North



Figure 7.1 Norwegian border guards demonstrate equipment for their Russian counterparts.

Photo: Barentsphoto

Cooperation in the High North takes place both at the bilateral level and through regional and local authorities and organisations. Norway's bilateral cooperation with Russia is in a class of its own.

The counties in North Norway have long played an active role in the international arena, developing ties with Russian, Nordic and European partners. Norway's northern counties first established links with partners in Russia towards the end of the Cold War. As early as 1987, Nordland county established cooperation with what was then Leningrad oblast. Finnmark county signed its first cooperation agreement with Murmansk oblast in 1988. Thus the counties' international engagement served as an example for what was later to become the Barents cooperation.

The cross-border cooperation that has been developed in the High North between regions in Norway, Sweden, Finland and Russia is unique. Since the first Barents cooperation structures were established in 1993, the region has developed into one of the most dynamic regions for cross-border cooperation in Europe. Nordland, Troms and Finnmark counties, as well as a number of municipalities, towns and villages, have signed cooperation agreements and friendship agreements with partners in neighbouring countries. Cooperation agreements have also been signed at county governor level. Over the past 20 years this cooperation has linked countries, regions and peoples together in an exceptional way. The Barents region is considered one of the five most promising areas in the world for busi-

ness activities¹, and there are strong indications that investments in the region's business sector and infrastructure will increase substantially in the years to come.

A wide range of cooperation projects have led to the establishment of good people-to-people relations, which in turn have laid the foundation for intergovernmental relations on an even broader scale. The regional cooperation is based in the north and is driven by regional and local actors. In order to realise the goals of its High North policy, the Government attaches great importance to close cooperation with counties, municipalities and other relevant actors in North Norway. The Sami Parliament (Sámediggi) and the Sami Parliamentary Council play a key role in efforts to promote cross-border cooperation and cultural exchange between indigenous peoples in the High North.

For Norway, the Barents cooperation and the Arctic Council are the most important arenas for promoting Norwegian policy in the High North. The Northern Dimension and Nordic cooperation under the Nordic Council and the Nordic Council of Ministers are also key forums. Regional actors and arenas play a crucial role in the realisation of Norway's High North policy.

7.1 Russia

Of the five coastal states bordering the Arctic Ocean, Russia has the longest Arctic Ocean coastline. Russia's northern areas have a sizeable population (cf. table 3.1), high levels of economic activity and abundant natural resources, both renewable and non-renewable. Russia is a constructive player in the High North and appears to take the view that its interests are best served by keeping tensions low and promoting cooperation.

Strengthening Norway's relations with Russia is one of the main pillars of the Government's High North policy. Developing contacts and cooperation across the border has a clear security dimension. Defence cooperation plays an important role both in terms of building trust and when it comes to the establishment of joint emergency preparedness and response systems in the face of new threats and potential crises. Cooperation with Russia in areas such as natural resource management, new transport routes, the environment, health and quality of life will also be vital if we are to be able to take full advantage of the opportuni-

ties that exist in the region and achieve sustainable growth and development.

Bilateral relations between Norway and Russia are good, and have been improving steadily in recent years. This cooperation is in continuous development and the network of contacts has grown. On the whole, relations between the two countries are based on a mutual willingness to engage in constructive dialogue. Both countries endeavour to take a pragmatic approach to solving conflicts of interest and problems, which arise from time to time in different areas of cooperation. Important areas, such as fisheries, trade and economic affairs, the environment and nuclear safety, are coordinated by bilateral government commissions. The commissions serve as important arenas for discussing and resolving challenges and for strengthening efforts in these areas.

The bilateral cooperation is based on a sound legal framework, and the body of agreements is growing. In 2010, five government-level agreements were signed. In addition to the treaty on maritime delimitation and cooperation in the Barents Sea and the Arctic Ocean (see Chapter 5.3), two agreements were signed on judicial cooperation, one on educational cooperation and one on the implementation of a local border traffic regime.

Norway and Russia have enjoyed a thousand years of peaceful coexistence. Relations between the two countries have been based on understanding and respect, mutual assistance and a pragmatic approach to solving problems. However, Norway's relations with Russia will never be completely straightforward. Russia is a major power and for this reason the relationship between the two neighbouring countries is asymmetrical. The divide in values continues to be a challenge. There is a long way to go before Russia is a fully democratic society in which human rights are respected. For Norwegian companies the greatest obstacle to a further expansion of cooperation is the lack of protection for investments. A bureaucratic culture, corruption and unpredictable law enforcement create problems in areas such as company registration, the purchase of property, and customs and visas.

One of Norway's objectives is to ensure that its policy is consistent, clear and predictable. This is the best way we have of defending our interests. In the long term the aim is for our relations with Russia to be like our relations with our other neighbouring countries in the High North, characterised by unhindered contact at all levels and in all areas of society. All the practical steps Nor-

¹ Monocle, December 2010

way and Russia have taken together, and that they will take in the years to come, are significant in terms of achieving this goal. This also applies to cooperation with Russia at the international level.

The Government is seeking to improve the framework for cooperation with Russia in the High North. On Norway's initiative, a joint declaration on enhanced Norwegian-Russian cross-border cooperation has been negotiated, which was signed by the countries' foreign ministers in Oslo on 2 November 2010. The declaration has been followed up by the development of a work plan outlining concrete measures. Establishing a good framework for areas such as visas and border procedures, work permits and customs is essential for the further development of cross-border cooperation. Efforts to follow up the declaration therefore focus on these key areas, as well as on closer cooperation in the areas of education and research, indigenous peoples, tourism and agriculture. A separate action plan has been drawn up for cultural cooperation in the High North.

Economic cooperation with Russia is showing a positive trend, but there remains considerable potential for growth in this area. Following a decline in trade between Norway and Russia in 2009 – primarily as a result of the international financial crisis – bilateral trade increased in 2010. The Government is currently preparing a targeted strategy for business cooperation with Russia. This work is being carried out by the Ministry of Trade and Industry in close cooperation with other ministries that have business interests in Russia.

A declaration on partnership for modernisation was signed by Norway and Russia on 28 February 2011. Creating a predictable business climate and ensuring protection for investments are among the main goals of the economic cooperation between the Norwegian and Russian authorities. Some 70 Norwegian companies from a wide range of branches are currently operating in the Russian market. Around 40 of these are located in Murmansk. Business development in the High North is a key component of the Government's High North efforts. Closer cooperation with Russia, which is the most important foreign market for many companies in North Norway, is therefore essential.

Norway's cooperation with Russia in the fisheries sector provides a basis for a thriving fisheries industry and viable coastal communities in the north and illustrates how crucial it is to establish stable, bilateral management regimes and cooperation based on trust with neighbouring Russia.

The Joint Norwegian-Russian Fisheries Commission is one of the most established forums for cooperation we have with Russia. From an international perspective Norwegian-Russian fisheries cooperation is unique and extremely successful. See also the fact box on Norwegian-Russian fisheries cooperation in Chapter 11.1.

Current visa requirements are perhaps the greatest practical obstacle to cooperation between Norway and Russia. A special scheme that allows Russian citizens resident in Murmansk and Arkhangelsk to apply for multiple-entry visas without first obtaining an invitation, the Pomor visa, was introduced in 2008. This has made it much easier for people living in these areas to travel to Norway. Some two thirds of all the visas issued at the Norwegian Consulate General in Murmansk are now Pomor visas.

The Government's long-term aim is the establishment of a visa-free regime with Russia. Working towards this aim, the Government is seeking to gradually ease visa procedures for Russian citizens.

As a Schengen member state, Norway must adhere to the Schengen states' common visa policy. The EU has now developed a roadmap whose long-term aim is the establishment of a visa-free regime between the EU and Russia. As a step towards this, the EU is currently working on renegotiating the existing visa facilitation agreement between the EU and Russia. The Norwegian Government supports these efforts.

During the current parliamentary period, the Government will review the visa application process with a view to further easing visa procedures for Russian citizens within the framework of the Schengen cooperation, pending the introduction of a completely visa-free regime with Russia.

The agreement on the implementation of a local border traffic regime, which was signed on 2 November 2010, is an important step in the process towards facilitating local border traffic. Norway is the first of the Schengen countries to sign an agreement of this kind with Russia. The agreement will allow visa-free border crossing for permanent residents who live within 30 kilometres of the state border in both Norway and Russia, and is expected to enter into force during the course of spring 2012. The introduction of local border traffic permits is expected to lead to an increase in local traffic over the border in both directions.

The issue of work permits also poses a challenge for companies that would like to be able to make use of labour from the other side of the border when the need arises. In 2009 Norway intro-

Box 7.1 Norwegian-Russian economic cooperation

Economic cooperation between Norway and Russia is strong and has been gradually developing since the collapse of the Soviet Union. The most important forum for cooperation is the Norwegian-Russian Governmental Commission on Economic, Industrial and Scientific-Technical Cooperation headed by the Norwegian Minister of Trade and Industry and the Russian Deputy Prime Minister. Cross-border cooperation is one of the commission's highest priorities.

In 2010, trade between Norway and Russia amounted to approximately NOK 17 billion, only 1.37 % of Norway's foreign trade. Nevertheless, Russia is an important market for Norway, in particular for Norwegian seafood, and is one of the Government's priorities in free trade negotiations. EFTA began free trade negotiations with the Russia, Kazakhstan and Belarus customs union in January 2011. Russia is one of our largest export markets for fish and seafood, as is France.

Since the financial crisis, the Russian authorities have seen a need to modernise and diversify the economy in order to avoid political and economic marginalisation. In February 2011, Norway and Russia signed a declaration on partnership for modernisation. For Norway the most important tasks of a partnership of this kind are to promote investment and the establishment of new businesses in Russia and to ensure the active engagement of the private sector. These will be important elements of the strategy for business cooperation with Russia, which is currently being drawn up.

Some 70 Norwegian companies are active in Russia, representing a wide range of industries. The largest companies have established themselves in Moscow, but a number of small and medium-sized enterprises are also active in St Petersburg, Murmansk and Kaliningrad. Some 40 companies currently operate in Murmansk.

This business cooperation in the north also serves to raise Norway's profile in Moscow. Cooperation with Russia is crucial for North Norway, and Russia is the most important foreign market for many companies in North Norway.

In recent years it has been primarily small and medium-sized enterprises that have established themselves in northwestern Russia. Several of these are companies that specialise in providing supplies and services to the petroleum sector. Petroleum development on the Russian continental shelf offers substantial opportunities both to companies in North Norway and to companies in southern and western Norway whose activities are directly or indirectly linked to the petroleum industry. Other relevant branches of industry in this context are banking, the property industry, the hotel industry, consultancy services and the fisheries industry. There is also great potential for cooperation in the areas of transport and logistics. From time to time the Norwegian authorities receive reports from Norwegian companies and investors operating in the Russian market of difficult conditions and a lack of predictability, for example in connection with work permits, border procedures and the rule of law. The Norwegian authorities are working actively on several different fronts to improve the framework for doing business in Russia, and the challenges facing companies operating in the Russian market are discussed at bilateral meetings with our Russian partners.

Cooperation between Norway and Russia on maritime safety is also organised under the government commission for economic cooperation. In addition, cooperation on radio navigation has been initiated under this commission, and in 2010 an agreement was signed on linking the two countries' ground-based radio navigation systems in the High North.

duced a scheme whereby unskilled workers from the Russian part of the Barents region may be issued with two-year work permits for employment in North Norway. In addition, work permit rules for all foreign skilled workers have been eased. In Russia, complicated and time-consuming procedures for work permits have long caused

problems for Norwegian-owned companies. In July 2010 Russia introduced simplified work permit procedures for skilled labour from abroad, which has improved the situation for Norwegian companies as well. The Government will work actively to improve the framework conditions for



Figure 7.2 Geographical scope of the Norwegian-Russian agreement on local border traffic.

labour mobility across the Norwegian-Russian border.

The number of border crossings over the Norwegian-Russian border at Storskog has risen steadily in recent years. This is a positive development that illustrates the increasingly wide-ranging and diverse ties between Norway and Russia in the north. Whereas in the 1980s there were only a few thousand border crossings per year, in 2010, 140 855 people and 43 642 vehicles crossed the border. Cross-border traffic was 39 % higher in October 2011 than in the same period the previous year. Russian citizens visiting Norway for the

purposes of tourism, trade, work or family visits account for most of the traffic. The number of border crossings is expected to rise significantly in the years to come, largely as a result of the simplified visa procedures for Russian citizens in north-western Russia (the Pomor visa).

A rise in traffic of this kind will place increasing pressure on the infrastructure on both the Norwegian and the Russian sides of the border. As a result of the sharp increase in the number of border crossings in recent years, capacity at the Storskog border station is now too small. The planned introduction of the local border traffic

Box 7.2 Norwegian-Russian agreement on local border traffic

The agreement between Norway and Russia on facilitation of mutual travel for border residents was signed by Foreign Ministers Jonas Gahr Støre and Sergei Lavrov in Oslo on 2 November 2010.

The agreement establishes the following:

- Border residents who have been legally resident in the border area for at least the three previous years may be issued with a local border traffic permit valid for up to three years.
- The border area is defined as:
 - Norway: That part of Sør-Varanger municipality that lies within 30 km of the state border.
 - Russia: The area within 30 km of the state border, including Nikel and Pechenga, as well as the whole of Zapolyarny district and Korzunovo.

- Holders of local border traffic permits may stay in the neighbouring state's border area for up to 15 days at a time without a visa. There is no limit on the total length of stay in the other state's border area within the period of validity of a border traffic permit.
- The local border traffic permit does not in itself grant the right to work in the neighbouring state's border area.
- The Norwegian Consulate General in Murmansk will issue local border traffic permits to residents of the Russian border area. The Russian Consulate General in Kirkenes will issue local border traffic permits to residents of the Norwegian border area.
- The agreement will enter into force when the necessary procedures have been completed in Norway and Russia, probably in spring 2012.

permit in 2012 is expected to further exacerbate this situation. The Government therefore decided in autumn 2011 to implement immediate measures to improve the flow of traffic in the short term. These include increasing border control capacity for incoming and outgoing traffic. The

Government has also proposed increasing the number of staff at Storskog in 2012.

The Government intends to build a new border station at Storskog. A pilot project is currently being developed by the Directorate of Public Construction and Property (Statsbygg). More infor-



Figure 7.3 Storskog border station. Cars and buses at the border crossing point.

Photo: Aftenposten / Ole Magnus Rapp

Box 7.3 Energy dialogue between Norway and Russia

The energy dialogue between Norway and Russia began on 1 July 1992 with the signing of a memorandum on cooperation by the two countries' energy ministers. Since the turn of the millennium the energy dialogue has been strengthened and its scope expanded. Norway's efforts in this area are headed by the Ministry of Petroleum and Energy. The Russian dialogue partners are the Ministry of Energy and the Ministry of Natural Resources and Environment.

The aim of the dialogue is to strengthen and further develop energy policy cooperation between the two countries and to promote the interests of Norwegian oil companies and the Norwegian supply industry in Russia.

Energy efficiency is a key element of Norway's energy and climate policy and a priority area in the Government's efforts to reduce greenhouse gas emissions and improve the security of energy supply. In 2008 Russia indicated its desire to strengthen cooperation on energy efficiency and renewable energy, and during President Medvedev's visit to Norway in 2010 a bilateral memorandum of understanding on cooperation on energy efficiency and renewable energy sources was signed. This agreement is being followed up as part of the energy dialogue between the two countries.

Through the Barents 2020 programme, the Ministry of Foreign Affairs is providing funding for an energy efficiency project designed to pro-

mote cooperation with Russian companies and the Russian authorities in the field of technology for the measurement, monitoring, verification and reporting of emissions of various gases and particulate matter from petroleum production. The Norwegian partners are Carbon Limits, the Fridtjof Nansen Institute and the Norwegian Petroleum Directorate. Work carried out under the project will be incorporated into the energy dialogue between Norway and Russia.

The entry into force of the treaty on maritime delimitation between Norway and Russia on 7 July 2011 marks a new chapter in the energy dialogue. The agreement includes provisions relating to the unitisation of transboundary oil and gas deposits – i.e. it establishes that transboundary deposits are to be exploited as a unit. A new declaration renewing commitment to the energy dialogue was signed by the Norwegian Ministry of Petroleum and Energy and the Ministry of Natural Resources and Environment of the Russian Federation on 21 June 2011. This provides a good basis for strengthening the cooperation between the two countries in this area. A group of experts is to be established within the framework of the energy dialogue to ensure that both parties have a thorough understanding of the issues connected with any joint petroleum activities in the Barents Sea, that are made possible by the maritime delimitation treaty.

mation about the timing of this will be provided at a later stage.

An agreement on cooperation at the Storskog-Borisoglebsk border crossing point was signed in Oslo on 28 February 2011. Under the agreement the Russian border station is to be granted international status, which will allow it to clear all types of goods through customs and extend the opening hours at the border. The Government also considers it important to facilitate the export of seafood over the Norwegian-Russian land border.

Environmental protection has long been one of the pillars of bilateral Norwegian-Russian cooperation. Dynamic environmental cooperation also takes place at the regional level under the Arctic Council and the Barents Euro-Arctic Council. Cooperation aimed at finding solutions to com-

mon challenges has led to the establishment of a broad network and good working relations between a large number of institutions and official bodies in Norway and Russia. In this way, environmental cooperation has served as a springboard for cooperation in other areas.

Russia is fully committed to the environmental cooperation efforts, and there is particularly active cooperation on the protection of the marine environment. It is in this area that Norway and Russia have the most obvious shared interests and face the greatest common environmental challenges. The two countries are also engaged in close cross-border cooperation focusing on areas of valuable natural habitat and common problems arising from pollution caused by nickel production on the Russian side of the border. Following Presi-

Box 7.4 Norwegian-Russian environmental cooperation

Over the past 20 years environmental cooperation has become one of the most concrete and successful areas of cooperation between Norway and Russia. It includes protection of the marine environment, management of biodiversity, nature conservation and environmental monitoring in the border areas, the protection of the cultural heritage, the reduction of pollution, and work on radioactive pollution and climate change in the Barents region. Bilateral cooperation efforts are closely linked to regional cooperation under the Arctic Council and the Barents cooperation.

Cooperation on the marine environment, which is the most important element of environmental cooperation between Norway and Russia, focuses on the development of the necessary knowledge base and an integrated and as far as possible joint approach to sound management of the Barents Sea. A milestone was reached in December 2009 when a joint Norwegian–Russian environmental status report for the Barents Sea ecosystem was published. The report will be followed up by the establishment of a joint environmental monitoring programme for the whole of the Barents Sea and by the development of a concept for an integrated management plan for the Russian part of the Barents Sea. This will be of vital importance in connection with increasing commercial activity in the High North, particularly in the oil and gas industry, fisheries and maritime transport. The joint environmental monitoring programme and the integrated management plan will create a framework for discussions on expanding Norwegian-Russian offshore and business cooperation.

Cooperation on biodiversity focuses on reducing losses of biological diversity, counteracting fragmentation of wildlife habitats and promoting climate-resilient management. The establishment of a representative network of protected areas in the Barents region will be a major project in the time ahead. Another important cooperation area is the protection of the large coniferous forests in the Barents region, as northern Europe's last remaining virgin forests are to be found in this area. Other collaborative projects include conservation of mires and wetlands, protection and management of threatened species such as the lesser white-fronted goose, the polar bear and the walrus, and the development of sustainable tourism in the Arctic.

Cross-border environmental cooperation focuses on the unique natural environment in the border areas between Russia and Norway and encompasses cooperation on conservation of biodiversity, management of protected areas, and protection of joint populations and water resour-

ces. Pollution from the Pechenganickel Mining and Metallurgical Combine, which has caused substantial damage to forests, acidification of lakes, rivers and soil, and the accumulation of heavy metals in lichen and moss, is also monitored and studied. Reducing emissions of sulphur and heavy metals from the Pechenganickel plant to a level that causes neither injury to health nor environmental damage remains the major, unresolved issue in Norway's environmental cooperation with Russia. Sulphur emissions from the plant are currently approximately five times Norway's total emissions.

Cooperation on *pollution reduction* focuses on sharing experience in the areas of control, monitoring and prevention of pollution as well as the implementation of selected measures, in particular in relation to the management of persistent, bioaccumulative and toxic substances. The promotion of more resource-efficient practices in the business and municipal services sectors is an important goal. The largest and most prolonged initiative to have been carried out in this area is the programme for *cleaner production*, in which close to 2 000 Russian engineers have received training in environmentally-friendly and resource-efficient methods of production. In the future, cleaner production will be crucial for eliminating pollution "hot spots" in the Barents region, and will also be important for the modernisation of Russian industry.

Cooperation in the area of *cultural heritage conservation* has been ongoing since 1995. A cultural heritage initiative carried out in connection with the Kenozero National Park in Arkhangelsk oblast was particularly successful. This focused initially on the restoration of log buildings, but was later expanded in scope to encompass sustainable industrial development. In 2009, another successful project was implemented; Russian craftsmen were involved in the restoration of buildings in the fishing village of Hamningberg in Finnmark. The buildings had originally been constructed by Russian settlers (Pomors) in the 19th century.

Cooperation on climate issues, which began in 2011, will focus on knowledge-building, climate change adaptation and selected measures to limit greenhouse gas emissions. Climate issues are relevant for all the various areas encompassed by Norwegian-Russian environmental cooperation. Bilateral cooperation on climate issues will be organised in such a way that it complements cooperation on climate change under the Barents Euro-Arctic Council and the Arctic Council.

Cooperation on surveys of radioactive pollution: See box on nuclear cooperation.

Box 7.5 Cooperation with Russia on nuclear safety and nuclear preparedness

Cooperation on nuclear safety is an important component of Norway's cooperation with Russia. It is also crucial for safeguarding health and the environment in Norway. It is an example of the pragmatic, constructive and targeted cooperation that characterises our relations with Russia. The Government presented a review of cooperation with Russia on nuclear safety and nuclear preparedness in the white paper *Cooperation with Russia on nuclear activities and environmental protection in the High North* (Report No. 11 (2009–2010) to the Storting).

Cooperation in this area has helped to reduce the risk of nuclear accidents and radioactive pollution in our neighbouring areas. It has also contributed to making the world safer and is an important component of international efforts to secure radioactive materials and prevent their use in acts of terrorism. These efforts include the nuclear security summits organised at the initiative of US President Barack Obama.

The cooperation has delivered measurable and significant results as a result of both bilateral and multilateral activities and efforts. Norway has contributed to projects to dismantle five decommissioned nuclear submarines and to bring spent nuclear fuel under government control. All of the 180 radioactive power sources for lighthouses in northwestern Russia have been removed and replaced by solar panels. Efforts in this area are being continued in the Russian part of the Baltic Sea with the removal of 71 radioactive power sources from lighthouses. Sweden and Finland are participating in this work. In the Baltic Sea, too, all of the radioactive power sources in the lighthouses have now been removed and work is underway to install solar panels. In addition, Norway has provided a significant amount of safety training and safety equipment at the Kola and Leningrad nuclear power plants, which has led to a decrease in the number of irregularities reported.

Cooperation between Norwegian and Russian inspection and administrative authorities has been expanded, and there is now greater openness about outstanding problems. Norway is taking part in efforts to facilitate the removal of spent nuclear fuel in Andreyev Bay, a disused naval base about 60 km from the Norwegian-Russian border. This work, which aims to reduce the risk of radioactive pollution from the former naval base, will be one of the main priorities in the years to come. Norway's efforts also encom-

pass training and information activities in the nuclear power sector and broad-based cooperation between national authorities in the areas of inspection and enforcement, emergency preparedness and response and environmental monitoring, including joint expeditions in the Barents and Kara Seas.

Nuclear energy use must be based on the highest safety standards. The Norwegian authorities will continue to cooperate with Russia in areas related to safety and emergency preparedness, as well as on joint exercises. Safety at the Kola and Leningrad nuclear power plants is monitored closely by Norway.

Norway's position regarding the Kola nuclear power plant is clear – safety standards at the oldest reactors are not satisfactory, and they should therefore be closed. This is an issue that the Norwegian authorities raise at regular intervals with the Russian authorities. Norway has provided funding for safety measures at the Kola nuclear power plant but these measures are not intended to extend the reactors' lifetime. They include training in safety and emergency preparedness and measures to reduce the risk of accidents and the consequences should an accident occur. The number of incidents reported at the Kola nuclear power plant, classified according to the International Nuclear Event Scale, decreased from 41 in 1993 to 2 in 2009.

Securing broad international commitment to resolving the challenges in northwestern Russia has been one of the Norwegian Government's key goals. Many countries are now involved in this work, and effective coordination and cooperation arrangements have been established. Norway takes part in multilateral efforts in northwestern Russia through the Northern Dimension Environmental Partnership (NDEP) Support Fund. To date, Norway has contributed EUR 10 million. In addition, Norway participates in efforts carried out under the G8 Global Partnership against the Spread of Weapons and Materials of Mass Destruction. Over a period of ten years Norway has contributed EUR 100 million.

It is in Norway's interests that the international involvement continues for as long as there remain unresolved problems in our neighbouring areas. However, Russia itself bears the main responsibility for dealing with these issues, and we expect Russia to continue to make concerted efforts to this end.



Figure 7.4 Thorvald Stoltenberg was awarded an honorary doctorate by the Northern (Arctic) Federal University in Arkhangelsk in 2011.

Photo: Andrey Shalyov / BarentsObserver.com

dent Medvedev's visit to Norway in 2010, agreement was reached that emissions from the Pechenganickel Mining & Metallurgical Combine are to be reduced to a level that does not cause harm to health or the environment in the border area. It has been decided to set up a working group to monitor the progress being made in this area, so as to ensure that the authorities in both countries have access to information about the modernisation efforts and to ensure that pressure to achieve a satisfactory solution is maintained.

A number of Norwegian universities and university colleges have developed close cooperation with Russian institutions. In the time ahead, the

Government will make a special effort to promote research and education relevant for the development of cooperation between knowledge institutions in North Norway and Russian institutions. In 2010 the Norwegian Ministry of Education and Research and the Russian Ministry of Education and Science signed an MoU on cooperation in the field of higher education, and the Norwegian Meteorological Institute and Ministry of Natural Resources and Environment of the Russian Federation signed an agreement on cooperation in the field of hydrometeorology. Norway and Russia are also conducting negotiations on a bilateral research and technology agreement.

Table 7.1 Figures showing the increase in the number of student exchanges between Norway and Russia

	2003	2004	2005	2006	2007	2008	2009	2010
Norwegian exchange students in Russia	149	96	162	137	125	145	166	199
Russian citizens registered as students at Norwegian institutions	390	462	526	648	633	692	980	1 175

The traditional livelihoods of indigenous peoples often come under pressure when the pace of industrial development in a region is accelerated. Norway and Russia have therefore agreed to support indigenous peoples by considering the possibility of developing guidelines and standard agreements governing contact between industry and indigenous peoples' traditional livelihoods in the north. Cooperation between indigenous groups in the Barents region will make it easier to preserve indigenous traditions, for example when they come into contact with potential growth industries such as the mineral industry.

Norway's cooperation with Russia in the field of health and social services will continue to be linked to the Barents Cooperation Programme on Health and Related Social Issues (see fact box on the Barents cooperation, Chapter 7.3) and the Northern Dimension Partnership in Public Health and Social Well-being (see fact box on the Northern Dimension, Chapter 7.4). The Government will work actively to further develop Norway's bilateral cooperation with Russia, with an emphasis on reciprocity.

The University of Tromsø, the University Hospital of North Norway, and the Northern Norway Regional Health Authority have cooperated with the Northern State Medical University in Arkhangelsk, the health authorities in Arkhangelsk, the St Petersburg State Medical Academy and the regional health authorities in Murmansk to develop a masters degree programme in the field of public health. The possibility of offering a similar educational programme at PhD level is being considered as a next step.

7.2 The Arctic Council

The Arctic Council is the only government-level, circumpolar body for political cooperation. In recent years the Council's international influence and importance has grown considerably. The Arctic Council provides a forum for discussion between the Arctic states and representatives of indigenous peoples on issues of common interest. In this respect the Arctic Council is unique. There are currently several international arenas in which issues related to the Arctic region are discussed. Only the Arctic Council, however, brings together all the Arctic states and representatives of the indigenous peoples. In addition, the scientific work of the Arctic Council has been strengthened considerably over the years. The Arctic Council has presented reports, for example on climate



Figure 7.5 The logo of the Arctic Council.

change and mercury in the Arctic, that have provided important input to international work on climate-related issues and efforts to develop a global legally binding instrument on mercury². Norwegian policy on the Arctic is developed primarily within the framework of the Arctic Council.

There are two particularly important challenges in the Arctic. The first of these is to address and mitigate global climate change. Efforts to reduce emissions of harmful greenhouse gases, an issue that affects the entire world, are dealt with in established multilateral negotiating processes.

The second key challenge is to find ways of managing the impacts of climate change. As a result of warmer temperatures in the Arctic the extent of the sea ice will be reduced for parts of the year. This will open up new opportunities for commercial activities such as shipping and oil and gas production. These activities will be carried out in a vulnerable environment. Any development will be accompanied by a need to find the right balance between exploiting the new opportunities, environmental considerations and how to maintain the natural resource base on which the livelihoods of the indigenous peoples depend. Thus, we need to adapt to the climate change that is already taking place, in a sustainable manner, while at the same time reducing greenhouse gas emissions. These issues are given high priority by the Arctic Council.

Arctic cooperation was established following the end of the Cold War. Its development can be divided into three phases. During the first decade, the cooperation focused on the prevention of pollution in the High North. Despite the fact that the Arctic is a long way from major industrial areas, there were found to be unacceptably high levels of several persistent organic pollutants (POPs) and heavy metals, which are transported by air and ocean currents from areas further south. This remains a significant problem.

² An overview of Arctic Council activities and reports may be found on its website, www.arctic-council.org



Figure 7.6 Arctic Council Ministerial Meeting in Nuuk, Greenland, 12 May 2011.

Photo: Marte Kopstad / Ministry of Foreign Affairs

The second decade of Arctic cooperation was dominated by the issue of climate change. Comprehensive studies carried out under the auspices of the Arctic Council determined that the changes being observed in the Arctic are the first signs of changes that will affect the rest of the world. It is therefore essential to reduce greenhouse gas emissions so that we can achieve the goal of limiting the rise in global temperature to 2°C. It is estimated that up to 40 % of the warming in the Arctic may come from short-lived drivers of climate change. Whereas CO₂ has an atmospheric lifetime of several hundred years, combustion-generated black carbon (soot) and gases such as methane and ground-level ozone persist for much shorter periods, from ten years to just a few days. Measures to limit emissions of short-lived greenhouse gases will therefore give rapid results. Smaller emissions far north have a greater impact on the climate in the Arctic than high emissions further south. Norway will therefore seek cooperation on measures to reduce emissions caused by fuelwood use and the flaring of gas during oil production. The Arctic Council is also giving high priority to measures to limit emissions of short-lived drivers of climate change.

The third decade of Arctic cooperation will in all likelihood focus on climate change adaptation, not least managing the increase in activity in the area that will be made possible by the reduction in the extent of the sea ice, for example shipping

along northern sea routes and oil and gas activities resulting from greater access to oil and gas resources. The harsh climate and vulnerable environment mean that strict health, environment and safety measures will be essential. This topic will remain high on the Arctic Council's agenda.

Norway plays an active role in efforts to strengthen the Arctic Council. This work focuses on three main areas:

New permanent observers

For many years the Arctic Council remained relatively anonymous, shielded from outside attention. This has changed dramatically over the past two-three years. Several non-Arctic actors have developed their own ambitions in the Arctic and are seeking to influence developments in the region. China, Italy, South Korea, the European Commission and Japan have all applied for permanent observer status in the Arctic Council. The issue of observer status has long been the subject of discussions in the Arctic Council. Norway supports the admission of new permanent observers that have legitimate interests related to the work of the Arctic Council and that meet the established criteria. The participation of a wider range of actors will enhance the quality of discussions under the Arctic Council. New criteria for the admission of permanent observers were established at the Ministerial Meeting in Nuuk in May

2011. These criteria include requirements that observers must:

- recognise the sovereign rights of Arctic states;
- recognise that the Law of the Sea and the UN Convention on the Law of the Sea constitute the legal basis and the legal framework within which the Arctic must be understood;
- respect indigenous peoples, local cultures and traditions;
- be able to contribute to the work of the Arctic Council.

Permanent secretariat

Norway took the first step towards the creation of a permanent Arctic Council secretariat with the establishment of a temporary secretariat in Tromsø during the Norwegian-Danish-Swedish chairmanship period 2006–13. At the Ministerial Meeting in Nuuk, it was decided to establish a permanent secretariat in Tromsø. Norway is working to ensure that the permanent secretariat is in place during the Swedish chairmanship period, by the end of 2013. The secretariat will be responsible for providing support to the chairmanship, organising and holding meetings of the Arctic Council, ensuring necessary translation (English-Russian), and carrying out information activities. The secretariat will have an initial staff of ten. This means that the Arctic Council will have a permanent secretariat on a par with other international bodies of the same size and importance. The secretariat will strengthen the work of the Arctic Council and consolidate Tromsø's position as a centre for Arctic issues, both in Norway and internationally.

Dealing with specific issues

The Arctic Council works on the basis of consensus. It is particularly well placed to identify concrete challenges posed by climate change and opportunities opening up for increased human activity in the Arctic. The Government will work actively to ensure that the Arctic Council is able to meet any such challenges so that the new opportunities can be exploited in a sustainable manner. In some cases this will mean that Council members become involved in processes in other forums, such as the International Maritime Organization (IMO), which is developing a mandatory international code of safety for ships operating in polar waters (the Polar Code). In others it will be more appropriate for members of the Arctic Council to negotiate binding agreements between themselves.

The Arctic Search and Rescue Agreement (Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic), which was signed at the May 2011 Ministerial Meeting in Nuuk is the first legally binding agreement to be negotiated under the auspices of the Arctic Council.

The agreement establishes legally binding search and rescue cooperation, including better regional organisation of search and rescue services in the Arctic. Strengthened search and rescue cooperation is crucial in ensuring the optimal use of resources so that rescue operations can be conducted as swiftly as possible. The agreement also sets out a more appropriate delimitation of the search and rescue regions of each of the parties in the Arctic, and establishes national contact points and cooperation mechanisms.

Box 7.6 The Arctic Council

- Established in Ottawa in 1996.
- Member States: Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the US.
- Permanent Participants (indigenous peoples' organisations): Aleut International Association (AIA), Arctic Athabaskan Council (AAC), Gwich'in Council International (GCI), Inuit Circumpolar Council (ICC), Russian Association of Indigenous Peoples of the North, Siberia and Far East (RAIPON) and the Saami Council.
- Permanent Observers: France, Germany, the Netherlands, Poland, Spain, the UK, as well as a number of non-governmental and intergovernmental organisations including the Nordic Council of Ministers.
- Applicants for permanent observer status: China, Italy, Japan, South Korea and the European Commission.
- Political meetings: ministerial meeting held every other year, deputy ministers' meetings held every other year.
- Rotating two-year chairmanship – Norway's most recent chairmanship 2006–09. Denmark 2009–11. Sweden since 2011, to be succeeded by Canada and then the US.
- The Arctic Council Secretariat is based in Tromsø.

Box 7.7 Arctic Council Working Groups

- In the periods between the ministerial meetings the work of the Arctic Council is led by senior officials and activities are organised under six working groups:
- 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 Arctic Search and Rescue Agreement is a clear illustration of how the Arctic Council has developed since the beginning of the Norwegian chairmanship period in 2007. During this period the Arctic Council has changed from a forum purely for debate and discussion into a forum that also initiates negotiations on legally binding agreements between its member states. This has helped to strengthen and consolidate the Arctic Council's position as the most important forum for developing policy to deal with new challenges in the Arctic.

Following the model used in developing the search and rescue agreement, the May 2011 Ministerial Meeting also established a task force to develop an international instrument on Arctic marine oil pollution preparedness and response. The task force is co-chaired by the US, Russia and Norway. In addition, the Arctic Council will consider steps that can be taken to prevent oil spills at sea. Reports on both these issues are due to be presented at the 2013 Ministerial Meeting.

7.3 The Barents Cooperation

Kirkenes was the natural place to choose for the conference of foreign ministers and regional leaders at which the Barents Euro-Arctic Region was established and the new multilateral, regional Barents cooperation was launched in 1993. The Barents cooperation has developed considerably



Figure 7.7 Logo of the Barents Euro-Arctic Region.

and now encompasses a broad range of fields spanning from general security issues to the environment, health and social issues, search and rescue cooperation, business development, indigenous peoples and above all culture, education, and people-to-people contacts.

What makes the Barents cooperation stand out is the combination of intergovernmental and interregional cooperation. The forum for intergovernmental cooperation is the Barents Euro-Arctic Council. Its chairmanship rotates every second year, between Norway, Finland, Russia and Sweden. The primary objective is to support intergovernmental cooperation and development in the Barents region so as to ensure good neighbourly relations between the countries in the region, as well as economic and social development and stability. Interregional cooperation is organised under the Barents Regional Council, which currently brings together 13 regional entities under a rotating chairmanship. Troms county (Norway) held the chairmanship during the period 2009–11 and has now passed the chairmanship to Norrbotten county (Sweden). The Barents Regional Council shares the same goal as the Barents Euro-Arctic Council, but focuses on local structures, local knowledge and local priorities. Both the Barents Euro-Arctic Council and the Barents Regional Council work on the basis of consensus.

Much of the work of the Barents cooperation is carried out under the 16 working groups that cover all the key cooperation areas. These comprise national level working groups under the Barents Euro-Arctic Council, regional working groups under the Barents Regional Council and joint Barents Euro-Arctic Council–Barents Regional Council working groups. Energy efficiency, alternative energy and tourism are new focus areas. Climate change issues are an integral part of the work carried out under the Barents cooperation.

The Barents region is characterised by long distances between economic centres and limited



Figure 7.8 Kirkenes, 11 January 1993. The signing of the Kirkenes Declaration. From the left: Jørgen Orstrøm (Denmark), Andrei Kozyrev (Russia), Paavo Väyrynen (Finland), Thorvald Stoltenberg (Norway), Margaretha af Ugglas (Sweden) and Jon Sigursson (Iceland).

Photo: Heikki Sarviaho / LEHTIKUVA / SCANPIX

search and rescue personnel and equipment. In 2008, Norway, Sweden, Finland and Russia signed an agreement on cooperation in the field of emergency prevention, preparedness and response, with a view to strengthening emergency preparedness and response capabilities in the region. Under the agreement a Joint Committee on Rescue Cooperation was established. One of the aims of the agreement is for the countries involved to be able to provide mutual assistance across national borders in the event of emergencies or accidents. The region's cold climate makes it crucial that assistance can be provided rapidly when such situations arise. There may be situations where the rescue services in a neighbouring country are closest, and where assistance can be provided more rapidly by one of the other parties to the agreement. Joint search and rescue exercises are an important tool for ensuring that the countries involved are able to provide assistance to each other and for the further development of emergency preparedness and search and rescue cooperation in the region. An international exercise, Barents Rescue, is therefore organised every other year under the auspices of the Barents Euro-Arctic Council. The Joint Committee on Rescue Cooperation uses lessons learned from Barents Rescue to further

develop search and rescue cooperation in the region.

The indigenous dimension is a key component of the Barents cooperation. Representatives of the three indigenous peoples in the region – the Sami, the Nenets and the Vepsian peoples – play an active part in the cooperation. This cooperation focuses on raising awareness of the situation of indigenous peoples in the region, encouraging economic activity based on traditional knowledge and promoting indigenous language and culture.

Kirkenes has consolidated its position as a key centre of the Barents cooperation and occupies a central place in the development of cross-border cooperation between Russia and Norway. The Norwegian Barents Secretariat, the International Barents Secretariat, the Barents Institute and the annual cultural festival Barents Spektakel are all based in Kirkenes, which has made it easier to build a network of contacts and trust between people.

The 2011 budget of the Norwegian Barents Secretariat was NOK 51 million. The Ministry of Foreign Affairs is the largest contributor of funding for projects carried out under the auspices of the Norwegian Barents Secretariat, with a contribution of approximately NOK 36 million in 2011.

Most of the remaining funding comes from the Ministry of Local Government and Regional Development, the Ministry of Children, Equality and Social Inclusion, the Ministry of Health and Care Services and the three counties in North Norway. Approximately NOK 40 million in funding is allocated each year to a wide range of Norwegian-Russian cooperation projects involving a large number of Norwegian, Russian and international actors. The key focus areas are people-to-people cooperation, sport, indigenous peoples, culture, business development, including offshore development and infrastructure, the environment, health, skills development and education. The Secretariat's main task is to provide funding for joint Norwegian-Russian projects, and support to the Norwegian authorities as well as to regional actors and structures. The Secretariat has a broad network of contacts and is an important centre of knowledge in the region.

A number of projects have been carried out and effective cooperation mechanisms have been established, which are being developed on an ongoing basis. The cooperation has been most successful when, as well as involving the central authorities, it has consistently focused on realistic and practical objectives, with local and regional actors playing an active role. In Norway the three counties in North Norway and the Norwegian Barents Secretariat have made an invaluable contribution in this respect.

In the Government's view, projects whose primary objective is the development of contacts and trust across national borders can now be given lower priority in favour of projects that have more direct significance for the improvement of living conditions for the inhabitants of the region. Priority will be given to projects designed to enhance economic ties and growth with a view to strengthening the basis for employment and settlement.

The International Barents Secretariat was established in 2008 to enhance continuity and efficiency in the Barents cooperation. It has developed a high level of expertise and carries out important tasks such as organising meetings and conferences, gathering knowledge, and providing advice and information. It also participates actively in international forums and in joint activities with other regional and international organisations and has thus helped to build support for the work of the Barents Euro-Arctic Council in the member countries.

While it is essential to continue this broad-based cooperation with its focus on people-to-peo-

Box 7.8 Norwegian-Russian cultural cooperation – BarentsKult

Cross-border cultural cooperation is an important component of Norway's High North policy. Established cultural institutions, festivals and amateurs all contribute to the region's diverse cultural scene, and network-building between indigenous groups is a key element. The Ministry of Foreign Affairs and the Ministry of Culture cooperate with the northern counties within the framework of the BarentsKult fund, which provides support for several dozen projects every year. Both ministries are involved in efforts to develop Norwegian-Russian cultural cooperation. The 1994 agreement on cultural cooperation and the declaration of intent signed by the ministers of culture of both countries in 2009 provide the formal basis for these efforts. A cultural forum has been established involving the participation of the Russian Ministry of Culture and the regional authorities. Norwegian-Russian cultural festivals are held annually in one of the countries. The Norwegian Ministry of Foreign Affairs' cultural activities are organised through direct contact with actors in the three northernmost counties of Norway and through Norway's diplomatic and consular missions, primarily those in Murmansk, St Petersburg and Moscow. The aim is to develop and strengthen networks between institutions and private actors and to promote people-to-people cooperation in the fields of culture and the media. The Norwegian-Russian action plan for cultural cooperation in the High North, which was presented in September 2009, highlights the Ministry of Culture's commitment and aims. Efforts in this area take the form of contributions to cultural activities and cultural cooperation in the three northernmost counties, as well as work to strengthen Norwegian-Russian cultural cooperation and cultural cooperation in other international forums relevant to the High North.



Figure 7.9 Part of the installation “Borderlines” by Morten Traavik, displayed during the Barents Spekta-tel festival in Kirkenes in 2011.

Photo: Marius Hauge

ple contacts across a wide range of sectors, it is important to think strategically about the significance of the Barents region and the potential for further development through regional cooperation. The Barents region is seen as increasingly attractive to foreign investors as a result of its rich mineral resources and the growing global demand for minerals. As well as being a potential supplier of raw materials it also possesses considerable industrial and technical expertise. The development of expertise and of necessary infrastructure and logistics will be key focus areas in the future. Such developments could have significant spin-off effects for the population in the region. The same also applies to the increase in maritime transport. The Government considers it important that the Barents cooperation reflects these issues and that development in the region takes place in an environmentally sound way. Further work is required to raise the profile of the Barents region and the Barents cooperation at the international level. The strong regional element of the cooperation must be further developed and strengthened.

During its chairmanship of the Barents Euro-Arctic Council (2009–11), Sweden focused on the development of an eco-efficient economy in the Barents region. Priority was given to climate issues, energy efficiency and renewable energy. Norway and Russia have worked on improving energy use and efficiency at the local level in Murmansk, Arkhangelsk and Karelia. Future efforts are likely to include projects focusing on the exploitation of biomass.

Efforts to eliminate environmental “hot spots” are a key task. These “hot spots” are particularly heavily polluted areas that are complicated and time-consuming to deal with. The Arctic Monitoring and Assessment Programme (AMAP) and the Nordic Environment Finance Corporation have worked together with Russian experts to draw up a list of over 42 environmental “hot spots”. The aim is to launch investment projects in all of these areas by 2013. However, much remains to be done, for example with regard to nuclear waste, emissions from heavy industry on the Kola Peninsula and ensuring clean municipal water supplies in various parts of the Russian Barents region. A

set of criteria specifying what needs to be done to eliminate these environmental problems has now been established, and these efforts are to be intensified. The Nordic Environment Finance Corporation and the Arctic Council will be important partners in further international efforts in this area.

Norway's chairmanship of the Barents Euro-Arctic Council 2011–2013

Norway took over from Sweden as chair of the Barents Euro-Arctic Council in October 2011. The Barents cooperation will celebrate its 20th anniversary in 2013, during Norway's chairmanship. The Government is planning a major celebration both to mark the end of the first 20 years of this unique cooperation and also as an opportunity to adapt and prepare for a new phase of the cooperation. Under Norway's chairmanship, a new Kirkenes declaration is to be developed that reflects the changes that have taken place since

1993 and identifies the main elements of the cooperation in the years to come.

Norway's main aim as chair of the Barents Euro-Arctic Council is to promote the Barents region as a region for innovation and environmentally sound management of resources. In order to achieve this aim the Norwegian chairmanship will concentrate on the following main priorities:

1. Sustainable economic and industrial development in a resource-rich region.
2. Knowledge-based environmentally sound and climate-friendly development.
3. The human dimension.

One of the primary objectives is to further consolidate and develop the already existing broad-based people-to-people cooperation and to continue efforts to reduce obstacles to cooperation and development. Closer integration of the Barents region into European and international cooperation efforts, as well as into global processes that are currently being developed, will be crucial for

Box 7.9 The Barents Cooperation

The Kirkenes Declaration on Cooperation in the Barents Euro-Arctic Region was signed on 11 January 1993.

Members at government level:

Denmark, Finland, Iceland, Norway, Russia, Sweden and the European Commission

Observer states:

Canada, France, Germany, Italy, Japan, the Netherlands, Poland, the UK and the US

Members at regional level:

Finland: Kainuu, Lapland, Oulu
 Norway: Finnmark, Nordland, Troms
 Russia: Arkhangelsk, Karelia, Komi, Murmansk, Nenets
 Sweden: Norrbotten, Västerbotten
 Observers: North Karelia (Finland)
 Indigenous peoples: the Sami, the Nenets, the Vepsians

Governing bodies:

The Barents Euro-Arctic Council: meetings at foreign minister level held every other year to

coincide with the rotation of the chairmanship, approval of overall strategies, amendments and proposals. The Committee of Senior Officials is responsible for the work of the Council between the ministerial meetings and meets at least three times a year.

The Barents Regional Council: approves the most important decisions at regional level and meets twice a year. Between these meetings, practical work is carried out by the Barents Regional Committee, which meets several times a year.

Barents Euro-Arctic Council working groups:

Working Group on Economic Cooperation: seeks to promote economic development in the Barents region through cooperation between the countries involved.

Barents Forest Sector Task Force: seeks to create the necessary conditions for the development of forestry, sound environmental practices and wood-based industries through cooperation as well as the implementation of concrete measures and projects in the forestry sector in the region.

Box 7.9 (Continue)

Working Group on Environment: focuses on cooperation on nature conservation, water issues, cleaner production and sustainable consumption as well as climate issues and efforts to eliminate environmental “hot spots”.

Working Group on Customs Cooperation: focuses on the removal of trade barriers between Russia and other countries of the region.

Working Group on Youth Policy: seeks to enhance cooperation on youth policy in the Barents region.

Barents Euro-Arctic Pan-European Transport Area: seeks to strengthen cooperation in order to create an efficient transport system in the Barents region that integrates different modes of transport.

Joint Committee on Rescue Cooperation: seeks to enhance the potential for the search and rescue services to cooperate on emergency preparedness and search and rescue across county and national/federal borders in the Barents region.

Joint Barents Euro-Arctic Council - Barents Regional Council working groups:

Joint Working Group on Culture: seeks to strengthen cultural identity in the Barents region and increase knowledge of arts and culture both within and outside the region.

Joint Working Group on Health and Related Social Issues: seeks to improve public health and social services for the inhabitants of the Barents region.

Joint Working Group on Energy: seeks to promote the sustainable exploitation, produc-

tion, transmission and use of energy in the Barents region.

Joint Working Group on Tourism: seeks to develop the tourism sector and promote ecologically, socially and culturally sustainable tourism.

Joint Working Group on Education and Research: facilitates exchanges in the field of higher education and research.

Regional working groups:

Regional Working Group on Environment: serves as a consultative body on environmental issues to the Working Group on Environment.

Regional Working Group on Youth Issues: works actively to make the Barents region more attractive to young people.

Regional Working Group on Investments and Economic Cooperation: facilitates dialogue between the authorities and the business sector, assesses business infrastructure for small and medium-sized enterprises in the region and suggests improvements.

Regional Working Group on Transport and Logistics: implements concrete measures and projects for the establishment of a regional transport network.

Working Group of Indigenous Peoples: works to safeguard indigenous peoples’ rights, foundation for trade, society, culture and language. It has an advisory role at both national and regional level and participates at meetings of both the Committee of Senior Officials and the Barents Regional Committee.

promoting sustainable growth and industrial development. A coordinated and concerted effort is needed to develop transport and logistics in the region, which is essential for future development. High priority must be given to innovation, modernisation and new ideas. Cross-border cooperation is being strengthened continuously by the introduction of increasingly flexible and seamless schemes that enable people to visit or work in other countries in the region.

In the long term, initiatives focusing on children and young people will be essential to pro-

gress in the High North. Cooperation on group exchanges and other activities and projects for children and young people play an important role in strengthening understanding between people in the region. This is something that is particularly important in our cooperation with Russia. Norway will continue to provide funding for multi-lateral child and youth policy cooperation in the Barents region. Projects targeting vulnerable children and young people are crucial for creating social cohesion and ensuring development and a sense of security and safety in the region. The

existing cooperation agreements with the regions of northwestern Russia within the framework of the Barents Euro-Arctic Council programme Children and Youth at Risk in the Barents Region (CYAR) will play an important role in this context. It is important that high priority is given to the gender quality perspective in the people-to-people cooperation in the High North. From a Norwegian point of view it is essential to promote clear, positive attitudes towards gender equality in society as a whole.

7.4 The Northern Dimension

The Government's main objective in being a partner in the Northern Dimension policy is to contribute to and promote constructive and practical cooperation with the EU and Russia in our neighbouring areas. One of the priorities in the time ahead will be the recently established Northern Dimension Partnership on Transport and Logistics.

The EU Northern Dimension was established in 1997 as an instrument for promoting the EU's regional cooperation in northern Europe, with particular emphasis on cooperation with Russia. In 2006 it became simply the Northern Dimension, and a renewed policy was launched, a common policy shared by four equal partners: the EU, Iceland, Norway and Russia. The regional councils in the north also participate, as do a number of international financial institutions. EU member states with interests in the region also participate actively at both political and expert level.

The broad umbrella framework of the Northern Dimension allows us to promote projects that are of relevance and benefit to Norway and the region as a whole. It enhances our ability to participate actively in cooperation with Russia in the four EU-Russia Common Spaces, as well as in cooperation on modernisation, through parallel bilateral processes.

The Government is seeking to promote cross-border mobility. More attention will be devoted to the question of how contacts with the northern parts of Sweden and Finland can also be improved. The aim is to promote the exchange of labour and encourage more companies to choose to work in regional markets in several countries. The Government intends to support good initiatives from knowledge institutions and regional authorities that are aimed at promoting cooperation and integration in the field of research and education across national borders.

The Northern Dimension has undergone rapid and dynamic development, encompassing more and more new areas of cooperation. The cooperation is organised through four partnerships. The partnerships are established as independent entities that are responsible for developing concrete cooperation in their areas of responsibility. They report to the Northern Dimension Steering Group, ministerial meetings and deputy ministers' meetings (every other year).

Established in 2001, the Northern Dimension Environmental Partnership remains the flagship of the Northern Dimension. A number of large-scale projects have been implemented under this partnership. The most significant of these was the water treatment project in St Petersburg, implemented in the period 2002–07, which has ensured that the city's population is provided with clean drinking water. The Partnership has also administered a fund worth EUR 280 million for nuclear safety and environmental projects. With co-financing, grants and loans from international financial institutions, projects worth over EUR 3 billion have been supported. Norway has contributed EUR 10 million to cooperation on nuclear safety and NOK 17 million to general environmental cooperation. More attention is gradually being directed towards finding solutions to environmental problems in northwestern Russia, and projects in the field of energy efficiency and renewable energy are a new priority area. In connection with this Norway will consider increasing its financial contribution to the Partnership. Any increase will be within the budgetary framework for Ministry of Foreign Affairs grant funds.

The Northern Dimension Partnership in Public Health and Social Well-being is an important arena for Norway for cooperation on health issues in the region. The cooperation takes place at ministry level, through participation in expert groups and joint projects. The focus has been on primary health care services, communicable diseases, tuberculosis, HIV/AIDS and lifestyle-related diseases. These are areas to which Norway gives priority. Norway currently leads the work of the Expert Group on Alcohol and Substance Abuse.

Two new partnerships were formally approved at the ministerial meeting of the Northern Dimension in Oslo on 2 November 2010, in the areas of transport and logistics and culture respectively.

The secretariat of the Partnership on Transport and Logistics has been established at the Nordic Investment Bank in Helsinki. One of its primary objectives is to accelerate the removal of

Box 7.10 The Northern Dimension

The Northern Dimension Political Declaration and the Northern Dimension Policy Framework Document, the founding documents of the Northern Dimension, were adopted at the Helsinki Summit on 26 November 2006.

Northern Dimension partners: the EU, Iceland, Norway and Russia.

Participants: the regional councils (Arctic Council, Barents Euro-Arctic Council, Council of the Baltic Sea States, Nordic Council of Ministers), international financial institutions (European Bank for Reconstruction and Development, European Investment Bank, International Bank for Reconstruction and Development, Nordic Environment Finance Corporation, Nordic Investment Bank), other European Union institutions and bodies and those of the other Northern Dimension partners.

Observers: Canada, the US, Belarus

Partnerships:

- *Northern Dimension Environmental Partnership*: is taking action to tackle environmental problems in the Northern Dimension area. Deals with nuclear safety and radioactive waste management, upgrading run-down infrastructure and outdated water supply systems, waste water treatment, management of municipal and agricultural waste, and district heating.

Secretariat: The European Bank for Reconstruction and Development (London) administers the NDEP Support Fund.

- *Northern Dimension Partnership in Public Health and Social Well-being*: Works to improve the health and overall quality of life of the inhabitants of the region through i) the prevention of communicable and non-communicable diseases, and ii) promotion of a healthy lifestyle. Secretariat: Hosted by the

Council of Baltic Sea States Secretariat in Stockholm.

Chair: Finland (as of November 2011)

- *Northern Dimension Partnership on Transport and Logistics*: Promotes cooperation in the Northern Dimension area through the implementation of projects related to infrastructure, services and logistics. Secretariat: Established at the Nordic Investment Bank in Helsinki.

Chair: Norway

- *Northern Dimension Partnership on Culture*: Promotes cooperation between the cultural and business sectors, particularly on tourism and cultural tourism, and seeks to raise awareness of regional and local cultural identity and heritage. Secretariat: Nordic Council of Ministers in Copenhagen (until 2013).

Chair: Norway

Institutions:

- *Northern Dimension Institute*: an open network community of universities and research institutes whose primary aim is to promote research in fields related to the priority cooperation areas of the Northern Dimension. Based at St Petersburg State University and Lappeenranta University of Technology.
- *Northern Dimension Business Council*: a platform for dialogue between private sector actors. Seeks to promote contacts between companies and local and regional authorities. Nine working groups have been established in the areas of oil and gas, electric power and energy supply, advanced technology, ecology and environmental protection, transport and logistics, medicines and pharmaceuticals, machinery and auto components, banking and forestry.

non-infrastructure related bottlenecks affecting cross-border transport and logistics. From Norway's point of view, it is also important that the partnership also investigates and assesses the potential opportunities offered by more visionary projects, including the Northern East–West Freight Corridor. During its chairmanship in

2011, Norway will work actively to promote maritime transport corridors, such as the Northeast Passage and other east-west connections. The plan is to establish a support fund for cooperation projects to which the four Northern Dimension partners can contribute. The fund will be based on voluntary contributions from all countries

involved in the Northern Dimension and will be administered by the European Bank for Reconstruction and Development. The allocation of funding to projects will be approved by steering groups established for this purpose. Norway's first contribution to the fund will be covered by the Ministry of Foreign Affairs' Barents 2020 programme. International financial institutions may come to play an important role in the development of the partnership, as they have done with the Environmental Partnership.

7.5 Nordic cooperation

The Nordic countries have differing geographical, commercial and legal interests in the High North. Norway and Denmark/Greenland are coastal states bordering on the Arctic Ocean and as a result have special rights and obligations under the Law of the Sea. Iceland does not have an Arctic Ocean coastline, but has economic and political interests related to developments in the Arctic, particularly as regards the fishing and maritime industries. Sweden and Finland have major commercial interests in their northern areas, particularly in the mineral industry and in the field of transport. Issues related to the High North are the subject of regular discussions between the Nordic countries, both on a one-to-one basis and in joint Nordic forums.

Three of the Nordic countries have Sami populations, as does Russia. The Sami parliaments in Norway, Finland and Sweden have established a Sami Parliamentary Council at which representatives of Sami organisations in Russia participate as observers. In 2005 a group of experts submitted its proposal for a Nordic Sami Convention and in 2011 formal negotiations on the convention began. The aim is to complete the negotiations over the next five years.

The ministers with responsibility for Sami affairs in Finland, Norway and Sweden and the presidents of the Sami parliaments in the respective countries hold annual meetings for the purposes of sharing information, and discussing and dealing with Sami issues of mutual interest. This cooperation is aimed at strengthening and developing the Sami people's language, culture, economy and way of life. The cooperation was established in 2000 and is informally but closely affiliated to the Nordic Council of Ministers.

A substantial proportion of the Nordic land and sea areas lie in the Arctic region. Since the turn of the century, the Nordic Council of Minis-

ters has had a separate Arctic Cooperation Programme. Regional Nordic cooperation arenas have existed somewhat longer. The North Calotte Council was established by the Nordic Council of Ministers as early as 1967 and consists of 12 regional representatives from Lapland, Norrbotten and Norway's three northernmost counties. Its work focuses particularly on business policy, the environment and culture. The basic funding for the Council comes from the Nordic Council of Ministers, but it is co-financed to a high degree by the EU's cross-border projects (under the INTERREG programme). Another council, Tornedalsrådet, is a cooperation forum for Swedish, Norwegian and Finnish municipalities along the Torne river. Norway is represented by the municipalities of Kåfjord, Kautokeino, Storfjord and Nordreisa. Another arena is the Nordic Atlantic Cooperation (NORA), which involves Iceland, the Faroe Islands, Greenland and the coastal counties of Norway (the Regional Council for Western Norway, the Executive Committee for Northern Norway and Trøndelag).

The Nordic Council of Ministers' Arctic Cooperation Programme is carried out in collaboration with the Arctic Council. The programme encompasses areas such as the environment, health, energy supplies, research, culture and education, ICT and trade and industry. As well as cooperating with the Arctic Council, the Nordic Council of Ministers uses the Arctic Cooperation Programme to fund projects carried out in cooperation with the EU, the Northern Dimension and the Barents Euro-Arctic Council.

Norway will hold the Presidency of the Nordic Council of Ministers in 2012. The main theme of the programme for the Norwegian presidency is the welfare state in a Nordic perspective. The presidency will also focus on the common challenges faced by the Nordic countries and will identify areas for closer cooperation. In addition, cross-sectoral issues will continue to be addressed, for example the elimination of border barriers and issues relating to young people and languages. Sweden will hold the presidency in 2013. Joint projects in the High North are planned under both the Norwegian and the Swedish presidencies, for example in connection with the extraction of minerals.

Issues related to the High North will be given priority during Norway's presidency in 2012. These will be considered in the context of the Stoltenberg report on Nordic cooperation on foreign and security policy.

Part III
Growing activity in the High North.
Opportunities and challenges

8 Environmental protection and environmental problems



Figure 8.1 From the Varanger Peninsula.

Photo: Marianne Gjørv

The Government intends Norway to be the best steward of the environment and the natural resources in the High North. We will protect the environment in the High North and facilitate value creation and human activity while ensuring that ecosystems, ecological goods and services and biodiversity are maintained. The provisions of Chapter II of the Nature Diversity Act must be used as a basis when exercising public authority in a way that will have environmental impacts, so that Norway uses its resources sustainably and biological, geological and landscape diversity are protected through conservation and sustainable use, as required by section 1 of the Nature Diversity Act.

Activities that influence greenhouse gas emissions, pollution levels, resource use and spatial management must be in accordance with national targets and international commitments related to the climate and environment. Conservation of biodiversity must be a basic condition for all activities, in accordance with the goals and principles of the Nature Diversity Act, the Svalbard Environmental Protection Act, the Marine Resources Act and the integrated management plans for Norwegian sea areas. One of the overriding objectives of Norway's Svalbard policy is to preserve the archipelago's distinctive natural wilderness. The most recent white paper on Svalbard (Report No. 22 (2008–2009) to the Storting) discusses the spe-

cific goals and requirements that apply to management of the environment in Svalbard.

8.1 The natural environment as an essential basis for welfare and value creation

Long-term, integrated management of the environment and natural resources is crucial for securing the livelihoods of present and future generations. The diversity of species and habitats is essential for maintaining ecological processes and systems, which in turn form the basis for human settlement, value creation and welfare. In the High North, these links are particularly clear because much commercial activity is directly dependent on the natural environment and living resources. The cultural heritage also provides evidence of these links, especially cultural sites and remains and the traditions of indigenous peoples.

Norway's land and sea areas are very valuable in environmental terms, and the Barents Sea is one of the most productive sea areas in the world, with over 200 fish species, thousands of benthic species, and large numbers of seabirds and marine mammals, including some of the largest seabird colonies in the world. High biological production also provides a basis for some of the largest fisheries in the world; the Northeast Arctic cod stock alone now supports an annual total allowable catch of over 700 000 tonnes.

The populations of polar bears and walrus in the northern part of the Barents Sea and Svalbard are among the healthiest in the world. Genetic diversity is high in the northern sea areas, and through marine bioprospecting, this can be used to acquire important knowledge and economically valuable services. North Norway has magnificent scenery and a unique cultural heritage that reflects the way its people have used the natural resources in the sea and on land for thousands of years. Many of the country's healthiest stocks of wild salmon can also be found in North Norway. Most of the remaining area of undisturbed nature in continental Europe is in the Barents region. Svalbard is a large, continuous expanse of wilderness, and an example of successful, long-term environmental management.

The natural environment and cultural heritage of the region support activities of great economic and cultural importance, from fishing, hunting and reindeer husbandry to tourism. The biodiversity of the region also forms the basis for important commercial activities, including aquaculture

and agriculture, and for the traditional way of life of indigenous peoples. For many people, close contact with the natural environment is crucial for their quality of life and for their sense of identity and of belonging to the region.

8.2 Pressures and impacts on the environment in the High North

Both local activities and external pressures have impacts on the environment in the High North. The most important external pressures are climate change, ocean acidification and long-range transboundary pollution. Local pressures include various types of land use and use of sea areas and exploitation of resources. Fisheries, aquaculture, reindeer husbandry and the development of energy and transport infrastructure are important factors. There are also a number of actual and potential sources of pollution at the local level, including shipping, oil and gas activities, industrial activities and nuclear facilities in Norway's neighbouring areas.

Increased human activity combined with climate change is creating new environmental problems. Growing shortages of oil and minerals are resulting in rising prices, and the High North is becoming more accessible as the extent of the sea ice shrinks. These changes are fuelling interest in the region's natural resources and in the new sea routes that are emerging. The Government will set high environmental standards for new activities and will protect particularly valuable and vulnerable areas against pressure that may have negative impacts.

Many of the populations of fish, mammals and birds in the High North exhibit large natural fluctuations. At the same time, the physical environment is changing as a result of climate change. These changes are expected to become more marked in the years ahead, and may disrupt the natural cycles of the Arctic environment. Species that are adapted to the extreme conditions in the high-Arctic environment will face more competition and may gradually be displaced by species from more southerly regions, changing the character of the ecosystems. Analyses of the population trends for various species in recent decades appear to be consistent with such changes.

The terrestrial environment in the High North is generally less affected by local activity than areas further south. This is partly because the cold climate results in low biological production in much of the region, and in consequence popula-

tion density is low and there is little human activity. However, there are wide variations from one part of the region to another. In North Norway alone, we can find everything from the biologically rich and relatively densely populated coastal strip in Nordland to the uninhabited polar desert of eastern Svalbard.

In essence, the environmental problems in North Norway are the same as those in the rest of the country. As in other parts of the world, the most important causes of the decline in biodiversity and the loss of elements of the cultural heritage are physical alteration of the environment and changes in land use. Such developments also result in the loss of areas without major infrastructure development. Although there is generally less pressure on land in North Norway than further south, the same trends are apparent. However, overgrazing by domestic reindeer is a problem that is specific to reindeer husbandry areas in the High North. Around 12 % of the area of North Norway is protected.

The marine ecosystems in the most northerly waters are under pressure from climate change, ocean acidification and long-range transboundary pollution. In more southerly parts of the region and coastal areas, the greatest pressure is from local activities. Many seabird populations have declined dramatically, and considerable damage to benthic organisms has also been observed. Coral reefs in several areas have been damaged or destroyed by bottom trawling. In the past 10 years, the fisheries management authorities have focused increasingly on impacts on benthic communities, and a number of measures have been introduced to improve the situation. This is expected to reduce pressure from the fisheries.

Global warming is only one of several pressures on ecosystems and living resources in the High North. The cumulative environmental effects depend on interactions between a number of pressures and impacts. Climate change must therefore be considered together with other environmental pressures and important drivers of change. For example, the rising atmospheric concentration of CO₂ is also leading to ocean acidification. The Arctic sea areas are the most sensitive to this because seawater absorbs more CO₂ when the water temperature is low. Increasing ocean acidification will affect organisms with calcium shells, and in the long term it may have a serious impact on marine ecosystems and the opportunities to harvest from them.

The conservation of the wild salmon stocks in North Norway is an important issue, and the

cumulative environmental effects on these stocks must not be allowed to increase. These stocks contribute to value creation in the region, and they are an important part of the natural resource base for Sami culture. The Tana river system is the most productive Atlantic salmon river in Norway and indeed in the world, and therefore extremely important both nationally and internationally. However, many of the wild salmon stocks in this river system are at an all-time low, mainly due to overfishing. It has long been known that part of the catch in the sea fishery for salmon in Finnmark county consists of fish from Russian rivers, and new studies show that at least 20 % of the salmon in this fishery originates from Russia. Norway will continue its dialogue and research cooperation with Russia on this issue. Fish farming has so far had less impact on many important wild salmon stocks in North Norway, particularly in Finnmark, than on stocks in other parts of the country, where there is intensive fish farming.

Marine bioprospecting is another important activity that is expected to expand. It is regulated by the Marine Resources Act and the Nature Diversity Act, and will only be carried out within environmentally sound limits.

There is growing global demand for mineral raw materials, and their prices are rising, and this is creating opportunities for new activities and value creation. However, the extraction of metals and minerals involves physical disturbance of the natural environment and requires sound management of waste and pollutants, and can result in environmental problems. The establishment of new mining activities and new transport, energy and industrial infrastructure may affect important habitats and ecosystems and remaining areas without major infrastructure development.

Local activity and land use have far less influence in Svalbard than in North Norway. With the exception of the established settlements and mining areas, the archipelago is still a more or less undisturbed wilderness, and the natural diversity of species and ecosystems remains largely intact. The only activities are outdoor recreation, tourism and research. There is also less pressure on the marine environment around Svalbard than in areas further south. However, the pace of climate change is high in Svalbard, and it is expected to have major environmental impacts, especially for species that are dependent on sea ice. There is growing tourism, and more activity and traffic is expected as the sea ice cover retreats. Protected areas cover 65 % of the land area of Svalbard and 87 % of its territorial waters. The Svalbard Envi-

ronmental Protection Act sets out strict requirements for all types of activity on the archipelago, including activity outside the protected areas. This is a clear expression of the high priority Norway gives to environmental protection in its Svalbard policy.

The state of the environment in the High North and the Arctic depends to a large extent on activities outside the region and pollution originating elsewhere. Climate change, ocean acidification and long-range transboundary pollution are examples. Many migratory species are under pressure at times of year when they are not in Svalbard. New substances that are persistent, bio-accumulative and toxic may also cause problems.

Climate change may exacerbate the loss of biodiversity. According to the Intergovernmental Panel on Climate Change (IPCC), around 30 % of the world's species will be at risk of extinction if the global mean temperature increase exceeds 2°C to 3°C relative to pre-industrial levels. The Arctic has been identified as one of the regions that will be most vulnerable to these processes. The Government considers it important for Norway to build up knowledge about how biodiversity and the living resources in the Arctic will respond to physical changes in environmental conditions. Knowledge of this kind will be crucial for developing effective adaptation strategies for environmental protection and natural resource management in the High North.

Climate change, ocean acidification and growing activity will put more pressure on the environment in the High North. Because of uncertainties and poor documentation of several factors, it is not possible to draw definite conclusions on the cumulative effects on the ecosystem of all human activities combined. However, a combination of several significant environmental pressures in the same area at the same time increases the risk of negative impacts. This underlines the importance of taking a precautionary approach to activities that could increase the pressure on, or risk of damage to, the environment in the High North.

8.3 A long-term, integrated environmental management regime

To ensure that biodiversity in the High North continues to provide the basis for economic and social welfare, it must be safeguarded through a long-term, integrated management regime. This is the only way to be sure that all activities and pres-

ures are considered together. It is also essential if we are to avoid serious conflict between the development of commercial activities based on the region's natural resources, environmental protection considerations and activities based on sustainable use of ecosystems. A long-term, integrated management regime must be based on sound national legislation and frameworks and on cooperation and coordination across national borders. These are basic principles of Norwegian legislation – the Nature Diversity Act, the Svalbard Environmental Protection Act, the Water Management Regulations and the Marine Resources Act – and of the integrated management plans for ecosystem-based management of Norwegian sea areas. Norway promotes these principles in its bilateral cooperation with Russia, as well as in the Arctic Council.

An integrated management regime must be based on the best available knowledge. The Government therefore considers it important to take a knowledge-based approach, in which the environmental impacts are thoroughly assessed before decisions are made on new activities, and in which there is transparency about the challenges involved and conflicting interests and considerations. This allows better assessments of which requirements should apply to new activities and what limits should apply to human activity.

Work on the integrated management plans for the Norwegian sea areas and the integrated management plans for inland, transitional (brackish) and coastal waters under the Water Management Regulations provide good examples of processes that make it possible to clarify the overall framework for activities and thus facilitate the coexistence of different industries. This kind of integrated approach can also be instrumental in ensuring that business interests, local, regional and central authorities, indigenous peoples, environmental organisations and other interest groups all have a common understanding of the goals for management of the environment.

The Government attaches great importance to knowledge-building in the environmental field, both at national level, through initiatives such as the Fram Centre in Tromsø, and at international level, through cooperation with fellow members of the Arctic Council and in other regional forums. The Government's efforts to promote the generation of knowledge and expertise on the High North are discussed in more detail in chapter 3.4. At national level, it is essential to ensure that all projects that may affect the natural environment are examined in accordance with the require-

Box 8.1 The Nature Diversity Act

Chapter II of the Nature Diversity Act contains provisions on how the authorities are to ensure that they have the best possible basis for making official decisions under other legislation that may affect biological, geological and landscape diversity. One of the fundamental requirements is that all decisions must be based on scientific knowledge of how a project may affect biological, geological or landscape diversity. When determining whether or not a project is to be permitted, or whether it is to be made subject to conditions, the principles of environmental law set out in the Act must be used as guidelines. This means that the cumulative environmental effects on an ecosystem must be considered. The costs associated with preventing or limiting any damage caused by a project must be covered by the project owner (the user-pays principle). Environmentally sound techniques and methods of operation must be used, and activities must be sited in a way that prevents or limits damage. If too little is known about possible environmental impacts, the precautionary principle must be applied.

The principles set out in the Nature Diversity Act supplement the requirements of other legislation regulating the activities of various sectors, such as the Marine Resources Act, the Mineral Resources Act, the Petroleum Act and the Offshore Energy Act, and decisions made on the basis of more general legislation such as the Planning and Building Act and the Pollution Control Act. When the relevant sectoral authorities make decisions under such legislation, they will also make use of the principles set out in the Nature Diversity Act during preparatory work and when exercising discretionary powers. In other words, the Nature Diversity Act, together with sectoral legislation, determines the framework for activities and for protection of biological, geological and landscape diversity. Measures under this Act are also to be weighed against other important public interests, as set out in section 14.

ments for preparatory work and environmental assessment set out in current legislation.

8.4 Targeted regional and global environmental cooperation

Sustainable management of the natural environment and cultural heritage in the High North can only be achieved through a combination of targeted national efforts and international cooperation. Norway must cooperate first and foremost with the countries with which we share these assets.

Norway's High North policy is significant in this context because it includes a foreign policy dimension that is important for developments in the region, and regional cooperation in forums that play a key role in work on environmental and climate change issues (for example the Arctic Council, the Barents cooperation and Norway's bilateral cooperation with Russia). Various cooperation forums are discussed further in chapter 7. Norway's ability to fulfil its international obligations under agreements in areas including climate change, pollution, conservation of biodiversity and protection of cultural heritage depends partly on the success of cooperation in the High North. Many populations of fish, birds and mammals in the High North have a wide distribution range and migrate across national borders. Close cooperation between the Arctic coastal states on management of species and their habitats is vital for achieving sustainable social and economic development in the region. Norway has enjoyed constructive and successful fisheries cooperation with Russia since the 1950s.

Although the international legal framework for environmental cooperation in the High North and Arctic is in place, not all the Arctic states have signed or ratified key conventions. The Government will work actively to promote closer and more binding environmental cooperation between the Arctic countries, with a special emphasis on the protection of vulnerable species and ecosystems.

Broad-based international agreements that regulate releases of pollutants and activities in different sectors are needed for management of the environment and to deal with environmental pressures that are mainly due to activities outside the region. Norway's High North policy has an important role to play here through knowledge development and the provision of input to relevant forums, for example as part of Arctic Council initiatives. The knowledge generated and compiled must also be communicated to forums for regional and global agreements, so that environmental problems in the High North can be taken

more fully into account. Norway will continue its efforts in this field in cooperation with the other Arctic countries.

The High North acts in many ways as a sink for persistent organic pollutants, which are transported with air and ocean currents from more southerly latitudes. National prohibitions against many persistent, bioaccumulative and toxic substances have gradually been extended through regional and global agreements. Cooperation under the Arctic Council makes an important contribution to this work through monitoring, compilation of data and assessments of the pollution situation in the Arctic.

Cooperation between the Arctic countries in this field continues to be very important. This includes cooperation on monitoring of levels of pollutants, on assessments of whether action is needed to deal with inputs of new pollutants to the Arctic environment, and on action to deal with specific sources of pollutants within the Arctic region. Monitoring also provides important information on changes in Arctic ecosystems, including changes that affect economically valuable species and environmental impacts on threatened species. In the Government's view, this work must

continue to have high priority, both within the Arctic Council and in Norway's environmental cooperation with Russia.

The Government will shape its High North policy and organise its cooperation with other countries in the region so that they support the achievement of Norwegian environmental targets that apply to North Norway, Svalbard and Norwegian sea areas, and efforts to develop binding international agreements to mitigate climate change and limit long-range transboundary pollution and other external pressures on the environment in the High North. The Government will use the relevant cooperation forums to promote integrated, ecosystem-based management of the environment throughout the Arctic. The Government will make use of targeted international cooperation on research, monitoring and environmental assessments to strengthen knowledge about the environment and climate change in the High North. It will also cooperate with other countries in the region to build up and make use of knowledge on the values related to ecosystem services, and on ways of taking their value more fully into account in decision-making processes for activities in the High North.

9 Knowledge-based integrated marine management



Figur 9.1 Marine management.

Illustration: Institute of Marine Research

Norway is a maritime nation and a nation rich in marine resources. The Government's goal is for Norway to be a pioneer in developing an integrated, ecosystem-based marine management regime. Our work on management plans for Norwegian sea areas has attracted considerable international attention. The purpose of the management plans is to provide a framework for value creation through the sustainable use of natural resources and ecosystem services in the sea areas and at the same time maintain the structure, functioning, productivity and diversity of the ecosystems. The management plans are thus a tool for both facilitating value creation and maintaining the high environmental value of the

sea areas. In the management plans human activities are viewed in relation to one another and the overall impact of these activities on the marine environment and the ecosystems is assessed. A clarification of the overall framework for activities in the sea areas helps to facilitate coexistence between different interests, in particular between the fisheries, petroleum and maritime transport industries.

The management plans require systematic monitoring of the marine environment and the implementation of measures to ensure an ecosystem-based approach to the management of marine resources.

The integrated management plan for the Barents Sea–Lofoten area was presented as a white paper in 2006 (Report No. 8 (2005–2006) to the Storting). The plan will remain effective until 2020 but will be updated at regular intervals. The first update of the plan was presented as a white paper in March 2011 (Meld. St. No. 10 (2010–2011)). In the present white paper, discussion of the management and exploitation of renewable and non-renewable resources in the northern sea areas is based on the updated management plan for the Barents Sea–Lofoten area.

The geographical scope of the management plans is limited to areas under Norwegian jurisdiction. However, the transboundary nature of some of the ecosystems and some aspects of the activities concerned makes cooperation with other countries essential.

Even though the eastern (Russian) part of the Barents Sea falls outside the geographical scope of the plan, the management plan for the Barents Sea–Lofoten area has implications for our relations with Russia. During the preparation of the management plan, Norway sought to keep Russia informed of the direction, content and progress of the planning process, through established bilateral cooperation forums (in the areas of the environment, fisheries and energy). The Russians were also invited to contribute to the process by providing relevant information. The increasingly broad cooperation under the Joint Norwegian–Russian Commission on Environmental Protection in recent years can be seen as one positive outcome of this approach. A concrete result of this cooperation is the preparation of a joint Norwegian–Russian environmental status report for the Barents Sea (presented in the autumn of 2009). In the updated management plan the Government announced that it would cooperate with Russia on the establishment of an integrated Norwegian–Russian monitoring programme for the Barents Sea, with the aim, in particular, of assisting in the development of a Russian management plan for the Russian part of the Barents Sea. Cooperation on this issue began under the Joint Norwegian–Russian Commission on Environmental Protection in 2011.

Sound and sustainable environmental and natural resource management is a key – and at the same time a cross-sectoral – element of Norwegian policy for integrated marine management. This also applies to the High North. It is a central concern in work on the management plans and also a concern expressed in our cooperation with other countries. By adopting an ecosystem approach to marine management, Norway is at the forefront of international efforts in this area and a responsible steward of the abundant resources in the Arctic.

The Government will implement the measures set out in the management plans, and will continue ongoing efforts to strengthen the knowledge base with a view to incorporating new knowledge in future updates of the plan. The contacts already established with other countries and with regional actors will be strengthened to enable the development of robust regional cooperation on marine management in the High North, based on an integrated, ecosystem-based approach. Norwegian–Russian cooperation on the marine environment will be continued and expanded in scope with a view to establishing an integrated Norwegian–Russian monitoring programme for the Barents Sea and developing a concept for a Russian management plan for the Russian part of the Barents Sea. The Government will ensure the collection of basic data as well as the development and exchange of scientific methodology so as to enhance work on the integrated marine management plans. In the view of the Government, this is important both as a means of strengthening our own work on integrated management plans and as a way of assisting other countries with similar processes. Particular priority will be given to cooperation with Russia on the development of relevant methodology. The Government's long-term aim is for all countries that are responsible for managing sea areas adjacent to those under Norwegian jurisdiction to develop integrated management plans. This topic is being given priority in our contacts with relevant actors such as the EU and Canada.

10 Maritime safety, oil spill preparedness and response, and search and rescue capacity



Figure 10.1 The Vardø vessel traffic service centre.

Photo: Norwegian Coastal Administration.

10.1 Maritime safety and preparedness and response to acute pollution

Considered in isolation, an increase in maritime traffic and in oil and gas activities means that there is an increased risk of accidents and pollution. The white paper *First update of the Integrated Management Plan for the Marine Environment of the Barents Sea–Lofoten Area*, Meld. St. 10 (2010–2011), includes an in-depth discussion of environmental risk analyses, oil spill preparedness and response and the prevention of acute pollution in the northern sea areas.

In addition, reduced ice cover will improve conditions for shipping and give easier access to natural resources, which in turn may lay the foundation for new industrial activities. Growing activity may increase the need for regulation in the northern sea areas and may have implications for search and rescue capacity and oil spill preparedness and response.

The Government wants Norway to play an active role in the development of national and international rules and industry standards and in knowledge-building and information-sharing to reduce risk. Norway will also encourage companies to develop management and quality



Figure 10.2 Testing an oil boom from the bridge across Raftsund in Nordland county.

Photo: NorLense.

assurance systems and promote enhanced awareness throughout the value chain, both of which are essential for ensuring a high standard of safety.

By making use of new technology, the Government has gained a better overview of Norway's large sea areas in the High North. This makes it easier to detect anomalies at an early stage, which in turn strengthens Norway's ability to prevent or limit the impact of accidents.

It is possible to reduce risk by working systematically. In recent years, the Government has given priority to improving maritime safety and preparedness and response to acute pollution in the High North. The launch of the AISSat-1 satellite in the summer of 2010 has extended the monitoring range of the Automatic Identification System (AIS), which plays a key role in monitoring shipping traffic and ensuring maritime safety. The satellite gives the vessel traffic service centres a better overview of activities far from the coast. It also gives the rescue coordination centres valu-

able vessel information during marine rescue operations, both in instances where a vessel is in distress itself and in cases where vessels in distress can be helped by other vessels.

The establishment of a national forum on oil spill preparedness and response has strengthened cooperation between public and private actors. The forum is headed by the Norwegian Coastal Administration, and focuses particularly on the High North. More accurate and reliable weather forecasts provide a better basis for planning maritime activities and fishing, and help to improve safety standards. The construction of a new meteorological radar at Gednje on the Varanger peninsula is under way, and is due to be completed in the summer of 2012. This will provide better meteorological radar coverage all along the coastline of Troms and Finnmark counties.

In 2010, in line with the aim of further developing the Norwegian Coastal Administration's maritime safety expertise as mentioned in *New Building Blocks in the North*, a national centre of exper-

Box 10.1 Barents 2020: BarentsWatch

BarentsWatch is a civilian monitoring and information system, the aim of which is to make relevant information about the northern sea and coastal areas available to users, the authorities and decision-makers, and to ensure that information is shared effectively. BarentsWatch will make use of and coordinate existing services, thereby providing an overall picture of activities in our sea areas and conditions under the surface of the sea.

The BarentsWatch concept has been developed as part of the Government's High North strategy, and it comprises two systems, one open and one closed. The Government has given the Ministry of Fisheries and Coastal Affairs and the Norwegian Coastal Administration the task of setting up the open system, the BarentsWatch public information portal, in close cooperation with relevant institutions and research communities in various parts of the public administration. The Ministry of Fisheries and Coastal Affairs heads the BarentsWatch ministerial group, in which the Ministry of Foreign Affairs, the Ministry of the Environment, the Ministry of Trade and Industry, the Ministry of Defence, the Ministry of Justice and Public Security, the Ministry of Education and Research and the Ministry of Petroleum and Energy also participate. The BarentsWatch public information portal will come into operation in 2012; meanwhile the Government will continue to work on the closed system.

In 2010, BarentsWatch received an allocation of NOK 20 million under the Ministry of Foreign Affairs' Barents 2020 grant scheme. In 2011, BarentsWatch was allocated NOK 20 million in funding under the budget of the Ministry of Fisheries and Coastal Affairs. The Government's budget proposal for 2012 includes an allocation of NOK 30 million to BarentsWatch under the Ministry of Fisheries and Coastal Affairs' budget.

BarentsWatch open system – public information portal

The BarentsWatch public information portal will enable various institutions in the public administration to share their data more easily and make it available to everyone. It will develop functions such as map services, and will provide editorial content for the general public in Norway and worldwide – for individual citizens, the media, the private sector, educational institutions and organisations with responsibilities within marine and maritime administration and research. The operations and development centre for the public information portal will be located in Tromsø.

BarentsWatch closed operational system – portal available to government agencies only

A number of government agencies share management responsibilities for Norwegian coastal and marine areas. Between them, these agencies have a large volume of quality-assured information on activities in Norwegian coastal and marine areas. This information is currently stored in the agencies' internal systems, and is only to a limited extent shared electronically with other agencies.

The plan is for the closed system to give government agencies that have operational responsibilities at sea access to information that is based on a joint evaluation of the situation, which in turn can provide the basis for improved operations, across different areas of responsibility. Work on the closed system is continuing. Surveillance by the Armed Forces and information gathering on the military situation are continuing as before and are unaffected by the development of the BarentsWatch closed system.

tise on maritime safety, oil spill response and monitoring was established, linked to the Vardø Vessel Traffic Service Centre. In 2011, NOK 5 million was allocated to the centre under the budget of the Ministry of Fisheries and Coastal Affairs. The centre has been assigned projects in the field of oil spill preparedness and response in Arctic areas

and traffic monitoring tasks. It will also report on and monitor high-risk traffic along the coast.

In various arenas, Norway has also given priority to developing cooperation with Russia on maritime safety and preparedness and response to acute pollution. Close cooperation has been established between Norway and Russia on maritime

safety and oil spill preparedness and response in the Barents Sea.

In 2006, Norway and Russia signed a memorandum of understanding on strengthening maritime safety cooperation in the Norwegian Sea and the Barents Sea. The MoU and a bilateral agreement on oil spill preparedness and response are being followed up in working groups. The working group on maritime safety is drawing up a proposal for a vessel reporting system for the Barents region. There is exchange of information on maritime traffic at agency level. Norway and Russia carry out joint oil spill response exercises every year.

The Government considers it important to strengthen cooperation on emergency preparedness and response to acute pollution in Arctic waters. Norway played an active role in the decision to launch the development of an international instrument on Arctic marine oil pollution preparedness and response, which was reached at the Arctic Council's Ministerial Meeting in Nuuk in May 2011. A specially appointed task force, jointly led by the US, Russia and Norway, will present the result of these efforts at the Ministerial Meeting in 2013. The Government is giving high priority to this work. Norway will also take over the chairmanship of the Arctic Council's Emergency Prevention, Preparedness and Response (EPPR) Working Group in 2011, which will further strengthen our involvement in developing closer regional cooperation in the area of oil spill preparedness and response.

The Government's High North committee has pointed out that Norway, as one of the countries in the world with most expertise in the areas of maritime safety and preparedness and response to acute pollution, has a good starting point for developing this as a business area in its own right. This is reinforced by the fact that Norway has strict statutory requirements, a high level of expertise, strong research institutions, a constructive climate of cooperation between the various actors and a large number of companies with cutting-edge expertise.

The Government's aim is that Norway should be at the forefront of international efforts to promote maritime safety and preparedness and response to acute pollution in the High North.

The Government intends to facilitate cooperation between oil companies, the supplier industry and knowledge institutions so that they can be at the forefront technologically and can gain leading market positions as regards the development and export of oil spill preparedness and response technology.

Russia is also focusing more on the need to develop more reliable technology for operations in Arctic waters and more effective oil spill preparedness and response. In the Government's view, it is very positive that Russia has taken the initiative to give this issue even higher priority in our bilateral energy dialogue. Russia too has ambitions to develop oil spill preparedness and response technology as a major business area in the Barents Sea and internationally. The Government intends to make use of the strengthened cooperation between Norway and Russia on oil spill preparedness and response technology to promote Norwegian business interests.

The joint Norwegian–Russian Exercise Barents has been held every year since the 1980s. It is based on bilateral agreements between Norway and Russia, the most recent of which is the Norwegian–Russian search and rescue agreement of 4 October 1995. Traditionally, the exercise was a maritime search and rescue exercise involving the Joint Rescue Coordination Centre Northern Norway and the Maritime Rescue Coordination Centre in Murmansk. Norway and Russia have responsibility for planning, coordinating and carrying out the exercise in alternate years. In 2006 the exercise was expanded to include preparedness and response to acute pollution, based on the 1994 agreement between Norway and Russia on oil pollution preparedness and response in the Barents Sea. A search and rescue operation is often followed by an oil spill response operation, and so it is important to have close operational coordination between the various actors. For this reason, the Norwegian Coastal Administration also participates in the exercise. The Joint Rescue Coordination Centre Northern Norway and the Maritime Rescue Coordination Centre in Murmansk also cooperate closely in connection with real incidents.

10.2 Search and rescue

Long distances, a demanding climate and limited availability of rescue personnel and equipment are characteristic of the Arctic region. This means that three considerations are crucial. Firstly, it is important to prevent accidents, because the consequences for both people and the environment will often be greater in the event of accidents in the High North than elsewhere. In the Government's view, particularly stringent maritime safety standards are therefore required. Secondly, cooperation between the countries in



Figure 10.3 A rescue operation.

Photo: Vebjørn Karlsen / 330 squadron

the region is essential for making effective use of the rescue personnel and equipment available, and for ensuring that rescue operations are conducted as swiftly as possible. Finally, it is important to be aware that time considerations, the distances involved and the harsh climate will make some rescue operations impossible, regardless of the resources allocated to search and rescue services.

Responsibility therefore lies with individual companies and their industry organisations to work systematically to reduce the risk of accidents, and to ensure that they are able to manage crises themselves to a greater extent than is required in other waters. The Government wishes to contribute to openness about the problems involved, and to the development of knowledge and transfer of experience.

In the Ilulissat Declaration (2008), the five Arctic coastal states Canada, Denmark, Norway, Russia and the US stated their intention of strengthening search and rescue capabilities and capacity around the Arctic Ocean through cooperation and the sharing of information. The Arctic Search and Rescue Agreement between the member states of

the Arctic Council (see Chapter 7.2) establishes legally binding search and rescue cooperation, including better regional organisation of search and rescue services in the Arctic. Under Article 98 of the Convention on the Law of the Sea, every coastal state must promote the establishment, operation and maintenance of an adequate and effective search and rescue service, and must cooperate with neighbouring states through regional arrangements as circumstances require.

Most of the Arctic has already been divided into search and rescue regions (SAR regions), but in certain areas the division of responsibility is unclear or inappropriate. Norway, Denmark (Greenland) and Russia have therefore agreed on a more suitable delimitation of our SAR regions. Norway's SAR region has been extended, so that it now includes the area north of Svalbard and to the North Pole, and its border with the Russian SAR region has been moved slightly further east. This gives a natural division of responsibility between the various countries, and reflects their actual search and rescue capacity.

A search and rescue (SAR) agreement will not solve all the problems caused by an increase in maritime traffic in the Arctic. Long distances may mean that it will not be possible to reach those in distress in time. The International Maritime Organization (IMO) has prepared guidance for ships operating in areas remote from SAR facilities. One of the recommendations is that voyage "pairing" should be considered, so that if two or more ships are operating in the same general area at the same time, each can be used as a SAR facility in case of accident to the other. Longyearbyen may become more important as a base for search and rescue and preparedness and response to acute pollution as activity in the Arctic Ocean increases. This is described in more detail in the most recent white paper on Svalbard (Report No. 22 (2008–2009) to the Storting).

Because of its global coverage, the satellite-based distress alert system COSPAS-SARSAT is an important tool for international search and rescue operations. Since 1982 Norway has participated in COSPAS-SARSAT and has had local user terminals, or ground receiving stations, in Tromsø, Fauske and Svalbard. The Joint Rescue Coordination Centre Northern Norway in Bodø is responsible for responding and initiating search and rescue operations, and for passing on distress alert messages to Greenland, Iceland, Sweden, Denmark, Finland, Estonia, Latvia and Lithuania.

The Government has submitted a draft resolution to the Storting (Prop. 146 S (2010–2011)) pro-

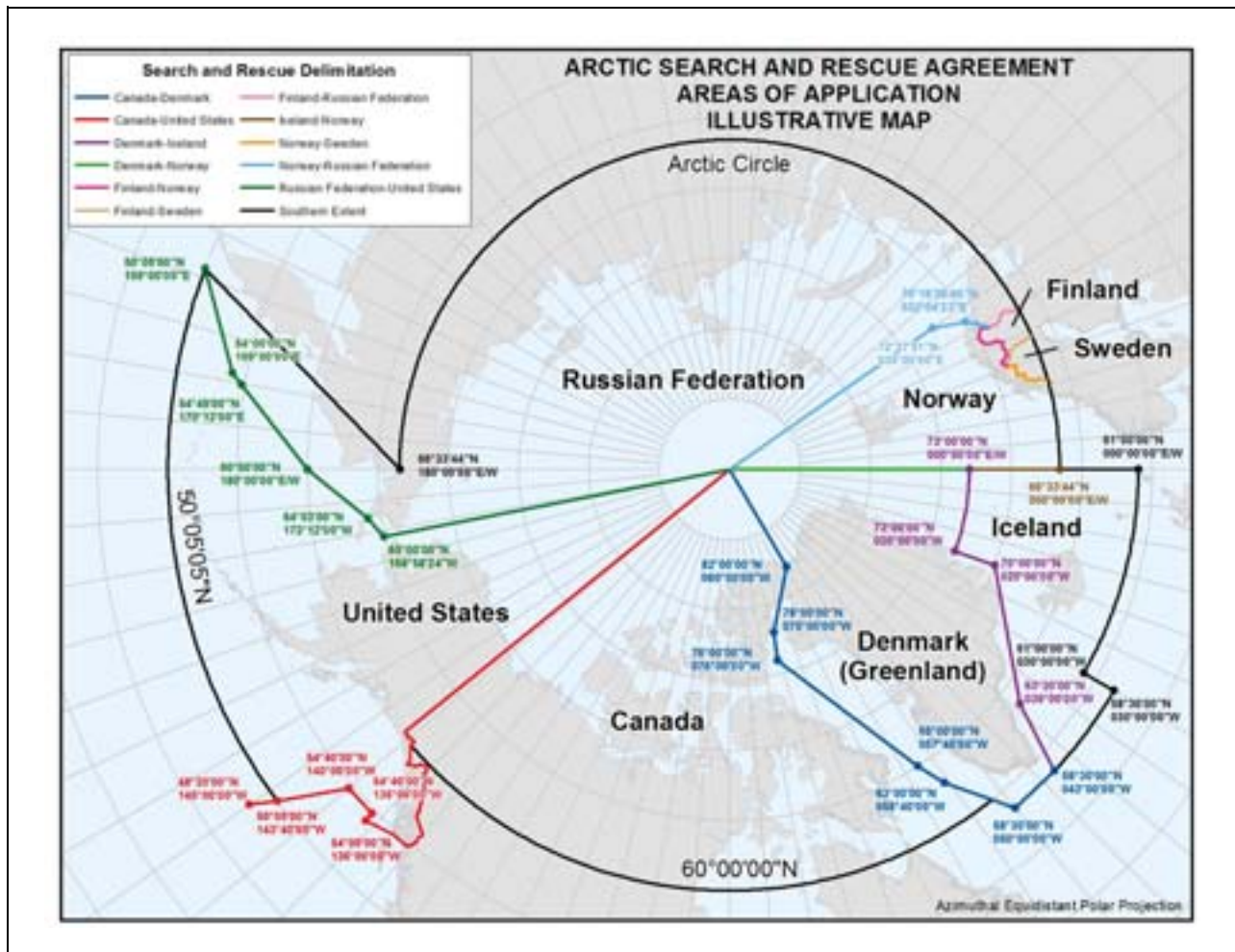


Figure 10.4 Search and rescue responsibilities in the Arctic.

posing that the search and rescue service in Svalbard should be strengthened. The draft resolution proposes that from 2014, the Governor of Svalbard's helicopter service should have two large helicopters and a better response time, compared to the one large helicopter and one medium-sized helicopter it has today. The reason for these proposals is that Norway is an important actor and experienced participant in search and rescue operations in Arctic waters.

It is currently not possible for ships to use broadband communication in the area between Svalbard and the North Pole. In the longer term, possible broadband solutions for this area should be explored, as maritime traffic is expected to increase over the coming decades.

The Government will maintain and improve Norway's capability for effective search and rescue to ensure that Norway can carry out search and rescue operations in its own and adjacent SAR regions. The purchase of new rescue helicopters would greatly improve the helicopter service. The

Government has started a procurement process for new rescue helicopters with a view to having them in place by 2020. The new helicopters will have a longer range, greater cargo capacity and better search and rescue equipment. Growing activity in the High North will be one of the factors taken into account in dimensioning the future service. The resources available to the Armed Forces, including the Coast Guard, are also important for search and rescue operations and preparedness and response in the High North.

Other Arctic countries are also strengthening their rescue helicopter capacity in the High North. Iceland is participating in the Norwegian procurement process. Denmark has introduced large, long-range rescue helicopters at all its bases, and Canada is in the process of replacing its helicopters with new, long-range rescue helicopters. However, the Norwegian Government's ambitions for its rescue helicopter service are currently not matched or surpassed by any other country.

11 Fisheries, aquaculture and marine bioprospecting



Figure 11.1 From the Lofoten cod fishery.

Photo: Norwegian Seafood Export Council.

Norway is responsible for the management of huge sea areas that are home to some of the world's richest fish stocks. The fisheries sector is Norway's second largest export industry, after the oil and gas industry, and Norway is the world's second largest exporter of fish and fish products after China. The fisheries sector (fishing, aquaculture and fish processing) provides employment for almost 5 % of the labour force in North Norway and is very important for maintaining settlement patterns. In addition, access to high-quality protein is of great strategic importance in a world with a constantly growing population and where people are becoming increasingly health conscious.

Norway's ambition is to be the world's leading seafood nation. This means that we must be at the forefront of developments in knowledge in areas such as sustainable use of resources, the marine environment, the climate system, product developments and markets.

The fisheries sector is innovative: technological advances make fishing operations more efficient, and new industries arise out of the knowledge and activity generated. In the 1970s and 1980s, aquaculture and fish farming were new industries; now marine bioprospecting initiatives offer new opportunities for sustainable value creation in a number of industrial sectors.

11.1 The fisheries industry in the High North

The fisheries sector has always played an important role both as a livelihood and as a mainstay of the local culture in the High North. In recent decades, the sector has undergone major structural changes, and is now a modern and efficient industry. The number of actors has been reduced, but fishing and aquaculture are still of great importance for employment and economic activity in many coastal communities. Sustainable harvesting is a fundamental principle of fisheries activity, in the High North as elsewhere, and a long-term approach to management has resulted in a very robust resource base.

In 2009, 1.17 million tonnes fish were landed in the three northernmost counties of Norway. According to figures from Statistics Norway, the total landed value of the catch in the Barents Sea–Lofoten area was NOK 6.3 billion in the same year, or 56 % of the total landed value for Norwegian fishing vessels.



Figure 11.2 Lowering RIB and crew from the Coast Guard vessel KV Senja for a fisheries inspection.

Photo: Per Thrana.

Today the Barents Sea is home to the world's largest cod stock, the haddock stock is at a record level, and the capelin stock is also strong. During the past 10–12 years, the shared Norwegian–Russian fish stocks have been managed according to long-term strategies based on the precautionary principle. This has been a very successful approach, which has helped to rebuild stocks that were previously overfished.

In recent years, a great deal of progress has also been made in harmonising the rules for cod and haddock fishing in the Barents Sea. For example, uniform rules on mesh sizes and minimum sizes have now been adopted that apply to both Norwegian and Russian waters.

The Barents Sea fisheries make a key contribution to value creation and the maintenance of viable coastal communities in North Norway. In 2010, the landed value of Norwegian catches harvested from the Norwegian–Russian joint stocks in the Barents Sea was about NOK 4.2 billion, and the total export value was about NOK 7 billion.

Box 11.1 The Joint Norwegian–Russian Fisheries Commission

The Joint Norwegian–Russian Fisheries Commission, which deals with fisheries management in the Barents Sea, is one of the most important focal points for institutional cooperation between Norway and Russia. The Barents Sea is one of the world's most productive sea areas. The most important fish stock here, the North-east Arctic cod, is much the largest of the 30 or so cod stocks in the North Atlantic. It is also one of the best managed. The status of the cod stock in the Barents Sea has varied, but it has never been anywhere near collapse, and is now at a historically high level.

The healthy state of the stock is due to a combination of favourable natural conditions, including the inflow of nutrients into the Barents Sea, and very successful and effective cooperation on management of the stock by the Joint Norwegian–Russian Fisheries Commission. A joint management strategy and cooperation on resource control, and in particular steps to combat IUU fishing, have been key factors.

Since the mid 1970s, Norway and Russia have practised joint management of the most important fish stocks in the Barents Sea: cod, haddock, capelin and Greenland halibut. The extension of fishery limits was a much-discussed topic in the context of the law of the sea for several years, and by the mid-1970s, the principle of 200-mile exclusive economic zones was emerging. The fisheries cooperation between Norway and Russia was formalised by the Agreement of 11 April 1975 on cooperation in the fisheries sector and the Agreement of 15 October 1976 on bilateral relations in the fisheries sector. These are reciprocal agreements that take a balanced approach to the management of joint fish stocks and the exchange of quotas for national stocks.

The Joint Norwegian–Russian Fisheries Commission was established under the 1975 agreement, and held its first meeting in January 1976. At its annual meetings, the parties determine total allowable catches (TACs) for each stock and share them between Norway, Russia and third countries. The proportions of the TACs allocated to each country have remained unchanged, and are an important reason for the stability of the cooperation. The parties also

agree on reciprocal fishing rights in each other's zones and exchange quotas for both joint stocks and national stocks.

The TACs determined by the Commission are based on management strategies agreed by Norway and Russia and on recommendations on catch levels from the International Council for the Exploration of the Sea (ICES). The Council includes both Norwegian and Russian scientists. This ensures that biological considerations are taken into account when the Norwegian–Russian quotas for the Barents Sea are determined. The quotas are based on a precautionary approach, and the objective is to ensure a high long-term yield.

In the 1990s, the scope of the Commission's work was extended to new areas. In 1992, Norway and Russia agreed to expand their cooperation on fisheries management and control, and in 1993 the Permanent Russian–Norwegian Committee on Fisheries Management and Control was established. Under this cooperation, a range of specific measures have been introduced to improve control of fisheries resources, including routines for closer cooperation between the two countries' coast guard and inspection authorities, for example the exchange of information on catch and landing data and exchanges between inspectors on land and coast guard observers.

In addition, the parties agree on various technical measures on for instance mesh sizes, minimum sizes, the use of sorting grids in trawl fisheries and criteria for closing areas to fishing because the intermixture of undersized fish is too great. Considerable progress was made in harmonising regulatory measures for the fisheries on both sides of the border in 2010.

The parties also make decisions on the framework for research cooperation. Marine research cooperation between Norway and Russia goes all the way back to the early 1900s, and was formalised as early as the 1950s. The results of this research form the basis for the management decisions made each year by the Joint Norwegian–Russian Fisheries Commission, and are therefore of crucial importance for the management of the joint fish stocks in the Barents Sea.

The aim is to continue the close cooperation between Norway and Russia within the framework of the Joint Norwegian–Russian Fisheries Commission (see Box 11.1), so that the Barents Sea fisheries can provide a model for international resource management. The new maritime delimitation treaty includes an annex that is intended to facilitate the continuation of this cooperation.

The Commission has established the most important fisheries management principles for the future. Quota negotiations used to be the main issue, but now that agreement has been reached on quota-sharing and a management strategy, this is more or less a technicality. With this as a basis, the Norwegian–Russian fisheries cooperation can be developed into a broad strategic partnership, in which the two countries both promote these management principles in multilateral forums.

Agreement on how to share the available resources and a common understanding of the importance of long-term, sustainable marine management are of crucial importance for the close fisheries cooperation between Norway and Russia. The Norwegian and Russian authorities have made a concerted effort to combat illegal, unreported and unregulated (IUU) fishing in the Barents and Norwegian Seas in recent years, which is an important reason why the fish stocks in these areas are now in such good condition compared with stocks elsewhere. IUU fishing used to be a serious problem, but has been drastically reduced by painstaking efforts and the introduction of new measures. In 2009 and 2010, no IUU fishing of cod or haddock was registered in these sea areas. This is a victory for the environment, for the fisheries authorities in Norway and Russia, and for law-abiding fishermen and society as a whole. As a result of these efforts, resources valued at over NOK 1 billion a year are no longer being removed by criminal networks, and can be harvested for the common good by law-abiding actors.

Taking action against IUU fishing is a demanding task, and cooperation is needed at both national and international level. To strengthen Norway's efforts, a national advisory group was established in 2009 to combat organised crime linked to IUU fishing. The network includes experts from the police, the Norwegian National Authority for Investigation and Prosecution of Economic and Environmental Crime (Økokrim), the Directorate of Fisheries, the Coast Guard, the Norwegian National Coastal Administration, the Directorate of Customs and Excise and the Directorate of Taxes.

Norway's strategy has been to combine bilateral cooperation on resource control with 16 different fisheries nations with an active approach within the EU, UN, FAO and regional fisheries management organisations. The introduction of port state control measures, international guidelines for reducing discards of fish and the work on flag state responsibilities are important milestones in this context.

The indigenous dimension is also important in the fisheries sector. A government-appointed committee submitted a report¹ on fishing rights off the coast of Finnmark on 18 February 2008. The Ministry of Fisheries and Coastal Affairs and the Sami Parliament (Sámediggi) have held consultations on how to follow up the committee's recommendations. On 9 May 2011, they reached agreement on amendments to the Act relating to the right to participate in fishing and hunting, the Marine Resources Act and the Finnmark Act, and on measures to be implemented.

The Sami Parliament has agreed to these proposals with a proviso regarding interpretation of their legal basis. The next step will be for the Government to submit the matter to the Storting.

11.2 Aquaculture in the High North

The Government's objective is for Norway to be the world's leading seafood nation. In 2010, the fishing and aquaculture industry exported seafood to a total value of NOK 53.8 billion. Aquaculture products accounted for 62 % of this figure. About one-third of aquaculture production in Norway takes place in North Norway, and production is rising. Nordland is, together with Hordaland in Western Norway, the country's largest aquaculture county, and production in Troms has more than doubled since 2005.

Salmon and trout are the main aquaculture products in North Norway. In 2011, the Government decided to permit 5 % growth of salmon and trout production in Troms and Finnmark. The Government will facilitate further growth in the aquaculture industry within an environmentally sustainable framework.

Further growth will be based on the Government's strategy for an environmentally sustainable aquaculture industry. An important element of this strategy is to ensure that the industry makes more effective use of the areas set aside for

¹ NOU 2008:5 Retten til fiske i havet utenfor Finnmark (Fishing rights in the sea off Finnmark). (Norwegian only.)



Figure 11.3 Aquaculture.

Photo: Salmar.

aquaculture. With this in view, the Ministry of Fisheries and Coastal Affairs appointed a committee to examine how the use of areas where aquaculture is permitted can be optimised. The committee's proposals have been circulated for comment, and are now being considered by the Ministry. The purpose is to ensure environmental sustainability while facilitating further growth in production. The availability of suitable localities for fish farming and a generally satisfactory environmental situation in North Norway provide a good starting point for further development of fish farming in the region.

Value creation in the industry can be increased not only by boosting production, but also by increasing efficiency and enhancing the sales value of the fish produced. In spring 2011, the Ministry of Fisheries and Coastal Affairs commissioned a study of the potential for further commercial development of the salmon and trout farming industry. This showed that there is con-

siderable potential for increasing value creation, for example through processing, by making better use of byproducts, and by improving operating efficiency. At present, only about 20 % of the salmon produced in Norway is processed before export. Processing provides local jobs, which is important for employment along the coast. Increasing local value creation will also enhance the standing of aquaculture production.

Farming of marine species

Farming of species other than salmon and trout may become important in the future, particularly in North Norway. So far, cod has been given priority. Cod thrive in the cold waters of the region, where conditions are more suitable than further south. A combination of private business interests and public-sector knowledge development has resulted in progress, but there are still both commercial issues, such as production costs, and environmental issues, such as escapes, that need to be resolved. If escaped fish survive to sexual maturity and breed with wild fish, characteristic traits of the wild fish could be lost. To prevent escaped farmed cod from affecting the genetic make-up of wild cod, releases of eggs and larvae from any future cod farming should be avoided.

The cod breeding programme run by Nofima in Tromsø has an important role to play in solving the challenges related to cod farming and ensuring that cod can be farmed profitably. In addition, an aquaculture research station, a fish health laboratory, and a national centre for capture-based aquaculture have been established in the Tromsø area.



Figure 11.4 Rich marine life on the seabed of Isfjorden, Spitsbergen.

Photo: S. R. Birkely, Marbank.

11.3 Marine bioprospecting

There are probably more than 10 000 species about which we know little, according to Norway's 2009 strategy for marine bioprospecting. These include species that live in cold Arctic waters where salinity, light conditions and nutrient availability vary. There are also species that live in oil reservoirs under high pressure and at high temperatures, and species that are adapted to difficult conditions in coastal waters or where there are high levels of pollution. This wide variety of species indicates that there are prospects of finding marine organisms with unique biochemical traits and that contain substances that can be used for a wide range of different purposes.

The Government considers that Norway's long coastline and extensive sea areas offer rich opportunities in terms of access to resources and high species diversity. Norway already has the infrastructure and research groups needed to collect and screen a wide variety of marine organisms. In combination with the national expertise that has already been built up in the marine sector and biotechnology, this gives Norway a good starting point for a national initiative for marine bioprospecting. The High North is important in this context because it is home to potentially interesting Arctic marine organisms, marine industries are already established in the region, and research expertise and infrastructure is available. Because of the potential for knowledge development and value creation, marine bioprospecting is an important element of the Government's High North strategy.

The Government has promoted marine bioprospecting in the High North, for example through its 2009 strategy for marine bioprospecting, which identifies gathering marine organisms from the northern sea areas and further development of infrastructure and research activities as priority areas. The Government allocated NOK 59 million² in 2010 and NOK 54 million³ in 2011 to activities in this field. The Government's goal is for marine bioprospecting to result in new, sustainable value creation, and with this in view, it will

² 2010: Ministry of Fisheries and Coastal Affairs (NOK 25 million), Ministry of Trade and Industry (NOK 24 million) Ministry of Foreign Affairs (NOK 10 million, Barents 2020 grant scheme).

³ 2011: Ministry of Fisheries and Coastal Affairs (NOK 25 million), Ministry of Trade and Industry (NOK 29 million).

Box 11.2 Marine bioprospecting

Marine bioprospecting can be described as a systematic and targeted search for components, bioactive compounds and genetic material in marine organisms. This includes all types of marine organisms – micro-organisms such as bacteria, fungi and viruses, and larger organisms such as algae, shellfish and fish. Marine organisms are found in the open sea, coastal waters, fjords, the seabed and oil reservoirs beneath the seabed. Marine bioprospecting is a process that can lead to industrial production of a variety of compounds that can be used in many different sectors.

focus on relevant research and commercialisation of products derived from marine bioprospecting. The position of Marbank (located in Tromsø) as the national marine biobank will be strengthened through enhanced cooperation and coordination between institutions responsible for different collections of marine organisms. This will take place within the existing budgetary framework. Innovation Norway, the Research Council of Norway and SIVA (the Industrial Development Corporation of Norway) have drawn up a joint integrated action plan for implementation of the Government's strategy for marine bioprospecting.



Figure 11.5 Kelp farming.

Photo: Silje Forbord, SINTEF Fisheries and Aquaculture.

The use of algae as raw materials and as biomass for energy production is an area that offers exciting opportunities for future development, and that will benefit from the new knowledge that will be developed through the Government's marine bioprospecting initiative. Algae grow fast and do not need extra nutrients beyond the supplies brought with ocean currents. The Research Council of Norway is supporting projects on the use of algae as feedstuff and the establishment of industrial-scale farming and harvesting of algae along the Norwegian coast for bioenergy and fish feed. It will take time before algae can be profitably grown for these purposes. The coastline from Sør-Trøndelag and northwards has suitable areas for farming algae.

Genetic material obtained from the natural environment is a common resource belonging to

Norwegian society as a whole and managed by the state. Access and benefit-sharing are important for conservation and sustainable use of biological diversity. Norway has signed the Nagoya Protocol on access to genetic resources and the fair and equitable sharing of benefits arising from their utilisation under the Convention on Biological Diversity. The protocol will enter into force 90 days after it has been ratified by 50 states. As part of the process towards Norway's ratification of the protocol and of following up the national strategy for marine bioprospecting, the Ministry of the Environment and the Ministry of Fisheries and Coastal Affairs are drafting regulations governing the collection and utilisation of genetic material under the Nature Diversity Act and the Marine Resources Act.

12 Oil and gas activities



Figure 12.1 The Arctic Princess docks at Melkøya.

Photo: Statoil

The continental shelves in the Arctic are believed to be the world's largest unexplored areas with significant petroleum potential. There is considerable uncertainty surrounding resource estimates for these areas. In 2008, the US Geological Survey estimated that about 22 % of the world's undiscovered, technically recoverable oil and gas resources can be found in the Arctic, or more specifically 13 % of the world's undiscovered oil and 30 % of its undiscovered natural gas (see Figure 12.2). It is thought that the undiscovered gas resources in the High North for the most part belong to Russia. Most of the exploration and production activities in the High North are currently taking place onshore, primarily in Russia, Alaska (the US) and Canada, despite the fact that the

majority of the resources (84 % according to the US Geological Survey) are thought to be located offshore. Since 2002, Greenland has awarded licences for exploration and test drilling west and south of its land area.

Because of the expertise they have gained from working under demanding conditions on the Norwegian continental shelf, Norwegian companies are sought-after as partners for developing the oil and gas resources in the High North. The Norwegian petroleum and supplier industries have 40 years' experience of exploration and production, and they have built up considerable expertise, developed advanced technology and established high standards for health, safety and the environment.

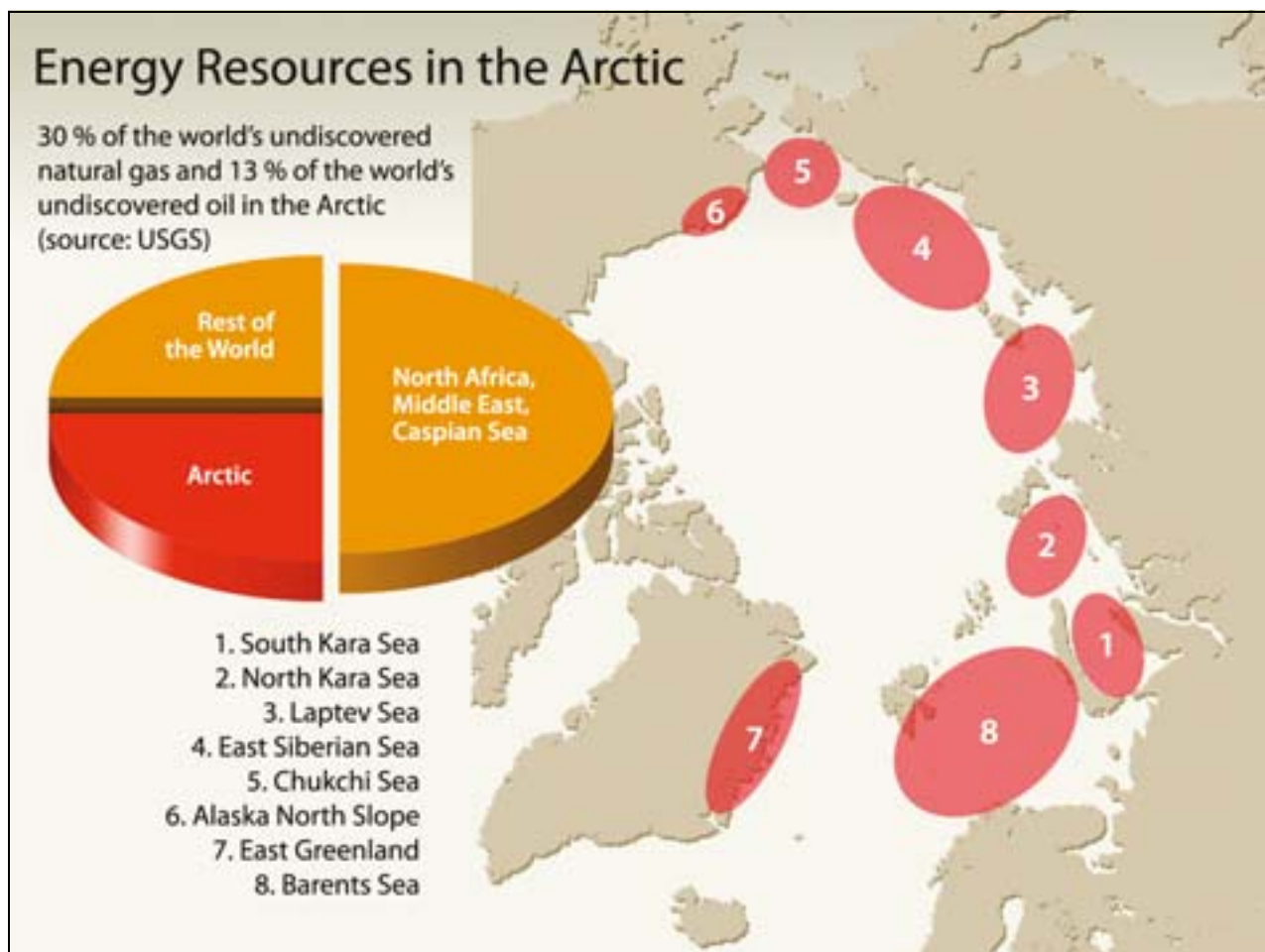


Figure 12.2 Estimated undiscovered oil and gas resources in the Arctic.

Source: United States Geological Survey

The white paper *An industry for the future – Norway's petroleum activities* (Meld. St. 28 (2010–2011)) describes the Government's petroleum policy and gives a broad overview of Norway's petroleum activities and the opportunities that exist in the High North. The Government will facilitate the further development of Norway's petroleum activities in the Barents Sea, and will seek to ensure that these activities have spin-off effects on value creation at the local and regional levels. It is crucial to provide a good basis for sound resource management and sustainable development in this region. This includes maintaining high health, safety and environment standards, making sure that Norway is at the forefront in research and development and offshore technology solutions, and ensuring that we have well-developed and reliable search and rescue and oil pollution emergency preparedness and response systems. The integrated management plans for Norwegian sea areas also establish the framework for petroleum activities in these areas. The purpose of the management plans is to

provide a framework for the sustainable use of natural resources and goods derived from the area, while at the same time maintaining the structure, functioning and productivity of the ecosystems in the sea areas concerned. Integrated management plans are thus a tool both for facilitating value creation and for maintaining the quality of the environment in sea areas.¹ Although the management of Norwegian petroleum resources is a matter of national concern, we also cooperate with other Arctic countries, for example in the Arctic Council, with a view to developing guidelines for oil and gas activities in the Arctic.

Cooperation with Russia will be particularly important in the time ahead. Under the treaty between Norway and Russia on maritime delimitation in the Barents Sea and the Arctic Ocean (see

¹ In March 2011, the Government presented its updated management plan for the Barents Sea–Lofoten area. The plan clarifies the overall framework for management of the area, including oil and gas activities.

Box 12.1 Barents 2020: Harmonisation of health, safety and environment standards for petroleum activities in the Barents Sea

The purpose of the project, which was initiated by the Ministry of Foreign Affairs and driven by the petroleum industry itself with DNV and Gazprom as project managers, was to assess and recommend harmonised industry standards for health, safety and environment for oil and gas activities in the Barents Sea, and associated maritime activities. The project has been divided into four phases, and was completed in December 2011. It is a good example of cooperation between Norwegian and Russian industry actors in the petroleum sector in the High North. Phase 1 of the project focused on securing the involvement of Norwegian and Russian actors, and establishing a basis for discussions between the Norwegian and Russian actors. In phase 2, Norwegian and Russian actors from industry and the authorities worked together to draw up scenarios that formed the basis for

work in phase 3. In addition, topics were identified for further study in phase 3, in expert working groups. Phase 3 focused on the work of the seven working groups, and led to a final report that assessed 130 recognised international, regional and national industry standards that will be used as a basis in future operations. Phase 4 has focused on developing additional requirements in areas that are currently not adequately covered by existing industry standards, for use on the Norwegian and Russian continental shelves in the Barents Sea.

Under the Barents 2020 programme, the Ministry of Foreign Affairs will support a follow-up project led by DNV with the aim of transferring experience from the cooperation between Norway and Russia to other Arctic countries where there are oil and gas activities.

Chapter 5.3), the part of the previously disputed area that lies to the west of the delimitation line covers around 87 000 km². The treaty takes a modern approach, with detailed rules and procedures to ensure the efficient and responsible management of any hydrocarbon deposits that extend across the delimitation line (unitisation rules). The treaty entered into force on 7 July 2011, and the Government will now initiate an impact assessment under the Petroleum Act, with a view to granting production licences for the previously disputed area west of the delimitation line in the southern part of the Barents Sea (south of 74°30' N). If justified by the conclusions of the impact assessment, the Government will present a white paper recommending that this area should be opened up for petroleum activity. As part of this process, geological surveying and mapping of the seabed has begun in the area. The Norwegian Petroleum Directorate started seismic surveying on 8 July 2011, the day after the treaty on maritime delimitation entered into force. This will be the first systematic survey of the petroleum resources in this area.

The project on harmonisation of health, safety and environment standards for petroleum activities in the Barents Sea, which is part of the Barents 2020 programme, is an important part of our cooperation with Russia. See Box 12.1 for more details.

The Government has also been involved in establishing a consortium of Norwegian and Russian institutions that are interested in cooperating on education, research and business activities in the energy sector. *The Norwegian and Russian Education and Research Consortium for International Business Development in the Energy Sector (NAREC)* was founded in 2010, and participants include a number of Norwegian and Russian institutions. The consortium is headed by the High North Center at the Bodø Graduate School of Business, University of Nordland in Norway and the MIEP Institute at MGIMO University, Moscow, in Russia.

There is considerable potential for making new discoveries in the High North, but there are many geological unknowns. If exploration is to be made more effective, it is important to have better geological models and improved understanding of the geology of the region.

Research focusing on Arctic issues is one of the areas funded by the Research Council of Norway's petroleum research programmes. These research programmes also seek to increase the involvement of North Norway's business sector in research and innovation projects. In the Optimal Management of Petroleum Resources (PETROMAKS) programme, the number of projects including actors from North Norway increased significantly in 2010.



Figure 12.3 The seismic vessel Harrier Explorer.

Photo: Petroleum Geo-Services

The Government would like to see profitable activities offshore that also create positive spin-off effects on the mainland, and will work towards this. The Government attaches importance to shaping policy in a way that makes the High North attractive to companies, so that they give the region priority in their portfolios. During the 21st licensing round, companies showed great interest in carrying out exploration activities in the southern Barents Sea.

Oil and gas activities are already creating positive spin-off effects. If these effects are to become more widespread, more discoveries that will be profitable to develop are needed. This will make it possible for the petroleum industry to expand in North Norway. More exploration and the opening up of new areas will be essential for achieving the desired results. The Storting has therefore decided to initiate opening of the waters around Jan Mayen and the part of the previously disputed area to the west of the delimitation line in the southern part of the Barents Sea (south of 74° 30' N). New jobs can be created if North Norway has

a long-term petroleum industry. If more supplier companies are established in the region, this will help to increase expertise and build professional networks. It is crucial that businesses in North Norway are able to compete on an equal footing with other potential suppliers to the petroleum industry. An active dialogue and close interaction between the authorities at local, regional and national levels are important for achieving this. With the development of the Snøhvit and Goliat fields, Hammerfest has become a centre for petroleum activities in the High North, and it is a good example of the major spin-off benefits that can be created.

In the spring of 2011, Statoil made a significant oil discovery on the Skrugard prospect in the Barents Sea. This is a breakthrough discovery in this part of the Barents Sea, and it could provide the basis for a new, independent development. In August 2011, a gas discovery was made on the Norvarg prospect, for which Total E&P Norge is the operator. These discoveries will give rise to new opportunities for activities in the Barents Sea in the

time ahead, and for further strengthening the petroleum industry in the High North. Local and regional assignments for the petroleum industry create spin-off effects onshore, as we have seen in connection with the development and operation of fields in other parts of Norway.

Petroleum activities off the Helgeland region of Nordland county (the Norne and Skarv/Idun fields) are creating spin-off effects in the municipalities of the region. In 2007, the supply base Helgelandsbase in Sandnessjøen bought goods and services totalling NOK 280 million from companies in Nordland. The companies, the municipalities and Nordland County Council are cooperating to ensure that the petroleum activities that are starting up result in the establishment of local jobs and businesses.

Not only are the petroleum activities creating significant spin-off effects in the form of increased employment, they are also creating a broader industrial base and more jobs that require special expertise. In Hammerfest, the development of the Snøhvit field has helped to reverse a negative demographic and employment trend.

The consultancy firm Asplan Viak and the Nordland Research Institute made a study of regional spin-off effects in connection with the updating of the integrated management plan for the Barents Sea–Lofoten area,² which gives an indication of the potential for positive spin-off effects – such as value creation, jobs and improved welfare – from the development of new petroleum fields. It shows that development of oil and gas fields can create between 4 000 and 6 000 new jobs in North Norway over a period of 30 years. This is based on a conservative estimate of the resources in the area. The resource scenario does not include potential resources in the previously disputed area west of the delimitation line, which would be additional to those included in the analysis.

As indicated in the white paper on Norway's petroleum activities, the Government will facilitate increased industrial use of gas in Norway, provided that this is commercially viable and the resource base is sufficient. The alternative value of the gas is its market price. Industrial use of gas in Norway must therefore be profitable, with market-based gas purchase agreements. The Government's point of departure is that the industry should be developed in an environmentally sound

Box 12.2 Snøhvit

The development of the Snøhvit field in 2002 was a milestone in developing the Barents Sea as a petroleum province. It is the first offshore gas development in the Barents Sea and Norway's first liquefied natural gas (LNG) facility. Up to 2 500 people were employed in the construction phase, until the field came on stream in 2007. Operation, maintenance, modification and support services for Snøhvit have created 400 jobs, and three quarters of the employees have been recruited from North Norway. Nearly NOK 3 billion of the overall deliveries to the field come from companies registered in North Norway.

Impact assessments show that Snøhvit has reversed the negative population and employment trends in Hammerfest. New companies are being established, and there is now a shortage of manpower in the region. Housing construction is expanding considerably, and a substantial increase in municipal revenues is expected. Substantial investments have been made in upgrading school buildings and infrastructure and in developing cultural facilities. The higher level of competence in the region resulting from the Snøhvit development has also benefited other industries.

way and within the framework of Norwegian climate policy. Development of infrastructure may be necessary in order to increase industrial use of gas in Norway. Any such projects must be market-based and driven by commercial interests. As mentioned in the white paper on Norway's petroleum activities, Gassco is conducting a study of development scenarios for gas infrastructure in the High North, including opportunities for industrial use of gas.

With rising oil and gas production and mineral extraction and an increasingly central position because of new transport routes, it may become more attractive to locate additional industry in the High North.

The Government will take steps to ensure that new discoveries result in maximum value creation for society and promote local and regional spin-off effects. The scale of the increase in industrial activity will depend on commercial conditions and Norway's international climate commitments.

² *Regional ringvirkningsanalyse i forbindelse med oppdatering av helhetlig forvaltningsplan Barentshavet-Lofoten* (Norwegian only), <http://www.regjeringen.no/upload/OED/Rapporter/Ringvirkningsanalyse.pdf>

13 Business development and value creation



Figure 13.1 Two offshore loading systems being transferred for use at the Hibernia field off the east coast of Canada. The systems were produced by the Miras Group, North Norway's largest engineering concern, whose production facilities are located in Mo Industrial Park in Nordland.

Photo: MIP Info.

13.1 Knowledge and innovation as a basis for business development

New knowledge and innovation are needed to achieve maximum value creation on the basis of the natural advantages that exist in the High North. According to calculations by the Ministry of Local Government and Regional Development,¹ economic growth is weaker in North Norway than in the rest of the country (value added rose by

40 % and 70 % respectively in the period 1997–2007). Similarly, productivity and productivity growth are significantly lower in North Norway than in the rest of Norway. However, many large corporations have their head offices outside North Norway and growth in value creation from these companies' activities in North Norway is recorded in the area where their head office is located, not in the statistics for North Norway.

Promoting innovation is an important task across the whole country, including in North Norway. The publication *Konjunkturbarometeret for Nord-Norge* ("Business Trends Barometer for North Norway", Norwegian only), which is issued twice a year, presents current figures and projec-

¹ KRD (2010): Deskriptiv analyse – næringer og samfunn i området knyttet til forvaltningsplanen. Descriptive analysis of population and industrial structure in North Norway (Ministry of Local Government and Regional Development, June 2010) (Norwegian only).

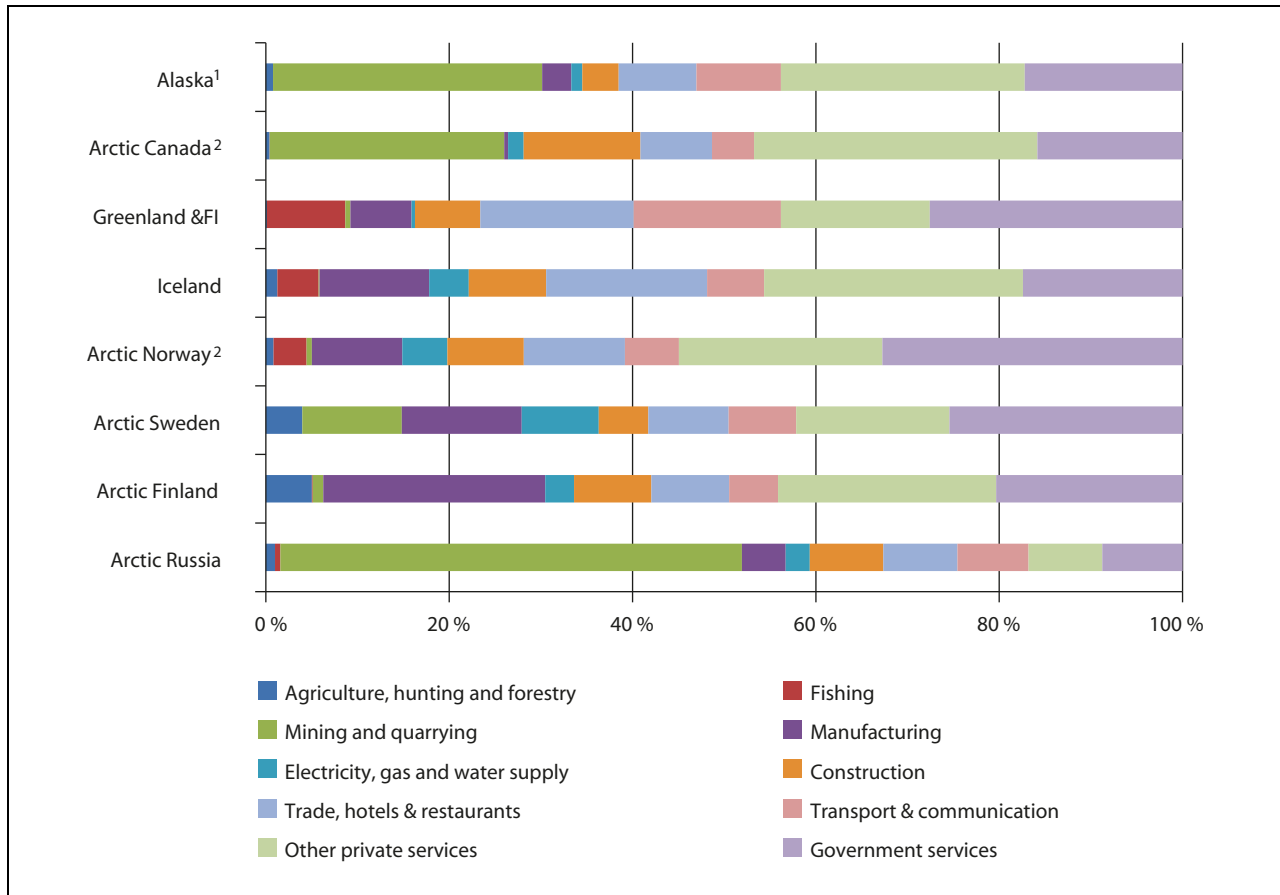


Figure 13.2 Industrial structure in Arctic regions.

¹ For Alaska, fisheries are included under agriculture, hunting and forestry.

² The bars for Canada and Norway are based on figures from 2007.

tions for the future. The autumn 2011 issue reported increasing business activity in the region, including the petroleum industry, exports from North Norway and tourism. Exports from North Norway were 38 % higher in the period January–August 2011 than in the same period in 2010. Fish and fish products account for approximately one third of all exports from North Norway and are particularly important for Troms and Finnmark. Other key exports from Finnmark include LNG (liquefied natural gas) from the Snøhvit field and iron ore exported by Sydvaranger Gruve. Nordland is the dominant industrial county in North Norway²; there is significant activity in the petroleum industry, in particular the development of the Skarv field, in aquaculture and in the mineral industry, where China is a major customer.

According to the autumn 2011 issue of the business trends barometer, uncertainty in the

² Indeks Nordland 2011. (“Index Nordland 2011, Norwegian only)

global economy has so far had little impact on the North Norwegian economy and there is optimism that activity in a number of sectors, including the petroleum industry, the metal industry, the marine sector, tourism and the construction industry, will increase. However, a shortage of both skilled and unskilled labour remains a problem in many areas of North Norway. The need for labour is increasingly met by immigrants and migrant workers, who make up 14 % and 4 % of the workforce respectively, as opposed to 12 % and 3 % in the country as a whole.

Natural resource-based industries and tourism play a particularly important role in North Norway, and the public sector is larger than in the rest of the country. Oil and gas extraction and mining, both onshore and offshore, are areas that are gaining significance as are energy, the maritime industry and new forms of economic activity based on marine and land-based resources. We are dependent on knowledge, technology, capacity and expertise to maintain and further develop business activity in the north.

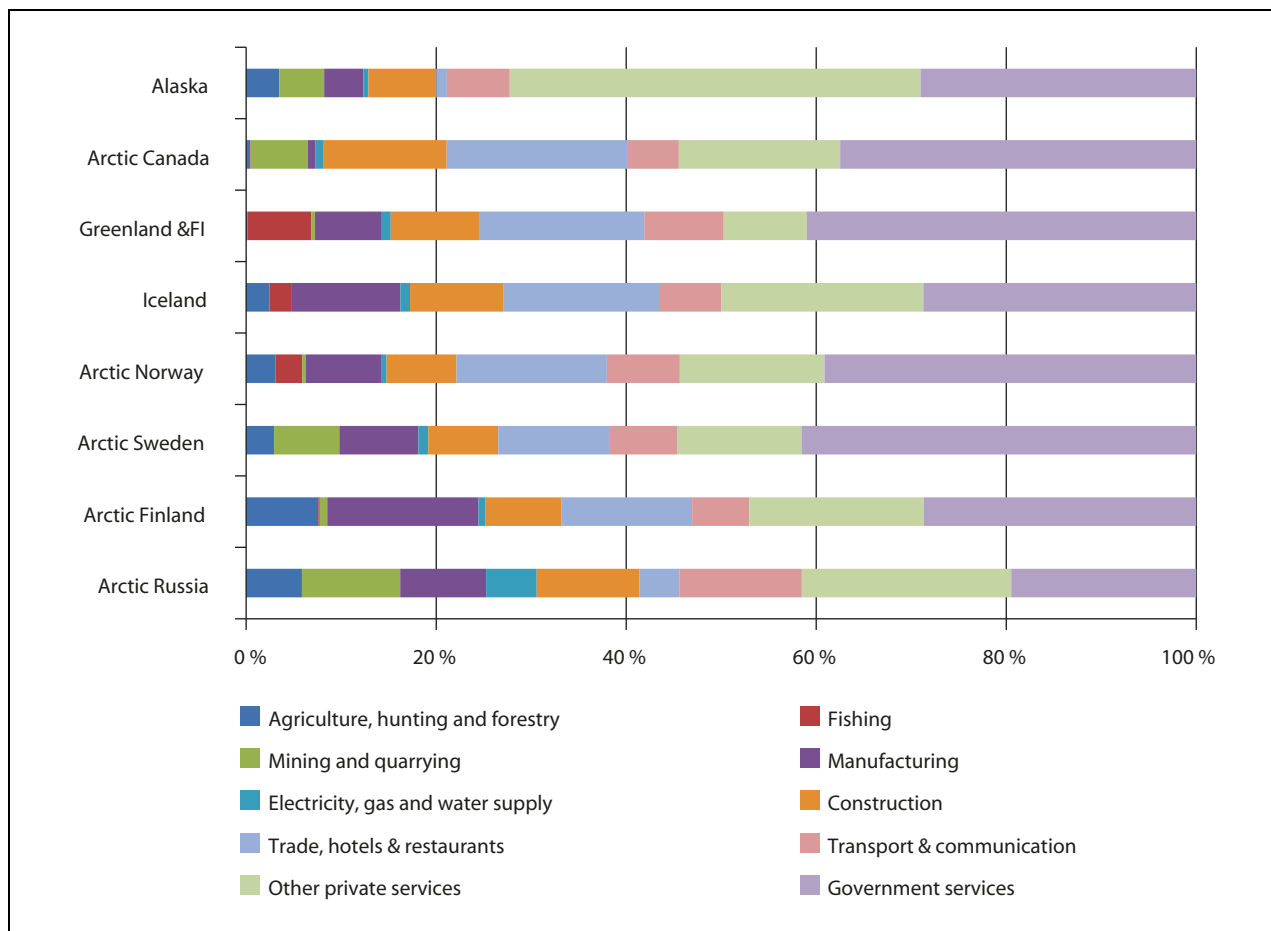


Figure 13.3 Percentage of total employment by industry for various Arctic regions, 2008.

Figure 13.3¹ shows the percentage of total value added by industry in various Arctic regions in 2008². The percentage for mining – including oil and gas production – is highest in northern Russia, where it accounts for over half of total value added. In Alaska and Arctic Canada mining accounts for 29 % and 25 %, respectively, of value added. Public services (including the public administration and public health, education and social services) are particularly important in North Norway, where they account for about one third of total value added. In northern Russia the figure for public services is only 9 %. However, the armed forces are not included in the regional economic accounts for Russia. By comparison, in Alaska the armed forces account for some 23 % of total value added generated by the public services.

¹ Source: Professor Ilmo Mäenpää, University of Oulu.

² The division into regions in this table is the same as that used in the report *The Economy of the North*, which was drawn up by Solveig Glomsrød and Iulie Aslaksen, both researchers in Statistics Norway, in 2008. The only region of the US included in the table is Alaska. Canada: the Yukon Territory and the Northwest Territories, Nunavut. Denmark: Greenland and the Faroe Islands. Norway: Finnmark, Troms and Nordland. Sweden: Norrbotten and Västerbotten. Finland: Lapland, the Oulu region and Kainuu. Russia: Murmansk, Karelia, Arkhangelsk, Komi, Yamal-Nenets, Khanty-Mansia, Taimyr, Evenk, Sakha, Koryak, Magadan and Chukchi. The whole of Iceland is included.

A shortage of capital is one of the factors making it harder for start-up companies to establish themselves in North Norway. In a white paper on state ownership (Meld. St. 13 (2010–2011)), the Government announced that it would put forward a proposal on the establishment of a number of new country-wide seed money funds, and that it would submit a separate proposal to the Storting as to how the funds should be organised. One of these funds will be established in North Norway.

Norway has a highly educated population and the most highly educated workers are relatively less expensive to employ than in other countries.

This gives us a competitive advantage when it comes to knowledge-intensive industries. It also means that it is likely and desirable that growth in the Norwegian business sector will take place primarily in industries that require a highly educated workforce. By ensuring a higher level of education, Norway will gain a more productive labour force and greater potential to stimulate innovation.

In the Government's view, steps need to be taken to develop a more knowledge-based business sector in the High North. It is vital that companies from other parts of the country, as well as

foreign companies, play a central role in this. Relevant research will also be crucial for developing knowledge-intensive business activity. This is clearly set out in the Research Council of Norway's revised Research Strategy for the Arctic and Northern Areas (June 2011). The Government's High North Committee has recommended that knowledge-based business development be given top priority in research on the High North.

A shortage of qualified and unqualified labour is currently hampering the development of many communities in North Norway. Lack of manpower is a greater problem in North Norway than elsewhere in the country, in part due to the industrial and population structure of the region. As set out in Official Norwegian Report 2011:3 (Norwegian only) on knowledge-based jobs and economic growth, it makes economic sense to ensure that the growth in the number of knowledge-based jobs is spread across the entire country. A broad-based effort in several policy areas is needed in order to increase the number of knowledge-based workplaces. Regionally based educational institutions, themselves knowledge-based workplaces requiring highly educated staff, have a key role to play in the region in terms of generating knowledge and supplying qualified personnel to the public and private sector.

In order to meet the region's need for expertise, it is important to be able to provide relevant education and training to the sparse population in North Norway. Providing flexible educational opportunities requires academic and technological cooperation between educational institutions in North Norway and elsewhere in the country.

The universities and university colleges in North Norway are the main hubs of the region's knowledge infrastructure. In the Government's view it is important that research and educational institutions both in the High North and elsewhere in the country cooperate with existing and new private sector actors in the High North. One of the objectives of the Research Initiative for Northern Norway (NORDSATSING), which was established in 2009 with funding provided by the Ministry of Local Government and Regional Development, is to strengthen the links between the private sector and the knowledge sector in North Norway. In the white paper *Education Strategy* (Report No. 44 (2008–2009) to the Storting), the Government proposed that each institution should establish a council for cooperation with the social partners, including representatives of the social partners and students. The purpose of the councils is to strengthen strategic cooperation

between the sectors. According to the proposal, the councils will draw up a strategy to ensure lasting dialogue with the social partners on the development of degree programmes and further and continuing education.

The high drop-out rate from upper secondary schools in North Norway also poses considerable challenges and is a general impediment to business development. The Government has launched a three-year project aimed at establishing lasting cooperation between the central and local authorities in order to improve pupils' chances of successfully completing upper secondary education.

There is also a pressing need for closer cooperation between the educational institutions and the private sector in the areas of work experience placements and teaching in primary and secondary schools. Better integration of immigrants in local communities, an effective housing policy and the approval of existing educational programmes for immigrants are other important measures for increasing the availability of skilled labour in North Norway.

13.2 Infrastructure for transport and electronic communications

In the Government's view, increased investment in infrastructure is essential for strengthening Norway's long-term ability to create value. The National Transport Plan 2010–2019 includes a number of projects of major strategic importance for the development of the High North. These projects will be followed up in connection with the annual budgets.

In the past, there has been a considerably lower level of ambition and a lack of ability to follow up the financial framework in the transport plan in annual budget proposals. This situation has changed considerably since 2005. The financial framework set out in the National Transport Plan 2010–2019 is NOK 100 billion higher than in the previous transport plan. This will be crucial for the development of the road network in North Norway. The framework for state investment in new trunk road projects in North Norway is approximately 300 % higher in the 2010–2019 plan than in the 2006–2015 plan. The total amount of funding allocated for the operation and maintenance of trunk and county roads in Nordland, Troms and Finnmark has risen by 33 %, from NOK 1.2 billion in 2007 to NOK 1.6 billion in 2010. The increase in funding will also allow the implementation of a series of measures to improve fair-



Figure 13.4 Iron ore being transferred from train to ship in Narvik.

Photo: Port of Narvik

ways in Nordland, Troms and Finnmark, which will enhance the safety and efficiency of maritime transport in the High North.

It is also important to develop attractive labour market regions in the High North. The Government is giving priority to upgrading the E6 trunk road, which links the different parts of Norway together, all the way from Kirkenes in the far north to Svinesund on the Swedish border in the south. Many of the projects will be implemented in North Norway. The National Transport Plan 2010–2019 also gives priority to strengthening important road connections with Sweden, Finland and Russia.

The establishment of new infrastructure in vulnerable areas may cause major disturbance to the natural environment and lead to a rise in pollution levels. The Government attaches great importance to limiting the negative environmental impacts of infrastructure development by incorporating this into the planning process and ensuring that projects are carried out in accordance with the national targets set out in Norway's climate and environmental policy.

The Government also announced a review of transport infrastructure in the High North in the

National Transport Plan 2010–2019. As a follow-up to this, the transport authorities and Avinor AS were commissioned by the Ministry of Transport and Communications and the Ministry of Fisheries and Coastal Affairs to prepare a strategic report on transport infrastructure needs in the High North. The aim was to generate a better knowledge base for use in future decision-making on infrastructure development in the region. The report was submitted to the Ministry of Transport and Communications and the Ministry of Fisheries and Coastal Affairs on 22 June 2011. It is one of a number of background reports that will serve as input to the new national transport plan for 2014–2023. The new plan is to be submitted to the Storting in spring 2013, and will include an overall review of the aims and strategy of the Government's transport policy.

Long distances between communities and economic centres in North Norway mean that air services and airports are crucial for the population and for business. A number of local initiatives for the construction of new airports or extension of existing runways are underway throughout Norway. Several of these projects are located in North Norway. The transport authorities and Avinor are

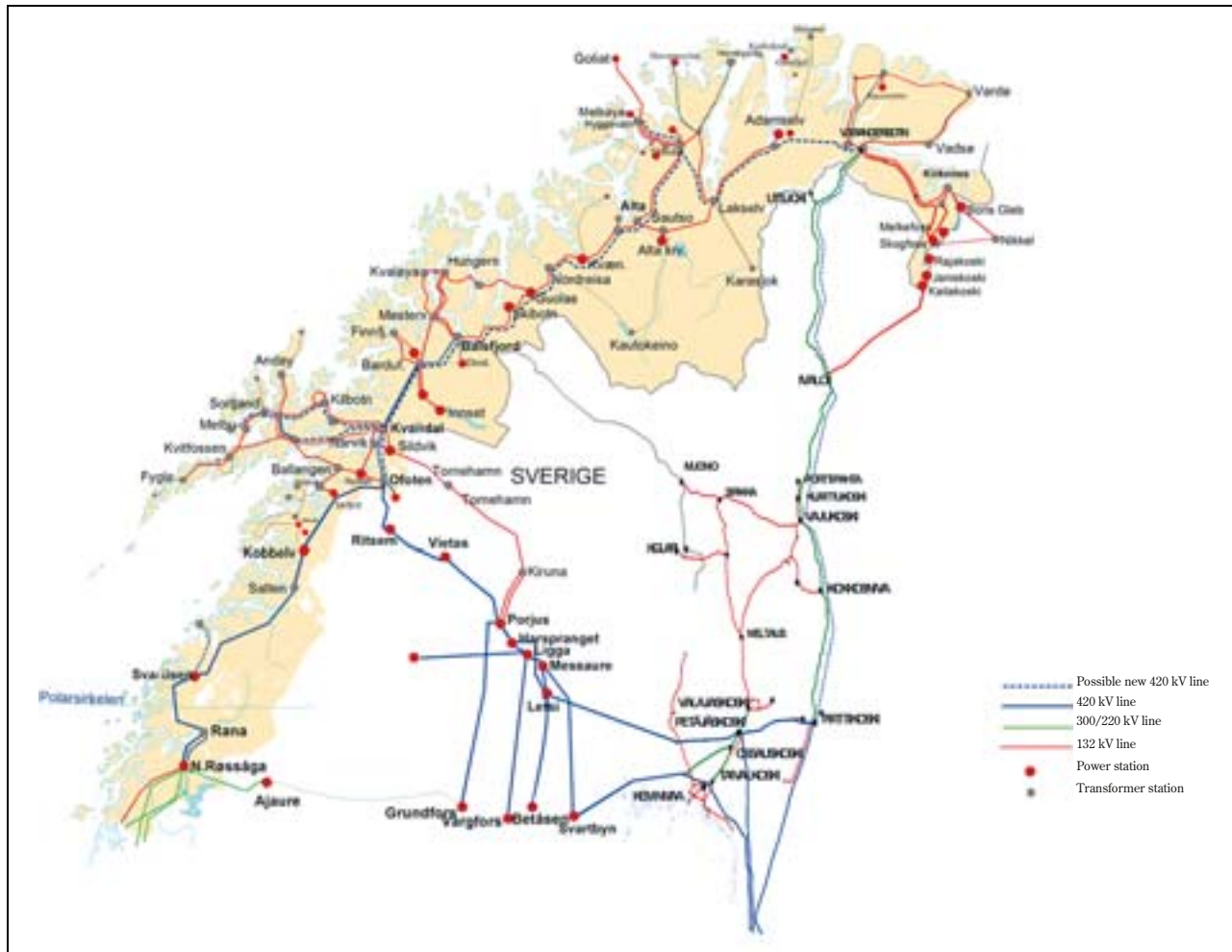


Figure 13.5 Electricity infrastructure in the northern parts of Norway, Finland and Sweden. Prepared by North Energy.

to carry out an analysis of local initiatives related to the airport structure. Their report will form part of the basis for the new national transport plan for 2014–2023.

The Government's aim is to establish transport infrastructure between Norway and neighbouring countries so as to link different parts of the Barents region more closely together. The Northern Dimension Partnership on Transport and Logistics will provide an arena for furthering efforts in this area. The purpose of the partnership is to identify and implement effective projects that can improve cross-border infrastructure in the region. The Government will cooperate with neighbouring countries to attract co-funding from the EU for projects related to cross-border transport.

New projects on the extraction of ores and mineral resources in northern parts of Sweden and Finland and the potential for developing such resources in North Norway may heighten the

need to expand infrastructure capacity. The Government will play an active role in developing the necessary knowledge base and promoting contacts between political and business groups with interests in the region in order to provide a basis for assessing needs and opportunities. Concrete transport solutions that can meet the future needs of the mineral industry should be assessed more closely, in cooperation with Sweden and Finland.

One valid option is to increase the number of shipments moving through Norwegian ports via the railways. This could be an attractive alternative as Norway has ice-free ports and can accommodate the largest ships. An increase in maritime traffic in the High North could create a need for improvements to the fairways and for further measures to monitor maritime traffic. It may also mean that some ports would need to be deepened. The Government will consider these issues further in connection with the preparation of the new national transport plan for 2014–2023. The Gov-

ernment will also promote the development of the ports into hubs that can enhance business development in the region. A project to establish good connections between the ports and the rest of the transport network would be relevant in this context.

Industry must be prepared to make a financial contribution to the development and operational costs of any projects to increase the capacity of the railway infrastructure, which are primarily driven by the need for industrial transport solutions.

The market for electronic communication has been liberalised, and service providers develop services on the basis of demand and capacity needs. The three counties of North Norway have played a significant role in ensuring the expansion of a high-capacity network over large areas. Finnmark county, for example, is in the process of having a fibre optic cable installed between eastern Finnmark and Murmansk. Broadband, broadcasting, mobile telephony and mobile broadband are all dependent on a robust and adequate network for electronic communication. There are several connections between the networks of the neighbouring countries in the High North, not least to ensure adequate capacity and redundancy (backup connections) in case of network failure. The Government will continue its efforts to facilitate the provision of a broadband network with sufficient capacity to meet future needs in education, health, the business sector and households across the whole of Norway.

13.3 Electricity infrastructure and renewable energy

Sufficient electricity production and transmission capacity in North Norway are essential for industrial activity and business development in the region. The Government views it as very important to ensure that Norway has an efficient electricity grid throughout the country that facilitates industrial activity and business development. The Government also attaches great importance to close cooperation with neighbouring countries in the High North and with the other Nordic countries.

The development of electricity infrastructure has impacts on the natural environment and local communities. The advantages and disadvantages of new power lines are weighed up through licensing procedures and associated impact assessments and consultation processes.

Electricity production in North Norway is based primarily on hydropower. In a normal year the region currently generates a surplus of approximately 4.8 TWh, but variations in water inflow mean that there are wide fluctuations from year to year and between seasons. There are also large variations within the region. Whereas Nordland county has a surplus of electricity, Troms and Finnmark experience a deficit in the winter. It is therefore crucial to ensure that there is a reliable transmission grid in place.

Today, the electricity grid in large areas of Troms and Finnmark is aging and has a voltage of 132 kV. Security of supply is also weaker in Troms and Finnmark than in other parts of the country because large areas of these two counties are dependent on a single transmission line running from Ofoten to Hammerfest.

Statnett is planning to construct two new 420 kV transmission lines – from Ofoten to Balsfjord and from Balsfjord to Hammerfest, to be completed in 2014 and 2017 respectively. This will improve security of supply and expand capacity so that the transmission of renewable energy is also possible and consumption can be increased, for example in connection with increased activity in the petroleum and mining industries.

In addition to projects designed to increase the north-south transmission capacity of the Norwegian electricity grid, Statnett is also looking at ways of increasing transmission capacity between neighbouring countries in the High North. Norway is a part of the Nordic power supply system, and North Norway is more closely linked to Sweden than to southern Norway. There are also important connections to Finland and Russia from eastern Finnmark. Statnett is seeking closer cooperation on grid development in the High North, in particular through its “Arctic Circle” project. The company points out that as well as improving security of power supply in the northern parts of Finland, Norway and Sweden, cooperation in this area could promote the development of renewable energy sources, currently prevented by limited transmission capacity, and the establishment of new “green” business activity based on electrical power. Statnett has also initiated a project with the Finnish company Fingrid which will examine how the grid in the High North can be developed in the long term as part of the consideration of the proposed ring interconnector linking North Norway, northern Finland and northern Sweden, the “Arctic Circle”.

Cooperation between grid operators in the Nordic countries has traditionally been close, and

this is being continued through the European Network of Transmission System Operators for Electricity (ENTSO-E). In addition, Statnett and the Swedish system operator Svenska Kraftnät (Swedish national grid) collaborate extensively on grid development. Continued close cooperation between the system operators in the Nordic countries is crucial for further development of the grid in North Norway.

Renewable energy

There is great potential in the High North for increasing renewable energy production. Prior notification and applications for hydropower projects in North Norway that could produce some 3 TWh per year are currently being considered by the energy authorities. The region has abundant wind resources and the energy authorities have received notification and applications for a large number of wind power projects. According to a feasibility study carried out by the Norwegian Water Resources and Energy Directorate and Enova SF in 2008, it would be technically possible to produce some 4 TWh of wind power in the period up to 2025, provided that grid capacity is increased as planned. The licence applications for hydropower and wind power projects will be assessed on the basis of scientific knowledge, and the advantages of each project will be weighed up against its potential negative impacts on the environment and other public interests.

The Government will work to unleash the potential of renewable energy through existing funding arrangements. Norway and Sweden have established a common market for green certificates, which is an important component of a targeted initiative to promote renewable energy production. The two countries aim to increase their renewable electricity production by a total of 26.4 TWh by 2020. The common market for green certificates is technology-neutral. Producers of electricity based on renewable energy sources receive a green certificate for every MWh of electricity produced. Income from the sale of green certificates, in addition to income from the sale of electric power, will make it more profitable to build new facilities for the production of electricity from renewable energy sources. The common market is due to come into effect on 1 January 2012 and will remain in place until the end of 2035. A long-term partnership such as this provides a sound, stable framework for the industry. The scheme is regarded as an important tool for unleashing

some of the huge potential for renewable energy production in the High North.

The common market for green certificates will replace the system of investment grants for wind power under Enova. Promoting a shift in energy production and use through Enova and the Energy Fund, will, however, continue to be a part of the Government's renewable energy policy. In the future, Enova's activities will focus on increasing the use of energy carriers other than oil, gas and electricity for heating, energy efficiency in industry and buildings and full-scale demonstrations of renewable energy technologies. This is in line with Enova's primary objective of promoting a transition to greener energy production and use in Norway, and will also result in a more diversified energy supply and better security of supply.

13.4 New prospects for the maritime sector

As a result of global climate change the ice-covered waters of the Arctic Ocean and adjoining seas will gradually become more accessible to international shipping. An increase in maritime activity is expected particularly in connection with offshore oil and gas activities, the transport of goods and equipment to and natural resources from the Arctic and a gradual rise in transit shipping.

In the Barents Sea, traffic consisting of large tankers and bulk carriers to and from Russian ports has risen from 200–240 ships with a cargo volume of 10–12 million tonnes per year during the period 2004–08 to over 300 ships with a cargo volume of 18 million tonnes in 2010.³ Increased production of petroleum and mineral resources in the Norwegian and Russian Arctic will lead to greater activity in the maritime sector.

There will, for example, be a need for transfers at sea of gas condensate and oil from smaller ice-class vessels to large tankers for transport to the market. Ship-to-ship transfers of Russian crude oil take place in winter in the Bøkfjorden at Kirkenes and in the Sarnesfjorden at Honningsvåg. In the Government's view, strict regulation of cargo transfers is necessary to ensure a high standard of safety and to reduce the risk of environmental damage.

³ Source: First update of the Integrated Management Plan for the Marine Environment of the Barents Sea-Lofoten Area, Meld. St. 10 (2010–2011)

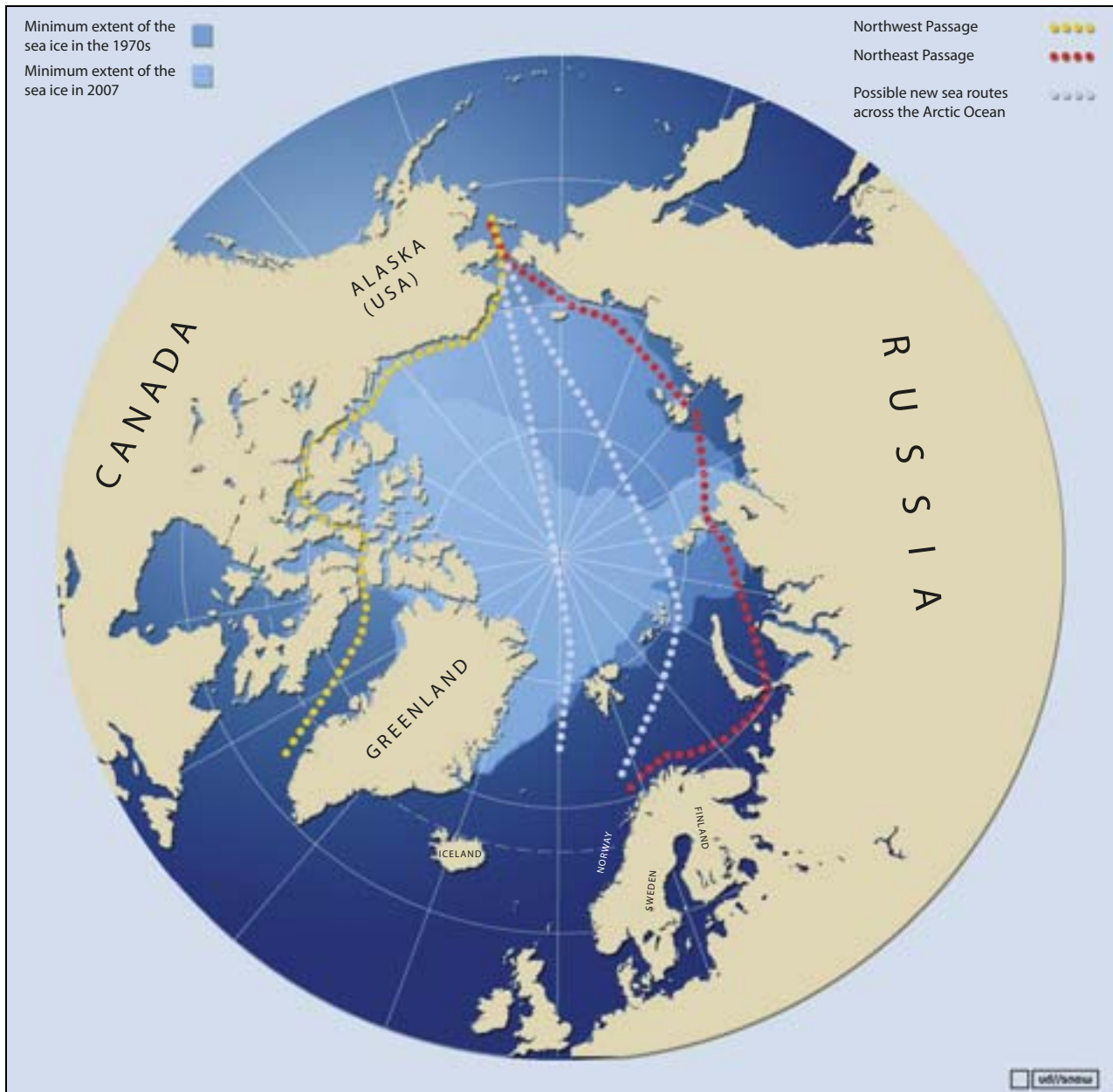


Figure 13.6 New sea routes in the Arctic Ocean.

An increase in maritime activity will also open up opportunities for developing service and support functions at Norwegian ports. The Government welcomes the fact that onshore support functions for maritime and offshore activities are being moved northwards. The investment made by the Port of Tromsø to enable it to carry out major maintenance work on platforms operating in northern waters is an exciting example of strategic positioning. In line with measures set out in the report *New Building Blocks in the North*, the Ministry of Fisheries and Coastal Affairs, in cooperation with the Ministry of Petroleum and Energy, commissioned the Norwegian Coastal Administration to draw up a report assessing the

possible alternative locations for a new oil terminal in eastern Finnmark. A new terminal of this kind could provide services to the oil and gas and maritime transport industries in the Barents Sea. The report, published by the Norwegian Coastal Administration in 2010, concluded that several of the ports in eastern Finnmark (Kirkenes, Vadsø, Vardø (Svartnes), Båtsfjord, Berlevåg and Kjøllefjord) could, with varying levels of investment in infrastructure, be considered as possible future oil terminals. However, Kirkenes is the only existing port that meets the requirements for major cargo handling and petroleum facilities. In order to strengthen the position of Kirkenes as a hub in eastern Finnmark the Government is giving prior-

ity to upgrading the E105 road towards Russia. In addition, new infrastructure projects at Kirkenes airport may also be considered in connection with the preparation of the national transport plan for 2014–23.

Interest in transit traffic through the Northeast Passage is growing. The sea journey from Yokohama to Hamburg is approximately 40 % shorter via the Northeast Passage than via the Suez Canal and bunker consumption roughly 20 % lower.⁴ There has been limited maritime traffic between Europe and Asia through the Northeast Passage since summer 2010. In the long term, the Northeast Passage may be a viable route for the international merchant fleet, particularly due to the continuing growth in demand for raw materials from the developed Asian countries. DNV⁵ estimates a trade potential for shipping in the Arctic of 1.4 million TEU⁶ in 2030, equivalent to 480 transit voyages across the Arctic. For 2050, the trade potential rises to 2.5 million TEU and the projected number of Arctic transit passages (one-way) to 850. However, these estimates depend on assumptions about several factors, such as global economic development, structural conditions in the global merchant shipping fleet and fuel prices. The Russian authorities are taking steps to facilitate regular traffic along the Northern Sea Route with a view to strengthening Russia's leading position in maritime operations in the Arctic. Close cooperation has been established between key Russian actors, such as Rosatomflot, and Norwegian business interests. The Government welcomes the fact that Russia is strengthening infrastructure and search and rescue capacity that will help to make maritime activities in the area safer and more efficient.

The estimates vary and are uncertain, but there is little to indicate that regular shipping traffic across the central Arctic Ocean can be established for several decades. Despite the uncertainty, questions have been raised about what Svalbard's role might be in a scenario involving increased international maritime traffic in and across the Arctic Ocean. It is important in this context to differentiate between regular shipping routes that could create a need for transshipment ports and other technical infrastructure, and a

possible rise in other forms of maritime traffic, e.g. in the cruise sector.

There are a number of challenges associated with shipping activities in Arctic waters, for example relating to maritime safety, environmental considerations, greenhouse gas emissions, preparedness and response, monitoring and control. The costs of building ice-class vessels are high. The long polar night, the risk of ice formation on vessels, and high insurance premiums all push costs up. Also, it must be expected that traffic regularity and reliability will be lower in the Arctic than along other shipping routes. A comprehensive review of shipping in the Arctic, resulting in the Arctic Marine Shipping Assessment 2009 Report, has been carried out under the auspices of the Arctic Council. The report provides an analysis of expected developments and contains a large number of specific recommendations for strengthening maritime safety.

The International Maritime Organization (IMO) is currently developing a mandatory international code of safety for ships operating in polar waters (the Polar Code). This work is being led by the Norwegian Maritime Authority. The Government intends to play a leading role in the development of international rules and industry standards and in knowledge generation and knowledge-sharing efforts that help reduce the risks associated with shipping in the Arctic. High priority is being given to completion of the Polar Code, which will encompass both safety and environmental considerations.

The Government attaches importance to developing maritime research and shipping expertise in the High North. The aim is to equip the Norwegian maritime industry to exploit the opportunities and meet the challenges associated with Arctic oil, gas and marine resources and the opening of new transport routes for energy and shipping in the High North. Environmentally sound maritime operations under difficult conditions, particularly in the High North, is one of the priority research and innovation areas identified in the Government's maritime strategy. This is also reflected in the priorities set for the allocation of funding for maritime research and innovation under the Research Council's programme Maritime Activities and Offshore Operations (MAROFF) and schemes administered by Innovation Norway. Arctic transport and operations is one of the strategic focus areas of the maritime industry's research and innovation strategy platform, *Maritim 21*.

⁴ Source: Shipping in Arctic Waters, report by Ocean Futures.

⁵ Shipping across the Arctic Ocean, Research and Innovation, Position Paper 04 – 2010, DNV

⁶ TEU (twenty-foot equivalent unit), standard unit for cargo carrying capacity.

Box 13.1 Barents 2020: Centre for High North Logistics

The Ministry of Foreign Affairs provided funding for the establishment of the Centre for High North Logistics (CHNL) under the Barents 2020 scheme. The aim of the centre is to develop practical knowledge and networks between the relevant authorities, businesses and research institutions in the fields of maritime logistics and shipping in the High North. A number of projects and activities have been initiated by the centre, including a comprehensive study entitled *Shipping in Arctic Waters* carried out by the research institute Ocean Futures. The report from the study is being developed into a dynamic, searchable database and knowledge hub on shipping in the Arctic. In April 2011, the centre established its Arctic Logistics Information Office in Kirkenes, in cooperation with the Barents Institute and the Norwegian Barents Secretariat.

In the Government's view, there are particular benefits to be gained by developing new business activity in areas of industry and knowledge where Norway already enjoys a strong position. Norway has one of the most dynamic shipping and maritime sectors in the world and the Government considers it important that Norwegian actors are in a position to secure market shares in the High North. A strong maritime industry in this region will also demonstrate Norwegian knowledge and Norway's presence in the area. The maritime industry is the fourth largest industry in North Norway. With its 9 000 person-years, the industry recorded a turnover of NOK 14 billion in 2008, corresponding to approximately 7 % of total value added in the region.⁷ The maritime sector in North Norway continues to be dominated by fishing vessel companies but recent years have seen the development of many small and medium-sized companies producing offshore equipment, often for use in the Arctic.⁸

⁷ Source: Survey of value creation carried out by Menon Business Economics and Northern Research Institute (Norut) Narvik, commissioned by Maritimt Forum Nord in 2009 (Norwegian only).

⁸ Source: En kunnskapsbasert maritim næring ("A knowledge-based maritime sector", Norwegian only) published by Menon Business Economics in April 2011.

In order to strengthen competence in the industry, several of the most influential maritime actors in the High North have come together to establish an Arctic maritime cluster. This is a meeting place where strategic partnerships can be developed in order to strengthen the maritime sector in the High North. In 2011, the Ministry of Foreign Affairs provided funding for a pilot project aimed at enabling the cluster to meet the criteria required to qualify as a candidate for Innovation Norway's Arena programme.

13.5 Mineral extraction in the High North

The Government plans to present a strategy for the mineral industry in the spring of 2012. The strategy will consider the framework conditions for the mineral industry and mineral policy from a national perspective.

The global demand for ores, metals and minerals is rising rapidly. The Government therefore intends to carry out a survey of Norway's mineral resources in the High North. New mining operations could form the basis for business development and value creation. The Government will develop contacts with Finland and Sweden so that the region can be considered as a whole, for example as regards infrastructure and competence building. There is also potential for cooperation with Russia in the area of mineral extraction. The exploitation of ore and mineral resources in the High North will also be one of the topics addressed during Norway's chairmanship of the Barents Euro-Arctic Council and its presidency of the Nordic Council of Ministers. The topic will also be reflected in the work of the Northern Dimension Partnership on Transport and Logistics.

Mining activities can be land-intensive and can have considerable environmental impacts related to environmental disturbance, waste management and pollution. The development of new mining operations and new infrastructure related to transport, energy and industry could affect important species and habitats and remaining areas without major infrastructure development.

The Norwegian authorities take these environmental challenges seriously and require the industry to meet strict requirements to safeguard the environment. The Mineral Resources Act, the Nature Diversity Act and the Pollution Control Act provide the framework for new mining activities, see also Chapter 8.3.

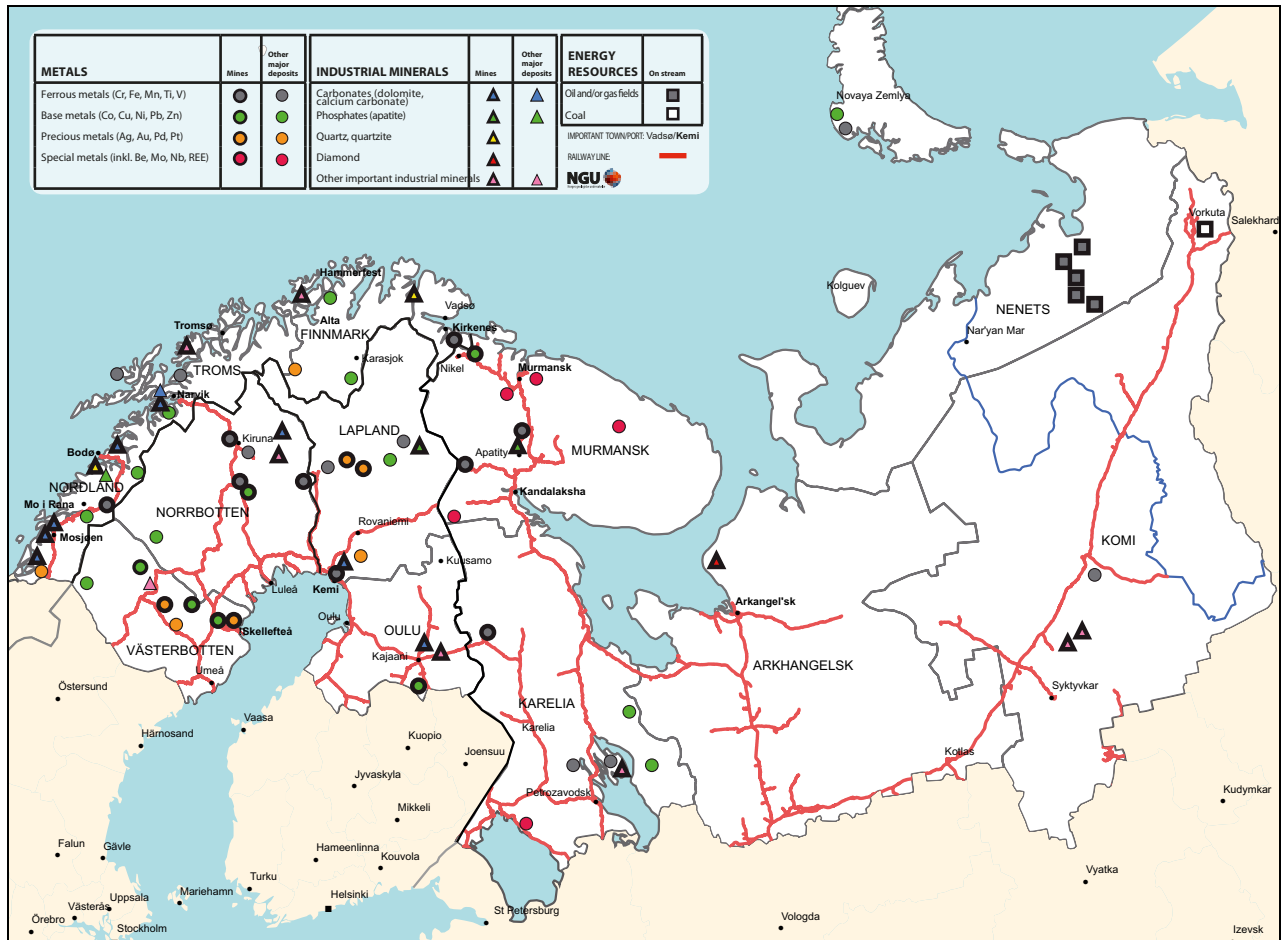


Figure 13.7 Mineral deposits and transport logistics in the Barents region.

The Government welcomes the cooperation between mineral companies and indigenous peoples' organisations on issues relating to the extraction of minerals.

Strong economic growth in the BRIC countries⁹, and particularly in China, is an important driving force behind the increased demand for minerals. China is the destination for close to two-thirds of the world's total exports of iron ore and accounts for 60 % of global pig iron production. Chinese consumption and demand are therefore vital for the further development of this industry. Moreover, China accounts for approximately 40 % of the global demand for copper, aluminium, zinc and nickel (sources: US Geological Survey, UN Conference on Trade and Development, World Bureau of Metal Statistics).

Europe consumes 20 % of the world's ores and minerals, but produces only 3–4 %.¹⁰ The Barents region is one of the very few areas in Europe

where there is a potential for the discovery and development of new deposits.

The geological region known as the Fennoscandian or Baltic Shield, which consists of the northern parts of Norway, Sweden, Finland and western Russia, is home to rich deposits of iron ore, base metals (copper, zinc, lead, tin and aluminium), industrial minerals, precious metals and special metals including rare earths. In many parts of the Barents region transport represents a bottleneck in the efficient exploitation of the resources. The coast is an important advantage for the mining industry in Norway as it affords easy access to deep ice-free ports. Our geographical location means that Swedish and Finnish minerals can also be transported to markets via Norway. Narvik, with its rail connection to Kiruna, is an important transshipment port for iron ore from Sweden.

Rising activity in the mineral and mining industry makes it essential to have satisfactory transport solutions so that larger volumes can be transported to the markets. The Swedish

⁹ Brazil, Russia, India and China.

¹⁰ Source: Geological Survey of Norway



Figure 13.8 Mining iron ore, Sydvaranger Gruve AS.

Photo: Bente Geving

mining company LKAB plans to increase its production of iron ore in Sweden substantially. Two other companies are also planning to extract ore in Sweden and transport it via the Ofoten iron ore railway line and the port of Narvik. The capacity of the Ofoten Line is under pressure and the volume of goods transported along this line is already higher than along any other stretch of railway in Norway. In addition, the port needs to be developed to take account of the increase in activity. Sweden is planning to build several new passing loops. If current transport forecasts prove accurate, there may be a need to construct a double-track line. In the short term, more passing opportunities must be provided. The Government is following developments and is engaged in dialogue with the Norwegian National Rail Administration and Port of Narvik. Other rail solutions may also be considered, depending on developments in production, market factors and political priorities in Finland and Sweden. An assessment of transport needs for the High North will be included in the next national transport plan, which will be submitted to the Storting in spring 2013. The Government considers it important to play a part in generating necessary knowledge, highlighting alternative options and bringing business and other relevant actors together to discuss the various alternatives.

Innovation and research are crucial for parts of the mineral industry. A considerable ability to innovate is needed to be able to meet customers' demands for tailor-made products. In order to strengthen Norwegian expertise in the mineral sector, the Government has provided funding for the establishment of a professorship in ore geo-

Box 13.2 Barents 2020: Professorship in ore geology/ mineral resources

Through the Barents 2020 scheme, the Ministry of Foreign Affairs has provided funding for the establishment of a professorship in ore geology/mineral resources at the University of Tromsø. A PhD position is also to be established.

Norwegian educational institutions are currently not producing specialists with sufficient expertise in the fields of bedrock and resource geology, with the result that the mining and prospecting industry lacks well qualified Norwegian candidates. The establishment of the professorship at the University of Tromsø will go some way to meeting the need to educate experts in the field. The aim is also to generate increased knowledge of mineral resources in Norway for the purpose of developing mineral-based industries within a sustainable framework. The new professorship will create a hub for expertise and teaching in ore geology/mineral resources that will also be of benefit to other educational and research institutions, the public administration and industry. Funding provided under the Barents 2020 scheme will also be used to promote the development of arenas for cooperation with Norwegian and international research groups working in fields related to the High North. The establishment of the professorship is therefore expected to lead to increased cooperation with Nordic and Russian research groups.

logy/mineral resources at the University of Tromsø.

To date, there has been no comprehensive survey of the seabed to identify mineral resources that could be extracted in the future. In order to facilitate mineral extraction from the seabed, the Government will consider whether there is a need to update the legislation in this area, in connection with the preparation of the strategy for the mineral industry.

The Government is seeking to strengthen Nordic cooperation in the mineral sector. It has provided funding for a pilot project on the establishment of a Nordic knowledge centre for the mineral sector, in cooperation with the SINTEF

Box 13.3 Barents 2020:**The GeoNor report and a new Nordic knowledge centre for the mineral sector**

The review of industrial value creation based on geological resources in the High North (GeoNor) was a joint project involving the participation of researchers from the Northern Research Institute (Norut) in Narvik and Alta, SINTEF Group (Tromsø), the Geological Survey of Norway (NGU), the Norwegian University of Science and Technology (NTNU) and the SINTEF Group (Trondheim). The project was established at the beginning of 2010, with funding provided by the Ministry of Foreign Affairs under the Barents 2020 scheme, the three counties of North Norway, and the Executive Committee for Northern Norway (Landsdelsutvalget). The purpose of the project was to assess the resource situation (gas and minerals), to identify specific industrial development opportunities and to consider the degree to which the current framework conditions are in keeping with the goals set out in the Government's High North Strategy on achieving balanced and viable industrial development in the High North. The GeoNor report concluded by recommending the following:

1) The preparation of a research and innovation strategy for the sustainable exploitation of mineral resources in Norway (Mineral 21)

- 2) The establishment of a Nordic centre for the extraction and processing of mineral resources.
- 3) The development of regional/local industrial development projects, based on five industry cases described in the report.

The Research Council of Norway has begun to assess whether a research strategy for the mineral sector should be prepared. In addition, the Ministry of Foreign Affairs has provided funding for a pilot project that will review the establishment of a Nordic knowledge centre for the extraction and processing of mineral resources. The pilot project will seek to establish cooperation between the member countries of the Barents Euro-Arctic Council and develop a concept for the knowledge centre, which is intended to be a driving force for competence building, knowledge exchange and research and innovation in the field. The centre will generate knowledge that can be used in decision-making on the establishment of new industrial activities designed to make use of mineral resources from the Barents region.

Group and other Norwegian and Nordic knowledge institutions. The project is a follow-up to the recommendations set out in a review of industrial value creation based on geological resources in the High North (GeoNor), which was drawn up under the auspices of the SINTEF Group and the Northern Research Institute (Norut), and was partly funded through the Barents 2020 scheme.

Norwegian mining operations in Svalbard are largely confined to Svea, where the Store Norske Spitsbergen Kulkompani AS produced 1.9 million tonnes of coal in 2010. The company has plans for new coal mining projects in other areas to replace current activity at the Svea Nord mine. The most realistic project is the opening of a new coal mine at Lunckefjell to the north of the Svea Nord mine. In accordance with the Svalbard Environmental Protection Act, the company has submitted an application to the Governor of Svalbard for permission to open a coal mine at Lunckefjell. The policy guidelines for Norwegian mining opera-

tions in Svalbard are set out in the most recent white paper on Svalbard (Report No. 22 (2008–2009) to the Storting). If the Government approves the opening of a new mine at Lunckefjell, the matter will be submitted to the Storting.

13.6 Space-related activity

North Norway, Svalbard and the sea areas in the High North are ideally placed to make use of data from polar orbiting satellites for practical, industrial or research purposes. Satellites in polar orbit provide the most accurate information about the Earth. They also provide better coverage near the poles than near the equator. Ground stations in the High North are therefore best placed to receive data collected by these satellites. In addition, the vast sea areas and lack of other infrastructure in the region mean that there is a particularly strong need for satellite data.

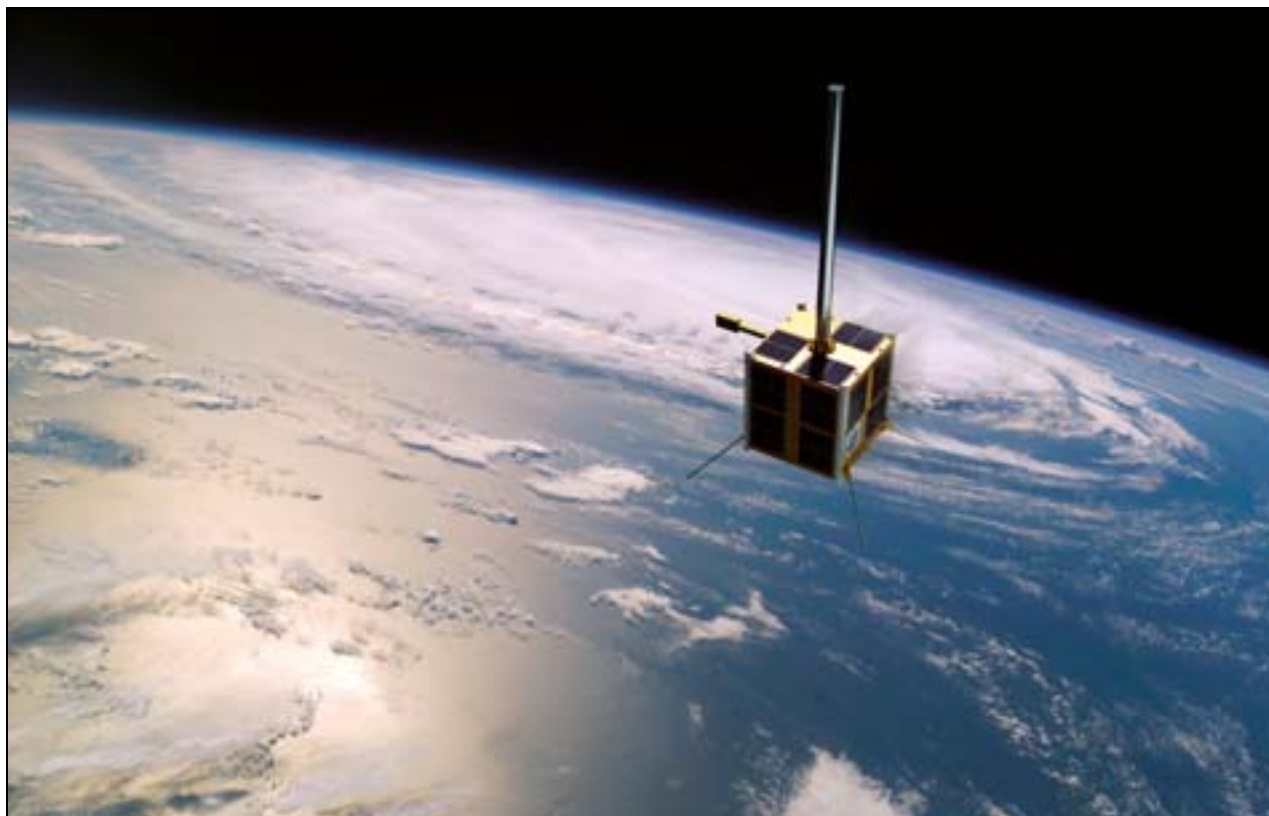


Figure 13.9 The Norwegian satellite (AISSat-1) is improving surveillance of maritime activities in the High North.

Image: Norwegian Defence Research Establishment/NASA/Norwegian Space Centre/nyhetsgrafikk.no.

Much of Norwegian space-related activity is carried out by government agencies, institutes and companies based in the High North. The Government has taken steps to facilitate the further development of space-related activity in the High North, for example through efforts to revitalise the work of the Andøya Rocket Range and participation in the development of the European satellite navigation system Galileo.

The research results obtained during International Polar Year (2007–08) show that satellite data is particularly useful for research in the polar regions. This is because satellites are able to collect data from vast, inaccessible areas, whatever the weather or light conditions. The satellites collect data rapidly, often from polar orbit. The data can then be downloaded quickly.

Space-related activity in Norway is important both for meeting Norway's national needs and in terms of providing services for international clients. The Government's space-related efforts are particularly significant for the High North. A relatively large part of space research and space-related activity is carried out in North Norway and in Svalbard, for example at the rocket launch

sites on Andøya island and in Svalbard, at the EISCAT radar facility, the ALOMAR Observatory at the Andøya Rocket Range and the Kjell Henriksen Observatory (formerly the Auroral Station) at Breinosa near Longyearbyen.

Svalbard Satellite Station (SvalSat), the large satellite ground station on Spitsbergen, is operated by Kongsberg Satellite Services. The Norwegian Space Centre owns the fibre optic cables that link Svalbard to the mainland, enabling important satellite data to be distributed rapidly to customers around the world and at the same time providing other users in Svalbard with good bandwidth. Kongsberg Satellite Services is also the world's leading provider of oil spill detection services to European environmental authorities. Radar satellites can also be used to monitor maritime traffic far out at sea. Today, maritime traffic is monitored using the Automatic Identification System (AIS), which transmits information to the Norwegian Coastal Administration base stations on shore. The system transmits data about the position of the ship as well as its speed, course, cargo and name. But these signals are only picked up if the vessel is less than 40 nautical miles from land. The

new satellite AISSat-1 will now make it possible to monitor all vessels far from land and around Svalbard.

The Government's space-related initiatives have resulted in a number of contracts and assignments for Norwegian high-technology companies, both through European Space Agency programmes and through the commercial market. Norway is also participating in the development of Europe's new satellite navigation system, Galileo, which is due to become operational in 2014. Once fully deployed, Galileo will consist of 30 satellites and will provide better satellite coverage in the far north as well as a range of new services. The SvalSat satellite station is currently the ground station for several of the polar-orbiting Earth observation satellites, including the European environmental satellite Envisat and the meteorological satellite MetOp-A. SvalSat will also serve as a ground station for the Galileo satellite system. It is one of a total of three Galileo ground stations on Norwegian territory. The second is based at the Troll research station in Antarctica and the third is on Jan Mayen. These stations will enhance the reliability and accuracy of the signals, both in our areas and globally. SvalSat will also function as an uplink station and will transmit correction messages to the satellites when necessary.

The Government has contributed to the development of space infrastructure that is particularly useful for the High North through Norway's participation in the Galileo programme and the launch of the AISSat-1 satellite. The Government intends to continue its efforts to strengthen space-related activity in the High North.

13.7 Tourism

Tourism is important for business development in North Norway and is a priority area in the Government's High North policy. The primary responsibility for ensuring that the industry develops in such a way that it provides high-quality products and experiences lies, however, with the relevant actors in the region. Funding has been provided for a research and competence-building project in Arctic tourism at Finnmark University College through the Ministry of Foreign Affairs' Barents 2020 grant scheme.

The Ministry of Trade and Industry is currently updating the Government's 2007 tourism strategy, which gives special mention to the High North and the Sami areas. The strategy states that there is a need for greater coordination across the

borders of the three counties of North Norway and that the region would benefit from a joint, focused marketing strategy for the foreign market. In 2009, in response to this, the Ministry of Local Government and Regional Development provided NOK 50 million in funding for the establishment of Nordnorsk Reiseliv AS. The company is owned by the three counties of North Norway and has its head office in Alta. Nordnorsk Reiseliv's four main focus areas are natural phenomena, the coast and coastal culture, Sami culture and experiencing the Arctic. The establishment of Nordnorsk Reiseliv has provided a basis for strengthening the profile of the tourism and travel industry and international marketing of North Norway. Developing year-round tourism, particularly winter tourism, is a challenge for the industry and the authorities. Various actors in the region have expressed the need to make North Norway more accessible by improving infrastructure and the coordination and predictability of public transport services.

Of the funding provided by the Ministry of Trade and Industry for Innovation Norway's tourism-related efforts, NOK 15 million has been earmarked for promoting North Norway. Arctic Norway is one of the four key elements in Innovation Norway's branding strategy for Norway as a tourist destination. Through Innovation Norway, the Ministry of Local Government and Regional Development has provided funding for a project on tourism in the High North, which seeks to strengthen innovation, competitiveness and profitability in tourism companies in North Norway.

Tourism in Svalbard is based on the unspoilt natural environment. There is potential for further growth in this area, particularly outside the high season. The Government intends to promote tourism in Svalbard and has an overriding goal to ensure that Svalbard is one of the world's best managed wilderness areas and the best preserved Arctic tourist destination in the world. The ambitious environmental targets and the environmental legislation that have been developed for Svalbard will provide a framework for the development of tourism. In addition, the Governor of Svalbard is drawing up management plans for the protected areas in Svalbard, which cover 65 % of Svalbard's land area and 86 % of its territorial waters. The plans will be an important tool for managing the development of different forms of transport and weighing up different user interests in accordance with the purpose of protection. Tourism developments in Svalbard must adhere



Figure 13.10 One of the Hurtigruten ships.

Photo: Innovation Norway

to strict safety and environmental standards. As discussed in the most recent white paper on Svalbard (Report No. 22 (2008–2009) to the Storting), the Government will take steps to facilitate the further development of tourism as one of Svalbard's main industries. This development must not take place at the expense of the natural environment and the archipelago's cultural heritage.

Tourism is also a key component of our cooperation with neighbouring countries. A separate working group for tourism has been set up under the Russian Governmental Commission on Economic, Industrial and Scientific-Technical Cooperation. The working group meets regularly to discuss tourism development in the High North. Tourism has also been identified as an area of special interest for the Northern Dimension Partnership on Culture.

The value creation programme for combined business activities and Sami tourism was established in 2008. The Sami Parliament (Sámediggi) is responsible for administering the programme. The aim of the programme is to increase value creation by focusing on and developing innovative combinations of business activities and Sami tourism. In the period 2009–11, NOK 8.5 million a year was allocated to the programme.

13.8 Arctic agriculture and reindeer husbandry

Agriculture occupies a central place in the High North policy because it plays an important role in maintaining a dispersed settlement pattern, in sustainable use of natural resources and in maintaining the cultural landscape. Agriculture and its related value chain generate a large number of jobs and a significant local food production sector. New products and services, including nature-based tourism opportunities, can be developed on the basis of agricultural and food production. It is important to ensure the development of a coherent policy for Arctic food production and to increase coordination between blue-collar and green-collar primary industries in the region. New knowledge gained from research activities is needed if we are to be able to exploit the potential of Arctic agriculture.

Ensuring that agriculture remains decentralised across the whole of North Norway is important for maintaining settlement patterns. Agriculture also has a key role to play in preserving the cultures and traditions of indigenous peoples. The Government considers it important to strengthen and further develop Arctic agriculture and will



Figure 13.11 Every year, reindeer are transported by boat from the mainland to summer pastures on the islands and outer districts of northern Troms and Finnmark.

Photo: Per Oscar Skjellnan, ©Reindrifftsforvaltningen

facilitate increased value creation by promoting agricultural production that is suited to the natural conditions in the region, while ensuring that biodiversity and ecosystems are maintained.

The long hours of daylight and low temperatures in North Norway produce very unusual growing conditions that have a noticeable impact on agricultural products. There is also growing interest in food products that are regional specialties. These factors combined mean that there is considerable potential for growth in food production in North Norway.

Research on the adaptation of plant production in North Norway to a changing climate is essential to ensure that agriculture in the region is competitive. It is crucial in this context to strengthen knowledge production and ensure that new knowledge continues to be generated in the region. Efforts to exploit new business opportunities should be designed to promote coordination between blue-collar and green-collar primary industries in the region.

Climate change is creating unstable weather patterns and more frequent extreme weather

events and drought. This is having a noticeable impact on agriculture in a number of parts of the world. In many areas agricultural production may decline, while in others, changes in temperature and precipitation may have positive effects on agriculture. In Norway there are strong indications that a moderate rise in temperature will lengthen the growing season and will make it possible to increase agricultural and forestry production. Climate change could therefore result in new opportunities for agriculture in the High North.

The Government considers it important to develop agricultural cooperation across national borders in the High North. The joint declaration on enhanced Norwegian-Russian cross-border cooperation of 2010 identifies plant breeding, fodder production, the development of elite seeds from Nordic plant varieties and the development of reindeer husbandry as particularly interesting areas of cooperation in the field of agriculture.

Reindeer husbandry is one of the few livestock industries in Norway that makes year-round use of grazing areas. The nomadic nature of reindeer herding, involving migration between seasonal

pastures, helps to ensure efficient use of grazing resources in the mountains and uncultivated land elsewhere. The reindeer's diet, which consists primarily of wild plants, makes reindeer meat a tasty and exclusive addition to food variety in Norway. Reindeer husbandry is concentrated largely in Finnmark. In some local communities in the Sami areas, reindeer husbandry plays a crucial role both culturally and in terms of employment. It provides an arena for maintaining and developing the

Sami language, as well as Sami crafts and traditional knowledge. The sustainability of the reindeer husbandry industry depends both on factors within the industry and on external factors. Ensuring access to sufficient grazing areas and adapting the size of reindeer herds to the available resources will promote ecological sustainability and are essential for ensuring that reindeer husbandry is also both economically and culturally sustainable.

14 Economic and administrative consequences

The purpose of this white paper is to give an overview of developments in the High North since the previous white paper on Norway's High North policy, *Opportunities and Challenges in the North* (Report No. 30 (2004–2005) to the Storting).

The implementation of changes in policy and of measures discussed in the white paper will be considered at a later stage, in connection with the annual budget proposals.

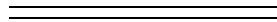
The Ministry of Foreign Affairs is responsible for coordinating the Government's High North policy and for giving an account of the Government's overall efforts in the High North in its annual budget proposals. Matters relating to the Arctic and the High North are dealt with in various parts of the Ministry. The Section for the High North Project, Polar Affairs, Energy and Resources has the main responsibility for working on and coordinating these matters. The Norwe-

gian diplomatic and consular missions in the Arctic states and other key countries also allocate resources to promoting Norway's High North policy. This white paper will not lead to any changes in the administrative procedures for dealing with matters relating to the High North at the Ministry of Foreign Affairs or the diplomatic and consular missions.

The Ministry of Foreign Affairs

r e c o m m e n d s :

that the recommendation from the Ministry of the Foreign Affairs concerning the High North dated 18 November 2011 should be submitted to the Storting.



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