Sweden’s strategy for the Arctic region
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Summary

The purpose of the Government’s Strategy for the Arctic Region1 is to present Sweden’s relationship with the Arctic, together with the current priorities and future outlook for Sweden’s Arctic policy, proceeding from an international perspective. The strategy begins with a summary, followed by an introduction of Sweden as an Arctic country. Further, it specifies how, and through which international cooperation bodies and bilateral channels, the Government should seek to achieve its objectives for the Arctic. Finally, it discusses the top priorities in the strategy’s three thematic areas: climate and the environment, economic development, and the human dimension. This is the first strategy the Government of Sweden has adopted on the Arctic as a whole, and should be seen as a starting-point for further development of cooperation in the region.

The Arctic region is in a process of far-reaching change. Climate change is creating new challenges, but also opportunities, on which Sweden must take a position and exert an influence. New conditions are emerging for shipping, hunting, fishing, trade and energy extraction, and alongside this new needs are arising for an efficient infrastructure. New types of cross-border flows will develop. This will lead state and commercial actors to increase their presence, which will result in new relationships. Moreover, deeper Nordic and European cooperation means that Sweden is increasingly affected by other countries’ policies and priorities in the Arctic. It is in Sweden’s interest that new emerging activities are governed by common and robust regulatory frameworks and above all that they focus on environmental sustainability.

Sweden will work to ensure that the Arctic remains a region where security policy tensions are low. In bilateral and multilateral contexts, Sweden should emphasise the importance of an approach based on a broad concept of security, and that the use of civil instruments is preferable to military means. The role of the Arctic Council as the central multilateral forum for Arctic issues should be strengthened. The Council should be more active in developing common policies and practical projects for the benefit of the

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1 In the strategy, the region concerned is sometimes referred to as the Arctic region, sometimes as the Arctic and sometimes as the Arctic area. In describing the Nordic countries’ part of the Arctic (including in the context of regional cooperation with Russia), the term High North is sometimes used as well. The definition of the Arctic region is discussed in greater detail in Section 1.3.
region. Sweden will actively contribute to the ongoing development of an EU policy on Arctic issues. Advantage must be taken of cooperation and synergies between the Barents Euro-Arctic Council (BEAC) and the Arctic Council, as well as with the various EU cooperation programmes and the means at their disposal. In the Nordic Council of Ministers, Sweden will work to give projects with an Arctic orientation increased focus. Activities and cooperation in the Arctic must be conducted in accordance with international law, including the United Nations Convention on the Law of the Sea and other relevant international agreements.

Sweden wants to promote economically, socially and environmentally sustainable development throughout the Arctic region. Sweden will work for substantially reduced global emissions of greenhouse gases and short-lived climate forcers. In cooperation with other Arctic countries, Sweden will contribute to data and proposals for action to strengthen the long-term capacity of Arctic communities and environments and their adaptation to a changed climate. This will increase resilience to climate change and create conditions for long-term sustainable development in the region. Emissions of persistent bioaccumulative organic pollutants need to be reduced. Sweden will contribute to the preservation and sustainable use of biodiversity in the Arctic. Environmental impact assessments and environmental assessments should be used to a greater extent. Networks of protected areas for flora and fauna should be established in the Barents region and elsewhere.
Sweden will continue to be a leading research nation in the climate and environmental fields and will focus on the human impact of climate change.

Sweden’s growth and competitiveness stand to benefit from increased free trade and active efforts to counter technical barriers to trade in the Arctic region. Sweden will work to ensure that the anticipated extraction of oil, gas and other natural resources occurs in an environmentally, economically and socially sustainable manner. It is important that the development of regional cross-border cooperation in the area of sea and air rescue continues. More stringent safety requirements must be imposed for maritime transportation and, in various sectors, use must be made of Sweden’s environmental technology expertise. The Swedish Trade Council offices in Denmark, Norway, Finland, Russia, the United States and Canada, and in northern Sweden, should be instructed to build up skills to promote Swedish commercial interests in the Arctic. The tourism sector should be developed, albeit with consideration for the environment and the traditional lifestyles of indigenous peoples. Communications between tourist destinations should be improved in a sustainable manner. Swedish ice-breakers are uniquely qualified to support Arctic research and monitor the vulnerable marine environment.

Sweden will work to bring the human dimension and the gender perspective to the fore in Arctic-related cooperation bodies. Measures will be needed to counteract the negative health and social impacts of climate change, pollutants and the expected increase in the exploitation of Arctic natural resources. The right of indigenous peoples to maintain and develop their identity, culture, knowledge transfer and traditional trades must be upheld. The Sámi languages and other indigenous Arctic languages must be preserved. The Sámi research programme should use Arctic-related cooperation projects to amplify the impact of research activities.
Introduction

1.1. Why a strategy for the Arctic region?

Arctic issues are receiving an increasing amount of attention in the Arctic countries and in various multilateral cooperation bodies. There are several reasons behind this trend.

Few places in the world have been as dramatically affected by climate change as the Arctic. Global warming gives rise to a number of effects including reduced ice, snow and permafrost covers. It also affects biodiversity as it changes the conditions for both flora and fauna. This in turn has a gradual impact on the living conditions for indigenous populations in the Arctic, making it increasingly difficult for them to pursue traditional industries and practise their culture. Increasingly hot summer periods in the Arctic have reduced the ice cover, which will create new opportunities for more sea transport north of Russia through the Northeast Passage and north of Canada and the United States through the Northwest Passage. Via the Northeast Passage, the distance from Asia to Europe and vice versa is shortened considerably. However, more sea transport involves greater risks. A less extensive and thinner ice cover also creates new conditions for the extraction of the region’s natural resources. According to some estimates, over a third of the world’s undiscovered natural gas reserves and over ten percent of the world’s oil reserves can be found in the Arctic. Rapid advancements in technology have also enabled previously inaccessible reserves to be extracted. This development has also increased the focus on international law.

The changes have given rise to a number of new political challenges for the Swedish Government in many different areas. Sweden is an Arctic country with interests in the region and has an important role to play in both multilateral and bilateral discussions. A need has therefore emerged for the Swedish Government to formulate a political strategy for its continued efforts regarding the Arctic region. Sweden’s chairmanship of the Arctic Council, starting in May 2011, underlines the need for a clear direction in Arctic issues.
1.2. Strategies in other Arctic countries

The adoption of this strategy means that all eight member states in the Arctic Council have adopted strategies for the Arctic region.

In Norway, development in the High North, including the Arctic, has been the Government’s highest foreign policy priority since 2005. The overarching objective is to gain greater knowledge, create more activity and have an increased presence in the north and to lay the foundations for sustainable economic and social development in the future. The Norwegian Government’s High North strategy was established in 2006. It was followed in 2009 by the report “New Building Blocks in the North” which identifies seven priority areas: 1) climate and the environment; 2) monitoring-emergency response-maritime safety in northern waters; 3) sustainable development of offshore petroleum and renewable marine resources; 4) onshore business development; 5) infrastructure; 6) sovereignty and cross-border cooperation; and 7) the culture and livelihoods of indigenous peoples. In the 2011 central government budget, a total of NOK 1.2 billion was set aside for initiatives in the High North, a significant portion of which was earmarked for research. Cooperation with Russia plays an important role in Norway’s Arctic policy. Norway is also promoting greater engagement in the Arctic by NATO and the Nordic Council of Ministers. The Norwegian Government intends to present an updated version of its strategy (“Towards the North”) shortly.

Because Greenland and the Faroe Islands are also part of the Commonwealth of the Realm Denmark the country has a special position in the Arctic. Denmark’s Arctic strategy is based on the aims of supporting and strengthening development in Greenland and maintaining the position of the United Kingdom of Denmark as an important actor in the Arctic. To adapt to the changed conditions in the Arctic and because of its inextricable links with Greenland, Denmark has a special interest in promoting long-term, sustainable regional development within the framework of both Arctic cooperation and the activities of the Nordic Council of Ministers. Special priority has been allocated to the following areas: energy and minerals; trade and tourism; shipping; education and research; and nature and the environment. Denmark intends to develop a new Arctic strategy during 2011.

Iceland’s Arctic policy goal is to secure the country’s status as a coastal state in the Arctic region and safeguard its influence over develop-

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2 The Faroe Islands and Greenland are part of the Danish delegation in the Arctic Council.
ments and international decision-making based on legal, economic, ecological and geographical arguments. Iceland also wishes to “strengthen the Arctic Council as the main cooperative body on Arctic issues and press for decisions to be made within the Council.” EU membership for Iceland would provide the country with greater scope to assert its interests in Arctic cooperation bodies while giving the Union an even more palpable geographical presence in the region.

Finland’s position as an Arctic country in the Nordic region is very similar to Sweden’s. Neither country borders on the Arctic Ocean, both are EU Member States and both have indigenous Sámi populations. The Finnish Arctic strategy, established in 2010, defines the objectives for the country’s Arctic policy and describes ways of promoting it. The emphasis is on external relations, i.e. Finland’s relationship to the Arctic from an international perspective. The strategy deals with the region’s security, environment, economy, infrastructure, indigenous peoples, international institutions and the Arctic Policy of the European Union. Proposals for measures include improving transport communications, promoting exports, research and strengthening the Arctic Council. The strategy also proposes that Arctic Council summits be held on a regular basis and also includes proposals on how the Arctic Policy of the EU can be developed (e.g. giving the European Commission observer status in the Arctic Council and establishing the European Arctic Information Centre as part of the Arctic Centre at the University of Lapland in Rovaniemi). The Finnish Government has appointed a delegation for Arctic issues, which has a central role in the future development of the strategy.

Russia attaches considerable importance to the development of the Arctic, especially for security policy and economic reasons. A Russian strategy for the Arctic in 2008 clarifies the fundamental national interests in the Arctic. These are: 1) the Russian part of the Arctic shall serve as a strategic resource base to promote social and economic development, 2) the Arctic shall be an area of peace and cooperation, 3) the region’s ecosystem shall be protected, and 4) the Northeast Passage shall serve as a standard Russian shipping route. The strategy describes how these national interests are to be promoted from now until 2020. This includes gathering background information to support Russia’s view on how far the Russian continental shelf extends as well as measures to improve and expand the

3 “Proposal for Parliamentary decision on Iceland’s objectives concerning High North issues” (Document 408 – matter 337).
infrastructure for mining and transport. The Russian Arctic strategy ends by ascertaining that implementation of Russian government policy, as established in the strategy, means that Russia can preserve its role as a leading force in the Arctic.

The Arctic Policy of the United States is progressing, albeit from a rather modest starting-point. Until now, the focus has been on research and environmental issues, but now, flaws in the infrastructure are being given more attention, such as the lack of ice-breakers and other facilities, particularly in Alaska. Work is also beginning to take shape on the policy level. At the centre of American interests lie security policy, preservation of the unique environment, the extraction of natural resources and other economic activities conducted in an environmentally sustainable manner as well as more in-depth scientific cooperation. The issue of free shipping without expensive transit costs has also been highlighted. Furthermore, it should be noted that the need to ratify the UN Convention on the Law of the Sea (UNCLOS) is being highlighted in connection with the increased interest in the Arctic Ocean.

After Russia, Canada has the largest land and sea area in the Arctic and attaches considerable importance to the aspect of sovereignty. The Canadian strategy stresses that the Arctic is a key part of Canada's identity. Consideration for Canada's indigenous Arctic people has substantial influence on the Government's position with respect to various Arctic issues. Canada also conducts substantial Arctic research. The country's Arctic strategy is built on four pillars: exercising Canadian sovereignty, promoting economic and social development, protecting the Arctic environment and improving and devolving governance for Canadian Northerners.

The European Union (EU) is also developing an Arctic policy. The Council of Ministers, the European Commission and Parliament have all presented documents on the issue. The Arctic and the EU are not only closely interlinked in terms of the geographical proximity of EU Member States and the Arctic region. In addition, EU policies on environment, climate, energy, research, transport, hunting and fishing all have a direct bearing on the Arctic region.

4 Lassi Heininen provides a more detailed comparison of these countries' Arctic strategies in Arctic Strategies and Policies - Inventory and Comparative Study from 2011.
1.3. What is the Arctic?

There is no uniform definition of what “the Arctic” actually is. The region is made up of an ocean (the Arctic Ocean) surrounded by sovereign states. There is however a fundamental difference between the Arctic and the Antarctic, with the latter being a continent surrounded by an ocean. In connection with the establishment of the Arctic Council, the various members adopted a common political definition. According to this definition, the Arctic includes all areas north of the Arctic Circle and the associated eight Arctic states, i.e. Canada, Denmark/Greenland, Finland, Iceland, Norway, Russia, the United States and Sweden. The countries that have observer status in the Arctic Council have de facto accepted the same definition. As a result of this regional practice, it can be said that this political definition of the Arctic has significant status in international law. The interpretation is further strengthened by the fact that international bodies refer to “the Arctic” and “the Arctic states” as the area north of the Arctic Circle and the eight Arctic states.

Five of the Arctic states border on the Arctic Ocean; Canada, Denmark/Greenland, Norway, Russia and the United States. The Arctic coastal states, like coastal states in general, have rights to certain sea areas as defined in the UNCLOS Convention – both as regards the ocean and the seabed. Most of the Arctic Ocean constitutes an international marine area, however, which includes large parts of the open sea, where all states have the right to free shipping and research. As regards the seabed, it is undisputed that not only every coast has a continental shelf but also that the seabed that lies outside the jurisdiction of the coastal states constitutes humankind’s common heritage. Neither the sea areas nor the seabed that lie outside the exclusive jurisdiction of the coastal states can be regulated by individual coastal states. The International Seabed Authority is responsible for the administration of extraction from the seabed outside the jurisdiction of the coastal states.

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5 Iceland, which both has and claims rights in the Arctic Ocean north of the Arctic Circle, is striving to be recognised as an Arctic coastal state, something which is not recognised by Denmark/Greenland, Canada, Norway, Russia and the US.
2. Sweden and the Arctic

There are many ties linking Sweden to the Arctic.

2.1. Historical ties

From the Middle Ages onwards, the central powers of Sweden have considered the Laplands to be part of the kingdom. But the Sámi have existed there for thousands of years, having probably migrated from the east between 5 000 and 8 000 years ago. The Sámi are considered to be the oldest ethnic people in Sweden north of the Arctic Circle. From the seventeenth century onwards, more and more land was colonised as part of an active colonist policy, which gradually led to growing conflicts between colonists, forest farmers and the Sámi industries.

Swedish research in the Arctic can be said to have symbolically started in 1732 when the biologist and plant researcher, Carl Linnaeus, went on his journey through Lapland. This journey inspired many researchers to visit northernmost Sweden for botanical studies. Research on the Swedish mountain range and the area north of the Arctic Circle is still part of polar research. Swedish research initiatives and the state’s commitment otherwise constitute a separate reason for why Sweden has established itself in the part of the Arctic that lies outside Swedish territory.

Swedish activities in the Arctic north of Scandinavia

Starting in the sixteenth century, European interest in the Arctic grew because of the fisheries close to Lofoten, whale hunting and as a result of attempts to find northern sea routes to riches in the east. Sweden’s main interest in the Arctic was on Spitsbergen, now more commonly referred to as Svalbard, and intensive Arctic research was pursued in the area from the mid-nineteenth century onwards. Sweden’s scientific activities benefitted from the union with Norway and as a result of efficient cooperation between skilled seafarers with ice-breaking vessels and scientists. As early as 1758, a disciple of Linnaeus, Anton Rolandson Martin travelled on board a Swedish whaling ship to Spitsbergen to study meteorology and water temperatures. Adolf Erik Nordenskiöld later dominated international Arctic research and became the first European to reach the mouth of the Yenisei River in 1875, where he expressed the prophetic hope that the
harbour there would be the nodal point not only for transport on Russian rivers to Europe but also for trade with China. In 1879, Nordenskiöld was also the first to sail through the Northeast Passage and went on his first expedition to Spitsbergen in 1864.

During the nineteenth century, Spitsbergen was considered internationally as no man’s land. But the discovery of large coal reserves on West Spitsbergen at the end of the nineteenth century gave rise to discussions on the need for an administrative solution. An international regime was discussed as was the idea of annexing the archipelago to Norway under the Sweden-Norway Union. The Spitsbergen Treaty, recognising the full and absolute sovereignty of Norway over Spitsbergen and establishing it as a demilitarised zone, was signed in Paris in 1920. Under the treaty, citizens of any of the signatory countries were allowed to settle in the archipelago and engage in commercial fishing activities. The treaty does not explicitly regulate research activities but as a result of the ministerial notes exchanged between Norway and Sweden in 1920, Norwegian and Swedish researchers have the same rights to freely conduct scientific research on Spitsbergen.

Swedish involvement in the Arctic continued during the twentieth century with the opening, for example, in 1917 of the Svea mine on Svalbard to safeguard coal supplies to Sweden during the First World War. After the Second World War, there were several small-scale Swedish expeditions to the Arctic, focusing mainly on geology, botany, zoology and archaeology. At the same time, military and industrial interests were roused and a large number of Swedes began prospecting and mining minerals on Svalbard and Greenland. Swedish-Norwegian research cooperation took place in parallel with Soviet-Polish activities on Svalbard.

Extensive scientific research was performed in the Arctic Ocean as part of an expedition with the Swedish ice-breaker Ymer in the summer of 1980.
The expedition can be said to be the start of modern Swedish Arctic research. The Swedish Polar Research Committee was formed the following year and the Swedish Polar Research Secretariat was established in 1984. Since then, the Secretariat has arranged several Swedish expeditions to the Arctic. In 1991, the Swedish ice-breaker Oden together with the German ice-breaker Polarstern became the first non-atomic vessels to reach the North Pole.

2.2. Security policy ties

Sweden’s security has long since been influenced by developments in the Arctic. During the Cold War, Arctic Sweden lay between the two spheres of interest of NATO and the Warsaw Pact. Nowadays, the overall security policy climate in the Arctic is very much dependent on the relationship between Russia and the United States. In recent years, dialogue and cooperation have improved as a result of the US-Russian Reset Initiative, a joint attempt to build a new agenda. The current security policy challenges in the Arctic are not of a military nature. Activities within the framework of the Arctic Council also indicate that its members have a common interest in cooperation and consensus. As a result of the Ilulissat Declaration of 28 May 2008, the five coastal states also agreed to solve outstanding issues in accordance with current international law. The 2010 border agreement in the Barents Sea between Russia and Norway is seen as a prime example of this spirit of mutual understanding. At the same time, the Arctic has considerable economic potential and fresh transport routes have opened the door for new types of strategic and security policy opportunities and challenges. As a result of climate change, security may well become more of a question of public crisis management in extreme weather situations; adaptation to changed climatic conditions in order to protect human life, health and the economy. Developing strategies for the long-term management of communities and environments in a changed climate is becoming increasingly important.

Europe is today characterised by mutual dependence. Furthermore, Sweden’s security policy position based on “security in cooperation” means that the security policies of the EU Member States and Nordic countries will strongly
influence Swedish security policy. The recently adopted Nordic Declaration of Solidarity\textsuperscript{6}, reinforcing and enhancing the solidarity declaration adopted in 2009, has led to Sweden’s security policy becoming even more closely interwoven with the political priorities of the other Nordic countries. Sweden’s unilateral declaration of solidarity\textsuperscript{7} and a stronger Nordic declaration of solidarity may hence involve new areas of responsibility and higher expectations for action as far as Sweden is concerned. This is true not least in relation to Norway, which has been pursuing an active Arctic policy for some time, including in the area of security policy. A possible future Icelandic EU membership and hence greater geographical scope for the EU as regards the Arctic will also affect the security policy prerequisites for Sweden.

2.3. Economic ties

Swedish businesses are conducting extensive operations in the Arctic. Ore and mineral extraction is currently high on the global economic agenda, which has led to significant levels of investment in the Swedish mining industry. Base metal, iron and titanium projects are also under way in the area. Together with fish, the forest is the Arctic’s most important renewable source of raw materials. Sweden has a world-leading pulp, paper and wood engineering industry, which also utilises forest materials from the Arctic region. Hunting, fishing and reindeer herding are also key industries for employment and for the local economy in Arctic Norway, Sweden, Finland and Russia. Swedish expertise in research and development in the Arctic environment leads the world and its cooperation and efficient resource use together with the business sector are central. Internationally renowned Swedish construction research in Arctic environments can be mentioned as an example. The Swedish space industry has its base in the extreme north of Sweden. The anticipated growth in natural resource extraction in the Arctic is expected to increase the need for air, land and sea transport. Sweden possesses world-class expertise in Arctic shipping and in vehicle testing in the Arctic environment. Tourism is an important industry in Arctic Sweden and is deemed to have considerable growth potential.

\textsuperscript{6} “The Ministers emphasized a strong community of values between Denmark, Finland, Iceland, Norway and Sweden. Efforts to promote democracy, international law including human rights, gender equality and sustainable development are integral parts of the foreign policy of the Nordic countries. On the basis of common interest and geographical proximity it is natural for the Nordic countries to cooperate in meeting the challenges in the area of foreign and security policy in a spirit of solidarity. In this context Ministers discussed potential risks inter alia natural and man-made disasters, cyber and terrorist attacks. Should a Nordic country be affected, the others will, upon request from that country, assist with relevant means. The intensified Nordic cooperation will be undertaken fully in line with each country’s security and defense policy and complement existing European and Euro-Atlantic cooperation.”

\textsuperscript{7} “Sweden will not remain passive if a disaster or attack were to befall another EU Member State or Nordic country. We expect these countries to act in a similar fashion should Sweden be under threat.” Government Bill 2008/09:140.
2.4. Climate and environmental ties

In recent decades, an increase in average global temperatures has been noted, causing the world’s glaciers and sea-ice to melt at an accelerated pace. This trend is expected to continue. Sweden’s climate and environment are a part of the Arctic and as a result both affect and are affected by it. One challenge will be to deal with the increase in precipitation caused by global warming, which may lead to greater water flows and changes in soil conditions. This in turn may affect our societies and their infrastructure. The Sámi culture and industries traditionally have strong links to the surrounding natural environment and the weather conditions, leaving them particularly vulnerable.

Source: UNEP/GRID-Arendal Maps and Graphics Library, ACIA.
2.5. Research ties

Swedish Arctic research is world-class and is conducted not only in the fields of engineering and natural science but also in social science and the humanities. For more than 150 years, Swedish institutions and organisations have funded and carried out countless expeditions in the Arctic and have systematically supported polar research. Few research vessels around the world can match the Swedish ice-breaker Oden’s capacity in terms of combining the class of an Arctic ice-breaker with advanced research equipment for seabed mapping and logistic platforms for climate studies.

2.6. Cultural ties

The Sámi people form the link between Sweden and the Arctic. The geographical area inhabited by the Sámi from time immemorial is usually referred to as Sápmi or Sameland and stretches over the northernmost parts of Norway, Sweden, Finland and Russia. The Sámi identity is inextricably linked to this environment, one which the Sámi have lived in and utilised for generations. The variations in Sámi culture, reindeer herding, language and handicraft do not follow national borders. The cross-border contacts that have formed the very fundament of their way of life have though been restricted as a result of decisions taken by national governments.

The Strömstad Treaty of 1751, defining the border between Sweden (which included Finland at that time) and Denmark-Norway, affected vast parts of Sameland. The need then arose to regulate the relationship to the Sámi population, as regards reindeer grazing areas and cross-border movements. These issues were addressed in the Lapp Codicil of 1751. In the late-nineteenth and twentieth century, Sweden and Norway entered into several more agreements concerning the Sámi population, especially with regard to reindeer grazing. The Lapp Codicil is still in force today.
3. Objectives and implementation in Arctic cooperation

- Sweden will endeavour to ensure that the Arctic remains an area of low political tension.
- Sweden will also strive to strengthen the Arctic Council in its role as the central multilateral forum for Arctic–related issues, as well as the role of Barents cooperation bodies in issues of particular relevance to the Barents region. A more common policy and concrete projects should be developed in Arctic–related cooperation forums for the benefit of the region.
- Sweden will actively contribute to the development of an EU Arctic policy. Sweden wishes to promote the EU as a relevant cooperation partner in the High North within relevant policy areas.
- Cooperation projects and synergies between the Arctic Council and the Barents Cooperation will be utilised, as will the EU’s various cooperation programmes and the funds they supply.
- In the Nordic Council of Ministers, Sweden will work to sharpen the focus of Arctic–related project activities that have a clear supplementary value for the Arctic Council.
- Swedish activities and cooperation projects in the Arctic will be in accordance with international law, including UN conventions and other international treaties.
The combination of, on the one hand, national interests in shipping and energy extraction and, on the other, climate change and potential environmental disasters in the Arctic, has led to alarmist stories in the media. It is important to emphasise however that, despite significant challenges, Arctic cooperation is characterised by a low level of conflict and broad consensus. The challenges facing the Arctic are far too multifaceted and broad for any single individual state to successfully deal with them on its own. **Efficient, multilateral cooperation on the Arctic is a main priority for Sweden.** Dialogue, transparency, confidence-building measures and cooperation in line with international law form the starting-point for Sweden’s approach to security concerning the Arctic.

### 3.1. The Arctic Council

The main multilateral arena for Arctic-specific issues is the Arctic Council. The Council is unique among international cooperation bodies in that representatives for six different indigenous peoples’ organisations (including the Sámi Council) sit round the table. Despite the Arctic Council not being founded on a legally binding agreement, cooperation works in a similar way to an international organisation. The Council’s activities have focused mainly on environmental and climate issues as well as on research and development. The membership circle of the Arctic Council, coupled with its vast array of expertise, provides clear added value compared to other organisations and cooperation forums as regards Arctic issues. The Council could however be further energised if its mandate were broadened to include other important strategic issues such as joint security, infrastructure and social and economic development. More concrete projects and clear political initiatives should supplement the Council’s existing work. Sweden therefore wishes to strengthen the Council both institutionally and politically.

### 3.2. The European Union

In December 2009, during the Swedish EU Presidency, European foreign affairs ministers welcomed the gradual development of an EU policy on Arctic issues. The ministers also expressed support for the European Commission’s proposed objectives for the policy, which are: protecting and preserving the Arctic in unison with its population; promoting sustainable use of resources; and contributing to enhanced Arctic multilateral cooperation.

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8 The appendix to this report provides some key facts on the Arctic Council.
3.3. Nordic cooperation

The Nordic region is an important part of the Arctic and it is also important that there is a forum for discussion on how the Nordic countries can jointly contribute to its development. In the Nordic Council of Ministers, Sweden will work to sharpen the focus of Arctic-related project activities and ensure that projects have a clear supplementary value for the Arctic Council and the Barents Euro-Arctic Council.

3.4. Barents cooperation

Sweden shall also pursue the relevant parts of its Arctic policy within the context of Barents cooperation. The members of the Barents Euro-Arctic Council (BEAC) are the five Nordic countries, Russia and the European Commission. The members of the Barents Regional Council (BRC) are 13 counties in northern Finland, Norway and Sweden and in north-west Russia. The smaller circle of the Barents cooperation forums and their partly common working procedures on the national and regional level, at which regional interests can be safeguarded, give this cooperation clear added value. The European Commission’s full membership of the Barents Euro-Arctic Council is also an asset.

3.5. The United Nations

The activities of the UN and its various bodies provide important arenas for promoting the Arctic region. Sweden takes an active part in these arenas. Relevant UN conventions in this context include the United Nations Convention on the Law of the Sea (UNCLOS) and specialised agencies of relevance include the International Maritime Organization (IMO). The Commission on the Limits of the Continental Shelf should also be mentioned. The Universal Declaration on Human Rights, the United Nations Frame-

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9 The appendix provides additional key facts on the Northern Dimension.
10 The appendix provides some key facts on the Barents Euro-Arctic Council.
REGIONAL ISSUES: BOUNDARIES AND CLAIMS IN THE ARCTIC

Source: Durham University, IBRU

Agreed boundary
Median line (between States)
Eastern Special Area
“Grey area” (agreed fishing regime) between Norway and Russia
Svalbard treaty area
Canada EEZ boundary claim
Iceland-Norway joint zone
Iceland EEZ
Iceland claimed continental shelf beyond 200 nm
Canada territorial sea and EEZ
Potential Canada continental shelf beyond 200 nm
Denmark territorial sea and EEZ
Denmark claimed continental shelf beyond 200 nm
Potential Denmark continental shelf beyond 200 nm
Norway territorial sea and EEZ / Fishery zone (Jan Mayen) / Fishery protection zone (Svalbard)
Norway claimed continental shelf beyond 200 nm
Russia territorial sea and EEZ
Russia claimed continental shelf beyond 200 nm
Overlapping: Norway/ Russia EEZ
Overlapping: Norway EEZ/ Russia claimed continental shelf beyond 200 nm
Overlapping: Norway/ Russia claimed continental shelf beyond 200 nm
Overlapping: Canada/ USA EEZ
USA territorial sea and EEZ
Potential USA continental shelf beyond 200 nm
Potential USA continental shelf beyond 200 nm
Internal waters
work Convention on Climate Change (UNFCCC), the United Nations Convention on Biodiversity (CBD) and the United Nations Declaration on the Rights of Indigenous Peoples are also important international agreements directly affecting the Arctic. The United Nations Development Programme (UNDP) and United Nations Environmental Programme (UNEP) are also among UN bodies involved in the Arctic as are the World Health Organization’s European Region (WHO Europe) and Region of the Americas (WHO PAHO). It is important to intensify the cooperation with the WHO regional offices and, from a Swedish point of view, especially with WHO Europe in order to avoid work duplication and to create synergies, at the same time as highlighting key problems.

3.6. The five coastal states

The Arctic Ocean’s five coastal states, that is the Canada, Denmark (Greenland), Norway, Russia and the United States, have increased their involvement as regards defining the limits of their continental shelves. This implies a sharper focus on the region’s natural assets. They have met separately in what is known as the Arctic Five group. Sweden has no territorial claim to the Arctic Ocean but establishment of the coastal states’ continental shelves in accordance with the Convention on the Law of the Sea is very much in Sweden’s interest. An energised Arctic Council could reduce the need for the coastal states to drive forward issues in the Arctic Five format. It is important for Finland, Iceland and Sweden to be able to participate in decision-making in cases where they have legitimate interests and that the status of the Arctic Council is maintained.

3.7. Sámi cooperation

From a Sámi perspective, there is close cooperation between the four Arctic states of Sweden, Norway, Finland and Russia. The three Sámi Parliaments and the Russian Sámi as observers have created a Sámi Parliamentary Council (SPC). The overarching aim is to strengthen borderless cooperation between Sámi and speak for them as one voice internationally. The SPC allocates priority to issues relating to youth work, research, Sámi-speaking infrastructure and language development. There is also a special form of cooperation between Sweden, Norway and Finland, in which the Sámi Parliament has a natural place. The ongoing negotiations on a Nordic Sámi Convention are one of the most important current issues with regard to this cooperation.
4. Swedish priorities

The Arctic is an area of low political tension in which the changed climate presents new opportunities and challenges. Issues concerning the security of flows and resource extraction are coming more to the fore. Sweden has a natural interest in the favourable current situation being consolidated and the entire Arctic region being driven by a positive political, economic and ecological dynamic. In bilateral and multilateral contexts, Sweden should stress the importance of an approach based on security in its broadest sense and that the use of civil instruments is preferable to military means. Ever since the Arctic Council was founded in 1996, there has been strong consensus on the view that economic, environmental and social development must be seen as a single concept to create long-term sustainable development in the region. Continued Swedish research and education initiatives are essential if progress is to be made. The priorities below are to be seen in this context:

- Climate and the environment
- Economic development
- The human dimension.
4.1. Climate and the environment

- Sweden will work for substantially reduced global emissions of greenhouse gases and short-lived climate forcers.

- In cooperation with other Arctic countries, Sweden will contribute to proposals for knowledge-building and action to strengthen the capacity for adaptation to and recovery from the effects of climate change.

- Sweden will work to ensure that climate change in the Arctic and its global impact is highlighted in international climate negotiations.

- Sweden will work for an ambitious and effective international agreement on minimising and eventually eliminating the use, emissions and spread of mercury to sensitive areas including those around the Arctic.

- Sweden will work to reduce emissions of persistent organic pollutants with bioaccumulative properties11 by making active efforts within the framework of the Stockholm Convention and the UN Convention on Long-Range Transboundary Air Pollution (LRTAP).

- Sweden will work for the conservation and sustainable use of biodiversity in the Arctic, taking indigenous Arctic peoples into consideration.

- Sweden will work to prevent and limit the negative environmental impact potentially caused by the opening-up of new shipping routes and sea areas in the Arctic.

- Sweden will work to ensure that environmental impact assessments are used to a greater extent in the Arctic.

- Sweden will contribute to ecosystem-based marine management/spatial planning.

- Sweden will work for international management plans to be drawn up for species affected by hunting and fishing and by a changed climate.

- Sweden will work for the establishment of a network of protected areas for flora and fauna and to strengthen the efforts to combat environmental degradation in the Barents region and elsewhere.

- Sweden will continue to be a leading nation as regards climate and environmental research, focusing also on the impact of climate change on humans.

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11 Substances with bioaccumulative properties accumulate in the tissue of organisms.
4.1.1. Climate

Global climate change has made the Arctic one of the world’s most vulnerable areas. The average temperature in the region has increased twice as much as the global average temperature over the last 100 years. This rapid rise in temperature increases the likelihood of dramatic effects on Arctic ecosystems and can reduce their resilience. This can in the long-term lead to losses in valuable ecosystem services, i.e. services that are supplied by nature and are irreplaceable for humans, which in turn affects people’s ability to sustain viable livelihoods from, for example, hunting and fishing. Increasingly, research points to a greater risk of critical thresholds in the climate system being exceeded, for example as a result of melting ice-caps during the summer months and thawing permafrost. When the permafrost thaws, large amounts of greenhouse gases are released, adding to the uncertainty surrounding existing and planned infrastructure and buildings. There are...
plenty of research findings concerning different aspects of environmental impact in the Arctic but only limited findings regarding how different factors interact. Observations of different changes and their effects play a central role both in order to understand the links and to increase the capacity for adaptation and action. Sweden should therefore continue to work to improve the coordination of environmental monitoring systems in the Arctic.

A reduction in emissions of long-lived greenhouse gases, including carbon dioxide, is the most important measure to combat Arctic warming. Short-term measures can however be taken that alleviate the effects of short-lived climate forcers such as soot, tropospheric ozone and methane. The Intergovernmental Panel on Climate Change (IPCC) established in 2007 that soot may have a considerable warming effect, especially in Alpine regions and the Arctic, because it both heats the atmosphere and accelerates snow- and ice-melt wherever it is deposited. A reduction in emissions of short-lived climate forcers, especially soot, could therefore combat the rapid warming of the Arctic and help slow down the pace at which snow and sea-ice are melting.

The Arctic Council has compiled research and environmental monitoring data on specific Arctic climate processes. This concerns not least threshold effects that can have a global impact, for example on ocean currents or emissions of stored methane from thawing permafrost. By developing and disseminating knowledge on how the Arctic is affected by climate change, the Arctic Council can raise the bar as regards international climate efforts. Important knowledge is fostered within the framework of forums such as
the International Arctic Science Committee (IASC) and the Arctic Council’s Sustaining Arctic Observing Networks (SAON). Disseminating knowledge on soot particles and the role played by other short-lived climate forcers and proposing suitable measures are also very important for initiatives taken in other parts of the world. A global climate agreement with requirements for ambitious measures to reduce emissions of greenhouse gases is of substantial importance for the Arctic.

4.1.2. Environmental protection

Sweden needs to actively pursue issues relating to reduced emissions and the spread of oil, chemicals, waste, non-native organisms and other air pollutants. Despite there being few local sources of emissions in the Arctic, the spread of pollutants in and via the Arctic is a major problem both for the Arctic population and its fauna. Most pollutants are transported there via air or water currents. As a result of atmospheric conditions, the Arctic is particularly vulnerable to mercury deposition and the exposure is so serious that mercury-related health effects have been discovered in the Arctic population. Organic pollutants accumulating in fat tissues is another problem that can for example impair reproductive capacity.

Greater resource extraction in the Arctic significantly increases the risk of local emissions directly impacting the local environment and joint efforts are required to increase protection of the unique Arctic environment and the living environment for the Arctic population. The current state of knowledge needs to be improved as regards the effects of increased exploitation and as regards the measures needed to provide long-term sustainable protection. Especially sensitive areas must be protected from exploitation and the reports produced by the Arctic Council should focus on increasing the level of protection. Sweden will also promote greater use of environmental impact assessments in the Arctic, for example in the mining industry, shipping and oil extraction. An agreement on stronger rules of consideration and tougher restrictions on oil discharges and regarding the risks associated with oil transportation is also needed. Cooperation with the Barents Euro-Arctic Council on measures to combat what are known as hotspots should be strengthened.
4.1.3. Biodiversity
Changes in climatic conditions and the global spread of chemicals can have a serious impact on biodiversity in the Arctic. Shrinking sea ice leads to problems for species that live on or close to the ice. More open water causes increased indirect threats. Species composition is changing as a result of southern species starting to outcompete high-arctic species. Greater opportunities to extract fossil fuels in sensitive areas increase the risk of disturbances and accidents.

Knowledge about the occurrence of species and ecosystems needs to be strengthened as does knowledge about how biodiversity can be conserved and used in a sustainable manner so that ecosystem services can be safeguarded by increasing the resilience of ecosystems.

In order to strengthen the capacity for adaptation and resilience, networks of protected areas that are important for flora and fauna should be created in the Barents region and elsewhere. The indigenous peoples and their opportunities to pursue traditional industries have a key role in these contexts. A changed climate requires greater political cooperation across territorial borders to develop methods for managing species affected by hunting and fishing. Ecosystem-based management of marine resources based on the principle of conservation and sustainable use and with special protection for threatened areas, species and stocks would be a way forward. The Arctic Council should also contribute to continued global biodiversity-related efforts.

4.1.4. Climate and environmental research
Swedish climate-related research in the Arctic has a long tradition and its findings are constantly helping to increase understanding of ongoing processes. As a result of long measurement series, in some cases up to one hundred years, Sweden has contributed to greater global understanding of climate change. It is important to continuously analyse levels of both known and new hazardous substances in the sensitive Arctic area. Adaptation to a changed climate requires good knowledge about the effects not only on biological and technical systems but also on communities and humans. In order to increase knowledge about the effects of global warming, current research cooperation and network-building need to move towards more integrated research in which natural scientists, social scientists and humanists cooperate to improve understanding of the many multi-dimensional problems.
Access to modern logistics platforms is crucial for environmental research. Northern Sweden is home to research stations in Abisko and Tarfala as well as the EISCAT\textsuperscript{12} scatter radar facility in Kiruna. The Abisko Scientific Research Station administers, coordinates and performs experiments and tests for researchers from all over the world. An extensive environmental monitoring programme on temperature, precipitation, ice-thaw, flora and fauna in the local area has been in progress here for nearly 100 years. The Tarfala Research Station, located in the Kebnekaise mountains, conducts basic research, glacier monitoring, meteorological and hydrological analyses, snow chemistry and permafrost studies. One aim should be to modernise and develop the Abisko Scientific Research Station. Sweden should also work to secure the availability of data from long-term environmental monitoring research.

The Swedish Polar Research Secretariat gives Sweden plenty of scope to perform marine research expeditions in both the Arctic and Antarctic Oceans with the ice-breaker Oden. Sweden and Norway, together with 48 businesses and organisations in the mining, steel, energy and engineering industries as well as research institutes and universities, take part in the priority research programme ULCOS (Ultra-Low Carbon Dioxide Steelmaking) with the aim of halving carbon emissions from steelmaking.

\textsuperscript{12} European Incoherent SCATter scientific association.
4.2. Economic development

- Sweden will promote economically, socially and environmentally sustainable development in the entire Arctic region.
- Sweden's growth and competitiveness can be promoted by means of greater free trade and proactive efforts to combat technical trade barriers in the Arctic region.
- Sweden will work to ensure that the anticipated future extraction of natural resources (oil, gas and other minerals) and the use of renewable resources (including forest material) take place in a sustainable manner, environmentally, economically and socially. Improvement of the transport infrastructure is crucial. Activities shall be pursued using the safest available methods and technologies.
- Sweden will highlight the importance of respecting international law when extracting the energy resources of the Arctic.
- It is important to continue development of regional cross-border cooperation in the field of sea and air rescue and to tighten the safety requirements for sea transport in several sectors.
- Sweden will promote the use of Swedish expertise in the field of environmental technology.
- Swedish Trade Council office staff in Denmark, Norway, Finland, Russia, the United States and Canada, as well as in northern Sweden, should be given the task of building up their expertise in order to promote Sweden's commercial interests in the Arctic.
- The tourism sector should be developed in a sustainable manner and communications between tourist destinations should be improved.
- Sweden will contribute to the international efforts in the IMO aimed at limiting emissions of greenhouse gases from ships. Sweden will work for the adoption and entry into force of the IMO's Polar Code.
- Sweden should work to support Arctic research and to monitor the vulnerable marine environment.
- Sweden should work for the improvement of and cooperation between the research resources that exist in the region in order to contribute to the region's sustainable management and development.

The basic prerequisites for the people living in the Arctic are: a long-term optimism; opportunities for them to earn a livelihood; good communications and social care. In order not to undermine the social or natural environment for people living in the region, its economic developments must be sustainable in the long term.
The Arctic region has rich natural resources such as forest, fish, wild animals, energy and minerals that play a key role in the economic development of the Arctic countries. There is potential for further development and greater growth in several areas. Natural resources should be managed so that they can be used without being used up at the same time as other industries can be pursued and developed, bearing in mind the unique conditions and sensitive environments and wildlife of the Arctic. Green growth can lay the foundation for new jobs where the business sector can play a central role in the development of innovative solutions. The environmental focus of Swedish businesses and their expertise in environmental technology can provide important leverage. Furthermore, the involvement of Swedish businesses in local communities and their willingness to adhere to the principles of human rights, labour law, social responsibility, sound environmental and sustainability efforts and anti-corruption will give them a competitive edge in future business deals and investments in the Arctic. Increased resource extraction in the Arctic involves considerable risks, however and especially sensitive areas must be protected from exploitation.

The EU’s cohesion policy provides an important framework for financing investments and improving people’s everyday lives. There are currently several structural fund programmes in the Arctic region that not only cover Swedish, but also Norwegian and Finnish areas. In addition, these regions can cooperate with Russian regions within the framework of the EU Kolarctic ENPI CBC13 financing instrument. Regions in northern Scandinavia can also cooperate with Iceland and Greenland within the framework of the Northern Periphery Programme.

4.2.1. Free trade in the Arctic

Swedish trade policy is built on free trade. Proactive efforts to combat technical trade barriers and to promote greater border trade are also vital for economic development in the Arctic. The free movement of future traffic in the Arctic can contribute significantly to economic development and make people realise that free trade, coupled with respect for the rights of indigenous peoples, promotes peace and prosperity. The Nordic countries

cooperate closely on trade issues within the EU/EEA and in the Nordic Council of Ministers, and Sweden is working in the Council of Ministers to promote the free movement of people, goods, services and capital.

4.2.2. Industrial policy interests in the Barents region

Sweden has significant industrial policy interests in the Barents region, which contains major ore, mineral, forest and fish assets, i.e. sectors in which Swedish industry is strong and has extensive research expertise. Increased trade and cooperation in energy- and rawmaterial-related sectors have been given high priority in Sweden and would help to achieve economic, energy and environmentally related objectives. Sweden is cooperating on this with the countries in the Barents region in for example the Baltic Sea Region Energy Cooperation (BASREC) and the Nordic Council of Ministers. The Barents region’s trade and industry ministers adopted a joint statement on the development of the region’s potential for business development, greater energy efficiency and renewable energy in May 2010. Energy efficiency is one area where there is considerable need in some of the Arctic states and within which Sweden has substantial expertise and a strong industry.

4.2.3. Economic interests in the rest of the Arctic

In addition to existing industries in Arctic Sweden, the increasing extraction of the Arctic’s natural resources presents business opportunities within a number of different sectors.

*Mining, petroleum and forestry*

Norwegian and Russian extraction of oil and gas resources in the Barents region over the next 10–15 years opens many windows of opportunity for Swedish companies in the mining and petroleum sectors. The Swedish resource base includes experience, skills, systems and machine suppliers – all important components of mining operations in the Arctic environment. Swedish petroleum companies can mostly be found in the subcontractor chain of goods and services and their environmental focus gives them a competitive edge. Sweden is striving to ensure that especially sensitive areas are protected from exploitation and underlines the need for more environmental assessments. Future extraction of petroleum should be done sustainably. Sweden is also striving for environmentally sustainable use of the forest in the Arctic and the Sámi villages affected will be consul-
Sustainable forestry will be the aim all across the Arctic region.

Land transport and infrastructure
Raw material extraction in the Arctic also generates the need for long-term sustainable land transport. The cold climate places tough demands on both the permanent infrastructure and vehicles. Sweden is currently a world-leading supplier of vehicle-tests in the Arctic environment. Swedish haulage companies also have comparative advantages as a result of their expertise and research on how all types of vehicles should be adapted for extreme winter climates. The increasing demand can also be expected to intensify calls for investment in infrastructure, such as new or upgraded
harbours, railways, roads and airports.\textsuperscript{14} To promote sustainable development in the raw material extraction and energy sector in the Arctic, Sweden should work for long-term and relevant transport solutions in the Barents region. The planning of such solutions will demand a close dialogue with Sweden’s neighbouring countries and Russia.

**Maritime security and the environmental impact of shipping**

Shipping is the most energy- and cost-effective way of transporting goods. Melting glaciers and ice-caps are gradually creating possibilities to navigate along new routes, even if it will take time before the conditions will allow regular commercial shipping on a large scale. Goods transported across the Arctic Ocean travel significantly shorter distances leading to energy savings, less emissions, trade development and less pressure on transcontinental routes. On the down-side, the large land and sea areas of the Arctic constitute a very vulnerable part of the world’s natural environment and climate system. Care of the marine environment, both at sea and in coastal areas, is of crucial importance to Sweden. Sweden is of the opinion that a common sea and air surveillance that creates the prerequisites to build a recognised maritime picture (RMP) of the Arctic, can contribute to safer and greener shipping.

The interest among the Arctic coastal states in expanding oil and gas extraction increases the need for sea transport. In the autumn, spring and winter, it is dark and extremely cold most of the time. Such an environment places tough demands on both crews and equipment. Experience of operations in both the sub-Arctic conditions of the Bothnian Bay and in the Arctic has given the Swedish maritime industry unique skills in this area, providing it with a clear competitive edge.

Greenhouse gas emissions from shipping have increased in recent years. According to a study performed by the IMO, international shipping is responsible for 870 million tonnes of greenhouse gas emissions, or 2.7

\textsuperscript{14} Examples of transnational Arctic initiatives that affect Sweden are the Bothnian Corridor, the Barents Link and the Northern Lights Route.
percent of global emissions. The same study indicates that emissions from shipping are expected to rise by 150-250 percent unless action is taken. It is important for Sweden to actively participate and drive forward ongoing efforts to develop rules to reduce shipping’s carbon footprint. Sweden actively supports the ongoing work in the IMO and intends to promote the development of both technical and operative measures to reduce greenhouse gas emissions from shipping.

Development towards increased shipping in Arctic waters involves a greater risk for accidents resulting in significant spillage. There is also a risk of negative environmental impact from shipping as a result of non-accident-related discharges of oil and chemicals, air pollution, waste and the spread of non-native organisms. Increased shipping also brings issues related to safety requirements for sea transport to the fore. Poor safety routines or vessel construction can have devastating consequences for seafarers, marine flora and fauna and those who depend on the sea for their livelihoods. Greater awareness of traffic at sea, in the air and on land helps to reduce the risks of accidents. Active efforts in terms of preventive measures, surveillance and rapid accident response can reduce the risks associated with increased shipping in the Arctic. Sweden is working for the introduction of a mechanism to deal with discharges at sea.

In the IMO, efforts are currently being made to develop a “Polar Code” for maritime safety in Arctic waters. The main principle is to identify unregulated risk areas and to draw up rules for dealing with identified risks. As part of these efforts, an assessment will be made of whether the existing international environmental regulatory frameworks offer a sufficient level of protection or whether further measures are needed. The aim is to be ready to introduce the Polar Code in 2012 and Sweden is taking an active part in this work.

**Sea and air rescue**

Increased seaborne tourism in Arctic waters heightens the risk of accidents affecting both the environment and humans. The Arctic is sparsely populated and there are currently no widespread mechanisms in place for rescuing people in distress at sea. Poor infrastructure makes it very difficult to deal with emergency situations. Some ships
operating in the area have several thousand passengers on board. Swedish resources may be needed should a major accident occur off the coast of Norway or Arctic Russia. Better surveillance of shipping traffic, preventive measures and improved regional cross-border cooperation on air and sea rescue are all important components. The Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic agreement negotiated between the members of the Arctic Council will enable more flexible use of existing resources and make it possible to find cost-effective solutions.

**Ice-breaking**

Efficient ice-breaking operations are required to promote maritime safety and improve accessibility in frozen waters. Sweden possesses leading expertise as regards shipping in Arctic conditions. Swedish ice-breakers may be able to support increasing commercial shipping in the Arctic as well as help with both the monitoring of the vulnerable marine environment and Arctic research. This includes standardisation work for efficient winter shipping, such as generally accepted Swedish-Finnish ice class rules. The development of technology and communications that facilitate ice-breaking operations are important from a Swedish perspective. The Swedish Maritime Administration’s ice-breaking resources are well suited to Arctic and sub-Arctic waters at times when the vessels are not needed in regular activities.

**Energy**

The increasing interest in the Arctic in terms of energy depends on several concurrent factors. The region has large quantities of fossil fuels that can probably be extracted when climate change results in a reduced ice-cover. The region may have particularly large natural gas assets, possibly as much as a third of the world’s undiscovered reserves. Furthermore, technological development has made it possible to exploit previously unextractable
reserves. A third factor that has contributed to the trend in recent years is the high oil prices caused by, among other things, unrest and uncertainty in North Africa and the Middle East.

It should be stressed, however, that extraction under Arctic conditions already takes place on a large scale, not least in Russia. The development alluded to here has however led to the focus shifting further and further northwards and towards the inner Arctic Ocean. The public debate sometimes gives the impression that this is a kind of “gold rush”, a fight over resources that inevitably leads to a higher level of conflict in the region. This picture is incorrect. The area is characterised by a high level of cooperation and a low level of conflict. Overlapping claims must be dealt with according to international law.

In contrast to the five coastal states, Sweden has no direct national energy interest in the Arctic and does not take part in energy policy cooperation initiatives in the area. Swedish industry does however play a role in industries that support the energy sector, not least in the fields of ice-breaking, sea transport and consultancy based on knowledge of business activities in the Arctic climate. Sweden is indirectly affected, as is the rest of the EU, if deposits in the Arctic are extracted since both liquid gas and oil are globally traded products. Large volumes of fuel produced in the Arctic may therefore affect European security of supply and prices on several markets. Access to increased volumes of liquid gas would probably lead to more free trade on the international gas market and there would be less price-setting in long-term contracts as is the case when transporting gas by pipeline.

In other words, Sweden is not influenced by any direct energy interests but more by the basic understanding that fossil fuels must be extracted in a socially, economically and environmentally sustainable manner. Sweden needs to be a driving-force in international cooperation in order to protect the unique Arctic environment and minimise the negative effects and risks of an anticipated increase in extraction. In this context, the scope for developing green and climate-neutral energy supply needs to be taken into consideration. This includes hydro- and wind-power, solar and bioenergy and technology for improving energy efficiency and reducing carbon emissions. Nuclear safety issues may also come to the fore from an environmental and security perspective.
Tourism
The tourism sector, including hunting and fishing, has considerable potential for creating jobs and boosting economic growth. The sector has several tourist destinations that are already ready for export, and a number of regional destination development projects are under way, often cofinanced by EU structural funds. Many visitors choose the Arctic because of its clean air, water, mountains, forest and silence – things that are in short supply in many other parts of the world. Sweden welcomes the development of Arctic cooperation aimed at strengthening the conditions for tourism in the Arctic area. Accessibility is a key success factor in the development of the Arctic as a tourist destination. Sweden intends to promote cooperation with the other countries in the region aimed at developing sustainable and attractive tourist destinations, but also taking the Arctic’s sensitive environment and the needs and situation of its indigenous peoples into account.

Reindeer husbandry
For many reindeer-herding Sámi, reindeer husbandry constitutes an important part of a “mixed economy” based on reindeer husbandry, hunting and fishing and a number of other secondary industries. Just like all industries, reindeer husbandry is facing different challenges that must be dealt with to survive and be economically viable. To be efficient and sustainable in the long term, reindeer husbandry must have access to suitable calving grounds, migration routes with resting pastures and central connected seasonal grazing areas for each season. The reindeer must also be able to graze undisturbed. Reindeer husbandry is affected by environmental factors such as weather and temperature, access to grazing areas and natural disturbances. The Sámi population shall be able to continue to pursue and develop their reindeer husbandry and other Sámi activities such as hunting, fishing and handicraft to continue to survive, live and earn a livelihood in the Arctic region.

Other activities
A strategic objective is to give the population and commercial actors in the Arctic access to cost-effective and leading IT and telecom technology which
can present opportunities for Swedish businesses in this field. The skills of Swedish companies in for example telemedicine and rural environments are world-class. Sweden is striving for cooperation in the Nordic region and the EU in order to develop space technology to promote monitoring, exploration and communication in the Arctic. The Swedish space industry is based in Kiruna and has considerable development potential for service to the space programmes of other countries and communication with and control of satellites.

Another important factor to attract labour to the High North is culture, very much an underexploited resource in the business sector. Cultural richness promotes regional development and is a way of gaining a competitive edge. Cooperation in the Northern Dimension’s new partnership for culture provides scope for helping to strengthen creative and cultural industries in the region.

4.2.4. Educational and research needs

Stronger forms of cooperation and better research infrastructure are needed to create opportunities for interaction between research, higher education, politics and society. The aim is to improve initiative and responsibility focusing on research and education. Strong research-based education programmes are needed to manage the High North’s rich resources in a way that benefits both the region and the world in general. Such programmes are based on the special conditions, opportunities and local knowledge offered in the High North. Research vessels are an important part of the infrastructure and give researchers the same opportunities as onshore research stations.

Important research orientations from a maritime perspective include applied research on the technological development of vessels, platforms and systems in the Arctic environment, and logistics. It is also a question of participating in maritime-relevant international research cooperation.
projects on a more fundamental level in, for example, geographical and biological subjects. Marine bioprospecting after unique genes, molecules and organisms can result in new products and processes for commercial use in a number of different areas of use such as the health sector, biologically based raw materials, food production and renewable energy production.

Sweden needs the right skills in order to utilise the potential released by a developed Arctic region. The recruitment requirement for the mining and mineral industries will be considerable in the forthcoming five-year period. It is mainly geologists and mountain workers who will be needed, including specialist skills in different activities. At Luleå University of Technology, there is a Master’s programme in Natural Resources Engineering and the Nordic Mining School, which is a Master’s programme and teacher exchange with Oulu University in Finland. This programme needs to attract more students. Sweden should encourage international research cooperation in areas of relevance for the Arctic, such as mineral research, environmental technology and sustainable natural resource use.

The university and research network, the University of the Arctic, focuses on postgraduate education, academic distance learning, Master’s programmes and the training of experts in a network comprising several institutes of higher education in the High North. Cooperation among small and slightly larger institutions across national borders in the North is an effective way of ensuring good resource use and increasing the quality of education and research, which can help to secure access to relevant skills in the area. Cooperation across national borders in the North also helps to maintain good relations in the High North. Sweden, the Nordic countries, Canada and Russia participate in the exchange programme “north2north”. The programme should be strengthened for the exchange of students and researchers among the eight Arctic states.

Sweden should urge the EU to invest in Arctic research and higher education. This may include an improved Arctic window in Erasmus Mundus, the Bologna Process, an Arctic research and student exchange programme as well as EU involvement in a strengthened infrastructure.
4.3. The human dimension

- Sweden will highlight the human dimension in the Arctic Council as a result of, among other things, its work on the Nordic Sámi Convention.
- Sweden will bring attention to and combat the negative health and social effects of climate change, hazardous substances and the anticipated increase in the use of Arctic natural resources.
- Sweden will strive to ensure that indigenous peoples have greater scope for preserving and developing their identity, culture and traditional industries and facilitate their traditional knowledge gathering and transfer.
- Sweden will promote the preservation of the Sámi language and other Arctic indigenous languages and present Swedish experiences of revitalisation work.
- Sweden will support initiatives to increase the participation of young people and women, especially from indigenous peoples, in political processes regarding the Arctic.
- Sweden will consult with Sámi Parliament representatives prior to important Arctic Council meetings.
- Sweden will highlight how local Arctic communities, and especially those of indigenous peoples, can cope with changes brought about by the changed Arctic climate.
- Sweden will work to ensure that exchanges of problem-solving tools that concern the negative consequences mainly of climate change and resource use are used in Arctic contexts more actively.
- The Sámi research programme should use Nordic and Arctic cooperation to increase the effect of research initiatives and thereby promote knowledge transfer between research and local Arctic communities and indigenous peoples.

The Arctic’s rapid change process creates both opportunities and challenges for its population. Indigenous peoples and other groups with a traditional lifestyle or who earn a living from biological natural resources, such as reindeer herders, hunters, fishermen and craftsmen, are dependent on high biodiversity and intact ecosystems. Climate change means that many traditional customs and livelihoods will be more difficult to maintain. Sweden intends to help strengthen knowledge processes regarding the traditional lifestyle and necessary adaptations to these changes. Active participation in decisions affecting them is required if indigenous peoples are to be able to meet future challenges. Political solutions should be based
on a coherent analysis of knowledge gaps and an interdisciplinary approach. Swedish experiences from the Nordic Sámi Convention should, for example, be utilised. Sweden’s treaty of accession to the EU recognises the obligations and undertakings of the Arctic states of Norway, Sweden and Finland in relation to the Sámi people under national and international law. The treaty states that Norway, Sweden and Finland are determined to preserve and improve the Sámi people’s ability to support themselves, their language, culture and way of life as well as to consider that the Sámi culture and livelihood are dependent on primary sources of income, including reindeer herding in traditional Sámi settlement areas.
4.3.1. Geographical conditions in the Arctic affect health

The most important health indicators are average life expectancy at birth, maternal mortality and infant mortality. In most of the Arctic countries, those living in the Arctic area have a slightly lower average life expectancy than the population as a whole. Infant mortality is also slightly higher than for the rest of the country in general.

Most of the Arctic is characterised by widely scattered, small population centres. Long distance can lead to physical and social isolation and associated morbidity. But the relatively high degree of urbanisation in the Arctic limits the size of this risk category. The distances from traditional centres of power also provide greater scope for self-determination in everyday life, a form of practical Arctic empowerment. Long summer days and limited daylight during the winter can affect people’s circadian rhythm. Longlasting and severe cold is a risk factor for cardio-vascular disease. In the Nordic region, however, it is stressed that external physical conditions play only a limited role in health problems. Health determinants are mostly made up of factors relating to the external, social and material environment, to infectious diseases and lifestyles. In addition, genetics naturally play a significant role. Universal measures in the areas of economic policy, employment, the environment and social policy in general are central in order to promote good health development in the Arctic.

4.3.2. Climate change and hazardous substances affect the population

Climate change leads to reduced salinity in the world’s oceans, changed ocean currents and more frequent extreme weather events. This in turn alters the living conditions for humans, animals and the natural environment in the Arctic. The social and mental stress potentially caused by these problems can affect social well-being as well as psychosocial and physical health. Some indirect effects of climate change, such as the increased occurrence of pathogenic microorganisms that have previously found it difficult to establish themselves in an Arctic environment, have been
noted, including tick-borne encephalitis (TBE)/meningitis. Other indirect effects include a greater risk of contaminated drinking water caused by changes in the permafrost that affect water sources.

High levels of organic pollutants, such as polychlorinated biphenyls (PCB) and other dioxins and certain heavy metals (mainly mercury), increase the risk of long-term health effects. Significant emissions of pollutants, both into the air and water, occur in a large number of industrial areas in the Russian Arctic, leading to increased morbidity. The food supply chain is also affected by the occurrence of pollutants. Sweden should therefore work to ensure that such point-source emissions are minimised as far as possible. This can be achieved by implementing a number of demonstration projects in the Russian Arctic. Barents cooperation can also play a major role in reducing local emissions and in remediating contaminated areas. Sweden is cooperating with other Arctic states to combat ongoing climate change and meet the ongoing social and health-related challenges. Focus on even stronger environmental cooperation in the Arctic also reduces the risk of emissions of compounds that could pose hazard to man and environment.

### 4.3.3. Impact on indigenous cultures and their industries

The report “Sweden facing climate change” (SOU 2007:60) ascertains that land-based industries require active climate change adaptation measures and that the Sámi culture should receive particular attention when implementing such measures. The Swedish Commission on “Climate and Vulnerability” (SOU 2007:60) established that reindeer husbandry in Sweden will be seriously affected by climate change. The positive effects include an increase in plant production when there is no snow on the ground, which is positive for the reindeer’s food supply. The negative effects include the anticipated shrinkage of the bare mountain region which will increase

*Photo: Robert Harding Images*
grazing pressure if current reindeer stocks are maintained. According to the various climate scenarios, the winters will not only be shorter but also warmer and wetter, increasing the risk of severe snow conditions with ice and frozen ground that the reindeer find very difficult to penetrate. Supplying the reindeer with extra food is costly and is not a viable alternative for reindeer husbandry, which, in terms of design and economics, is very much based on natural grazing.

If we then add socioeconomic development, in terms of intensified forestry activities, expanded infrastructure and more tourism to the equation, the risk of conflicts of interest between reindeer herding and other land use becomes even greater. The Arctic peoples’ ability to preserve their culture, identity and way of life will come under pressure. This is why Sweden is taking a clear stance in favour of socially and culturally sustainable development for Arctic indigenous peoples with technological development to ensure ethically and biologically sustainable resource use. The Sámi culture has been given greater legal protection as a result of Sweden ratifying the UNESCO\textsuperscript{15} Convention on the Safeguarding of Intangible Cultural Heritage. This is in line with the idea of long-term sustainable development and protection of Sámi cultural heritage.

Between 2008 and 2010, the Swedish Government has targeted special measures at increasing the participation of Sámi women in political processes and the Sámi Parliament has been working actively on the issue. Within the framework of the gender equality measures, the Sámi Parliament has also begun an exchange of experience with Finland, Norway and Russia on gender equality, men’s violence against women, sexual harassment and abuse.

4.3.4. The survival of Sámi languages

Many indigenous languages are small and spoken only by a limited number of people. Indigenous languages often have a low status in society, and there

\textsuperscript{15}United Nations Educational Scientific and Cultural Organization.
are not always education systems in place to give children the chance to learn them. Both teachers and teaching materials can be in short supply. The possibilities for passing on the language and culture to younger generations are exacerbated by the migration of younger people away from traditional settlement areas in order to acquire an education or work elsewhere.

Sweden has recently taken a number of measures to give Sámi populations a better chance of survival (Government Bill 2008/09:158 “From recognition to empowerment”). Norway and Finland are also implementing measures to help the Sámi preserve their language. The Nordic countries are also obliged under international law to take measures to strengthen the Sámi language in accordance with Council of Europe conventions for the protection of minorities. The Government’s strategy aims to rectify this and other problems in cooperation with the Sámi Parliament.

4.3.5. Knowledge transfer

The culture of indigenous peoples is based on a life in which humans and nature have a reciprocal and close relationship with each other. Historically, it is based on self-sufficiency, unwritten tradition, knowledge of the surrounding natural and meteorological conditions. For most indigenous peoples, sustainable development is based on a balance between traditional and modern knowledge. Much of the traditional knowledge has been either entirely or partly forgotten. However, as a result of the Convention on Biodiversity and other agreements, the interest in traditional knowledge and its significance for sustainable development has increased. Many indigenous communities want to highlight this significance in combination with new technologies and innovations. In cooperation with the Swedish Biodiversity Centre, the Sámi Parliament has brought traditional Sámi knowledge to the fore. Traditional Sámi knowledge and natural resource use have been documented as part of this Sámi initiative.

Sweden intends to contribute to in-depth analyses of existing knowledge gaps that need to be filled in order to meet future challenges. This supply of knowledge should help to solve applied issues to a greater extent than currently is the case and give indigenous peoples access to agency and

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\[16\] The Framework Convention for the Protection of National Minorities and the Charter for Regional and Minority Languages.
information functions that can gather, translate and disseminate knowledge from the research world. Knowledge transfer between, for example, researchers and indigenous peoples must be improved and structured so that knowledge is available to the Sámi and other populations in the Arctic. To increase the impact of research findings in the Sámi community, funding for information initiatives is transferred every year to the Sámi Parliament from the Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning (Formas). The Nordic cooperation “The Nordic Council for Reindeer Husbandry Research”, which is under the auspices of the Nordic Council of Ministers, is a good starting-point for continuing to develop cooperation even in an Arctic perspective. The Swedish Government looks positively upon increased exchange and greater cooperation among Sámi institutions in the countries affected within the Arctic Council, as well as among Swedish mountain and Sámi museums.

4.3.6. Research programme on Sámi society

At the end of 2010, the Government decided to start a new comprehensive research programme on Sámi society. The geographical distribution, knowledge gaps and status as an indigenous people have created a need for an interdisciplinary Sámi research programme. The programme aims to improve coordination of those who perform and finance Sámi-related research. The Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning (Formas), the Swedish Research Council and the Swedish Council for Working Life and Social Research (FAS) are together responsible for designing the programme.
1. Arctic Council

The Arctic Council was established in Ottawa in 1996 on the basis of a system of cooperation between Arctic environment ministers – the Rovaniemi Process – that started in 1991. The Council is an intergovernmental forum devoted to shared regional challenges facing the States and people concerned. Its main activities concern the protection of the Arctic environment and sustainable development as a means of improving the economic, social and cultural well-being of the inhabitants of the Arctic.

The Arctic Council consists of the eight Arctic States: Canada, Denmark (including Greenland and the Faroe Islands), Finland, Iceland, Norway, Russia, Sweden and the United States. Six international organisations representing indigenous Arctic peoples have permanent participant status:

- **Aleut International Association** (the islands in the Bering Sea between the United States and Russia)
- **Arctic Athabaskan Council** (Canada and the United States)
- **Gwich’in Council International** (Canada and the United States)
- **Inuit Circumpolar Conference** (Greenland, Canada, the United States and Russia)
- **Saami Council** (Norway, Sweden, Finland and Russia)
- **Russian Association of Indigenous Peoples of the North** (representing around fifty indigenous peoples in Russia).

The Chairmanship rotates between the eight Arctic States every two years. In between the ministerial meetings, which conclude each Chairmanship, the work of the Council is led by a committee of officials consisting of representatives of the eight Arctic States and the six indigenous peoples’ organisations (Senior Arctic Officials and Permanent Participants). The Council’s activities are conducted in six working groups composed of representatives at expert level from sectoral ministries, government agencies and researchers. The working groups are: AMAP (Arctic Monitoring and Assessment Programme), CAFF (Conservation of Arctic Flora and Fauna), PAME (Protection of Arctic Marine Environment), EPPR (Emergency Prevention, Protection and Response), SDWG (Sustainable Development Working Group) and ACAP (Arctic Council Action Plan). All working groups report to the SAO meeting and traditionally also to the foreign ministers meeting for approval of their mandates for the next two-year period. There are also 26 Observers (six states, nine inter-governmental and inter-parliamentary organisations, and eleven non-governmental organisations). There is a temporary secretariat in Tromsø, Norway. A more permanent secretariat will be established in 2013.
2. The Barents Euro-Arctic Council

Barents cooperation is being implemented on the national level in the **Barents Euro-Arctic Council, BEAC** and on the regional level in the **Barents Regional Council, BRC**. The BEAC and BRC have a small joint international secretariat in Kirkenes in Norway.

The members of the BEAC are Denmark, Finland, Iceland, Norway, Russia, Sweden and the European Commission. Its chairmanship rotates every other year between Finland, Norway, Russia and Sweden, and each country’s foreign affairs minister acts as chairperson. Canada, France, Germany, Italy, Japan, the Netherlands, Poland, the United Kingdom and the United States all have observer status.

The members of the BRC are 13 counties across northern Finland, Norway and Sweden and in north-west Russia. They are represented by their respective county governors. Chairmanship rotates among these 13 counties every other year in the same way as the chairmanship of the BEAC. The Swedish members of the BRC are the counties of Norrbotten and Västerbotten.

The practical work is divided among 16 working groups on the national, regional and mixed national/regional level in areas such as economic cooperation, environment, energy, transport and communications, health and social issues, youth work, culture, research and education, rescue service cooperation and tourism.

The three indigenous peoples (the Sámi, Nenets and Vepsians) living in the area are represented in their own working group that reports to and advises both the BEAC and the BRC.

3. The Northern Dimension

The Northern Dimension (ND) is a joint policy between the EU, Iceland, Norway and Russia. A meeting of foreign affairs ministers takes place every other year and there is a meeting of deputy foreign affairs ministers in the years in-between. A steering group meets as a rule three times a year. Concrete cooperation takes place in four partnerships, each of which has its own decision-making body. The geographical focus is on north-west Russia. Priority areas are the Baltic Sea, Kalingrad Oblast and the Arctic, including the Barents region.

The **Northern Dimension Environmental Partnership (NDEP)** was formed following a Swedish initiative during the Swedish EU Presidency in the spring of 2001. This cooperation between Russia, a number of bilateral donors, the European Commission and international financial institutions
funds investments in water purification, district heating and waste management in north-west Russia. Twenty such initiatives have received financial support in the form of donations totalling EUR 117 million from the NDEP’s support fund. Projects are mainly funded by loans. The total project value amounts to EUR 3.3 billion. Sweden has contributed EUR 26 million to the NDEP over a ten-year period and Russia’s contribution amounts to EUR 40 million over the same period.

The Northern Dimension Partnership in Public Health and Social Well-being (NDPHS) was established in December 2003 and has a two-person secretariat co-located at the Council of Baltic Sea States (CBSS) secretariat in Stockholm. Eleven countries participate, including Canada, and nine organisations, including the European Commission and the WHO. Cooperation is pursued in four expert groups on i) primary health, prison health systems, ii) HIV/AIDS and associated infections, iii) alcohol and substance abuse and iv) non-communicable diseases related to lifestyles and social and work environments. The partnership is the coordinator for health in the EU Strategy on the Baltic Sea Region. Projects to combat HIV/AIDS in the Arctic, mainly in Murmansk, have been ongoing for many years. Cooperation also takes place in several places in north-west Russia to stem the increasing spread of tuberculosis.

The Northern Dimension Partnership on Transport and Logistics (NDPTL) comprises eleven countries, who in June 2010 entered into a binding agreement with the Nordic Investment Bank in Helsinki on the establishment of a small secretariat at the bank. The European Commission also takes a very active part in the NDPTL. The partnership is very much in its infancy but a number of studies have got under way. These include a forecast of anticipated traffic flows up to 2030 and a summary of the countries’ national priorities for transport infrastructure, especially regarding cross-border transport and logistics solutions. The aim is for this partnership to become a forum for cooperation that makes it easier for the participating countries to decide jointly on which projects and other measures they wish to invest in in order to increase the transport capacity in a cost-effective manner on both sides of their common national borders. The partnership can also be a forum for assessing desirable transport solutions in the Arctic, including shipping solutions.

The Northern Dimension Partnership on Culture (NDPC) was established by eleven countries and the European Commission as the result of a memorandum of understanding in May 2010. The partnership is supported by the Nordic Council of Ministers and by a one-person secretariat in Copenhagen. The objectives of the partnership are to i) function as a focal point for networks, projects and other cultural activities in the ND area, ii) set up priority projects focusing on cooperation between the culture sector and cultural and creative entrepreneurs and operators and iii) develop an advisory capacity for project funding issues.