

Opportunities and Challenges

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The original Faroese version of "The Faroe Islands – a Nation in the Arctic" was presented to the Prime Minister in April, 2013. This English translation was completed in August 2013. Recent events and developments have been duly reflected in this version.



Introduction

The Arctic has taken a prominent place on the international agenda in recent years. From being a region largely limited to scientific interest internationally, the Arctic today has become a focal point in global politics. The climate is warmer, the ice is melting at an increasing pace, and new land and sea areas are becoming accessible. It is becoming possible to sail north of Russia and Canada for longer periods of the year than before. At the same time, previously inaccessible sub-surface reserves of oil, gas and minerals can now be exploited. These changes have huge significance for the Faroe Islands.

Climate change can have consequences for the very basis of our society. Changes in sea temperature can affect the marine ecosystems and ocean currents, and subsequently also our marine resources. Recent dramatic changes observed in fish stocks are no doubt also related to climate change. Continued scientific research is therefore necessary in order to understand these changes better and to strengthen our ability to make the necessary adaptations. This must be done in active cooperation with our neighboring countries in the region

The Faroe Islands have a key position in the region, both in relation to the Northern sea route and not least situated as they are at the western arm of the Northeast Sea Route, which is expected to have the greatest significance in the years to come. Shipping has already increased in the seas around the Faroes, and this traffic is likely to expand even more in coming years. Increased maritime activity in such a large area,

with many associated risks, requires high standards for safety and emergency response, both with respect to safeguarding human life and protecting the environment. This increasing activity also brings with it significant economic opportunities. The number of foreign ships using Faroese ports in the future will no doubt continue to grow. As a result, Faroese companies will have more opportunities to provide these vessels with professional and competitive services.

This will also require effective coordination and marketing in the Faroese business sector. Faroese companies are already preparing to offer their services and expertise as sub-contractors in the fisheries, mining and oil sectors, especially in Greenland. With long-term experience and initiative working in the Northern seas as a part of our maritime identity and culture, Faroe Islanders should make the most of these valuable assets.

The Faroe Islands have long experience in fisheries in the seas of the High North. It is therefore very important to follow closely negotiations regarding the future management of fisheries in the Arctic sea, in order to ensure appropriate rights to participation in any new fisheries in the area.

The economic and cultural basis of Faroese society is similar to that of other Arctic peoples.

In addition, we share many fundamental challenges, such as the consequences of climate change and the need to ensure population growth and sustainable development. Faroese experts who participate in various specialist areas of Arctic cooperation consider the commonalities we share with other Arctic countries as a great advantage in Arctic cooperation, compared with other international fora for research cooperation.

The Faroe Islands should therefore continue to strengthen participation in Arctic research cooperation

The Faroe Islands need to ensure clear policies with respect to decisions that will be taken on circumpolar issues in the future. The Faroe Islands have long played an active role in regional cooperation in a range of different areas, both as a part of the Nordic family of nations, through cooperation in the West Nordic region and across the North Atlantic. Strong and visible Faroese participation in Arctic cooperation, in particular within the framework of the Arctic Council, is a natural part of the continued development of the Faroe Islands as a reliable and constructive partner in international cooperation.

The Faroe Islands have the knowledge and experience necessary for the further development of fisheries, shipping and research, as well as the conservation and management of natural resources. In close cooperation with other countries and keeping a keen eye out for new opportunities, we can target our plans and further develop our society. The goal is to create new opportunities for the Faroe Islands, both for individual citizens, as well as for the business sector and the research community.

About the assessment

The strategic assessment outlines Faroese interests in relation to international cooperation, business,



Mynd: Kimberley Coole

the environment and research in the Arctic context. The assessment is intended as a basis for a broader political discussion on the place of the Faroe Islands in the Arctic, and how the Faroe Islands can best prepare for new conditions in the region.

The Faroe Islands are a part of the Kingdom of Denmark's Arctic Strategy 2011-2020, which includes Denmark, Greenland and the Faroe Islands. The strategy was prepared in cooperation between all three countries and aims to strengthen the role of the Kingdom of Denmark as an active player in the Arctic. The joint strategy deals mostly with areas of overarching interest, grounded in fundamental principles and broad cooperation between the parties. The aim is to ensure a peaceful and safe Arctic, with sustainable economic development that respects the fragility of the Arctic natural environment. Large parts of the joint strategy relate in general to areas for which the Faroe Islands have exclusive competence. The Government of the Faroes has therefore considered it necessary to produce a dedicated national assessment with a focus on areas of particular relevance and interest for the Faroe Islands.

The assessment process

The Foreign Service in the Prime Minister's Office of the Faroe Islands coordinated the preparation of the assessment, in close cooperation with relevant government ministries agencies and other interested parties. An expert advisory panel, with representatives from industry, the research community and relevant public agencies advised the process and contributed their views and expertise to the over-all assessment of future needs and priorities. Members of the expert panel were: Marita Rasmussen, House of Industry; Jan Müller, Faroese Oil Industry Group; Annika Sølvará, Research Council of the Faroe Islands, Ólavur Gregersen, Syntesa; Jákup Mørkøre, Fisheries Research Fund, Ministry of Fisheries; and Vilhjálmur Gregoriussen, Centre of Maritime Studies and Engineer-

During the preparation of the assessment emphasis has been placed on involving all relevant sectors in the process. This has been done by for example arranging public debates and lectures at which a range of experts, researchers and business representatives have provided their input to the discussion. An overview

of these events is included in the final document.

Proposals for follow-up

Each section of the assessment contains a number of recommendations. Some are easily implemented, while others may require more effort. There is also a large difference in the level of funding required in relation to the various recommendations. After the assessment has been presented to the Prime Minister, it will be submitted to the Parliament for a general debate.

It is suggested that the general parliamentary debate addresses the question of how best to prioritize and implement the recommendations. With a basis in conclusions from the general debate, an action plan for the implementation of the recommendations should be developed. To this end, it is suggested that a working group with representatives from all relevant government ministries is established to prepare a proposal for an action plan. The plan should outline the associated responsibilities, estimated costs and work load. It should then be submitted to the Government for final approval.

A Changing Region

It has been estimated that the Arctic Ocean will be free of ice for large parts of the year in approximately 30 to 40 years. However, researchers point out that the ice appears to be receding at an even greater pace than expected. If it continues at its current pace, experts estimate that large parts of the Arctic Ocean could be free of ice in just 15-20 years.

Climate change is a global phenomenon that causes unusual weather patterns in several parts of the world. However, it is arguably around the two poles that climate change is most visible and is likely to have the most severe implications.

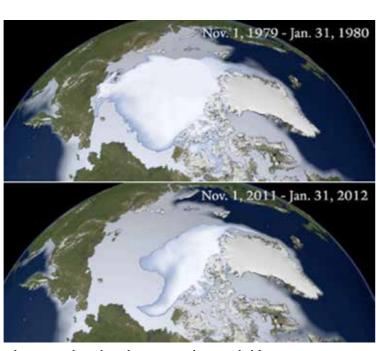
The United Nations' Intergovernmental Panel on Climate Change (IPCC) announced in 2007 that the average temperature in the Arctic was increasing twice as fast as average temperatures elsewhere in the world. Satellite measurements show that the extent of the Arctic summer sea ice has decreased by 40 per cent since 1979. This means that sea and land areas that have previously been covered by ice are likely to become accessible.

Valuable underground resources

The Arctic region is rich in oil, gas, and minerals.

In 2008, the US Geological Survey published new estimates of the raw materials in the Arctic underground. These estimates indicate that the Arctic region contains

massive amounts of oil and gas. It is estimated that up to 30 per cent of all unexploited hydrocarbon rerently possible. With time it is also expected that it will be possible to sail from the Pacific Ocean to the



The picture shows how the Arctic ice has receded from 1979 to 2012. Picture: NASA/Goddard Scientific Visualization Studio.

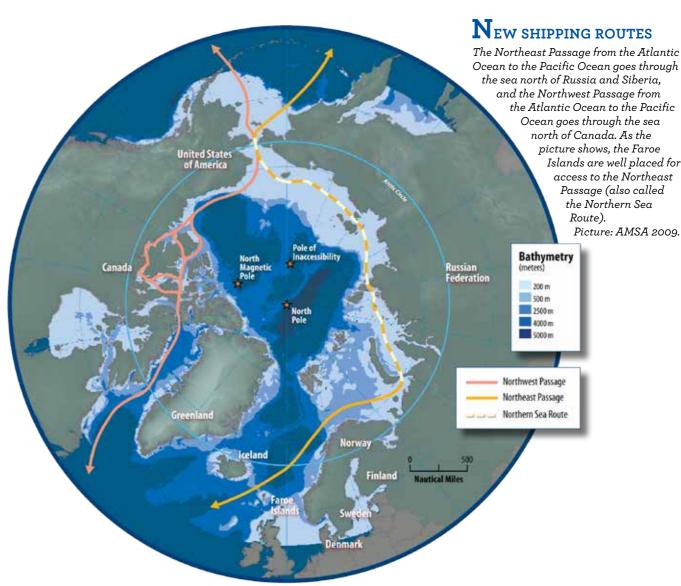
sources in the world are in the Arctic region, with as much as 13 per cent of the world's unexploited oil and 30 per cent of unexploited gas located in the region. Most of the resources are likely to be located within the economic zones of the Arctic coastal states.

New shipping routes

Climate change is likely to make it possible to sail north of Russia and Canada for a significantly longer proportion of the year than is curAtlantic Ocean via the North Pole.

These new shipping routes will make it possible to save transportation time and decrease hydrocarbon use in the shipping industry, thereby reducing its carbon emissions.

The distance from Rotterdam to Yokohama will decrease by approximately 40 per cent compared to the current route through the Suez Canal, the Gulf of Aden, and the Strait of Malacca.



$T_{\text{HE ARCTIC}}$

The Arctic is a huge area covering some 30 million square kilometres. Four million people live in the region. The Arctic encompasses the northern parts of Canada, the United States (Alaska), Russia, Finland, Sweden, and Norway, as well as Iceland, Greenland, and the Faroe Islands.

The Arctic can be defined in a number of different ways. In strictly scientific terms, the definition has often been limited to the area north of the Arctic Circle, or from the border line that marks the beginning of permafrost, or the area in which the average daily temperature in the summer does not exceed 10°C. In the context of international politics, however, the most commonly accepted definition of the Arctic is that characterised by political cooperation between the states and nations whose people live in the Circumpolar North, and this definition includes the Faroe Islands. As the picture shows, the political demarcation used by the Arctic Council places the Faroe Islands in the Arctic.



Photo: Conservation of Arctic Flora and Fauna 2005

The Faroe Islands as a Stakeholder in Arctic Cooperation

The Arctic has become a focal point in international politics.

The likelihood of increased activities in the Arctic region and the prospect of new access to valuable resources in its underground open up many new opportunities for the countries in the region. To address these new developments and opportunities, all the countries in the Arctic, including Denmark/Greenland/Faroe Islands, have produced a strategic assessment describing their interests and political objectives for the region. The states with coastal borders to the Arctic Ocean have made claims to parts of the sub-sea continental shelf. These countries are also investing increasing amounts in their military bases in the region. Other world powers, such as the European Union, China, Japan, and South Korea are paying growing attention to the region.

The risk of military disputes between the stakeholders in the Arctic Ocean, caused by increased interest and activities in the region, was brought to the forefront of global attention a few years ago.

Fears of disputes and environmental disasters, amongst other dangers, have led several environmental organisations to recommend the establishment of a new international treaty for the Arctic area. They argue

that the process used to establish this treaty should be the same as that which was used for the Antarctic Treaty, which entered into force in 1961. The outcome of this treaty was that all territorial claims were put aside and it was agreed that Antarctica should be a preserve dedicated to scientific research. Commercial and military activities in the area are banned. The original treaty did not contain provisions about the management of fisheries around Antarctica. However, in 1982 the signatories established the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) to protect the living marine resources in the region and to prevent overfishing, particularly of krill.

The countries in the Arctic do not agree that the Arctic needs a similar international treaty. There is a fundamental difference between the Arctic and Antarctica: people live in the Arctic, whereas Antarctica is unpopulated.

The Arctic countries are perfectly capable of managing development and cooperation in the Arctic area in a sensible and peaceful manner and in accordance with relevant international treaties and principles.

A milestone in Arctic cooperation was the Ilulissat Declaration in 2008, in which the Arctic coastal states committed to resolving any resource related disputes in the region in a peaceful manner. This declaration has as its basis provisions in the United Nations Convention on the Law of the Sea as well as other relevant international treaties. The declaration also asserts that the Arctic Council and the large number of treaties that already apply to the area provide a sufficient framework for Arctic cooperation.

Today few people fear military disputes between the Arctic coastal states. Instead, the military bases in the Arctic territories are considered an integral part of the emergency and rescue infrastructure in the area. They also serve the purpose of showing the rest of the world which state presides over a given area. The real safety and security issues in the area concern the consequences of climate change and the risk of accidents that come from the increase in commercial activities in the area.

The Faroe Islands in international cooperation

The Faroe Islands take an active role in regional and international cooperation, particularly when it comes to the management of natural resources, sustainable economic development, research, and cultural cooperation.

THE ARCTIC COUNCIL

The Arctic Council is the only high-level intergovernmental cooperation forum on Arctic matters. The member states are the United States, Russia, Canada, Sweden, Finland, Iceland, Norway, and Denmark/Greenland/Faroe Islands.

The Arctic Council was established in 1996 and has its origins in the Arctic Environmental Protection Strategy (AEPS), which was established in 1991. AEPS is considered the first real step towards protecting the environment and promoting safety in the Arctic area in the aftermath of the Cold War.

Once the Arctic Council was established, it took over the activities of the AEPS and expanded its remit to include sustainable development and the specific challenges faced by the indigenous people of the Arctic, in addition to environmental protection and safety.

The Arctic Council does not have its basis in a binding international treaty, but rather in a political declaration agreed by the member states' Foreign Ministers. Decisions taken by the Council must be accepted by all member states, but they are not legally binding.

The Arctic Council's activities consist primarily of the production of reports, status updates, recommendations, and guidelines on matters relating to the Arctic, for instance on environmental pollution, climate change, and the shipping industry. One of the Council's most highly recognised publications is the Arctic ARCTIC COUNCIL

ata Impact Assessment (ACIA) from 2004, which

Climate Impact Assessment (ACIA) from 2004, which is widely credited with helping the world understand the gravity of climate change in the Arctic.

Questions have been raised about the role of the Arctic Council in the context of the significant environmental changes happening in the Arctic. Critics argue that cooperation amongst the member states is too weak and that the Council is insufficient as the only intergovernmental cooperation forum on Arctic issues.

The Arctic Council has strengthened its position significantly in the past few years with the establishment of a head office, a permanent secretariat, and the publication of a budget. The last few years have also seen the member countries pass two binding international treaties under the auspices of the Arctic Council. The first agreement coordinates international search and rescue coverage and response in the Arctic, while the second concerns emergency preparedness in the case of oil spills.

The binding treaties are testimony that although the Arctic Council is not founded on the basis of an international treaty, and although its decisions are not legally binding, it is able to pass important and durable decisions within its current framework. These decisions are also central to the future development of the economy and society of the Faroe Islands

THE DELEGATION Denmark/Greenland/Faroe Islands and the organisation of the Arctic Council's activities

The Faroe Islands are part of a delegation to the Arctic Council called 'Denmark/Greenland/ Faroe Islands', which flies the flags of all three nations. A representative of the Danish Ministry of Foreign Affairs acts as the Head of the delegation at the Arctic Council's Senior Arctic Officials (SAO) meetings.

The chairmanship of the Arctic Council rotates every two years and each cycle concludes with a Ministerial Meeting that produces a formal declaration on the Council's political priorities for the upcoming cycle. On the years when there is no



Ministerial Meeting, there is instead a meeting for Deputy Ministers and other high-level political officials. Formal SAO meetings – with highlevel Foreign Service officials from each member state – take place

every six months. The purpose of these meetings is to guide the work of the Council's working groups and prepare proposals and action plans for discussion at the Ministerial Meetings.



SAO Meeting in Stockholm in March, 2013. Photo: Arctic Council Secretariat.

As a fishing nation, the Faroe Islands play a key role in the Arctic Council, as well as in other international cooperation contexts. The main purpose of this cooperation is to promote the importance of the living resources of the sea, and to assert the right of the Faroes to exploit them in a sustainable manner that protects the environment and ensures a self-sustaining economy.

The Faroe Islands' participation in Arctic cooperation is thus a natural part of its other international cooperation activities, which include working with the Nordic family of nations, with the West Nordic countries, and across the North Atlantic. The Faroe Islands have been part of the Danish delegation to the Arctic Council – together with Greenland and Denmark – since 1998.

The Faroe Islands have much in common with the other nations and communities in the High North. In particular, the Faroe Islands and other Arctic societies have similar economic foundations, exist close to nature, have related cultures, and face similar challenges of ensuring population growth and sustainable development.

The Faroe Islands in the Arctic Council

In contrast to other regional cooperation for ain which the Faroe Islands are represented – either as an independent member or together with Greenland – the Faroe Islands in the Arctic Council are part of a tripartite delegation, together with Greenland and Denmark. The delegation emphasises the visibility of all three nations by including them all in the delegation's title and by displaying all three flags. Consensus is sought between all parts of the delegation on its common decisions.

Most of the topics debated in the Arctic Council relate to political areas for which the Faroese Government has exclusive competence. Therefore, in order for the Faroe Islands to ensure that the decisions made by the Arctic Council are in the interest of the Faroe Islands, it is critical that the Faroes take an active role in expressing Faroese interests and shaping the Council's decision-making processes to their favour. To achieve this, the Kingdom of Denmark's delegation must be organised in such a way that the perspectives of all its nations are heard

even though the nations work under different sets of conditions and with different political objectives.

Strategic prioritising needed

Many meetings and activities take place on an intergovernmental level in the Arctic Council. This creates particular challenges for a small administration like the Faroese. Moreover, not all matters discussed under the auspices of the Arctic Council have implications for the Faroe Islands. Therefore, if the Faroe Islands are to make to most of their participation in Arctic cooperation, it is crucial that they take a strategic approach that prioritises effort in the areas of greatest importance and relevance to the Faroe Islands.

The Faroe Islands should also advocate a more effective work structure and a more inclusive system of participation in the Arctic Council that makes it easier for small Arctic countries and entities to contribute and participate in meaningful ways.

The majority of the Arctic Council's reports and guidelines are produced within working groups, and it is also in these groups that proposals are made on which cooperation are-

as the Council should prioritise. Faroese participation in these groups is uneven and varies from group to group. It is necessary for the Faroe Islands to set priorities and invest the necessary funding and effort into maintaining sustained participation in the most relevant working groups, particularly in the groups AMAP, CAFF, PAME, and SDWG (see box on page 11).

Participation in these groups provides excellent opportunities for the Faroe Islands to raise awareness of their perspectives and to foster strategic relations with other countries and organisations that work on areas of high relevance to the Faroe

Islands. Such participation should have similar priority in the Faroe Islands as participation of government officials.

Developing relations with neighbouring countries and other parties It is important that the Faroe Islands engage in a continuous effort to make themselves visible in the Arctic context – both to make sure that Faroese perspectives are heard and to achieve the best possible opportunities for Faroese experts and businesses to offer specialised expertise and services to relevant stakeholders in the Arctic.

In particular, the Faroe Islands should seek to strengthen commu-

nication and cooperation with countries and organisations that share its interests and face similar challenges in relation to the significant changes taking place in the Arctic. As a small country, it is in the Faroe Islands' best interest to nurture relationships with several countries. It is therefore vital to make full use of all possibilities offered by the organisations and cooperation fora of which the Faroe Islands are part to ensure that Faroese perspectives and political objectives are advanced.

The Faroe Islands should engage in regular communication and cooperation with their West-Nordic neighbours. The Faroes already en-

Working Groups in the Arctic Council

Most of the Arctic Council's activities are conducted in six working groups, each composed of experts and researchers from the member states. Faroese representatives are involved in most of the groups. The working groups produce the majority of reports and status updates released by the Council. Each working group has its own Chair, Management Board, and Secretariat, as well as an office located in one of the member countries. The groups' activities are largely funded by the host country.

AMAP – The Arctic Monitoring and Assessment Programme works to provide consistent measurements of the spread of anthropogenic pollutants in the Arctic environment, and assesses their effect on the public health of the populations in the Arctic region.

CAFF – The Conservation of Arctic Flora and Fauna group has as its main purpose to survey and protect the biodiversity of the Arctic region.

PAME – The Protection of the Arctic Marine Environment group was established to protect the Arctic marine environment. It does this by assessing the suitability of relevant international treaties and making recommendations on improving the sustainable management of the Arctic marine environment.

EPPR – The Emergency Prevention, Preparedness and Response group provides information about prevention and preparedness in connection with environmental accidents and disasters in the Arctic. The group is particularly concerned with the special challenges regarding preparedness in areas with a lot of ice and – for this reason – the group has not been of high relevance to the Faroe Islands yet.

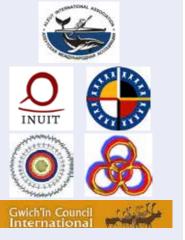
SDWG – The Sustainable Development Working Group seeks to promote sustainable development in the Arctic, with particular focus on protecting and enhancing the economies, cultures, and health of the Arctic populations.

ACAP – The Arctic Contaminants Action Program has as its goal to reduce the emission of pollutants into the Arctic environment and to promote collaborative efforts to do so. The group's activities focus primarily on pollution in Russia. For this reason, the Faroe Islands have not participated in this working group.

Indigenous peoples' organisations

Six organisations for Arctic indigenous people have been granted Permanent Member status in the Arctic Council. These organisations have full consultation rights in connection with the Council's negotiations and decisions, but they do not have voting rights.

The organisations are: the Inuit Circumpolar Council, the Saami Council, the Russian Arctic Indigenous Peoples of the North, the Aleut International Association, the Arctic Athabaskan Council, and the Gwich'in Council International.



joy in close and active cooperation with Greenland, Iceland, and Norway in several contexts, for instance through the West Nordic Council and the North Atlantic Marine Mammal Commission (NAMMCO), which also includes the Arctic countries Canada and Russia as observer states. The Faroe Islands should seek to further develop and strengthen its relations with Russia, the United States, and Canada.

Several of the indigenous populations represented in the Arctic Council share common interests and challenges with the Faroe Islands, particularly with regards to the optimal exploitation of living marine resources. For the Faroe Islands, it is vitally important to nurture these mutual interests and look for a common way forward to ensure that the populations of the Arctic and their right to sustainable development continue to be a central concern in all aspects of Arctic cooperation.

In 2012, the European Commission put forward a new proposal for the European Union's Arctic Policy. The proposal reflects Europe's growing political and commercial interests in the region and draws attention to areas and ways in which the EU can support Arctic cooperation, with particular emphasis on the many research activities in which the EU is engaged in the region. As the EU's policy towards the Arctic develops, it will be important to ensure that the EU is aware of Faroese interests and activities in the Arctic context. The Faroe Islands' joint strategy with Denmark and Greenland makes clear that all three nations should take an active and visible role in international political contexts. As a member state of the EU, Denmark should promote awareness within the EU of the Faroe Islands' role in Arctic cooperation.

One international body that works on Arctic issues but does not

have direct representation from the Faroe Islands is the Standing Committee of Parliamentarians of the Arctic Region (SCPAR). SCPAR was established in 1994 and from its outset worked to support the establishment of the Arctic Council. Since the Arctic Council was established in 1996, SCPAR has worked to promote the Arctic Council's work. Every second year, it arranges a Conference of Arctic Parliamentarians with parliamentarians from the Arctic countries and the European Parliament. Each conference passes a declaration of recommendations for the Arctic Council, the Arctic member states, and the European Commission. The next conference will take place at the European Parliament on 13-15 September 2013.

Both Denmark and Greenland are members of SCPAR and form a joint delegation. The Denmark/Greenland delegation is represented by one of the two Greenlandic parliamentarians in the Danish Parliament.
Although the Faroe Islands are not a member of SCPAR, the Faroe Islands have participated in a number of SCPAR meetings, representing the West Nordic Council, which has observer status in SCPAR. The Faroese Parliament should seek direct Faroese representation in SCPAR.

The Faroe Islands should also make use of alternative ways of drawing attention to Faroese expertise and perspectives in the Arctic context. An array of conferences take place on a range of Arctic topics, including geopolitics, social conditions, commercial activities, research, and culture. The participation of Faroese experts at such conferences should be encouraged and enhanced. Emphasis should also be on producing more English-language information material on the Faroe Islands and Faroese interests.



Photo: Kimberley Coole

Nordic cooperation on arctic matters

The Nordic Council of Ministers is also has the Arctic high on its agenda. It recently established a working group, including representation from the Faroe Islands, to focus on developments, challenges and opportunities in the Arctic. This group's work on the Arctic is part of the wider elevation of the Arctic as a top priority in the new Nordic cooperation programme for 2013-2016. The Nordic Council of Ministers also runs an Arctic Cooperation Programme, which is

intended to support and encourage sustainable social and economic development for populations located in the Arctic region.

For this purpose, the Council has established the Arctic Expert Committee, composed of the highlevel officials that represent the Nordic countries in the Arctic Council. The Faroe Islands are actively involved in this Committee, which is tasked primarily with evaluating applications for financial support to Nordic projects on

Arctic matters. In 2013, the Committee will grant nearly 6 million DKK (≈ 805,000 EUR) in funding for various projects. Several Faroese projects have also benefitted from funding from the Committee. See www.norden.org for more information.

The Faroe Islands are also part of the Nordic Atlantic Cooperation (NORA), which has its headquarters in Tórshavn and is very active on Arctic matters.



RECOMMENDATIONS

- Priority should be given to participation in the Arctic Council and all relevant working groups under its auspices.
- A more effective work structure in the Arctic Council should be promoted to enable small countries and entities in the Arctic to participate in a meaningful way.
- The work structure of the Denmark/ Greenland/Faroe Islands delegation should be organised in a way that enables and encourages the perspectives of all three nations to be heard.
- A joint West Nordic approach to Arctic cooperation, together with Iceland, Greenland and Northern Norway, should be promoted and enhanced.

- Participation in the Arctic Council should be used to nurture relations and strengthen direct cooperation with member states, permanent participants, and observers.
- The Faroe Islands should seek full membership of the Standing Committee of Parliamentarians of the Arctic Region (SCPAR).
- The Faroe Islands should draw attention to Faroese expertise and perspectives on the Arctic, for instance by participating in relevant conferences on Arctic matters. Emphasis should also be on producing more English-language information material on the Faroe Islands and Faroese interests.

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On the Northern Sea Route: New Economic Opportunities

Faroe Islanders have long experience from the seas of the seas of the High North, and Faroese companies possess valuable expertise in construction and maintenance of vessels for shipping and fishing in this region. Moreover, Faroese ports have for many years been offering highquality maritime services to foreign vessels operating in the area.

The Faroe Islands are well located in connection with the Northern Sea Route and should make the best possible use of their ports to offer services and transhipment to foreign vessels that use the route.

Most maritime services are

available in the Faroe Islands, and Faroese maritime companies have excellent competences and storage conditions. Their main challenge - as small-sized companies - will be to handle the large and diverse assignments that are likely to arise from the growing activities in the High North. This means that they need to collaborate and coordinate their activities in order to offer the widest possible range of specialised services to visiting vessels. These specialised services include mechanical repairs, equipment and provisions, arrangement of crew changes, medical examinations, and

training courses in areas like safety, hygiene, and the shipping of danger-

A maritime service centre in the Northeast Atlantic

The Faroese Government's coalition agreement stipulates that the Faroe Islands should develop a plan for how they can become a key maritime service and educational hub in the northern region. The Ministry of Trade and Industry is responsible for developing this plan.

In 2012 the Foreign Service arranged the workshop 'Business opportunities in the Arctic'. One of the main conclusions was that the Faroe Islands should develop an advanced maritime service centre in the Northeast Atlantic. Following this, representatives for the main maritime industries formed collaborative arrangements to plan the establishment of such a centre. The plan is for the centre to be open to all companies that meet agreed quality thresholds and are able to maintain their services at a consistently high level. The purpose of the collaboration is to provide fast and high-quality services to the fishing, oil, and offshore industries, as well as other services that follow on from these activities.

The collaboration is based in the House of Industry, and the collaboration partners are currently in the

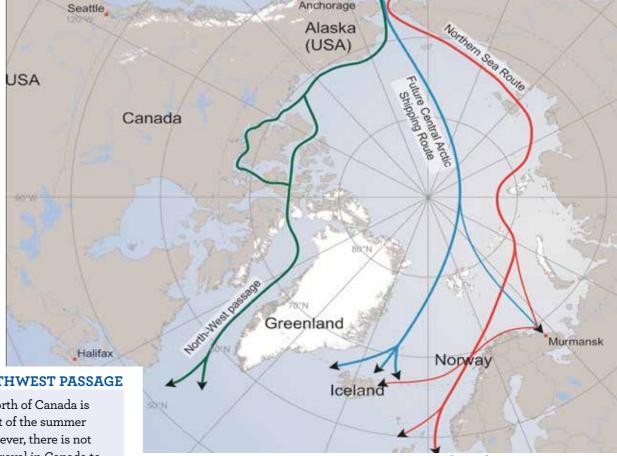


Photo: The Arctic Institute

 ${f T}$ he northwest passage

The route north of Canada is open for part of the summer season. However, there is not political approval in Canada to use the route in the same way as in Russia. Environmental concerns and safety weigh heavily in this respect. The United States argues that the route is in international waters and is mounting pressure on Canada to open it up. However, observers do not anticipate it becoming a vital Arctic shipping lane anytime soon. Nevertheless, the local shipping traffic in the area is expected to increase significantly.

THE CENTRAL ARCTIC SHIPPING ROUTE

The Central Arctic Shipping Route, which reaches across the North Pole from the Pacific Ocean to the Atlantic Ocean, is not ice-free vet. The Chinese are very interested in this route and expect it to be navigable for four months of the year as soon as in 2020. Once ice-free, the Chinese hope to transport 10 per cent of their exports to Europe through this route.

f I he northeast passage (or the northern sea route)

The route north of Russia was developed by the Soviet Union to be a key Arctic shipping lane. The shipping traffic on the route has increased substantially in the past few years. Russia has done much work to promote the Northern Sea Route as an alternative to the longer route through the Suez Canal. As part of its promotional activities and in order to make the requirements more lenient, Russia announced in January 2013 that it was possible to sail through the route without a Russian nuclear-powered icebreaker. It was also announced that - depending on the circumstances – it is now possible to sail the route with vessels that have not been specially designed for sailing in ice-covered waters.

Despite these recent developments, the Northern Sea Route remains a difficult and hazardous shipping lane, which nearly always requires assistance from an icebreaker. Moreover, vessels need to be robust and equipped for the harsh circumstances. At the moment, the route can only be used between July and November. In addition to changing ice conditions, which can cause delays, several other conditions can cause complications on the route, including the lack of a nearby safety and emergency response infrastructure, as well as the lack of access to harbours, communication, and observations.

Russia is putting a continuous effort into developing the route, and has announced its plan to build ten new emergency harbours along the route. The Northern Sea Route is expected to increase in significance in the coming years. In the first instance, much of the growth on this route is expected to come from the mining and raw materials industries in the Arctic, which will use the route to transport hydrocarbons and cargo to and from the Arctic.





Photo: Absalon Hansen

process of establishing the requirements for participating companies. The initiative is consistent with the Government's plan to develop the Faroe Islands as an international maritime service and educational hub. The Ministry of Industry plays a key role in this plan, together with the Faroese Maritime Authority; the Foreign Service; the Ministry of Finance; the Ministry of Education, Research and Culture; the Ministry of Health Affairs; and so on.

Much research and market analysis will need to be done before investing in any large expansion. There are several players in the race to provide services to the growing number of vessels in the High North. Both Russia and Iceland are important potential players in this area. Iceland is particularly interested in the upcoming opportunities arising from increased Chinese transportation through the Central route and has made concrete plans to establish an international cargo or transhipment port. As the Faroe Islands develop their own maritime hub, they will need to make a detailed evaluation of the need for a transhipment port in the Faroe Islands. More market analysis is also needed to explore and identify potential competitors, as well as the types of vessels and cargo that are most likely to need transhipment and other services in the Faroe Islands.

Laying the foundations for a Faroese Maritime Service Centre

A well-qualified and skilled workforce will be critical to establishing
an attractive maritime service centre
in the Faroe Islands. It is therefore
important to invest in apprenticeships and relevant professional
training, particularly in logistics,
cargo transportation, and other service-oriented vocations. Vocational
degrees and continued professional
education in these vocations should
also be supported.

A big challenge for Faroese society is the fact that many talented and well-educated Faroese people work for foreign companies rather than Faroese companies. Special tax and support schemes for people who work abroad make it difficult for Faroese businesses to compete directly with international businesses for labour. The goal should be for Faroese businesses to offer the same level of services and to attract

similarly qualified employees as neighbouring businesses. To make this possible, the Faroese business sector argues that it is necessary to adjust the tax system so that Faroese businesses are not at a disadvantage in comparison with businesses in neighbouring countries.

The small size of Faroese companies is also of importance and here the public administration needs to cooperate with partners in the private sector to support Faroese companies in developing and selling their services, for instance by promoting Faroese business to the rest of the world.

Tourism

Arctic tourism is on the rise. The number of passenger ships in the Arctic area has grown substantially, while the number of passenger ships visiting the Faroe Islands has been steady at about 50 ships per year for the past few years. As a tourist destination, the Arctic is promoted as a new, unknown region of the world. The search for the unknown, unspoilt and authentic is a tourism trend that favours the Faroe Islands, which have much to offer in terms of nature and traditional culture.

Therefore, the Faroe Islands should promote awareness of themselves as a unique tourist destination in the broader Arctic context. Emerging markets in business tourism, particularly in the arrangement and hosting of meetings, conferences, and other business events, should also be utilised to their full extent.

Already our neighbouring countries are hosts to a wide array of conferences and events on Arctic matters. As a unique nation in the Arctic, the Faroe Islands are in a particularly good position to offer their expertise and excellent environment to host such events. The Faroese tourism board will place high importance on developing such business tourism in the Faroe Islands.

New resource development in Greenland

Climate change is likely to open up access to many new areas for the extraction of raw materials in Greenland. At the same time, the demand for such materials is increasing steadily. The rest of the world is therefore paying much attention to the huge oil and gas resources in Greenland.

Several companies are preparing for the expected oil and gas boom in Greenland. There are concrete plans for major projects, all of which will require a great deal of expertise. At this point, Anglo-American energy and resources companies run most of these projects. But there is an additional need for labour, technology, and knowledge to execute the projects. Finally, there is a need for sub-contractors with relevant local expertise and experience.

At the moment, most of the companies offering sub-contracting services and expertise in Greenland are Greenlandic, Norwegian and Icelandic. It is expected that there will be an increasing demand for sub-contractors in the upcoming years, both in the oil industry and the mining industry.

${f I}$ nterest in oil exploration in the arctic

There are three main reasons why the interest in oil exploration and production in the Arctic has boomed. First, there is a very high global demand for hydrocarbons, and it is expected to increase by 30 per cent until 2040.

Second, climate change is creating new opportunities for hydrocarbon production by opening access to previously inaccessible areas in the subsea.

Finally, estimates from the US Geological Survey indicate that nearly 25 per cent of the world's oil and gas reserves are located in the Arctic underground

Another reason for the growing interest in the Arctic is the high price of oil, which makes it more worthwhile for companies to invest in oil exploration and production in the area. Unstable political conditions in other oil countries have also had an impact.

Future prospects

Experts estimate that the biggest challenges facing oil production in the Arctic will be technological and environmental in nature. Several large oil companies, including Shell and Statoil, say that they are able to ensure adequate protection for the environment while working in the Arctic. Other oil companies, such as the French company Total, are directly opposed to oil production in the Arctic. Several environmental organisations are strongly opposed to drilling in the Arctic because of the risk of environmental accidents. These groups argue that oil spills in the region could be disastrous because of the immense difficulty of cleaning them up in the cold, remote, and ice-strewn waters of the Arctic.

Despite opposition, oil and gas exploration and production in the Arctic is unlikely to stop. The United States needs the oil resources north of Alaska, and Russia wishes to utilise gas resources in the underground north of Siberia.

Greenland has already decided to explore for oil beneath its waters, while making clear that it will not renounce its right to its own resources. Norway, one of the world's most advanced and respected oil states, also plans to continue moving further and further north, carefully and with respect for the environment.

The oil industry

Climate change means that the sea areas around Greenland, the Barents Sea, and the Kara Sea, as well as the sea areas north of Alaska and Canada, are likely to become ice-free for an increasingly large part of the year. However, the ease of access to the hidden oil and gas reserves in the Arctic differ vastly from area to area. Some areas are relatively easy to access while others are likely to remain difficult to access for many years to come.

Faroese participation in the global oil industry

Both Faroese oil companies and service companies are active in the global oil industry. Faroese companies that provide services to the oil industry – e.g. through supply and guard ships, airborne transportation, and the provision of workforce – have sought to establish themselves as service providers to Norwegian oil and gas exploration enterprises in the Arctic region.

There is much interest in oil exploration off West Greenland, and it is likely that some of the world's



Mynd: Kimberley Coole

tise in environmental research and technology.

Greenland seeks to attract and to increase investments in new industries in Greenland. It prioritises industries like hydropower, mining, and the tourism industry, while also exploring the possibilities for metal ore mining and mineral mining, as well as hydrocarbon activities at sea.

Norway sees large opportunities in the new shipping lanes and hopes to provide services to the growing shipping traffic in the Arctic. It also plans to make available the Jan Mayen area for hydrocarbon extraction activities. Additionally, the country is involved in a plan to create an international transportation route that connects railways between Norway and Central Asia with sea routes between Norway and North America. Norway is also placing a high priority on hydropower, wind power, and wave energy. A final area of focus for Norway is scientific research.

Russia is one of the most eager countries in the Arctic when it comes to developing new and upcoming economic opportunities. Its commercial interests are primarily in the valuable resources of the underground, as well as the possibility for an important and lucrative shipping lane to its north.

Iceland sees opportunities in shipping, research, and monitoring, for instance in connection with activities in East Greenland and oil exploration in the so-called Dragon Area. It has concrete plans to expand the Port of Langanes to offer services to large tank vessels, and to build an international airport nearby.

The United States places emphasis on Arctic research, shipping, energy, and environmental protection. It plans is to build an international port in Alaska, which will offer facilities to passenger ships, a rescue service, and a variety of services for the oil and mining activities.

Canada wishes to develop air and sea routes that make it easier to access the Arctic in order to encourage more commerce and investments in the area. Investments have already been made into new Arctic offshore vessels and into developing the Port of Churchill in Manitoba. Additionally, Canada is placing a high priority on developing diamond mining and expanding the tourism industry, as well as offering expertise and guidance to businesses wishing to pursue mining and petroleum exploration in the area.

Asian countries like China, Japan and South Korea have expressed considerable interest in the Arctic. These countries stand to win great commercial and financial benefits from the new shipping lanes and access to new energy opportunities, fishing areas, and raw materials.

largest oil companies will drill in this area in the coming years.

However, in the present circumstances it is unlikely that Faroese oil companies will join the oil exploration in West Greenland anytime soon, and their participation in East Greenland is even less likely.

The Faroe Islands live in accordance with – and base their economy on – nature and the living natural resources within it. As an active participant in Arctic cooperation, it is a chief concern for the Faroe Islands to ensure that the hydrocarbons in the Arctic are extracted in a sustainable manner and with consideration for the environment.

Faroese oil and offshore shipping companies

A great deal of oil exploration activities and new shipping routes are being developed in the North Atlantic region of the Arctic. At the same time, it is becoming clear that Faroese offshore shipping companies are likely to have excellent opportunities to offer products and services to future activities in the Arctic area, not least in the Barents Sea, where much of the growth will be focused in the years ahead.

Faroese offshore shipping com-

panies are already important service providers in the GNB area (the Greenlandic, Norwegian, and Barents Seas), and there is great potential for the Faroe Islands to become a key equipment and transhipment station as oil activities in this area expand. With the Faroese hydrocarbon industry growing as well, Faroese companies are well situated, both politically and geographically, to play a key role in future hydrocarbon-related activities in the Arctic, particularly in the GNB area. The global oil companies conducting exploration activities in the Faroe Islands are also engaged in activities further north; this gives the Faroe Islands excellent opportunities for building relations and bridges with key stakeholders in the Arctic.

When it comes to providing services to the oil and gas industry in West Greenland and East Greenland,

the prospect of Faroese participation is promising. The development of the Faroese offshore industry has paved the way for Faroese service provision to industrial developments in Greenland. Already, Faroese service and survey ships are active in the seas around Greenland, as well as in other Arctic seas. This is a market with tangible opportunities, but in order to pursue them to their full extent, collaboration is needed between Faroese authorities and industry.

Service provision to the mining and fishing industries

When it comes to the mining industry, Faroese service providers and companies – especially those with expertise in construction and engineering – are well placed to assist with expanding the mining infrastructure

One area that is of high impor-

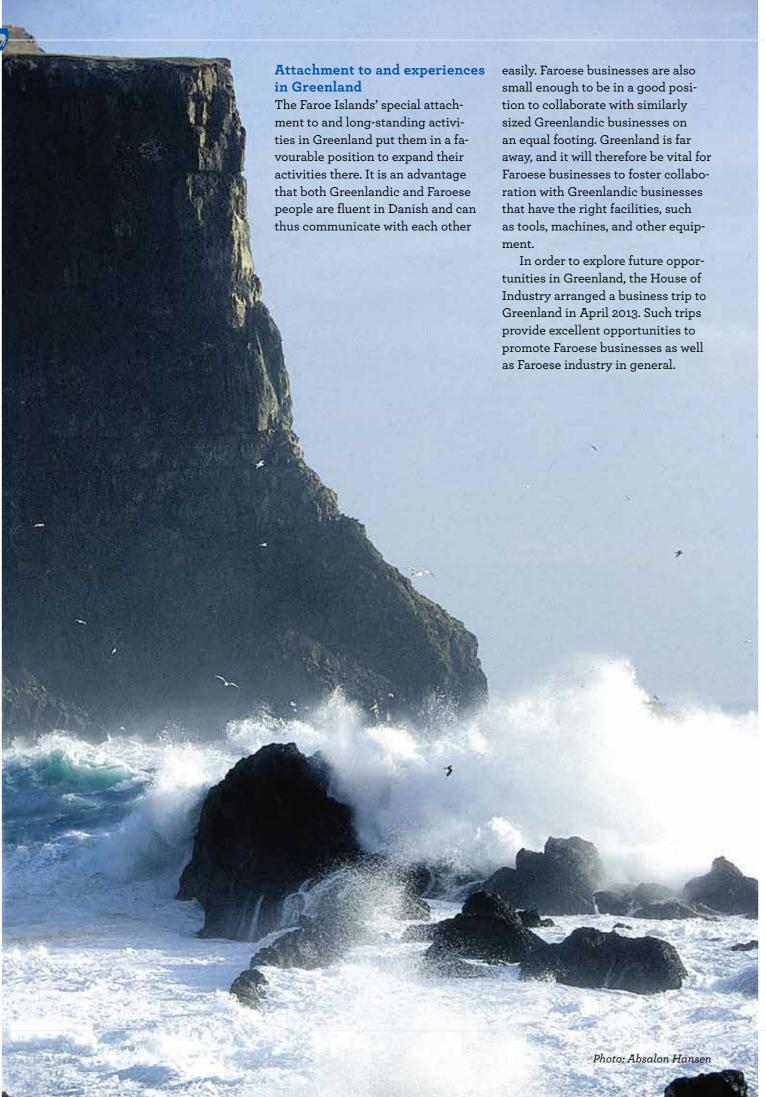
According to Det Norske Veritas, only approximately 2,000 people in the world may be fully qualified to navigate and work in the Arctic Ocean. It is likely that a good number of these are Faroese.

tance and relevance to Faroese companies is the fishing industry. The Faroe Islands have long-standing experience, both with sailing and working in the Arctic seas, as well as producing equipment and offering services to the fishing industry. Large interest in the oil and mining industries could mean that interest in the fishing industry decreases, and with it the supply of sub-contracting services in this area. This could open up a thriving niche market for Faroese businesses to offer services to the fishing industry.

RECOMMENDATIONS

- Public authorities should work continuously to maintain and enhance a supportive environment that allows Faroese businesses to operate openly and competitively in the international context in order to generate wealth and development, while giving top priority to ensuring safety, growth, and environmental protection.
- It is vital that necessary efforts and funding are provided to develop the Faroe Islands as an international centre for maritime industries, services and education in the North.
- In order to attract vessels to purchase services from the Faroe Islands, Faroese businesses need to work together, and the Faroe Islands need to be marketed in a dedicated way as a maritime service centre in the Northeast Atlantic.
- Public authorities and private industry need to cooperate on the marketing of Faroese businesses to the rest of the world.
- The Government's approach to industrial

- policy and export promotion should place a high priority on developing service industries and encouraging business development relevant to the emerging opportunities in the Arctic region. Plans to establish a Faroese Export Council should reflect these goals.
- Adjustments may need to be made to the tax system in order to ensure that Faroese businesses are not at a competitive disadvantage compared to businesses in neighbouring countries.
- Relevant business education and training should be given high priority.
- The already close commercial and political relations between the Faroe Islands and Greenland should be further enhanced in support of Faroese contributions to industrial development in Greenland.
- Connections to other relevant places should also be developed, for instance through business trips.



Fisheries in the Arctic Ocean

The warming of the Arctic Ocean and the melting of Arctic sea ice are likely to open up access to new waters and fishing areas in the Arctic Ocean.

These changes are influenced by a complex combination of environmental factors, which make it difficult to predict precisely what will happen. According to some researchers, we are unlikely to see significant commercial opportunities for fisheries in the Arctic in the next 10-50 years. Other researchers point out that, as the ice melts and the sunlight penetrates the sea, plankton populations will develop and grow quickly, thereby creating favourable conditions in which new types of fish can thrive. The last few years have seen the ice in the Arctic recede at a significant pace each year. Current estimates indicate that 40 per cent of the international waters in the Arctic are ice-free during the summer. Most of the Arctic Ocean is very deep - up to 3.500 metres. It is therefore conceivable that - while demersal fisheries may become possible where depth allows - pelagic fisheries are likely to become the most relevant form of fishery in the Arctic.

The Faroese have long-standing experiences with fisheries in the seas of the High North, especially around Greenland and in the Barents Sea. In 2012, Faroese fishing vessels were active as far north as 81.4 degrees N in the Fisheries Protection Zone north of Svalbard. This is close

to the international waters of the Arctic Ocean and further north than any Faroese fishing vessel has ever been before. It is estimated that very few fishing vessels in general have been active so far north.

Management of potential fisheries in the Arctic Ocean

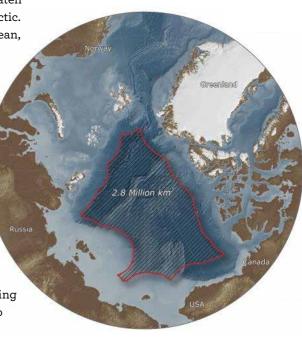
Since the international waters of the Arctic Sea have always been covered by ice, there is no single regulatory framework for fisheries management in the area. The growing prospects for commercial fishing in the Arctic have led to discussions about the future management of potential fisheries in the area. There are fears that uncontrolled fishing would threaten the fragile ecosystems in the Arctic.

Large parts of the Arctic Ocean, however, are within the territorial waters of the Arctic coastal states. Moreover, several international organisations manage fisheries in the area. NEAFC's area, which is situated at the longitude between 42 degrees W and 51 degrees E, goes all the way up to the North Pole. NASCO also presides over part of the Arctic area. Moreover, both the United Nations Convention on the Law of the Sea (UNCLOS) and the Straddling Fish Stocks Agreement apply to parts of the area.

One large area, however, is not covered by any fisheries manage-

ment organisation. Discussions are currently taking place among the Arctic coastal states about the management of fisheries in this area. Fisheries management is not dealt with in the Arctic Council, and it appears unlikely that this situation will change.

The United States has advocated for the establishment of a new fisheries management organisation for the Arctic area and the imposition of a temporary fishing ban until there is sufficient information available on the changes taking place in the area. Others recommend that the scope of NEAFC should be expanded to include the rest of the Arctic area.



The red line defines the international waters of the Arctic Ocean.

There are indications that Russia, and to some degree Norway, are hesitant about imposing a fishing ban in the area, for different reasons. Russia argues that a ban agreed by just the five Arctic coastal states would cause disputes with other countries. There are also other factors at play, including the fact that a significant amount of time is likely to pass before the waters of the Arctic become sufficiently warm to attract commercially viable quantities of fish.

The position of the Faroe Islands

Because of the Faroe Islands' long history of fishing in the seas of the High North, it is important that they keep a close eye on negotiations over how to manage future fisheries in the Arctic Ocean, especially as several of the fish stocks that the Faroe Islands have historically had a stake in appear to be migrating further north.

The Faroe Islands should resist the conclusion of an international treaty that bans fishing in the international waters of the Arctic. If such a ban were accepted, it would be difficult to establish a fisheries management organisation with meaningful authority to manage fisheries in the area. The Faroe Islands should advocate the establishment of such a fisheries management organisation with Faroese representation.

The International Council for the Exploration of the Sea (ICES) has – due to the changes in the Arctic Ocean – decided to place a high priority on research in the Arctic. ICES is an international organisation

whose purpose it is to coordinate marine research and provide scientific advice in fish biology, marine biology, fisheries, and similar topics related to the North Atlantic Ocean. It is vital that the Faroe Marine Research Institute stays closely informed about the activities and findings of ICES in the Arctic Ocean.

In order to gain more knowledge about the marine environment and fish species in the Arctic, top priority should be given to marine research in the area. Such research should be conducted in cooperation with Faroese vessels already active in the area. The Faroe Marine Research Institute is the relevant authority here, but funding is needed to execute this priority successfully.



1925 and onwards: Smack fishing in Greenland.

1930:

First attempts at line fishing and trawling around Bear Island, Svalbard, and in the Barents Sea. These fisheries expanded significantly after the Second World War.

1950s and 1960s: Open boat fishing and trawling around Greenland.

1960s: Salmon fishing around Greenland.

1970: Salmon fishing north of the Faroe Islands.

1970s: Prawn fishing around Greenland, later also around Canada.

The faroe islands are active in the following regional fisheries management organisations



NAMMCO – The North Atlantic Marine Mammal Commission is an international body for cooperation on the conservation, management, and study of marine mammals in the North Atlantic. The Faroe Islands have independent membership of NAMMCO, in addition to Iceland, Norway, and Greenland.



NEAFC – The North East Atlantic Fisheries Commission is an international organisation that works to ensure collaborative management of fisheries in the international waters of the North East Atlantic.



NAFO – The Northwest Atlantic Fisheries Organization is an international organisation for cooperation on fisheries management in the international waters of the North West Atlantic.



NASCO – The North Atlantic Salmon Conservation Organization is an international organisation responsible for cooperation on conservation, restoration, enhancement and rational management of migratory salmon stocks in the North Atlantic.

Together with Greenland, the Faroe Islands are active in NEAFC, NAFO, and NASCO under the title 'Denmark in respect of the Faroe Islands and Greenland' (DFG), with Denmark as the formal contracting party. Denmark is also represented in these organisations as part of the EU.



Photo: Maria Olsen

|RECOMMENDATION

It is vital that the Faroe Islands follow closely all negotiations on the future management of fisheries in the international waters of the Arctic Ocean. This is to ensure that the Faroe Islands can safeguard rights to fish in potential new fishing areas in the Arctic, if and when such fisheries are deemed biologically sustainable. To achieve this, it is recommended that:

• The Faroe Islands take a clear and active role in the aforementioned international cooperation processes governing the future management of fisheries in the international waters of the Arctic Ocean, in order to best ensure potential new fishing opportunities.

The Faroe Islands, through the Faroe
 Marine Research Institute, participate actively in the work of ICES with respect to
 scientific research and assessment of Arctic marine ecosystems and resources.

 Marine research in the Arctic area is given a high priority, in cooperation with the Faroese vessels already active in areas of interest.

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Research and Education

The global interest in researching topics related to the Arctic has grown significantly in recent years. Many international research projects have been established to study the effects that climate change and increased commercial activities are having on the environment and communities of the Arctic. The Faroe Islands have excellent foundations to build on for studying marine biology and the effects of climate change on the Arctic ocean, e.g. on sea temperatures, currents, and acidity levels. There are also good opportunities for researching the spread and travel patterns of pollutants, and their impact on animals and humans.

For many years, Faroese researchers have been participating in scientific projects in the Arctic, both through the working groups of the Arctic Council and through other Arctic and Nordic cooperation forums. They point out that the Faroe Islands share many characteristics with other nations and communities in the Arctic, for instance similar economic and social conditions. a similar closeness to nature, and similar ways of life. These commonalities provide a good basis for valuable international research cooperation with Arctic partners.

Collaborative research projects also provide excellent opportunities to develop a deeper level of expertise on Faroese matters from an international perspective. In this way, it is possible to use international collaborations.

ration to both enhance the domestic knowledge base and also to increase global awareness of and interest in Faroese matters. Additionally, participation in Arctic projects has made it possible for Faroese researchers to gain access to funding from sources such as DANCEA and the Nordic Council of Ministers.

Faroese participation in the working groups of the Arctic Council has covered a broad range of topics, including botany, sea birds, radioactivity, oceanography, public health, and environmental pollution.

Faroese participation

A good example of Faroese participation in research cooperation in the Arctic Council is the Faroese Environment Agency's monitoring of the levels of heavy metals and POPs in the Faroese environment. The results from these studies provide a valuable overview of the extent of pollutants in the Faroese environment, and can be used for comparative purposes in neighbouring countries. The studies also provide a good indication of how pollution has changed over time.

Another example of Faroese participation in international research cooperation on Arctic topics is the FP7 project North Atlantic Climate (NACLIM), in which the Faroe Marine Research Institute is a research partner. The project seeks to establish the extent to which it is possible to predict changes in the climate (for instance sea surface tempera-

tures) of the North Atlantic Ocean. If successful, the research will make it easier to predict changes in the ecosystems of the North Atlantic, which will be particularly relevant to understanding the movement of pelagic fish species. A total of seventeen research institutes from nine different European countries are part of this project.

The Faroese Earth and Energy
Directorate is also part of the NAGTEC (Northeast Atlantic Geoscience
Tectonostratigraphic Atlas) project,
which works to produce a detailed
atlas of the North Atlantic. Once developed, this will greatly improve the
knowledge base needed for successful oil exploration in the region. The
project is the result of cooperation
between the Faroese Earth and Energy Directorate and seven other North
European geological institutions.

Erosion – a problem that affects the Arctic region – also affects the Faroe Islands. The Faroese Earth and Energy Directorate is part of a research project, funded by the Nordic Council of Ministers, which looks at erosion trends in Greenland, Iceland, the Faroe Islands, Norway, Sweden, and Finland.

Education as a foundation for further development

A well-educated population is a precondition for participation in international research cooperation. The Faroe Islands are too small to be in a position to provide all types



Photo: Martin Sirkovsky

of educational programmes. It is therefore necessary to assess and prioritise those disciplines that relate to areas likely to present future challenges and opportunities to the Faroe Islands. In a small society like the Faroese one it is also critical for domestic educational institutions to cooperate with educational institutions elsewhere.

The upper secondary schools in the Faroe Islands provide an excellent basis for further academic studies, while Faroese vocational education programmes provide strong skills for jobs in the industries. Faroese higher education institutions also offer several educational programmes relevant for Arctic cooperation, in fields including biology, the social sciences, and maritime affairs.

The University of the Faroe Islands takes part in a number of international cooperation agreements with Arctic partners. One of the great benefits of working with Arctic partners on research and education is that there is a high likelihood of working with experts who have deep knowledge of topics of mutual inter-

est to the countries in and around the Arctic area.

The University of the Faroe Islands runs a Joint Nordic Master's programme in marine ecosystems and climate in collaboration with the Universities of Bergen, Aarhus, and Iceland. The programme focuses on improving knowledge, skills, and innovation on matters relating to the marine environment. Students are able to take different parts of the degree in each of the participating universities.

In addition to this, a new Joint Master's programme in sustainable management will start in 2014, based on cooperation between the University of the Faroe Islands and partner universities in Reykjavík, Akureyri, Nuuk, and Bodø. The programme will cover disciplines such as geography, management, international relations, law, history, anthropology, economics, and communication.

The University of the Faroe Islands also participates in the provision of a degree in polar law offered by the University of Akureyri.

Stavanger Offshore Technical College, Akureyri Technical College, the Greenland School of Minerals and Petroleum, and the Faroese Centre of Maritime Studies and Engineering have together formed the educational cooperation programme FING (the acronym refers to the participating countries: Faroe Islands, Iceland, Norway, and Greenland). The cooperation programme, which is expected to be ready in 2014, combines existing disciplines in new ways. The goal is to develop collaborative educational provision in areas like hydrocarbon materials, safety, and environment.

The University of the Arctic (UArctic) is a network of higher education institutions, upper secondary institutions, and research institutes in the Arctic. Member institutions make use of each other's resources, facilities, and expertise in order to advance their own education systems. The University of the Faroe Islands has plans to utilise this network to develop cooperation on educational programmes in areas like fisheries, aquaculture, and ecology.

Distance learning is becoming an increasingly widespread and recognised mode of learning, and this is particularly relevant to the Arctic region. Technological innovations are happening at an ever-increasing speed and, once investments have been made, online education is likely to provide a valuable and costefficient way to communicate with the rest of the world. Faroese educational institutions need to utilise these new developments to their full extent, both to open up opportunities for cooperation with educational institutions abroad and to access valuable sources of knowledge.

Opportunities for improvement

The research community in the Faroe Islands is not very big when compared to the global research and education community. It is therefore important for Faroese experts to make use of opportunities to take part in relevant academic research networks and collaborative projects.

The significant and growing global interest in Arctic matters gives rise to many new opportunities for research collaboration. Moreover, the significant environmental and commercial changes in the region will increase the demand for expertise on local Arctic issues.

The Faroese research community's excellent research competences and knowledge on nature, health, and social conditions in northern areas make it a valuable partner in international research networks and collaborative research projects in the Arctic. In order to maintain and enhance these strong knowledge bases, it is important that the Faroe Islands invest in topics that are of mutual interest to the Faroe Islands and international funders.

There is also a great deal of interest among foreign researchers to come to the Faroe Islands to study Arctic topics. By providing better information about research opportunities and by making it easier and more attractive for foreign researchers to come to the Faroe Islands, this

number could increase significantly in the coming years.

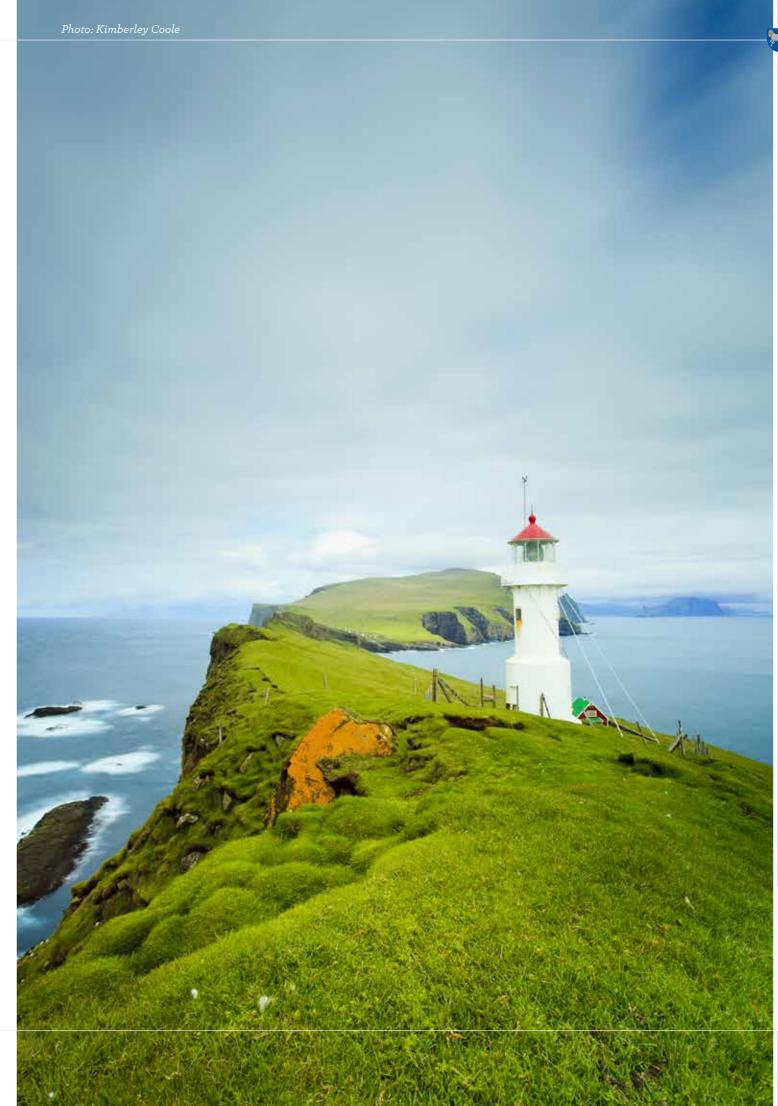
Many research projects organised under the Arctic Council have significance for the Faroe Islands, but more work capacity and funding is needed to participate fully in relevant meetings and research projects. It will therefore be important for the Faroe Islands to devote funding so that Faroese experts can play an active role in such international research cooperation.

Participation in collaborative research projects that are funded by the EU or NordForsk often require additional self-funding (e.g. salary and administrative costs paid for by the applicant's research institute) as well as partial funding from a funding body in the applicant's home country. Better access to such funding in the Faroe Islands would greatly improve the opportunities for Faroese researchers to participate in international research projects.

RECOMMENDATIONS

- The continued development of Faroese research capacity and expertise requires sufficient research funding. Priorities should be based on well-founded considerations that ensure full support for relevant research areas, projects, cooperative partnerships, and educational programmes.
- Research funding should be designated for projects that promote domestic and international cooperation with other researchers
- The Faroese Research Council should be granted a funding pot dedicated for use as a source of domestic contributions to projects with Faroese participation that are co-financed by external sources.
- Clear priorities for participation in ap-

- propriate programmes and networks for Arctic cooperation should be established and sufficient funding made available to enable participation in these contexts. This should be based on a thorough examination of existing activities and potential new areas for cooperation at political, administrative, and research levels.
- Opportunities to take part in and acquire funding for collaborative projects on Arctic matters should be monitored and publicised to researchers in the Faroe Islands.
- Active educational cooperation in and around the Arctic region should be promoted and implemented.
- Priority should be given to distance learning in cooperation with Arctic partners.



The Environment

The environmental interests of the Faroe Islands

Oil pollution from industrial vessels, in particular the risk of large oil spills close to shore, is considered to be the greatest threat to the marine environment in and around the Faroe Islands

The risk of oil and chemical spills pose a constant threat to the marine ecosystem. Both Faroese fisheries and aquaculture depend on a marine ecosystem that is as clean, productive, and durable as possible, so that it can sustain the biological cycles necessary for these industries to thrive successfully in our marine environment. This applies to both the aquaculture activities that take place in fiords and similar places close to shore, as well as fisheries in home waters and distant fishing grounds.

The shipping traffic in the waters around the Faroe Islands is likely to grow significantly in the coming years due to the increase in commercial activities and the advent of new shipping lanes in the Arctic. An increase in the shipping traffic - in Faroese waters, as well as to and from Faroese harbours - will raise the risk of oil spills, both close to the islands and in the open sea. The fact that the vessels are getting bigger - and thus need to be charged with ever-larger amounts of oil and heavy oil - serves to greatly increase the risk of large and hazardous oil spills. It is therefore necessary to strengthen the preventative safety measures

for vessels to avoid accidents that could lead to spills, such as crashes at sea or by shores.

The necessary preventative measures are discussed at more length in the section on maritime safety and emergency response, while the status of environmental protection, including the contingency planning for oil spills, will be addressed in this section

Large oil and chemical spills into the sea can cause significant damage to and interference with the marine ecosystem, and can therefore seriously endanger the reputation of the Faroe Islands as a fishing nation with a clean and uncontaminated marine environment. For this reason, it is critical that measures to prevent oil spills in Faroese waters are strengthened, and that the best possible level of emergency response is in place, should accidents happen. This places increased demands on contingency planning for oil spills in the Faroe Islands.

Strengthening the contingency plan

The law on environmental protection from 1988 and the law on protecting the marine environment from 2005 specify legal restrictions on the discharge of pollutants from commercial activities. They apply to activities on land as well as to all vessels operating in Faroese territorial waters, regardless of whether they carry a Faroese or foreign flag.

The requirements stipulated in these laws have their basis in and are consistent with regulations in the international treaties passed by the International Maritime Organisation.

Environmental legislation in the Faroe Islands is largely based on international regulations and guidelines. For instance, the discharge restrictions for vessels are based on regulations stipulated in MARPOL and other treaties that the member states of the IMO have passed through the Marine Environment Protection Committee (MEPC). Although the Faroe Islands are an associate member of the IMO, they do not take part in the work of the MEPC. This is due to limitations in the funding and work capacity that the Faroe Islands are able to devote to administering environmental leg-

Different bodies enforce adher-

ence to applicable environmental legislation on land and at sea. The Environment Agency and the municipalities deal with violations on land, while the Faroe Islands Fisheries Inspection and the Faroese Maritime Authority deal with violations at sea. Violations of the laws are reported to the police, and the prosecutor will normally arrange legal proceedings against reported violators of laws, orders, or terms and conditions included in agreements and permits that have been granted on the basis of existing legislation.

As a general rule, the public contingency plan for the Faroe Islands is divided between the state and municipal levels. The police are responsible for responding to incidents on land, MRCC/Tórshavn is responsible for responding to incidents at sea, and JRCC/Iceland is responsible for

dealing with incidents that start in the air. The Faroese Government is responsible for contingency planning for pollution that happens away from the shore areas and up to the borders of neighbouring countries.

Today, most of the large municipalities - either alone or in collaboration with other municipalities - are in a good position to respond to the most common type of oil and chemical pollution, namely pollution that happens close to shore, often in connection with oil bunkering accidents and similar maintenance accidents. However, there is a need for an appropriate national contingency plan for dealing with potential oil spills further away from land, and this task has been assigned to the Faroese Main Road Authority. The expertise needed to implement such a system is already at hand, but funding is

needed to purchase the equipment needed for this purpose. There are significant differences between the type of equipment needed to remediate oil pollution close to shore and the type of equipment required to deal with pollution further away from land. The harsh weather that affects Faroese waters for large parts of the year means that specialised, heavy-duty equipment is needed to deal effectively with potential oil spills further away from the shore.

International agreements

The Faroe Islands are part of two international agreements on oil emergency preparedness, and a third was signed earlier this year. The two existing agreements are Nordic: the Copenhagen Agreement and the Nordic Rescue Services Agreement, which will be described in more



Photo: Alessio Mesiano



Photo: Daniele Casanova

detail in the section on safety and emergency response. The Ministry of the Interior represents the Faroe Islands in the Copenhagen Agreement. The third agreement is the Agreement on Cooperation on Marine Oil Pollution, Preparedness and Response in the Arctic, which was signed by the Arctic Council Ministers in May 2013. The Faroese Prime Minister signed the agreement on behalf of the Faroe Islands.

What all these agreements have in common is that the signatories agree to help each other - according to ability and in return for payment - if accidents happen in the territory of a signatory country that is unable to respond to the accident alone. The agreements also remove burdensome bureaucratic obstacles to moving equipment and people between the contracting parties. An underlying precondition for the success of the agreements is that each country agrees to focus on certain elements of emergency response to oil spills so that it is able to provide specialised assistance in accordance with provisions in the agreements.

Currently, the Faroe Islands would be unable to assist their neighbouring countries in case of serious oil spills. Moreover, the Faroe Islands would not be able to deal with significant oil spills in their own waters without external

help due to insufficient equipment. Therefore the Faroe Islands would be highly likely to seek help from neighbouring countries if there was an oil spill. Because of the long distance between the countries of the northerly seas, help to deal with accidents at sea would be sought first and foremost from the closest neighbours, especially Norway and Iceland. However, it would also be possible for the Faroe Islands to seek help from 'Contact Element Faroe Islands' under the Danish Defence's Arctic Command. Other countries could be called for help as well, particularly to assist with airborne transportation and equipment. However, such assistance is very expensive and would only be sought in exceptional cases.

Hydrocarbon risks

The emergency response requirements for oil companies are legally specified in the law on hydrocarbon activities and a supplemental government order. An oil company that is drilling or has been given permission to start producing oil is required to uphold a strong and extensive contingency plan, including measures to protect Faroese fiords, coves, sounds, and beaches from oil pollution in the case of a so-called 'blow-out'. The Faroese Earth and Energy Directorate is the authority

responsible for managing hydrocarbon risks. It is also responsible for ensuring that oil companies engaged in activities in Faroese waters maintain strong contingency plans that are consistent the national contingency plan and can be coordinated with the contingency plans of other oil companies active in the area.

Improving prevention, inspection, and enforcement of environmental legislation

Unlike many of the signatories of the United Nations Convention on the Law of the Sea (UNCLOS), the Faroe Islands do not preside over an exclusive economic zone (EEZ). Countries with an EEZ have authority to enforce environmental legislation on foreign vessels that are located in their EEZ. These countries' powers of enforcement within their EEZ are the same as the Faroe Islands' powers of enforcement within the 12 nautical mile border.

Similarly, the Faroe Islands do not preside over a Particularly Sensitive Sea Area (PSSA) in their territorial waters. Several countries have sea areas that have been designated with a PSSA status by the IMO. The designation enables countries to put in place stricter restrictions on the type of maritime activities and vessels that are allowed in the area. Examples of PSSAs include the Great Barrier Reef in Australia, the sea areas around the Galápagos Islands and the Canary Islands, and the Baltic Sea. In the context of the Faroe Islands, the PSSA of highest interest is the large West European PSSA that reaches all the way from Portugal to Shetland.

The main reason that this area was designated as a PSSA in 2004 was the large amount of environmental accidents from tank vessels in the area. The goal was to achieve better control of the area's shipping traffic, particularly from tank vessels.

It is conceivable that some of the vessels hit by the stricter regulations in the West European PSSA will be forced to sail in waters closer to Faroe Islands. This is likely to increase the risk for environmental accidents in Faroese waters. Shipping traffic is also likely to increase as the oil and gas production in the Barents Sea expands. Moreover, the shipping of nuclear waste to Russia is seen as a growing threat.

Guidelines and criteria for designating a PSSA are set out in the IMO resolution A.982(24). Designated areas must fulfil ecological criteria relating to the uniqueness, rarity or diversity of the ecosystem, or its vulnerability to degradation by natural events or human activities. The guidelines also contain social, cultural, economic, scientific, and educational criteria for a PSSA designation. A PSSA designation allows for specific measures to be put in place to control maritime activities in the area, for instance through routeing measures, discharge and equipment requirements for vessels, and installation of Vessel Traffic Services (VTS).

There is no so-called Special Area designated in Faroese waters either. MARPOL Annex I, II, IV and V specify that Special Areas can be designated according to similar guidelines and criteria as apply to PSSAs. Such a designation allows for the enforcement of stronger requirements for vessels to prevent discharge of oil, contaminated materials, wastewater, and other waste.

Conclusion

It is clear that the current framework for contingency planning in the Faroe Islands is insufficient to deal with potential oil spills at sea in an effective and safe manner. The increasing shipping traffic in and around Faroese waters makes the need for a wellfunctioning national contingency plan all the more critical. The political competence for matters relating to the marine environment was devolved from Denmark to the Faroe Islands in 2003. Since then, there has been just one budget appropriation for the national contingency plan. It is clear that the area has not been given a high financial priority.

There have been several references in budget debates to the need for a better national contingency plan, and there has been much discussion on



The West European PSSA.

what is needed for the Faroe Islands to put in place a so-called 'first aid kit' to respond to oil spills. This would not be an expensive emergency response measure to implement, and the cost of running it would not be significant either (see Appendix 1). Appendix 1 also provides an overview of the emergency response equipment currently available in the Faroe Islands.

RECOMMENDATION

- A national contingency plan for oil spills at sea should be formally adopted and given top political priority. Contingency planning with respect to petroleum activities is a prerequisite for:
- conserving biological diversity in marine and coastal ecosystems;
- safeguarding the vital fisheries and aquaculture interests of the Faroe Islands;
- enabling appropriate responses to oil pollution at sea, regardless of whether it derives from vessels, offshore installations, or other sources;
- the Faroe Islands to adhere to and implement their responsibilities in international, Nordic and Arctic agreements on international cooperation on emergency planning and response; and

- making it possible to limit the spread of an oil spill while awaiting assistance from neighbouring countries.
- An Exclusive Economic Zone (EEZ) should be established for the Faroe Islands that allows for increased powers of inspection with regards to vessels sailing under foreign flags.
- Consideration should be given to establishing a Particularly Sensitive Sea Area
 (PSSA) around the Faroe Islands. Such a status would allow specific shipping lanes to be defined, and would make it possible to require formal notification from vessels before they enter Faroese waters.

Maritime Safety and Emergency Response in Faroese Waters

It is likely that maritime activities in Faroese waters will increase in the coming years due to growing commercial activities and new shipping routes in the Arctic. This heightens the need for a strong maritime safety and emergency response plan. It is therefore critical that Faroese authorities monitor the development of international standards and regulations on contingency planning, and consider their implementation into domestic legislation.

The 2009 Stoltenberg Report on Nordic cooperation on foreign and security policy recommends increased Nordic and Arctic cooperation on safety and emergency response. The Faroe Islands need to be active partners in such cooperation, and to put in place solid preventative measures in support of a strong contingency plan.

The shipping traffic within the 200 nautical mile Faroese Fisheries Zone (FFZ) has grown in the past years. The increase is largely due to a significant expansion in the number of tank vessels in the zone, whereas the number of passenger ships has remained relatively steady.

The number of foreign vessels coming to Faroese ports is also likely to increase significantly in the future, providing new opportunities for Faroese businesses to offer their high-quality maritime services to these visiting vessels. The growing traffic also increases the need for Faroese authorities to perform safety inspections of foreign vessels on a regular basis.

Responsibility assignment – maritime safety in Faroese waters

The concept 'safety at sea' is widely used, and it covers a range of topics including safety procedures on ships, the work environment for crew, wind and weather conditions, and restrictions on sea routes in areas of increased shipping activities.

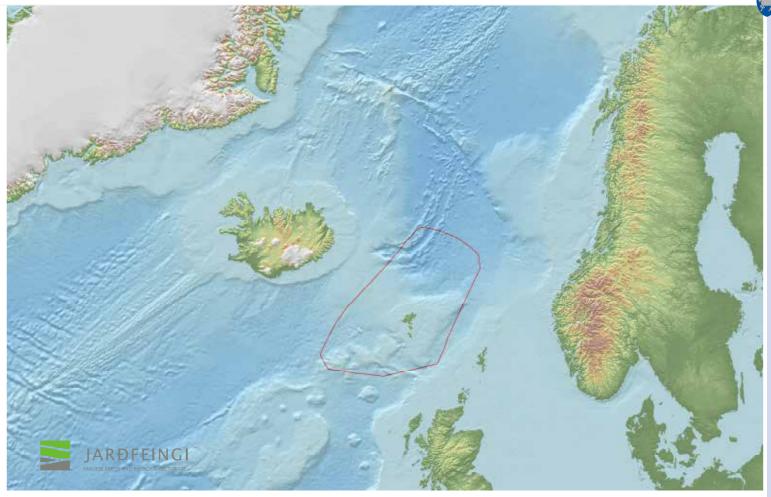
The Faroese Maritime Authority administers the law on safety at sea, the law on crews, and the law on port navigation and maritime traffic control. These laws apply to both fishing vessels and commercial vessels, as well as the crews manning them. Faroese vessels must meet all requirements specified in the Faroese legislation, which are similar to – if not stricter than – international requirements. Faroese authorities ensure that the legislation is adhered to.

Because most countries have ratified the international IMO treaties on safety at sea, it is widely recognised that these treaties set out

the minimum level of requirements for vessels in international waters. The Faroe Islands are an associate member of the IMO, and the Faroese Maritime Authority – together with other relevant authorities – ensures that Faroese legislation reflects the stipulations in these treaties. The Maritime Authority and related authorities were quality assessed by the IMO in November 2011, with good results.

Member states of the Paris Memorandum of Understanding on Port State Control (ParisMoU) have authorisation to carry out so-called 'Port State Control' (PSC) inspections to ensure that vessels visiting their waters meet the requirements set out in international agreements. In the worst cases, the relevant authority can hold back vessels that do not meet the requirements. Cooperation between 27 countries - mostly European countries, as well as Canada and Russia - ensures that such inspections happen in a fair and consistent manner and that evaluations take place after each inspection. The ParisMoU is based in The Hague in the Netherlands.

The Faroe Islands are not a member of the ParisMoU and therefore cannot carry out PSC inspections according to the above procedures.



The 200 nautical mile exclusive Faroese Fisheries Zone (FFZ)

There are thus no systematic inspections of foreign vessels entering Faroese ports. If accidents and oil spills happen, authorities board ships to carry out PSC inspections according to special Faroese procedures and guidelines devised by the Faroese Maritime Authority. If the Faroe Islands were a member of the ParisMoU, they would be required to conduct a set number of inspections per year (<25% of foreign vessels). Faroese flagged vessels that enter the port of a ParisMoU member state are inspected by the relevant port authority according to the requirements and regulations set out by the ParisMoU.

The IMO is currently in the process of establishing a so-called 'Polar Code' with special requirements for vessels active in the Arctic and Antarctic Oceans. These regulations are expected to be complete in 2014.

To ensure that the maritime traffic to and from Faroese ports is safe, IMO is short for International Maritime Organization, which is the international organisation for matters relating to the shipping industry under the United Nations (UN).

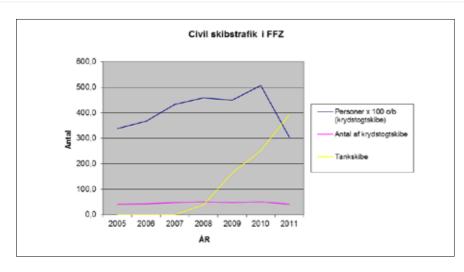
UNCLOS is short for United Nations Convention on the Law of the Sea, which is the international treaty for the law of the sea under the UN.

ICAO is short for International Civil Aviation Organization, which is the international organisation for air traffic under the UN.

IAMSAR is short for International Aeronautical Maritime Search and Rescue, which is a manual, released by the IMO and the ICAO, with guidelines on shared procedures on the coordination and execution of search and rescue operations at sea and in the air.

SAR is short for Search and Rescue, which denotes an operation normally instigated by a rescue coordination centre with the primary goal of saving human lives.

it is important to establish a wellfunctioning system of navigation and traffic control for vessels in Faroese waters. On 1 January 2013, the Faroese parliament passed a law on port navigation, and the new system is now in place. The ports function as navigation stations, and the Faroese Maritime Authority supervises the system.



In 2012, the Ministry of Trade and Industry established a working group led by the Maritime Authority to make recommendations on navigation points and shipping lanes in the Faroese maritime jurisdiction within 12 nautical miles from Faroese shores. The recommendations form the basis for a Government order, which will enter into force through the law on safety at sea. As mentioned in the section on the environment earlier in this document, the next step for Faroese authorities should be to examine the prospect of establishing so-called Particularly Sensitive Sea Areas (PSSAs) in Faroese waters. In support of this, the Faroe Islands should establish 'recommended routes' that require formal notification from foreign vessels prior to their entry into waters under Faroese maritime jurisdiction. For vessels coming from international waters, these areas and shipping routes should be established in accordance with UNCLOS and with approval from the IMO.

Assigning responsibility – Faroese and international maritime contingency planning

The Faroese law on contingency planning specifies that each Minister is responsible for contingency planning in his or her ministerial area. The law is administered and coordinated by three merged authorities with overall responsibility for contingency planning: the

Faroe Islands Fisheries Inspection, the Faroese Emergency Management and Inspection Agency, and MRCC/Tórshavn. The law sets out contingency responsibilities for authorities at the national and municipal levels, as well as for private companies engaged in hazardous activities.

The law on contingency planning assigns MRCC/Tórshavn - which is the emergency centre for incidents at sea - with responsibility for coordinating general emergency response operations within the 200 nautical mile exclusive Faroese Fisheries Zone (FFZ). The procedures and activities of MRCC/Tórshavn are based on the international treaties agreed under the auspices of the IMO and the ICAO, as well as the guidelines set out in the IAMSAR Manual. The activities of MRCC/ Tórshavn are described in more detail in the SAR Manual Faroes, last updated in June 2012. MRCC/Tórshavn is an internationally approved maritime rescue coordination centre that is formally recognised by the IMO.

Systematic inspections are needed to prevent accidents in Faroese waters. The Faroe Islands Fisheries Inspection carries out inspections in the sea areas around the Faroe Islands and has two fishery protection and rescue vessels available for conducting inspections and deploying during emergency situations. The Ministry of Fisheries has a contract with Atlantic Airways covering

Maritime traffic in Faroese territorial waters in the period from 2005 to 2011. In 2012, there were 421 tank vessels and 49 passenger ships in Faroese waters. Source: Contact Element Faroe Islands.

emergency situations that require helicopter assistance, and the salvage associations assist the maritime contingency plan with lifeboats. The Danish Ministry of Defence - in practice, Contact Element Faroe Islands under the Arctic Command - supports the Faroese contingency plan with a ship and helicopter. However, there is no legal framework for Faroese authorities to monitor ship traffic in Faroese waters. Other countries have established more consistent reporting systems for controlling maritime traffic in their waters. For instance, Greenland has in place the notification system GREENPOS. which requires ships sailing to and from the Greenlandic Exclusive Economic Zone (EEZ) to report a sailing plan to the Greenlandic MRCC four times a day. Similarly, there are five Vessel Traffic Service (VTS) stations along the Norwegian coast that monitor the traffic there.

MRCC/Tórshavn has its own Automatic Identification System (AIS), which covers Faroese waters. The system is connected to the North Sea AIS Information Center, administered by the Danish Maritime Authority. MRCC/Tórshavn is able to see all AIS data from the countries that have signed the cooperation agreement on exchanging AIS data with the Information Management Centre in Norway. In addition to this, MRCC/Tórshavn is able to use its Long Range Identification and Tracking (LRIT) system to keep track of Faroese commercial vessels that are larger than 300 GT and passenger ships from all over the world that are located in Faroese waters. The system's tracking information is updated every six hours.

The Faroese authorities with overall responsibility for contingency planning participate in several for afor international cooperation. Among other things, they take part in relevant working groups under the Arctic Council, in particular the Emergency Prevention, Preparedness and Response (EPPR) group. In 2011, the Faroese Prime Minister signed a cooperation agreement on search and rescue in the Arctic at the Arctic Council's Ministerial Meeting in Nuuk. Last year, the Faroese authorities with overall responsibility for contingency planning

participated in efforts to establish cooperation on oil-related contingency planning in the Arctic. When it comes to search and rescue operations at sea, MRCC/Tórshavn has cooperation agreements with Contact Element Faroe Islands, JRCC/ Iceland, and MRCC/Aberdeen. MRCC/Tórshavn has also participated in several search and rescue exercises organised by NATO - last year's exercise was called 'Dynamic Mercy'. Since 1989, the Faroe Islands have been part of the Nordic rescue services agreement 'NORDRED' which establishes Nordic cooperation on contingency planning, as well as general mutual assistance in connection with accidents. The Haga Declaration from 2009, which is based on the NORDRED agreement, fortifies the Nordic countries' commitment to emergency management cooperation.

CONCLUSIONS AND RECOMMENDATIONS

TO BE VIEWED ALONGSIDE THE RECOMMENDATIONS IN THE ENVIRONMENT SECTION

- The Faroe Islands should become a member of the Paris Memorandum of Understanding on Port State Control, so that the Faroese Maritime Authority can carry out Port State Control inspections in accordance with these international provisions.
- Shipping lanes in the Faroese maritime jurisdiction should be assigned and managed as soon as possible.
- Faroese authorities should consider implementing a control and reporting system, similar to the VTS and GREENPOS systems, to monitor and control maritime traffic in Faroese waters. For the Faroese context, a GREENPOS-style system is deemed more suitable than a VTS system.
- MRCC/Tórshavn, together with the Faroese Maritime Authority, should take an active role in Nordic cooperation on the AIS and LRIT satellite systems.
- The authorities with overall responsibility for contingency planning should work with relevant Faroese emergency services to organise regular exercises on-board passenger ships and other ships to ensure

- that they, together with the ship owners' own contingency experts, are adequately trained in fire-fighting and emergency evacuation of passengers and crewmem-
- Responsible Faroese authorities should –
 wherever possible take part in relevant
 working groups under the Arctic Council,
 as well as in Nordic cooperation agreements, including the Copenhagen Agreement and NORDRED.
- The authorities with overall responsibility for contingency planning should activate the Contingency Planning Council so that questions regarding safety and emergency planning in the North Atlantic and the Arctic can be discussed. Contact Element Faroe Islands, the Faroese Maritime Authority, and the Faroese Main Road Authority all bodies without permanent representation in the Contingency Planning Council should be represented and consulted when such questions are on the Council's agenda.

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- Arctic Climate Impact Assessment, Arctic Council and the International Arctic Science Committee (IASC) 2005
- Arctic Human Development Report, Stefansson Arctic Institute 2004
- Arctic Yearbook 2012
- Føroyar og Arktis í oljuvinnuhøpi (the Faroe Islands and the Arctic – an oil industry perspective), Jan E. Müller, Faroese Oil Industry Group, 2013
- Føroyar og samstarvið í Arktis (the Faroe Islands and Arctic coopera-

- tion), The Ministry of Foreign Affairs 2010. Updated edition 2011
- Megatrends, Nordic Council of Ministers 2011
- OECD Territorial Reviews
 NORA Region 2011
- Interview with Rúni M. Hansen, Head of the Arctic Unit, Statoil. By Jan E. Müller, Faroese Oil Industry Group, 2013
- Strategy Papers on the Arctic or High North: A comparative study and analysis, Alyson Bailes & Lassi Heininen, Centre for Small State Studies, Institute of International Affairs 2012
- The Arctic Proposals for the international cooperation roadmap, Russian International Affairs Council 2011
- The Northern Sea Route: Is It

Links to relevant websites

• The Arctic Council www.arctic-council.org

Working groups in the Arctic Council:

ACAP

(Arctic Contaminants Action Programme) www.ac-acap.org

AMAP

(Arctic Monitoring and Assessment Programme) www.amap.no

• CAFF

(Conservation of Arctic Flora and Fauna) www.caff.is

• EPPR

(Emergency Prevention Preparedness and Response) www.eppr.arctic-council.org

• PAME

(Protection of the Arctic Marine Environment) www.pame.is

• SDWG

(Sustainable Development Working Group) www.portal.sdwg.org

Other relevant websites:

- The Arctic Governance Compendium www.arcticgovernance.org
- The Arctic Portal www.arcticportal.org
- GeoPolitics in the High North www.geopoliticsnorth.org
- NORA
 (Nordic Atlantic Cooperation)
 www.nora.fo

Really Ice-Free? Joshua Ho, S. Rajaratnam School of International Studies, Nanyang Technological University, 2011

- Various publications on sea ice research, Leif Toudal Pedersen, Center for Ocean and Ice, DMI

Strategic Assesments

- Kingdom of Denmark
 Strategy for the Arctic 2011–2020
- Finland's Strategy for the Arctic Region 2010
- Norway: The High North
 Vision and Strategies
- Sweden's Strategy for the Arctic Region 2011
- Developing a European Union Policy towards the Arctic Region, European Commission 2012
- Canada's Northern Strategy: Our North, Our Heritage, Our Future 2009
- US Arctic Region Policy 2009
- Основы государственной политики Российской Федерации в Арктике на период до 2020 года и дальнейшую перспективу 2008.
- A Parliamentary Resolution on Iceland's Arctic Policy, 2011

List of Acronyms

ACAP – Arctic Contaminants Action Program. An Arctic Council working group that works to reduce the emission of pollutants into the Arctic environment and to promote collaborative efforts to do so.

AMAP – Arctic Monitoring and Assessment Programme. An Arctic Council working group that conducts consistent measurements of the spread of anthropogenic pollutants in the Arctic environment and assesses their effect on the public health of the populations in the Arctic region.

CAFF – Conservation of Arctic Flora and Fauna. An Arctic Council working group that surveys and seeks to protect the biodiversity of the Arctic region.

EPPR – Emergency Prevention, Preparedness and Response. An Arctic Council working group that provides information about prevention and preparedness in connection with environmental accidents in the Arctic.

EEZ – Exclusive Economic Zone.

FFZ – the 200 nautical mile exclusive Faroese Fisheries Zone.

FING – Educational cooperation between Stavanger Offshore Technical College, Akureyri Technical College, the Greenland School of Minerals and Petroleum, and the Faroese Centre of Maritime Studies and Engineering.

IAMSAR – International Aeronautical Maritime Search and Rescue. A manual, released by the IMO and the ICAO, with guidelines on shared procedures on the coordination and

execution of search and rescue operations at sea and in the air.

ICAO – International Civil Aviation Organization. The international organisation for air traffic under the United Nations (UN).

IMO – International Maritime Organization. The international organisation for matters relating to the shipping industry under the UN.

NAFO – The Northwest Atlantic Fisheries Organization. An international organisation for cooperation on fisheries management in the international waters of the North West Atlantic.

NAMMCO – North Atlantic Marine Mammal Commission. An international body for cooperation on the conservation, management, and study of marine mammals in the North Atlantic. The Faroe Islands have independent membership in NAMMCO, in addition to Iceland, Norway, and Greenland.

NASCO – North Atlantic Salmon Conservation Organization. An international organisation responsible for cooperation on conservation, restoration, enhancement and rational management of migratory salmon stocks in the North Atlantic.

NEAFC – North East Atlantic Fisheries Commission. An international organisation, which works to ensure collaborative management of fisheries in the international waters of the North East Atlantic.

NORA – Nordic Atlantic Cooperation. An intergovernmental organisation under the Nordic Council

of Ministers. The NORA region includes the Faroe Islands, Greenland, Iceland, and Coastal Norway.

PAME – Protection of the Arctic Marine Environment. An Arctic Council working group that seeks to protect the Arctic marine environment.

PSSA – Particularly Sensitive Sea Area.

SAO – Senior Arctic Officials. A permanent group in the Arctic Council composed of senior level Foreign Service officials from each member state

SAR – Search and Rescue. An operation normally instigated by a rescue coordination centre with the primary goal of saving human lives.

SDWG – Sustainable Development Working Group. An Arctic Council working group that seeks to promote sustainable development in the Arctic, with particular focus on protecting and enhancing the economies, cultures, and health of the Arctic populations.

UNCLOS – United Nations Convention on the Law of the Sea. The international treaty for the law of the sea under the UN.

Overview of Events, organised in connection with the strategic assessment

Date	Event	Participants	Organised by
12 March 2012	Lecture by Martin Breum, author, on the changes taking place in the Arctic. Presentation by Kate Sanderson, former Head of Department at the Faroese Foreign Service, on the Faroe Islands' position in the Arctic.	Public event.	The Foreign Service, in collaboration with the Nordic House in Tórshavn.
24 August 2012	Presentation and meeting with Laurie Fulton, former US Ambassador to Denmark, about the United States' position in the Arctic.	Closed event: the Government, the Foreign Affairs Committee, the Expert Advisory Panel, the coordinating group, and the Prime Minister's Office / the Foreign Service.	The Foreign Service.
11 October 2012	'Geopolitics in the Arctic – the role of the Faroe Islands in the Arctic' – lecture and discussion with Cleo Paskal, Associate Fellow at Chatham House.	Closed event: the Foreign Affairs Committee, the Expert Advisory Panel, the coordinating group, and the Prime Minister's Office / the Foreign Service.	The Foreign Service.
30 October 2012	'Arctic challenges and small states' – lecture and discussion with Alyson Bailes, Visiting Professor at the University of Iceland.	Public event.	The Foreign Service.
6 November 2012	'The Danish Kingdom's Arctic Strategy' – lecture by Klavs A. Holm, Danish Arctic Ambassador. Presentation by Hanna í Horni, Faroe Islands' Representative to the Arctic Council.	Public event.	The Foreign Service, in collaboration with the University of the Faroe Islands.
20 November 2012, morning	Workshop on how the Faroe Islands can make the most of the new opportunities arising due to the changes in the Arctic.	Closed event: Private and public sector representatives working in the maritime industry, the oil and gas industry, and the service industries.	The Foreign Service, in collaboration with the Nordic House.
20 November 2012, afternoon	Lecture by Rasmus Gjedssø Bertelsen, Postdoctoral Research Fellow at the University of Aalborg, on the challenges facing small societies in the North. Lecture by Ólavur Gregersen, Founding Partner of Syntesa, on the commercial opportunities in the Arctic. Presentation of the main conclusions from the morning session.	Public event.	The Foreign Service, in collaboration with the Nordic House.
24 January 2013	Workshop on future fisheries possibilities in the Arctic.	Closed event: Representatives from the Faroe Marine Research Institute, the Ministry of Fisheries, and the fishing industry.	The Foreign Service.
5 February 2013	Workshop on research in the Arctic context.	Closed event: Representatives from the Faroe Marine Research Institute, the University of the Faroe Islands, the Faroese Earth and Energy Directorate, the Faroese Research Council, educational institutions, Faroese museums, the Ministry of Fisheries, and the Ministry of Education, Research and Culture.	The Foreign Service.
11 March 2013	Workshop on environment, safety, and contingency planning	Closed event: Representatives from the Ministry of the Interior, the MRCC, the Ministry of Fisheries, Agenda 21, the Arctic Command, the Police, the Faroese Earth and Energy Directorate, the Faroese Main Road Authority, the Faroe Islands Fisheries Inspection, the Faroese Maritime Authority, and the Centre of Maritime Studies and Engineering.	The Foreign Service.



Recommendations to the Government and the Parliament on the purchase of equipment for emergency response to oil spills at sea

The Faroese Main Road Authority and the Environment Agency have devised recommendations for 'the contingency plan for oil spills at sea'. The plan applies to the contingency area for which the Government is the responsible public authority – that is, the sea area outside the coastal areas (under municipal responsibility) and within the borders of the 200 nautical mile exclusive Faroese Fisheries Zone. The contingency plan for this area requires a category of equipment that is not currently available in the Faroe Islands, since the lightweight equipment that the municipalities preside over is only suitable for oil spills close to shores (and areas with similar characteristics).

The Faroe Islands' objectives are:

- 1. to have a national contingency plan that is able to restrict the harmful consequences of oil spills of up to 1,500 tonnes in Faroese waters, and
- 2. to control lower-level chemical spills that are visible in the sea, i.e. where the extent of pollution is similar to that of an oil spill.

The contingency plan is coordinated so as to achieve the lowest possible levels of harm on nature and the environment in case of an oil spill accident, and to minimise the costs of restoring the natural environment to its original condition after an incident. Below are the recommendations for establishing a 'first aid kit' of emergency control equipment. With the proposed equipment, the national contingency plan would be able to prevent significant spreading of an oil spill of up to 1,500 tonnes. The equipment would not be sufficient to achieve complete control of an oil spill of this magnitude. For this, even more equipment would be needed and is available to import from neighbouring countries according to international cooperation agreements, as needed. The proposed equipment package takes into consideration bad weather conditions, challenging waves and currents, as well as the diversity of the coastal conditions around the Faroe Islands.

Recommendations for purchas	se of emergency control equipment for	the national contingency plan
Quantity	Туре	Price
1500 m	Heavy booms ¹	6 million DKK
1000 m	Medium booms ²	3.5 million DKK
2	Skimmers ³	1.5 million DKK
1	Special absorbent ⁴	1 million DKK
200 m ³	Floating storage tank	1 million DKK
100 sets	Safety clothing and lightweight tools	1 million DKK
Altogether in the cheapest 2011 price		14 million DKK = 1,900,000 EUR

It is recommended that the Government sets aside funding in the budget to purchase the above equipment. The equipment is of the type RO CLEAN, which is the same type of equipment that the Faroe Islands purchased approximately 20 years ago. This is the cheapest equipment of this type available in nearby markets. The drawback is that each section of the floating booms must be air-pumped, as the boom is set afloat.

Investment in the equipment could be spread over three continuous financial years, for instance by investing 5 million DKK in the first year, 5 million DKK in the second year, and 4 million DKK in the third year.

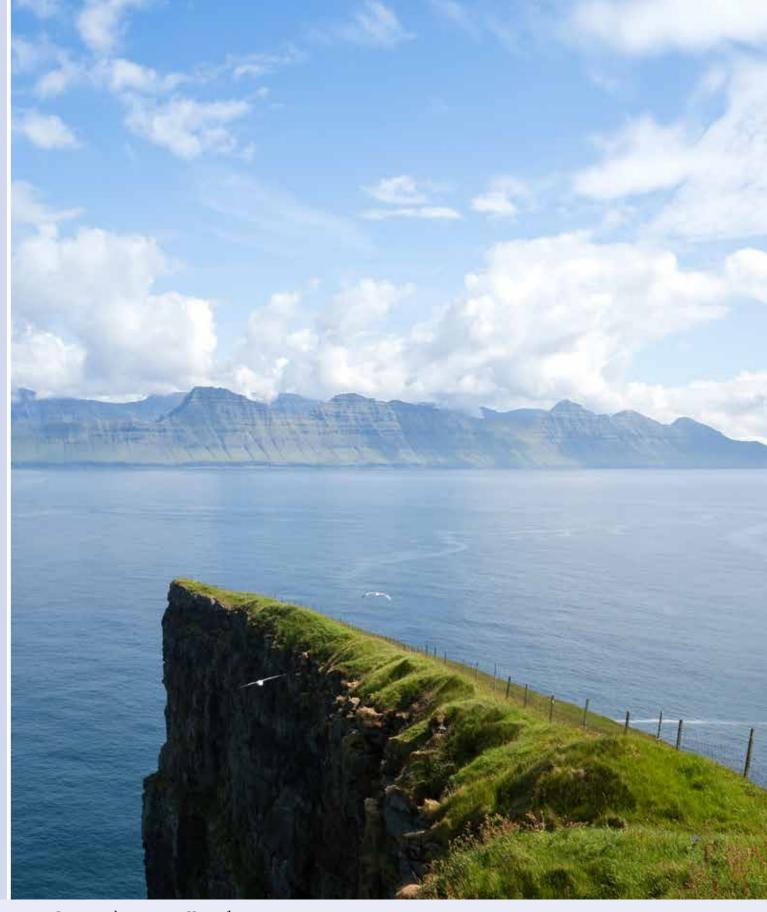
The cost of maintaining the equipment – e.g. maintenance costs, training in using the equipment, and storage space – is estimated to be between 500,000 and 1 million DKK per year. The Faroese Main Road Authority will put together an operating budget to estimate these costs in more detail. Further estimates are needed on the income that the Main Road Authority can acquire from renting out the equipment, e.g. rental income from municipalities in connection with oil spills in areas of their responsibility, from polluters that need to use the equipment to control oil spills of their making, and from neighbouring countries that wish to hire the equipment and/or crew to assist with accidents in their territories according to international agreements on emergency management cooperation.

- 1. Booms that can contain a significant wave height of 2.5 metres and are therefore suitable for use in open sea areas.
- 2. Booms suitable for use in bays where the waves are lower, primarily for the protection of fragile coastal areas
- 3. Skimmers for pumping up oil from the sea.
- 4. A new type of absorbent, which soaks up the oil into a bag that is attached to its rear

	Responsibility		Location	Floating booms	ms				Absorbents						Skin	Skimmers			Ab- C: sor- lit bent	Cat Per- litter sonal
				Rolus	Norlense	Norlense RO-Clean	Exspandia 3000	Nofi boombag 20/30 10/30 10/12.5 12.5/25 20/12.5 20/5	20/30 10/3	0 10/12.5	12.5/25	20/12.5		Un- 20/ known type	20/12.5 Lamor (heavy		Desmi Komara 20		Ergon	Safety equip-
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Port of Tórshavn			At Sund			250										1				
Tórshavn fire-fight- ing squad			Kollafjørður									125		75						
Skálafjørður fire- fighting sauad			Runavík					200				175		125			п		32	
Skálafjørður fire- fighting squad			Søldarfjørður											150						
Skálafjørður fire- fighting squad			Skála									75		100					33	
Skálafjørður fire- fighting sguad			Strendur											20					16	
Suðuroy South fire- fighting sauad			Vágur											75					15	
Tvøroyri fire-fight-			Tvøroyri									100		100					15	
Klaksvík fire-fight-			Klaksvík					200				375		400			п		35	
East Municipality			Leirvík									25							4	
Sørvágur fire-fight- ing squad			Sørvágur									20		150					10	_
Miðvágur/San- davágur fire-fight- ing squad			Miðvágur									200							10	
Fuglafjørður fire- fighting sanad			Fuglafjørður		300			175									п			
Port of Fuglafjørður			Fuglafjørður									150		150	1					
Sundalag fire-fight- ing squad			Oyrabakki																4	
Pauli Einarsson			Tórshavn				300					625		625						
Vest Pack			Vestmanna										875							
SEV, Faroese energy	Jákup Sørensen		Sund											75					100 50	
SEV. Faroese energy Hans J. Petersen	Hans J. Petersen	227403	Strond																180	33.5
Magn Effo			Tórshavn									80							П	
FVE (Faroe Islands Fisheries Inspec- tion)	Jens Midjord	291023	Á Hjalla	400					1200 30						п		н			
The Faroese Main Road Authority	Fríðrik Heinesen	290888	Havnadalur							200	50		125	225						100
The Faroese Main Road Authority	Ernst Vágsgarð	290930	290930 Hvannasund										25							
The Faroese Main Road Authority	Ernst Vágsgarð	290930	Syðradalur										25							
In total				525	300	250	300	575	1200 30	200	50	2105	175 875	5 2375	2	1	2		280 38	390.5 100
Total floating booms 1950	1950	Metres							_	_			+	+	-	T	t		+	+
Of all apsorbenis	17010	Merres		_	_	_	_	_	_	-	_		_	-	_		-		_	_







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