

## **Bård Lahn, vice president of Nature and Youth, Norway** **Why do we need petroleum free areas in the Barents Sea?**

Thank you for this opportunity to present to you the demand from Norwegian environmental NGOs that the Norwegian government should establish petroleum free areas in the Barents Sea. I would like to start by outlining the main reasons for which we want some areas to be declared completely free from oil and gas activity, and then move on to a description of the work that has been done on this over the last five years from my own organization.

### **The ecosystem of the Barents Sea**

The Barents Sea is a unique and very valuable eco system. Where the cold polar currents from the North meet the warm water of the Gulf current running along the coast of Norway, biological production is extremely high. The total annual algae production of the Barents Sea is approximately 2.3 billion tons of algae! This biological production is sustaining large and valuable fish stocks, as well as big colonies of sea bird, marine mammals - and in turn the people harvesting from the sea.

Although the Barents Sea covers a big area, some of the most important biological processes of the marine ecosystem are at times very concentrated. This applies especially to fish eggs and larvae, as well as some sea bird colonies during the nesting season, and makes the ecosystem of the Barents Sea very vulnerable to any external influence. That is why oil and gas activity may prove disastrous in parts of the Barents.

### **Fisheries**

The fish stocks are by far the most valuable part of this eco system. There are around 150 different fish species in the Barents Sea. Among these are some of the worlds biggest fish stocks, including the Norwegian arctic cod, capelin, haddock, saithe and Norwegian spring-spawning herring.

Egg and larvae of cod and herring drift with the currents along the Norwegian coast up to nursing areas in the Barents Sea. Capelin, which spawns along the northernmost coast of Norway, is a keystone species in this arctic food web, as prey for fish, seabirds and marine mammals.

Fish eggs and larvae are particularly vulnerable to toxic chemicals found in oil. Small amounts of oil in seawater have been proven lethal to cod larvae. Furthermore, chemical substances found in so-called "produced water" (water extracted along with oil and gas from the reservoirs) have been shown to affect the reproductive capacity of cod. A common trait of several Barents Sea fish stocks, including capelin, cod and herring, is that huge concentrations of egg and larvae are often found in relatively small areas. An oil spill affecting these areas could have severe impacts for the fish and for the wider ecosystem.

Ten thousand coastal fishermen, thousands of employees in the fish and fish-farming industry and their families are dependent on a clean Barents Sea. An oil

spill in this area will have catastrophic consequences for both the fish stock and the coastal communities that depend on the renewable natural resources from the Barents Sea.

### **Arctic bird colonies**

The Barents Sea and its Norwegian coastline support some of the world's largest seabird colonies. Every spring, between 13 and 15 million birds aggregate in nesting cliffs along the Barents Sea coast. Many of these colonies are considered to be of international importance. The seabird species include puffin, common guillemot, little auk, razorbill and black guillemot.

During the nesting season, parent birds use the sea areas within a 100 kilometre radius as their main feeding grounds. If oil is present on the sea surface near seabird colonies, it is therefore likely to affect a large number of breeding birds. An oil accident in the Barents Sea will be catastrophic for many of the species in the area.

### **Threats from petroleum activity**

It is clear that petroleum activity poses a number of threats to the whole ecosystem of the Barents Sea. Some of these threats, such as the discharges to sea of oil and chemicals in produced water, are linked to the usual, planned activities when operating an oil field. The most important problem with produced water is that very little is actually known about the long term consequences of the discharge of produced water into a sea area. Produced water contains more than a thousand different chemicals, out of which only a few are known and tested. The problems of produced water may, however, be managed to a certain degree. It is possible to re-inject the water back to the reservoir, which will completely remove the discharges.

However, the most important threat that oil and gas activity poses to the Barents Sea ecosystem is not the planned discharges from usual operation. Accidental oil spills of large quantities of oil will be the most damaging both for fish stocks and for sea birds in the area. This problem is far worse to manage. While new technology may remove some of the continuing discharges in normal operation, the oil companies will never be able to remove the risk of a large oil spill. Statistically, the risk is small, but the question is: Do we want to take the chance?

### **Petroleum free areas**

This is why we want the most sensitive parts of the Barents Sea, as well as other areas on the Norwegian Continental Shelf, to be permanently closed both for petroleum exploration and production. There are areas so important to marine life and renewable resources such as the fisheries, that we can not take the chance of having a large oil spill in the area.

A petroleum free area is an area where exploration for oil and gas, as well as production, is banned on a permanent basis. It is an important point that not only production, but also all kinds of exploration are prohibited, such as seismic exploration and test drilling. Once the oil companies have made a discovery of petroleum resources, the pressure to exploit these resources will soon grow too

strong for the government to withstand it - even if it already has declared the area "petroleum free".

### **Oil production and climate change**

For Nature and Youth, there are also other reasons to limit the production of oil and gas on the Norwegian Continental Shelf. More than 25% of the Norwegian greenhouse gas emissions already result from oil and gas production. Further development of oil and gas activities in the Barents Sea may increase national greenhouse gas emissions by 8%.

Man-made climate change is a great threat to the worlds ecosystems and to hundreds of millions of people who will be affected by floods, hurricanes and storms as the climate changes. Scientists at IPCC - the United Nations expert panel on climate change -recommend that global greenhouse gas emissions are reduced by 60-80%. This has to be done quickly. We have already discovered more oil and fossil fuels than we can burn if we are to avoid dangerous climate change. Therefore, it is no need to open environmentally sensitive areas for oil production.

To comply with the demands of the Kyoto protocol on greenhouse gas emissions, Norway will have to reduce its oil production. This has proved impossible to achieve through the existing political regulations. That is why Nature and Youth believe it is important to limit the oil industry's access to new areas of exploration and production. Petroleum free areas will be a way of limiting Norwegian oil production and capping greenhouse gas emissions, while at the same time protection the most important part of the Barents Sea.

### **Our work on petroleum free areas**

Nature and Youth launched the idea of establishing petroleum free areas in 2000. In an extensive report, we documented the need to give some areas permanent protection against oil and gas activity. After launching the report, we went on tour to meet all the important stakeholders and present our demand to them. Stakeholders included local and regional authorities in Northern Norway, political parties, fishermen's organizations and the fishing/fish farming industry.

This launching was a great success. Several political parties adopted the idea of establishing petroleum free areas, and in 2001 the new centre-right government promised that they would consider establishing such areas. They also promised to create an Integrated Management Plan for the Barents Sea, in which important questions regarding the management of fisheries, oil and gas resources and shipping could be given a consistent consideration, and they stopped all oil and gas activity in the Barents Sea while the Integrated Management Plan was being worked on.

The oil industry, which opposes all kinds of marine protected areas, was taken by surprise by the government's decision. They then began an intense lobby campaign to counter the idea of petroleum free areas. Among other things, they promised that all oil and gas activity in the Barents Sea would be conducted with zero discharges of produced water to the sea. They succeeded in pressing the government to open for further exploration in the Barents from December 2003,

even though the Integrated Management Plan was not yet finished. However, they have not yet succeeded in countering the idea of petroleum free areas.

Nature and Youth continued to demand petroleum free areas. We followed the processes of test drilling in the Barents Sea in 2004 closely, and protested against the drilling. A lot of media attention helped build political pressure for petroleum free areas in 2004 and 2005.

The work on this Integrated Management Plan is now well under way, and is to be concluded in 2006. Meantime, the new centre-left government in Norway has again stopped petroleum activity in the Barents Sea, and has said that it will use the Integrated Management Plan to define which areas are to be opened for petroleum activity, and which are to be petroleum free.

In other words, the first petroleum free areas might be establish on the Norwegian Continental Shelf next year. The outcome of the Integrated Management Plan, however, is hard to predict. For Nature and Youth, this will be the most important part of our work in 2006.

### **Our experience**

In our experience, the work on petroleum free areas has been a great opportunity to put environmental concerns on top of the political agenda. While the oil industry usually sets the agenda of the discussion on oil and energy issues by planning and suggesting oil and gas projects, the concept of petroleum free areas lets us define what are the most important concerns to discuss.

If a petroleum project is planned in a sensitive area, the environmental NGOs almost always enter the political process too late to stop the plans. By declaring some areas to be permanently closed to oil and gas activity, this situation changes. That's why we want to recommend the concept of petroleum free areas to all environmental NGOs working to prevent environmental damage due to oil and gas activity.