

Introduction

The following pages present Bellona's first report on offshore oil and gas development in the Russian European Arctic. The report provides information on which projects are being developed, what official plans exist for future projects, how the government seeks to regulate these projects, and what environmental consequences are expected from a build up of the offshore oil and gas industry in the Arctic. In general, in Russia there is a lack of information and knowledge amongst ordinary people about the oil and gas complex, and people have little access to information. **The objective of this report is to provide information on the oil and gas industry in the Russian European Arctic to people living in the region and to inform them of the harmful consequences this development may produce.**

Petroleum companies search for new, unexploited oil and gas fields has led them to turn their eyes on the Arctic. The common understanding within the petroleum industry is that oil production will continue to increase in the future because of the development of new technology. This technology will make it possible to exploit resources unattainable today beneath the deep seas, or in the Arctic. The US Geological Survey (USGS) estimated in their 2000 report that 23.9% of the world's undiscovered oil and gas resources are in the Arctic. A substantial part of this estimate (40-45%) is believed to be in western Siberia, Russia.

Despite the fact that this estimate has been criticized as being too optimistic and unrealistic, there is an indication which regions will feel pressure from the oil and gas industry in the near future, namely the offshore Arctic fields. We already see this development in Norway, for example, where three fields (Snow White, Goliat and Nuccola) in the Barents Sea are being developed for commercial production of oil and gas.

In northwest Russia, the onshore oil and gas industry has been present since the 1960's. The offshore industry, however, is still undeveloped. Nevertheless, the oil and gas industry is eager to start work; many plans for oil and gas development are in the making, or already exist. With this report, Bellona's objective is to keep ahead of this development. Bellona is against any oil and gas activity in the vulnerable Arctic. Before oil and gas development escalates in the region, it is imperative that all possible aspects and consequences of the oil industry in the fragile Arctic are taken into consideration. Furthermore, it is important that the public has a say in the decisions on major offshore oil and gas development which will have a tremendous impact on life in the north.

In this report, we use several examples from Norway. There are several reasons for this. First, Norway and Russia share the Barents Sea. The Barents Sea border between Norway and Russia is not yet demarcated, but the two countries have a common management of the fisheries in the Barents Sea. In the disputed border area oil and gas resources are enormous and voices have been raised suggesting a common Norwegian-Russian management of these resources. Secondly, both politicians and businesses in Norway have already pointed at the Russian-Norwegian Barents Sea as the next leading energy-

region in the world. Third, Norway has already started developing commercial fields in the Barents Sea, and Norwegian companies are eager to take part in the development in the Russian Barents Sea.

In Norway, there is substantial opposition against any oil and gas activity in Arctic areas. As a compromise, an eco-system based integrated management plan for the area from Lofoten to the border area with Russia in the Barents Sea has been introduced. The management plan is supposed to place environmental considerations before economic ones. The Norwegian Ministry of Environment wants to export this integrated management regime to Russia. However, there are some obstacles to introducing a similar management regime in Russia. In Norway, this integrated management plan would not have been realized without the on-going public debate, discussions and opposition against oil and gas development that have occurred since the 1970's. Only when widespread support from the public is present are politicians and bureaucrats willing, or able, to set restrictive demands on the petroleum industry. Only from public pressure will government and business agree on a best available technology regime in the Arctic. Even today, environmental organizations fight a continuous battle with the oil and gas industry in Norway. Only when watched by environmentalists, and regulated by the state, will oil and gas companies choose the best environmental solutions rather than those that are the least expensive.

In Russia, people have little access to information about what is happening in the oil and gas industry. Most deals are between government and business, and become public knowledge (if they are made public) only after the deal is closed. Attention to the environment suffers under this regime. Our aim is that people in Barents Russia will read this report, develop an understanding of the issues and become more engaged in what is happening in the waters close to home. An accident in Barents Russia could be devastating to life and industry in the area. Public awareness and participation, as well as the efforts of environmental groups acting as watchdogs are critical to ensure that environmental considerations are prioritized over economic considerations.

We believe that the more information the public has access to about oil and gas development and its environmental impacts, the better the control over the oil and gas companies. Only by public pressure will the oil and gas companies be forced to consider the environmental consequences of their activities, and not just their own profits. Only when faced with public awareness and demands for a clean environment will politicians and government be able to set strict regulations and demands on the oil and gas industry.

Geography

When we started this work, the intention was to write about the offshore industry in the Russian Barents Region, that is, the Barents Sea and the White Sea. This was because Bellona Norway was making history in its efforts in restricting and regulating the engagement of oil and gas companies in the Norwegian part of the Barents Sea. However, we soon realized that the Russian development is more concentrated in the Russian seas further east, such as the Pechora and Kara Seas. This is where offshore development will

happen first in Russia. Furthermore, much of the oil and gas from this region will nevertheless be transported through the Barents Sea.

This report covers the Russian coastal waters from the Norwegian border to the Yamal Peninsula, which is where Europe meets Asia. This is also defined in Russian language as the Arctic continental Shelf, or sometimes as the European Arctic Continental Shelf. Whenever the term northwest Russia or northern Russia is used, we are referring to this geographical area.

The report does not take into consideration the onshore industry in this region.

The Chapters

Chapter one gives a general overview of Russia's oil and gas industry on the continental shelves of the Barents, Pechora and Kara seas. The chapter is informational in its approach, containing numbers and data for existing projects, planned projects and future possible projects. The chapter also briefly discusses the Russian law on subsoil regulation, as well as provides information on the companies obtaining licenses and infrastructure on the shelf.

Chapter two presents information on the existing transport system of oil and gas in northwest Russia. The chapter also gives an account of the various methods of transporting oil and gas, and describes how this is being regulated by the Russian state. The chapter also gives an overview of the operating companies in the region, and the volumes of transport.

Chapter three raises the question of environmental risks when conducting oil and gas activity in the Arctic. Information on emissions from the industry is described in detail. The chapter also focuses on climate change produced by these emissions.

Chapter four focuses on accidents and incidents in the Russian Arctic. The chapter is somewhat theoretical in its approach, because it is difficult to fully analyze the past and current situation in Russia. This is due to the use of statistics as a political tool in the Soviet Union, a legacy which is still present to a certain extent in Russia today. However, some accidents are examined, as well as the regulatory bodies involved in emergency preparedness and response.

Chapter five focuses on the environmental impact of oil and gas development. The Barents Sea is used as an example to examine vulnerable ecosystems and special biological features. The chapter discusses in detail the consequences for the biota if petroleum products are released into sea.

Appendix VI consists of a scenario, "The Future of the Northern Regions". The article considers three brief development scenarios for the Barents Sea up to 2025. One might ask, why are we using scenarios in this report? The objective is to illustrate some of the factors that will have an impact on the development situation in the Barents Sea. It is

important to try to understand and foresee how the world is going to develop even though it is beyond our control. Tomorrow is being made by the decisions we take today.

Acknowledgements

Although much of the research for the report has been funded by the Norwegian Ministry of Foreign Affairs, it may not necessarily reflect the ministry's views and no official endorsement should be inferred.

We would like to thank the editors of the scientific journal OTTAR, the journal of the Museum of the University of Tromsø, Norway. We are grateful for being allowed to translate to English and Russian and print the two articles by Cecilie H. von Quillfeldt and the scenarios developed by Peter Arbo and Gunnar Sander which can be found in the appendix of this report.

We would like to thank Unni Berge, former Bellona employee, for the contributions to chapter three "Environmental Risks When Exploiting Oil and Gas." With her expertise Berge has also been a valuable source of information about the oil and gas industry in general.

We would also like to thank Bellona's marine biologist Dr. Sc. Maria Fossheim for writing the appendixes "Climate Change in the Arctic" and "Consequences of a Large Oil Spill in the Arctic". Fossheim has also been proofreading the chapter on environmental effects of oil and gas development.

We would also like to thank Bellona's advisor Kristin Vibeke Jørgensen. She has been editing the English version of this report. She also has, together with Lesikhina, been assembling and organizing the contributions of the authors. She also proofread and wrote some of the Norwegian material.

Finally, we should thank Bellona's Aleksandr Nikitin for valuable input and contributions to the conclusions of the report. Also, Bellona's Vlad Nikiforov and Maria Kaminskaya for helpful suggestions and translations. Furthermore, Nikiforov, together with Igor Kudrik, were essential for making the electronic version of this report.

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The Bellona Foundation

The Bellona foundation was founded as an NGO in 1986. The Foundation is a science-based environmental organization whose main objective is to combat problems of environmental degradation, pollution-induced dangers to human health and the ecological impacts of economic development strategies.

Bellona aims to present feasible solutions with the least impact on human activity. Bellona strives to inform the public, and in particular, the lawmakers, opinion leaders and the media about environmental hazards, and helps draft policy responses to these problems.

Bellona works toward international co-operation and legislation to protect nature and improve the environment, in support of the public's right to enjoy clean air, soil and water; and guarantee the provision of correct and accurate information about the threats against the environment. Through the Bellona offices in Oslo, Murmansk, St. Petersburg and Washington, D.C., Bellona establishes networks and fosters mutual understanding between European, Russian and American authorities and corporations on environmental issues

Bellona has been involved in environmental questions concerning northwest Russia since 1989. Bellona Russia has offices in Murmansk and St. Petersburg. Bellona's work in Russia is concentrated around three main issues: nuclear challenges, environmental rights and development of renewable energy.

You will find more information about the Bellona Foundation at our web-site www.bellona.org