

Reindeer and Saamis on the run

The proposed opening of the Barents Sea for full oil exploration will accelerate coastal development and conflicts. The chosen lifestyle of the Saami indigenous people in the Barents region is already being destroyed by massive and piecemeal development. Over one-third of their traditional lands that have been used by grazing reindeer through thousands of years may already be lost. There is a range of exploration projects in the Barents Sea region with possible detrimental impacts to the Saami people. **BY CHRISTIAN NELLEMAN**

The proposed opening of the Barents Sea for full oil exploration will accelerate coastal development and conflicts, so will proposed bombing ranges. So far, however, no policy action has been taken to secure land rights of reindeer herders, unlike many regions in Russia, Greenland, Canada or Alaska. Lack of control of piecemeal development may be one of the greatest environmental policy deficits of the Arctic. By 2050, as much as 78 percent of the vital coastal summer grounds may be lost, representing the fastest growing development rate anywhere in the Arctic. A broad range of old and emerging threats presented from oil companies, tourists and the North Atlantic Treaty Organisation (NATO) is slowly but consistently reducing the land area available to reindeer herders by developing infrastructure or claiming land for non-traditional purposes.

Development moving in next door

Twenty years ago, in February 1983, the National Geographic reported that the Saamis were fighting a losing battle against development in their lands by corporate interests. Since then, the situation has worsened. Oil development, hydro power, windmill parks, mining, cabin resorts, logging and military bombing ranges are rapidly encroaching on the last remaining traditional lands used for thousands of years by the Saami people and reindeer in the Barents Sea region.

Effects on reindeer

While a few reindeer, typically bulls, may be observed close to roads or construction facilities, extensive research has consistently documented that maternal reindeer with calves simply avoid disturbance around these sites by moving several kilometres away. With the amount of development taking place, reindeer and their predators such as wolverines, are increasingly confined to smaller and smaller areas, where grazing conflicts, overgrazing and predator conflicts increase. Currently, government policies, like those in Norway, respond to the development regime by reducing

the number of reindeer herders and their livestock, while limiting the land debate to individual construction projects. The result of this piecemeal development policy has been dramatic. Over 35 percent of traditional critical grazing lands are now considered unavailable due to development of roads, power lines, cabins and dammed lakes and rivers, most of it the low lying most productive areas. In northern Norway alone 300–500 recreational cabins are built every year, most of them in grazing lands. Scientific investigations in, for example, the Reparfjord Valley, have shown that traditional calving grounds were gradually lost and finally abandoned by reindeer and their herders due to consecutive disturbance from the resorts. But other threats are emerging.

Future exploration plans

On October 7, 2003, the oil company STATOIL announced "that oil reserves in the region including the Barents Sea may hold oil and gas for over 150 billion

USD". Exploration is already taking place in the Pechora further east, while the route along the northern coast is of particular interest for the Russian oil fleet. Increasing risk of oil spills combined with intensive commercial fishing by trawlers also interferes with the coastal Saami's traditional small-scale coastal fisheries. Investigations have shown that while the land-based oil installations are limited in extent, the associated secondary development may have detrimental effects to the Saami's ability to continue reindeer herding. On Kvaløya, an island home to the first opening of an industrial gas complex related to the Barents Sea gas reserves, the proposed associated development may cut off access to an important calving ground and old sacred sites. But the development doesn't stop there.

Windmill power parks are being proposed along the coast, adding to the network of roads and power lines constructed across the last decades. New mineral exploration legislations are made to facilitate exploration by mining

companies, and logging companies are active in Swedish and Finnish forests used for winter grazing.

New policies can change their fate

The current policy of dealing with the land use issue and future of the Saami reindeer herders by limiting discussions and legal rights to each individual development project locally is taking its toll. Few Saami herders can afford to confront large companies in a lawsuit, and for some the results can be depressing. On Seiland Island in northern Norway, a small dam project was revived by a regional power company. The increased regulation of the dam resulted in over 9,600 metres with deep-ice crevasses, rendering the small narrow lake impassable for its traditional use as a central spring migration route. After several years of lawsuits, the local Saami herder won in Supreme Court, which acknowledged the loss of close to 5 km² of spring grazing land. The price he received was however ironic: Apart

from covering the expenses, he received around 100,000 Norwegian kroner, the price of an older used car in Norway, for the loss of parts of his calving grounds for future generations.

Loosing one of Europe's last remaining wilderness areas

The situation on the loss of traditional grazing lands is an issue that goes even beyond indigenous rights and reindeer livestock: it is also a discussion on the future of Europe's last remaining continental wilderness areas and their biodiversity, that have co-existed with reindeer and Saami people through thousand of years. Scenarios now show that if no action is taken to control and define the land area to be protected from piecemeal development, as much as 78 percent of a 20 km deep coastal belt – critical spring, calving and summer pastures – may be inaccessible to herders in 2050. This may become detrimental to the last reindeer husbandry in the region. Policy action to address the long term cumulative impacts of piecemeal development – recognized also in other parts of the Arctic and globally – will be imperative for the future of biodiversity and indigenous rights to their own chosen lifestyles. For the Saami, the situation is becoming acute.

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Awaiting the 2007 International Polar Year

Science topics and outreach workshops are some of the many preparations that need to be in place in four years to mark the Third International Polar Year. **BY HANNE PETERSEN**

2007 might sound like a long way ahead, however, it is already a challenge to get all plans developed and inhabitants and participants engaged for the coming International Polar Year.

In spite of the substantial investment of effort in polar exploration and research over the years, both by individual nations and through internationally coordinated programmes, the relative inaccessibil-

ity and challenging environment of these zones have left the poles less well explored and studied than other key regions of the planet.

A new polar year opens to further understand the polar regions and polar processes and highlight the crucial role that the polar regions play in global systems. The poles are a key part of the global system, and drive changes

globally. The changes in the poles are occurring rapidly and changes are amplified here, too.

The 2007 International Polar Year is multidisciplinary in scope, and envisioned to be an intense, international campaign of co-ordinated polar observations and analysis. It is planned to be bipolar in focus, and with broad international participation. Nations are expected to work together to gain holistic insights into planetary processes, targeted at exploring and increasing our understanding of the poles and their roles in the global system.

Two times before

2007 is the 125th anniversary of the First International Polar Year (IPY 1882), the 75th anniversary of the Second Polar Year (IPY 1932), and the 50th anniversary of the International Geophysical Year (IGY 1957). These years resulted in significant new insights into global processes, and

led to decades of invaluable polar research.

The International Council for Science (ICSU) formed an International Polar Year planning group. The task of the group is to identify the objectives and activities of a new polar year, and to propose a mechanism for the design, development and implementation of the activities. One mechanism is to encourage countries to establish National Committees or contact points. Another mechanism is to create initiatives focusing on polar issues among international organisations.

The planning group will develop a Science Plan for the polar year, that will initiate scientific programs that would not otherwise occur and at the same time attract the next generation of polar scientists. Themes of such programs will include: exploring the earth's icy domains; decoding the role of the poles in global change; understanding polar processes; and others.

The first draft Science Plan will be reviewed at the ICSU meeting in February 2004.

Telling the world about the poles

Another goal of the Polar Year is to educate and create public interest and awareness about the polar regions. An education outreach workshop will take place in 2004 and will bring together experienced people from polar communications offices in existing science organisations, a variety of educators (museums, schools, etc), high profile media people, and UNESCO's education program representative.

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