

Tundra

Man and tundra

Peoples of the tundra: the Lapps

The Samis, normally known as Lapps, live in a very wide territory stretching from the coasts of Norway to the peninsula of Kola, in Russia.

They live in a particularly harsh environment in the heart of their lands: at Karesuando, in Sweden, the temperature may drop down to 45° below zero. The Samis are nomadic shepherds and their economy is based on reindeer rearing. Their nomadic life is due to the reindeers' dietary needs. These big herbivores mainly feed on slowly-growing lichens, so they need very large areas to survive. The Lapps follow their animals, as they move in search of new pastures. The origin of the Samis is not perfectly known yet: some say they are European, while others say they come from Asia. The nomadic groups of Lapps still live in reindeer skin tents that look like those of native Americans. Dinner is their main meal. Traditional Sami dishes are mainly made of reindeer meat and fish.

Reindeers for life

Reindeers are the only tamed animals. They were the basis of many people's economy, and entire Lapp families still live on what this big herbivore can offer. Food, hides, beverages, horns and bones, used to make tools, are obtained from reindeers. They are also used for transport .

Peoples of the tundra: the Ciukcis

Between the Pacific Ocean and the Arctic Sea, there is a roughly triangular peninsula, separated from Alaska by the Straits of Bering: it is the land of the Ciukcis. They seem to have come from north-America across the thin strip of land which until 30 thousand years ago used to join Siberia to Alaska. Their economy is based on reindeer-rearing, hunting and fishing. Today, the Ciukcis are much fewer than in the past, and few of them continue to follow their traditional lifestyle. They used to be nomads for most of the year, following their reindeer herds towards new pastures. While the men travelled with their reindeers, the elderly used to build sleighs, while the women and the young used to tan hides, make garments and dry fish. Along the coast, the Ciukcik used to go hunting for whales, walruses and seals.

Energy from glaciers

Some areas covered by the biome of the tundra contain huge oil fields. In 1997, for instance, 162 million tons of oil were extracted from the subsurface of Siberia. Western Siberia alone contains over one half of the oil reserves of all Russia. Another important product supplied by the Russian tundra is methane. 220 billion cubic metres of gas are extracted every year, large part of which is channelled to Europe through methane pipelines measuring thousands of kilometres long. The methane that is used in Italy comes just from such ice-cold lands.

The frozen soil of the tundra could supply a new source of energy: methane hydrates. They are composed of water and methane molecules, mixed and frozen together. They are contained in ocean sediments and in the Arctic permafrost. Hydrates contain a high concentration of methane, which could be extracted by a sort of "defrosting". This operation is still difficult to carry out, but is very interesting because a cubic metre of methane hydrate develops the same energy as by burning 135 kg of oil.