

Natural Resources in Northern Sweden

SUSTAINABLE DEVELOPMENT

Non-sustainable or "ordinary" development

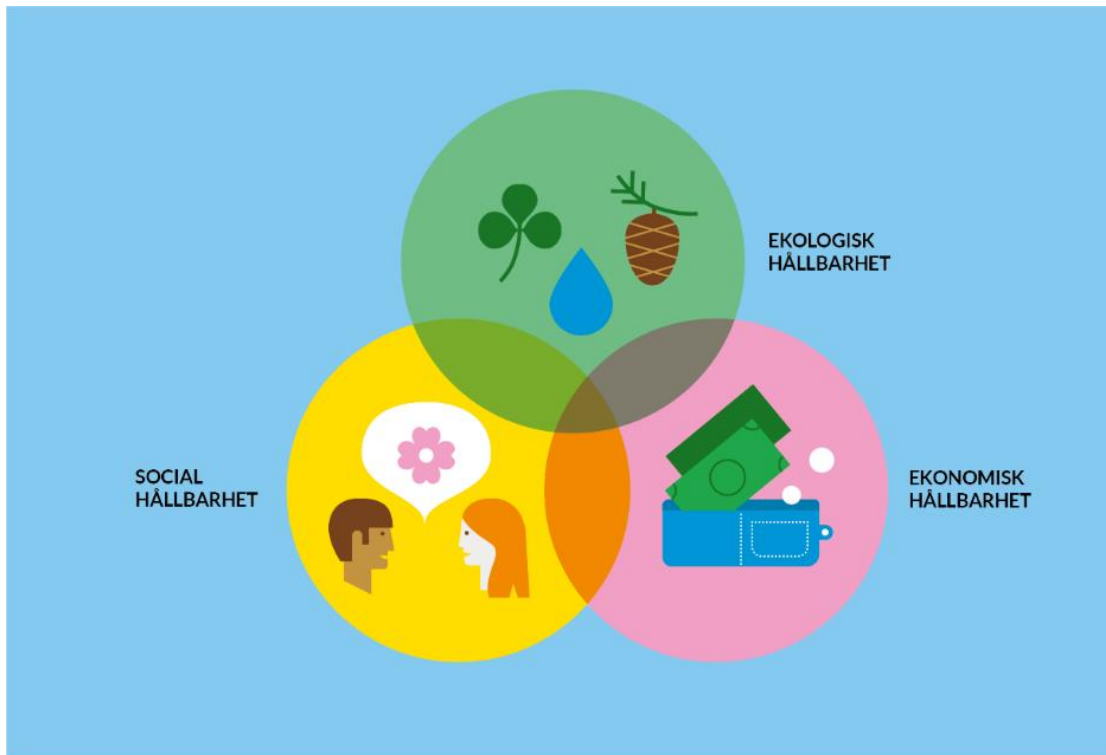
Throughout history, people and societies have tried to make life better and easier. They invented things to become richer and more efficient, often putting their own needs first. This has led to the exploitation of natural resources, harming local people and the environment for the sake of profit.

Sustainable development

Sustainable development means meeting today's needs without stopping future generations from meeting theirs. It has three main parts:

- **Ecological sustainability:** Taking care of the environment, nature and ecosystems. Use resources carefully and avoid damaging ecosystems so they can recover. Sustainable farming keeps soil healthy for future harvests so crops can grow year after year.
- **Social sustainability:** Creating a stable society with fairness, justice, and low unemployment. A society lacking social sustainability often experiences social issues like crime and poverty.
- **Economic sustainability:** Growing the economy in a way that doesn't harm nature or society. Most nations agree that sustainable development is desirable. Many countries agree on the importance of sustainable development. However, it raises

hard questions about fairness. Should countries that became rich early by harming the environment now ask poorer countries to limit their growth?



FORESTRY

Forests have been important to Sweden's economy for hundreds of years. Timber was harvested inland and transported via rivers to coastal cities like Piteå, Luleå, and Sundsvall. These cities grew due to the forestry industry and has played a crucial role in both Norrland's and Sweden's economic development.

Wood is used for paper, building materials, furniture, and fuel. Forests can be replanted and renewed, but responsible management is crucial. For example, large logging machines can damage the ground, and clear-cutting forests releases carbon dioxide and harms wildlife.



Today, almost all forests are influenced by some form of forestry. Wild forests untouched by human activity are known as *virgin forests*.

These are now rare in Sweden but can still be found in some national parks. Almost all forests in Sweden are managed, meaning they have been influenced by humans. Managed forests often have trees of the same age and type – a *monoculture*, reducing biodiversity compared to virgin forests.



Forests are important not only for their products but also for their benefits:

- **Biodiversity:** Protecting the variety of plants and animals.
- **Human well-being:** People enjoy spending time in nature, which improves health and reduces healthcare costs.
- **Clean air and noise reduction:** Forests near cities clean the air and reduce noise.
- **Economic support for other industries:** Forests support industries like reindeer herding, fishing, and tourism.

MINING



Mining involves taking out materials like metals or fossil fuels from the ground. Society requires metals and other minerals for many essential products. Metals such as iron, copper, zinc, and gold are mined in Sweden.

Most mines are *open pits*, large holes where minerals are extracted close to the surface. But some, like the Kiruna mine, are far below the surface, *underground mines*. Sweden has been a significant mining nation for centuries.

Mining has negative effects:

- **Environmental damage and biodiversity loss:** Open-pit mining transforms large areas into barren wastelands, destroying forests and vegetation and harming surrounding nature.
- **Climate impact:** Mining and metal processing (steelworks) account for over 10% of Sweden's carbon dioxide emissions. The industry's climate impact is often overlooked.
- **Toxic waste:** Toxic waste from mines can pollute lakes and groundwater.
- Local people, including the Sami, face disturbances like noise and damage to traditional reindeer herding.
- **Mine dam failures:** Mining involves dams and reservoirs that occasionally fail, polluting land and water. For example, in 2012, Finland's Talvivaara mine leaked 200,000 cubic meters of toxic water, killing fish and contaminating large water areas

TOURISM



Northern Sweden attracts tourists with its ice and snow, cold weather, wilderness, and midnight sun. Popular activities include visiting the Ice Hotel, dog sledding, and skiing. Tourism can create jobs, but many are seasonal, making it hard to ensure stable

communities.

Tourism relies heavily on nature. Many tourists come to enjoy unspoiled landscapes. Some businesses focus on *eco-tourism*, ensuring their activities do not harm the environment.

However, there are debates over whether forests should be preserved for tourism or used for industries like logging.

THE SAMI PEOPLE'S HISTORY

Most Sami today live in modern homes in towns and cities, where they attend school and work in various professions, such as carpenters, lawyers, or nurses. However, their history differs significantly from that of other Swedes.



The Sami are Sweden's indigenous (urfolk) people and have lived in northern Scandinavia for over 10,000 years. Indigenous peoples are those who inhabited a region before colonization or conquest. Other indigenous groups include Australia's Aboriginal people, North African Berbers, and Native Americans.

The Sami people were largely left alone until the 1600s when Sweden started settling the region, introducing farming and banning Sami traditions. The state forced Christianity on the Sami, banning their traditional religion. The state relocated many Sami southward to make way for Swedish settlers.

In early 1900s Europeans started to talk about the biological origins of different peoples. In Sweden, there was a National Institute of Racial Biology. The scientists here believed that there are different races and that some races are better than others. The Sami children were allowed to go to regular school (to become "less Sámi"). .

Indigenous peoples around the world share experiences of how colonizers' land takeover led to the shrinking of their own lands. Conflicts can arise about fishing and hunting rights. Or if the state wants to open a new mine, or build a new road. But indigenous peoples also have protection in the law, competing activities must not change land use so that it becomes impossible for indigenous peoples to continue with their traditional industries.



Today, the Sami Parliament works to protect their culture and rights.

REINDEER HERDING



Reindeer herding is central to Sami culture, providing income, food, and materials while preserving traditions. Reindeer roam freely, and herders follow their movements.

Reindeer herding faces challenges:

- Disturbances from other land use and predators.
- During calving or migration, reindeer need peace, or they may scatter, creating extra work for herders.