

## Criteria Sheet – Natural Resources in Northern Sweden

### Explain the Concepts:

#### Environmental Sustainability

Environmental sustainability means that nature and the environment should remain for future generations. We should not take too much from nature or use more than necessary. We should not harm ecosystems in ways that make it impossible for them to recover.

#### Social Sustainability

Social sustainability is about people and society. It means taking care of individuals and groups in a way that creates a stable and functioning society. A society without social sustainability often faces problems like crime and poverty. Social sustainability includes fairness, justice, a working legal system, and low unemployment.

#### Economic Sustainability

Economic sustainability is about money and resources. The economy should function in a way that does not harm people or the environment. For example, cutting down all forests for quick profits may give money now but leave no nature for the future.

These three together—environmental, social, and economic sustainability—are called **sustainable development**. We use resources wisely to meet our needs without harming the environment, people's lives, or the economy.

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## Forestry

### **Planting** (plantera)

Young trees are planted where forests have been cut down and allowed to grow.

### **Thinning** (gallra)

Removing smaller or weaker trees so that the remaining trees can grow better.

### **Clear-cutting** (kalhygge)

Cutting down all trees in a large area to make money.

### **Monoculture** (monokultur)

Planting only one type of tree at the same time. Humans control how the forest grows.

### **Biodiversity** (biologisk mangfold)

A forest with many different types of plants and animals. Animals like diverse forests.

### **Primeval Forest** (urskog)

An untouched and ancient forest that has not been affected by humans. It contains trees of different ages and many kinds of plants.

## **What Can Forests Be Used For?**

**Products made from forests:** Paper, wood for furniture or houses, fuel for heating, and energy sources.

**Other ways to use forests:** Building shelters or treehouses, forests clean the air and reduce noise, recreation (walking and enjoying nature), tourism, berry picking, and protecting wildlife.

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## Mining Industry

### **Open-pit Mining** (dagbrott)

A large hole dug in the ground to extract minerals close to the surface. Many mines start this way and later become underground mines if minerals are found deeper underground.

**Underground Mine** (underjordsgruva)

A mine with tunnels below the ground where minerals are extracted from deep underground.

**Ore** (malm)

A rock with a high amount of metal, making it valuable to mine.

**Mineral** (mineral)

A general term for what is mined, such as iron, copper, zinc, lead, and gold.

**What is Mined in Sweden?**

Swedish mines mostly extract iron, copper, zinc, and lead, as well as silver, gold, and rare earth metals. Iron ore makes up about half of Sweden's mining production by weight.

Sweden has been an important mining country for hundreds of years.

**How Do Mines Affect the Surroundings?**

- **Nature and biodiversity are harmed** – Large areas become wastelands when open-pit mining is used. Forests and plants disappear, and the nearby environment is affected.
- **Mining contributes to climate change** – Over 10% of Sweden's CO2 emissions come from mining and metal processing.
- **Toxic waste pollutes nature** – Mining releases chemicals into the environment. Large amounts of mining waste can contaminate lakes and groundwater.
- **Local communities and Indigenous people suffer** – Noise, dust, and tremors disturb people living near mines. For the Sami people, mining affects reindeer herding by blocking migration paths.

- **Mine dams can break** – Mining requires large water storage areas that sometimes fail, leading to pollution. A mine in Finland in 2012 caused a toxic spill that killed fish and contaminated water sources.

### **Benefits of Mining:**

- Creates jobs and economic growth
  - Provides important materials for industries
  - Boosts local businesses and services
  - Mining is considered so important that governments often allow more pollution than they would for other industries.
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## **Tourism**

### **Popular Tourist Attractions in Northern Sweden**

- Icehotel in Jukkasjärvi
- Piteå beach, and the summer games
- Norrbotten's coastline and islands
- Riksgränsen, Abisko, Björkliden, and Dundret in Gällivare
- Jokkmokk, Harads, and Treehotel
- Nature reserves near Luleå
- Storforsen waterfall near Älvsbyn
- Activities: Midnight sun, northern lights, dog sledding, snowmobiling, icebreaker tours, skiing, mountain biking, hiking, hunting, and fishing.

### **"Untouched Nature"**

Tourists come to Northern Sweden to experience nature, such as mountains, rivers, and forests. Many places, like national parks, protect this nature.

## **Ecotourism**

Some tourism businesses make extra efforts to avoid harming nature so they can continue offering experiences of untouched landscapes. This is called **ecotourism**.

## **National Parks and Nature Reserves**

Areas protected by the government where human activities are limited to keep nature untouched.

## **Seasonal Jobs**

Jobs that only exist during certain times of the year, like ski instructors in winter.

**Challenges:** In small tourist towns like Åre and Tärnaby, it is difficult to run businesses year-round. Many jobs are seasonal, making it harder to build a stable community with services like schools and healthcare.

**Conflicts Between Tourism and Other Interests:** People disagree on how land should be used. Should forests be preserved for tourism, or used for industry? How does mining or wind power affect tourism?

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## **Sami History**

### **Indigenous People**

The Sami are the Indigenous people of Northern Scandinavia. They lived in the area for thousands of years before Sweden, Norway, and Finland became countries.

### **Sápmi**

The traditional Sami homeland, which includes parts of Sweden, Norway, Finland, and Russia.

### **Forced Christianization and Relocation**

In the 1600s, the Swedish state forced the Sami to move and give up their religion to make way for farming, logging, and mining.

### **Racial Biology Institute**

In the early 1900s, European scientists studied people's physical features, believing some "races" were superior. In Sweden, Sami people were measured and photographed as part of this harmful practice.

### **Sami Parliament**

In 1993, Sweden created the Sami Parliament to protect Sami culture and rights.

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## **Reindeer Herding**

### **Importance of Reindeer Herding**

- **Economy** – Sami earn money from selling reindeer meat, fur, and crafts.
- **Culture** – A tradition that provides identity and community.

### **Natural Grazing** (naturbete)

Reindeer eat wild plants like lichen and moss, so they must migrate seasonally to find food.

### **Conflicts with Other Interests**

Many industries want land traditionally used by the Sami, such as forestry, road construction, wind power, and mining. These activities disrupt reindeer migration routes.

**Discussion Question:** How do environmental, economic, and social sustainability relate to forestry, mining, tourism, and reindeer herding? What are the pros and cons of each, and what conflicts might arise over natural resources in Northern Sweden?