Sparsely populated, forest-rich countries...

- Sweden, Norway and Finland are three of the most forest-rich countries in Europe. Of Europe’s 211 million hectares of forest land (the whole of Europe except Russia), there are over 61 million hectares in these three nations. Denmark’s approximately 30,000 hectares of forest also contribute to the fact that the Nordic region has 20% of Europe’s wood stock.
  
  The inhabitants of Sweden, Norway and Finland have access to an average of 3 hectares of forest land per person. Compare this with Germany (0.13 ha), Great Britain (0.05 ha) and France (0.25 ha).

...with a large carbon stock

- The entire Nordic region has an average of 93 tonnes of carbon per inhabitant bound up in the living biomass of the forest. The amount is largest in Sweden, Norway and Finland.

A large share of renewable energy

- Renewable energy comes from renewable sources. Examples are hydropower, wind power, solar energy and bioenergy. In the Nordic countries, conditions vary. Hydroelectric power is an important source of energy in Norway and Sweden, bioenergy plays a major role in Finland and Sweden, Denmark has invested heavily in wind power and Iceland in geothermal power.

  The share of renewable energy is significantly higher in the Nordic countries than the EU-average, and it has increased significantly during the 21st century.

Greenhouse gas emissions

- The largest carbon sources in the Nordic countries are transport, energy, industrial use, agriculture and households. Emissions in 2015 amounted to 225 million tonnes of carbon dioxide equivalents.
  
  - Sweden, Finland and Norway released 169 million tonnes in 2015. This is almost equal to the climate benefits of the countries’ forests, about 150 million tonnes.

Source: State of Europe’s forests 2015, the whole of Europe except Russia.
A forest absorbs carbon dioxide from the atmosphere through photosynthesis and releases some of it through respiration. The annual surplus is converted to carbohydrate and used for tree growth. When net growth products are retained in the forest, there is long-term carbon storage and the forest acts as a carbon sink. This annual climate benefit remains as long as the stock increases, but there is an upper limit to how many trees a forest can contain.

One cubic metre of stem wood contains carbon equivalent to approximately 570 kg CO₂. One average forest hectare in the Nordic region, growing at a rate of 4 cubic metres per year, therefore annually stores the equivalent of about 4 tonnes of carbon dioxide in its stems. This corresponds to the emissions from a diesel car that has travelled about 20,000 kilometres.

If the annual net growth of a forest is harvested and used to replace fossil raw materials, climate benefits also arise. Carbon dioxide is first absorbed from the atmosphere and then released back into it, in a cycle in which no new carbon is added. If we use oil, coal or natural gas, or if we manufacture cement, we add new carbon dioxide to the atmosphere.

When forest products are used as energy or as an alternative to plastic, steel and concrete, we avoid the release of “new” fossil carbon into the atmosphere. This is known as substitution, similar to displacement of fossil raw materials. The raw materials are used for wood products instead of paper, wood and biofuel. If it’s plastic, oil, coal and cement, the climate will be the loser.

In the preserved forest, we see an initial increase in stored carbon. We have a climate benefit as long as the forest grows. The managed forest will be better if it is managed according to the growth phase, a saturation phase, and a decline phase. The preserved forest’s growth declines, while the managed forest’s growth increases year by year, because climate benefit is determined by growth, the benefit will increase if we are more active in our forest management.

Substitution accounts for the bulk of the climate benefit. The managed forest has a cumulative advantage in the long run. This is only possible up to a certain limit. When the forests age, their climate benefit will be slightly higher compared to a fossil carbon store.

If we stop harvesting the wood, we must ask ourselves what to use instead of paper, wood and biofuel. If it’s plastic, oil, coal and cement, the climate will be the loser.

The difference between the preserved forest’s carbon storage and the cumulated climate benefit of the managed forest increases year by year, because the preserved forest’s growth declines, while the managed forest’s growth is stable and high.

The hypothetical scenario assumes that a stop to forest management in one country does not lead to increased harvests in other countries. The hypothesis is that a stop to forest management in one country does not lead to increased harvests in other countries. The hypothesis is that a stop to forest management in one country does not lead to increased harvests in other countries. The hypothesis is that a stop to forest management in one country does not lead to increased harvests in other countries.

In the preserved forest, we see an initial increase in stored carbon. We have a climate benefit as long as the forest grows. The managed forest will be better if it is managed according to the growth phase, a saturation phase, and a decline phase. The preserved forest’s growth declines, while the managed forest’s growth increases year by year, because climate benefit is determined by growth, the benefit will increase if we are more active in our forest management.

Substitution accounts for the bulk of the climate benefit. The managed forest has a cumulative advantage in the long run. This is only possible up to a certain limit. When the forests age, their climate benefit will be slightly higher compared to a fossil carbon store.

If we stop harvesting the wood, we must ask ourselves what to use instead of paper, wood and biofuel. If it’s plastic, oil, coal and cement, the climate will be the loser.

The difference between the preserved forest’s carbon storage and the cumulated climate benefit of the managed forest increases year by year, because the preserved forest’s growth declines, while the managed forest’s growth is stable and high.

The hypothetical scenario assumes that a stop to forest management in one country does not lead to increased harvests in other countries. The hypothesis is that a stop to forest management in one country does not lead to increased harvests in other countries. The hypothesis is that a stop to forest management in one country does not lead to increased harvests in other countries. The hypothesis is that a stop to forest management in one country does not lead to increased harvests in other countries.

If we harvest and use a cubic metre of stem wood, the substitution effect varies between 500 and 800 kg of carbon dioxide depending on how we use the wood.


One cubic metre of stem wood contains carbon equivalent to approximately 570 kg CO₂. One average forest hectare in the Nordic region, growing at a rate of 4 cubic metres per year, therefore annually stores the equivalent of about 4 tonnes of carbon dioxide in its stems. This corresponds to the emissions from a diesel car that has travelled about 20,000 kilometres.

If the annual net growth of a forest is harvested and used to replace fossil raw materials, climate benefits also arise. Carbon dioxide is first absorbed from the atmosphere and then released back into it, in a cycle in which no new carbon is added. If we use oil, coal or natural gas, or if we manufacture cement, we add new carbon dioxide to the atmosphere.

When forest products are used as energy or as an alternative to plastic, steel and concrete, we avoid the release of “new” fossil carbon into the atmosphere. This is known as substitution, similar to displacement of fossil raw materials. The raw materials are used for wood products instead of paper, wood and biofuel. If it’s plastic, oil, coal and cement, the climate will be the loser.

In the preserved forest, we see an initial increase in stored carbon. We have a climate benefit as long as the forest grows. The managed forest will be better if it is managed according to the growth phase, a saturation phase, and a decline phase. The preserved forest’s growth declines, while the managed forest’s growth increases year by year, because climate benefit is determined by growth, the benefit will increase if we are more active in our forest management.

Substitution accounts for the bulk of the climate benefit. The managed forest has a cumulative advantage in the long run. This is only possible up to a certain limit. When the forests age, their climate benefit will be slightly higher compared to a fossil carbon store.

If we stop harvesting the wood, we must ask ourselves what to use instead of paper, wood and biofuel. If it’s plastic, oil, coal and cement, the climate will be the loser.

The difference between the preserved forest’s carbon storage and the cumulated climate benefit of the managed forest increases year by year, because the preserved forest’s growth declines, while the managed forest’s growth is stable and high.

The hypothetical scenario assumes that a stop to forest management in one country does not lead to increased harvests in other countries. The hypothesis is that a stop to forest management in one country does not lead to increased harvests in other countries. The hypothesis is that a stop to forest management in one country does not lead to increased harvests in other countries. The hypothesis is that a stop to forest management in one country does not lead to increased harvests in other countries.

If we harvest and use a cubic metre of stem wood, the substitution effect varies between 500 and 800 kg of carbon dioxide depending on how we use the wood.


One cubic metre of stem wood contains carbon equivalent to approximately 570 kg CO₂. One average forest hectare in the Nordic region, growing at a rate of 4 cubic metres per year, therefore annually stores the equivalent of about 4 tonnes of carbon dioxide in its stems. This corresponds to the emissions from a diesel car that has travelled about 20,000 kilometres.

If the annual net growth of a forest is harvested and used to replace fossil raw materials, climate benefits also arise. Carbon dioxide is first absorbed from the atmosphere and then released back into it, in a cycle in which no new carbon is added. If we use oil, coal or natural gas, or if we manufacture cement, we add new carbon dioxide to the atmosphere.

When forest products are used as energy or as an alternative to plastic, steel and concrete, we avoid the release of “new” fossil carbon into the atmosphere. This is known as substitution, similar to displacement of fossil raw materials. The raw materials are used for wood products instead of paper, wood and biofuel. If it’s plastic, oil, coal and cement, the climate will be the loser.

In the preserved forest, we see an initial increase in stored carbon. We have a climate benefit as long as the forest grows. The managed forest will be better if it is managed according to the growth phase, a saturation phase, and a decline phase. The preserved forest’s growth declines, while the managed forest’s growth increases year by year, because climate benefit is determined by growth, the benefit will increase if we are more active in our forest management.

Substitution accounts for the bulk of the climate benefit. The managed forest has a cumulative advantage in the long run. This is only possible up to a certain limit. When the forests age, their climate benefit will be slightly higher compared to a fossil carbon store.

If we stop harvesting the wood, we must ask ourselves what to use instead of paper, wood and biofuel. If it’s plastic, oil, coal and cement, the climate will be the loser.

The difference between the preserved forest’s carbon storage and the cumulated climate benefit of the managed forest increases year by year, because the preserved forest’s growth declines, while the managed forest’s growth is stable and high.

The hypothetical scenario assumes that a stop to forest management in one country does not lead to increased harvests in other countries. The hypothesis is that a stop to forest management in one country does not lead to increased harvests in other countries. The hypothesis is that a stop to forest management in one country does not lead to increased harvests in other countries. The hypothesis is that a stop to forest management in one country does not lead to increased harvests in other countries.

If we harvest and use a cubic metre of stem wood, the substitution effect varies between 500 and 800 kg of carbon dioxide depending on how we use the wood.