Metsähallitus Forestry in Lapland

Dr. Kirsi-Marja Korhonen, Metsähallitus
Metsähallitus Group

MINISTRY OF AGRICULTURE AND FORESTRY

MINISTRY OF THE ENVIRONMENT

Board of Directors

Metsähallitus
Director General

Group Operations

PARKS & WILDLIFE FINLAND

Metsähallitus
Metsähallitus Forestry Ltd
Management of state-owned multiple-use forests and the sale of timber

Metsähallitus
Property Development
Plots for holiday homes and businesses, rock materials and project development

Metsähallitus
National Parks Finland
Management of national parks and other protected areas, hiking services, protection of nature and cultural heritage

Metsähallitus
Wildlife Service Finland
Production of hunting and fishing services, supervision of game and fisheries

Siemen Forelia Oy
MH-Kivi Oy
Metsähallitus is a state enterprise managing state owned lands and waters

**Metsähallitus Forestry Ltd manages:**
- Forestry areas in multiple use, 3.5 million ha
- Peatlands and other areas with no forestry use 1.5 million ha

**Metsähallitus Parks and Wildlife manages:**
- Protected areas, National parks, wilderness areas 3.6 million ha

**Metsähallitus Laatumaa manages:**
- Water areas, 3.4 million ha (and lands 0.4 mill. ha)

In total 12.4 million ha
The Act of Metsähallitus

• Metsähallitus is a state enterprise, which manages, uses and protects the state-owned natural resources in a sustainable and productive manner.
• Forestry is the main business area, which is operated by Metsähallitus Forestry Ltd.
• Metsähallitus is obliged to take into account the general societal obligations, which are
  1. protecting and enhancing biodiversity
  2. recreational use of state lands and waters,
  3. contributing rural employment,
  4. reindeer husbandry as defined in Reindeer Herding Act
  5. ensuring the prerequisites of practising Sámi culture

Land use needs of research, education, defence forces and border guard
Forest fire prevention and help to fire department
## Land use in state lands in Lapland

<table>
<thead>
<tr>
<th>Land use</th>
<th>mill. ha</th>
<th>% of land area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statutory protection and wilderness areas</td>
<td>2,881</td>
<td>46</td>
</tr>
<tr>
<td>Special areas (no profit target)</td>
<td>0,323</td>
<td>5</td>
</tr>
<tr>
<td>Areas managed by MH Forestry Ltd</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Set aside</td>
<td>1,305</td>
<td>21</td>
</tr>
<tr>
<td>• Restricted forestry</td>
<td>0,194</td>
<td>3</td>
</tr>
<tr>
<td>• Multiple use forestry</td>
<td>1,511</td>
<td>24</td>
</tr>
<tr>
<td>Total</td>
<td>6,214</td>
<td>100</td>
</tr>
</tbody>
</table>

Productive forests on state lands in Lapland cover 2,677 mill. ha. Of this 35 % is protected either statutory or as set aside areas by Metsähallitus, 7 % is in restricted forestry use and 57 % in multiple use forestry.
Logging sites far from the wood buying customers

1) Road connections, winter road areas, lorry development
2) Railroads and terminals
3) Sea routes
Ecoeffectivity: From one tree to several customers

Cut-to-length logging and optimization of sales and deliveries ensures the maximum value of each tree.
Logging planning and management

Land use planning based on public participation
- Landscape ecological plans
- Natural resource plan
- Agreements

GIS technology

Lazerscanning, aerial photos, fieldwork

Management system of loggings and transport

- Habitat data
- Forest stand data
- Nature objects
- Logging and silvicultural planning
Biological diversity - the basis of the wellbeing and ecosystem services produced by forests

In the Geographic information system:

- Key habitats, nature objects and other set aside areas
- Threatened species occurrences
- Valuable landscapes and touristic interests
- Wildlife habitats
- Cultural heritage sites
- Reindeer herding structures
- Tree stand and habitat data
Ecological network combining protection areas and set-aside sites in commercial forests
Cultural Heritage inventory of the state forestry areas in 2010-2015

More than 10,000 objects inventoried and filed in the Geographic information system
Inclusive planning: Ensuring local people and interest groups genuine influence in land use planning

- Public participation is the means to provide the local people and interest groups the possibilities to influence their living surroundings and to take into account the traditional uses of state lands.

- State forest management needs to be more open and participatory than private forestry.

- To combine the various uses of state lands, Metsähallitus has adopted a holistic and inclusive land use planning: Natural Resource Plan, including the landscape ecological plans.

- Basis of the natural resource management is the online geographic information system and everyday connections to local and regional stakeholders.

- Co-operation groups with local touristic companies, villages and reindeer herders.

- New participation methods, such as collecting data of sites of public interest via internetmaps.
Stakeholder co-operation in the natural resource plan

Natural resource plan combines the various land uses and the needs of local communities to natural resources, state ownership governance and customer needs.

Multitargeted plans include land use targets and action plans for 5 years. These include also the annual targets for the forestry operations.

Natural resource plans are made together with the regional co-operation group. Stakeholders nominate their representatives to the group. Independent chairperson is also nominated.
Tourism in forestry areas

• All Metsähallitus forestry areas are managed as multiple use forests. Wide range of tourism and recreation possibilities are available in these forests, eg. snowmobile and husky routes, skiing trails, hunting and fishing etc.
• New forest management methods are developed to combine recreational use, scenic values and productive forestry at the same time.
• Voluntary cooperation groups have been established in important touristic centres. Metsähallitus presents all logging plans to these groups possible to change the logging plans.
• Forestry maintains a wide road network which is freely available for tourists as well as tourist companies.
Reindeer husbandry and forestry in the same areas

Reindeer husbandry is a traditional livelihood in northern Finland in the tundra areas, but also in forests.

Of the forestry areas of Metsähallitus 71 % belong to the reindeer herding area and 9 % to the Sámi homeland region.

The reindeer herding co-operatives are given an opportunity to influence on all logging-, soil preparation- and road construction plans as well as touristic routes.

Agreements between Metsähallitus and the co-operatives on logging restrictions and set aside areas.
Reindeer herding and Sàmi culture are protected by the law
Sámi are the EU’s only indigenous people

In Finland: 10 000 Sámi and 3 different Sámi languages. Less than 2000 who have Sámi as native language. Sámi are a minority also in the Sámi homeland region. Sámi cultural and language rights in the Constitution.

Traditional livelihoods of the Sámi are reindeer herding, fishing, hunting, handicrafts and small-scale farming. Nowadays less than 10 % of the Sámi in the homeland region have reindeer herding as main livelihood.
Sámi Homeland Region

• In Sámi Homeland region 90 % of the lands are stateowned and managed by Metsähallitus. In this region the use of natural resources has to be managed in a way that the prerequisites of practising Sámi culture are safeguarded (Act of Metsähallitus).

• Some 72 % of the Sámi Homeland region is protection and wilderness areas, managed by Metsähallitus Parks and Wildlife Services. Some 13 % belong to a special area of natural livelihoods. Forestry unit manages 15 % of the area. Half of this is in forestry use and other half belong to set aside areas.

• In 2002-2009 Lapland was a scene of international forest disputes. All disputes were agreed upon in several negotiation processes in 2009-2010.

• Since the agreements to set aside important pasture lands in 2010, Metsähallitus has not carried out any loggings if the Sámi reindeer herders´ cooperative has opposed in beforehand and negotiations have not resulted in consent.

• New campaign has started in 2017 and three of the cooperatives have prevented all forestry.
Forests can be utilised to mitigate climate change in three ways:

A carbon sink that sequesters carbon dioxide
Continued action as a carbon sink requires renewal of the tree stock (growing forest).

As a carbon storage that stores carbon
Carbon storages don’t last forever - an ageing forest releases carbon slowly (trees, long-lasting wooden products and soil).

Using wood as a raw material
Replaces the use of fossil and high-emission materials (wooden products and bioeconomy products, bioenergy).
Project targets

• To identify the importance of forestry areas in carbon sequestration and storage as a whole.
• To examine how carbon sequestration and storage can be enhanced through forestry measures.
• To create a carbon-based classification method as a practical tool for planning forest use.

› To improve Metsähallitus’ ability to make climate-friendly decisions in its forestry activities.
Carbon classification in forests

Minor carbon storage
Understocked, low-productivity land, non-productive land, built-up land and other areas.
› The trees have no significance as carbon sinks or storages

Developing carbon sink
Young growing stands and open areas. Developing into a good carbon sink.
› Small significance as a carbon sink and storage.

Carbon sink to be developed
Multiple-use forest where the number and/or condition of trees is not ideal.
› Need for actions to develop carbon dioxide sequestration in the growing trees.

Increasing carbon sink
Multiple-use forest in good condition, a sufficient number of growing trees and timely forestry actions.
› The best sites for effective carbon dioxide sequestration.

Increasing carbon storage
Areas with young forests where forestry use is restricted for landscape, recreation or game management reasons, such as wood grouse mating displays.
› A good site for storing sequestered carbon in the tree stock. The trees in the area already contain a certain amount of carbon and their ability to sequester more is good in light of local conditions.

Significant carbon storage
Areas with mature forests where forestry use is restricted for landscape, recreation or game management reasons, such as wood grouse mating displays.
› The best site for storing sequestered carbon in trees. The trees already contain a lot of carbon. Their ability to sequester more carbon has decreased.

Stable carbon storage
Areas completely excluded from forestry operations. Mainly various nature sites and other areas outside the scope of forestry operations.
› A carbon storage that develops via natural processes, storage may also decrease due to rot. No forestry measures.
Carbon classification by forest compartment

- Minor carbon storage
- Developing carbon sink
- Carbon sink to be developed
- Increasing carbon sink
- Increasing carbon storage
- Significant carbon storage
- Stable carbon storage
Carbon balance in forestry areas

Carbon storage in forests will increase in State-owned forests

- An increasing amount of wood raw material has also been harvested
- Carbon balance growth shows that Metsähallitus’ forest management instructions support consideration of carbon sequestration and storing.
- At this time, we are enjoying the results of long-term forest management work.
Longterm sustainability of Metsähallitus Forestry

1) Multipurpose landuse and forestry planning systems which are based on active cooperation with local communities and stakeholders,

2) GIS-based accurate forest stand and nature data available for all planners and harvester drivers,

3) Habitat based forestry practises: cost-effective forest regeneration with natural tree species and local seed origin, timely young stand tending and commercial thinnings, final loggings mimicing the natural cycles of the different tree species and habitats,

4) Maximum allowable cut of the region is calculated so that standing wood volume increases for next 40 years,

5) Biodiversity is safeguarded with the comprehensive ecological network (statutory protection areas, voluntary set aside areas and small-scale nature sites) combined with safeguarding natural structures in forestry stands.
Northern forestry is hi-tech knowledge and future possibilities

Forest resources in Lapland are increasing for the future 40 yrs and enable increasing logging volumes. New woodbased bioplants are planned to be opened in few years.

Ecological responsibility for the future generations is taken care of as more than 20 % on the productive forests are strictly protected. National parks and other protection areas cover more than 3 mill. ha. Biodiversity and multiple use are well taken into account in forestry areas, too.

Practicing sustainable forestry forms the economic and social backbone of the areas in Northern Finland, it is one of the vital sources of livelihoods for the communities in these areas. Growth of the commercial forests is more than 12 mill.m³/year, loggings 4 mill.m³/year. Sustainable use and longterm forest management allow to increase the wood consumption constantly for next 40 years.

Land use decisions as well as decisons concerning the use of natural resources are essential. For this reason both forestry practices as well as an inclusive, responsible and participatory approach to planning need to be state of the art.