

Dr. Kirsi-Marja Korhonen, Regional director, Metsähallitus Forestry, Lapland

In Lapland most of the forests are Scots pine dominated, but also Norway spruce and birch forests exist. Forest industry and forestry together are economically the biggest livelihood in Lapland. Economic value is 1 300 mill. euros. Tourism employs more people, but its economic value is 700 mill.€. Mining is an increasing livelihood, but still far from these.

In Lapland the land area is 9,27 mill.ha. Reindeer husbandry uses all the land area as the reindeer herders have the right to free range on lands not depending on the ownership. Tourism uses small areas, but have scenic demands on much larger areas.

Nature conservation areas and statutory wilderness areas cover 1/3 of the land area (3,2 mill. ha). This includes 1 mill. ha of productive old forests. Which means that more than 20 % of the productive forests in Lapland are strictly protected.

Half of the land area is in Forestry use, of these state owned forests cover 55 %. Loggings take place on less than 1% yearly. State is the largest land owner in Lapland, but altogether we have here 25 000 forest owners. Also several large forestry collectives operate in Lapland.

Growth of the commercial forests is 12 mill. m<sup>3</sup> yearly. Loggings for industrial wood are 4 mill.m<sup>3</sup>/year and use of domestic wood 1,4 mill.m<sup>3</sup>/year. That means that the wood resources are rapidly increasing. Logging area covers 89 000 ha yearly, more than half of this is thinnings. Sustainable use and longterm forest management allow to increase the wood consumption constantly for next 30 years.

Forest industry in Lapland consumes 6 mill.m<sup>3</sup> wood/year. Besides Lapland wood comes to our industry from south and is also imported. There is a strong pulp based industrial region along the Gulf of Bothnia both in Finland and Sweden. Sawmills in Lapland are very specialized and a new, modern sawmill has started in Kemijärvi. Wood energy use is increasing in towns, touristic centers and mines.

Metsähallitus is a state enterprise which takes care of state owned lands and waters. The task of Metsähallitus is to manage, use and protect the natural resources for the benefit of the Finnish society. This includes profitable multiple use forestry, with multiple targets and restrictions to provide possibilities to other nature based livelihoods, such as reindeer herding and tourism. This also includes providing possibilities to develop touristic centers, wind power and other increasing needs of the society. Metsähallitus sells and rents real estates with the name Laatumaa. Business units, as forestry and Laatumaa earn their money from the customers and the dividends to the state are about 120 mill. €/a.

Natural heritage services of Metsähallitus is a state budget based separate unit which manages 37 national parks, more than 500 of other protection areas but also 12 vast wilderness areas. Most of the protected areas are in Lapland. No forestry is practiced in any of these. Natural heritage services maintains also hiking areas and 3 mill. ha of public waters. Tasks of the Natural heritage services are to protect habitats, species and cultural heritage, to provide free hiking services, recreation facilities and customer service, visitor centres and wilderness cabins for free or to rent. These tasks are financed mostly from the state

budget, some 60 mill.€/a. Besides this Natural heritage services is in charge of hunting and fishing quotas and licenses and snowmobile routes and licenses. These tasks are financed with license income.

Metsähallitus forestry manages the areas outside statutory protection areas. The tasks of forestry include wood production and supplying wood to industry on a full-service basis: forest planning, management, haulage and logistics. Customers consist of sawmills and pulp and paper mill and energy plants. We sell about 6 mill.m<sup>3</sup> wood yearly, of this 1,9 mill.m<sup>3</sup> from Lapland. In Lapland forestry unit manages almost half of the state lands, but forestry is practised only on 28% of state lands.

Forestry staff consists of 300 specialists and 400 forest workers. All loggings, transport, road construction and maintenance as well as growing part of all silvicultural work is done by private contractors, whose staff includes >700 person-years in logging, >350 in haulage and >300 in silviculture and road management. Besides this some 500 students get short time jobs in summer in tree planting.

Profitable multiple use forestry is based on multipurpose forestry planning systems with wide stakeholder co-operation. GIS-based accurate stand and nature data form the basis of the certified environmental management system (ISO 14001). New laser scanning based planning system aims at reduction in costs compared to traditional planning with aerial photos, GIS and field measuring. Forestry planners can focus their field work more on environment issues and stakeholder involvement.

IT-based optimization and management system of sales, harvesting and logistics and certified chain of custody makes it possible to have full control on harvesting and customer deliveries from all over Lapland. Same GIS map components are used with forestry information systems and logistics applications as well as by planners, harvester drivers, lorry drivers and forest workers.

Forest management is certified by PEFC system. Longterm silviculture and forest road management form the basis of the future possibilities. In Lapland this means 10 000 ha of young stand tending yearly, 18 000 ha of commercial thinnings and 14 000 ha of regeneration loggings yearly.

Maintenance of forest roads means 5 mill.€ costs in Lapland yearly, as we have a total of 13 500 km own roads and 5 500 km of partly owned roads. Maintenance is allocated based on logging possibilities along the road, but also local villagers need the forest road connections in their every day life.

To combine the various needs of the Finnish society- financial and qualitative targets via state budget and ministries, wood buying and other customers needs as well as the needs of local stakeholders and users of forests and to combine all these in the frames of the natural resources and ecosystem services- is a complex task. In large scale this is managed via Natural resource planning which defines 10 year possibilities and targets. Natural resource plans are made together with the regional co-operation group. Stakeholders elect their representatives to the group. Independent chair person is nominated. This planning system provides the local stakeholders a real and genuine possibility to influence the management of the state lands.

Forestry planning is a means of combining different targets of the stakeholders as well as nature values to effective forest management. Special efforts are needed in Lapland to manage forests surrounding touristic centers and scenic routes. Selective logging methods, scenic planning and visualization tools are important. Best results can be reached using also local co-operation groups and participatory GIS mapping via internet in areas where several stakeholder groups have interest in. Special logging methods or set aside areas are needed also around capercaillie lekking sites, cultural and natural heritage objects and other nature sites.

Biodiversity is maintained also by forest structural methods, such as preserving dead and burned wood in loggings. Metsähallitus environmental guidelines for forestry were renewed in 2012 with extra emphasis on ecosystem services, watershed protection, biodiversity and landscapes.

Reindeer husbandry is the main negotiating partner for Metsähallitus as 71 % of our productive forests are situated in the reindeer herding area. And in Lapland of course 100 %. Negotiations between Metsähallitus and co-operatives are based on legislation and an agreement of Metsähallitus and the Reindeer Herders' association in 2012. The co-operatives are given an opportunity to influence all logging-, soil preparation- and road construction plans as well as touristic routes.

*The Northern part of Lapland consists of the Sámi homeland region, where the land use and management of the state lands have a special target to maintain and enhance the Sámi culture. Sámi are the only indigenous people in the EU. In Finland we have three Sámi language groups, Northern Sámi, Inari Sámi and Scolt Sámi. Of these, only Northern Sámi is spoken in neighboring countries, Norway and Sweden, too. There is about 9000 Sámi in Finland, half of them living in the Sámi homeland region.*

*Metsähallitus manages 90 % of the areas in the Sámi homeland region. Land use differs from all other areas as 90% of the lands are in different type of protection and managed by the Natural Heritage services, only 9 % belonging to forestry areas. Besides the regular formal meetings with the Sámi Parliament, Metsähallitus has adopted several voluntary processes to enhance indigenous rights and participation of the Sámi in land use and other aspects important to safeguard Sámi culture in Finland.*

*During PEFC certification process Metsähallitus and the Sámi Parliament and Scolt Sámi council have agreed on the forest management models of the area. Pasture land set aside agreements in 2010 ended the earlier disputes also in Inari region. Next step in involving the Sámi in planning processes is Akwé: Kon principles (based on article 8J of the Convention of the Biological Diversity). Metsähallitus and the Sámi Parliament have developed a practical application of these guidelines and we use them in all large scale plans in the Sámi area. In 2014 an agreement of co-operation and forest management was signed by Sámi parliament, scolt Sámi council, Sámi area reindeer herders' co-operatives and Metsähallitus.*

*Sámi culture is promoted also by providing domestic wood and handicraft materials for traditional handicrafts and of course by offering jobs in the Sámi area. In many jobs, the knowledge of one of the Sámi languages is considered as preference. Promoting Sámi languages includes a Sámi language information officer since 2009. Translations and Sámi language materials are always provided. Our personnel has been active in studying Sámi languages. Cultural heritage inventories have brought new knowledge on traditional and sacred sites in the Sámi area as well as in all Lapland. Co-operation with the Sámi Parliament and the Scolt Sámi council has been beneficial in recent years. Indigenous rights need constant attention, Sámi culture and languages need positive discrimination to survive in a changing world.*

Forestry in Lapland is hi-tech Arctic knowledge and future possibilities. Hi-tech arctic knowledge is needed in forestry planning, logging operations, haulage and wireless optimization and management of all forestry operations, in sawmills, wood construction and carpentry as well as in pulp and paper/ or cardboard industry. Forest sector is bioeconomy – we are ready to be a part of the future solutions when oilbased materials are substituted with biobased materials.