MTK (Central Union of Agricultural Producers and Forest Owners) represents more than 300 000 farmers, forest owners and rural entrepreneurs in Finland.

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MTK's forest policy climate toolbox - The climate benefits of forests are achieved through active management and use

Background

Agriculture and forestry are the only sectors that, in regular operation, sequester carbon and curb climate change. Agricultural and forestry entrepreneurs work with natural resources and have been the first to face climate change and its effects on their livelihoods. MTK has a climate program, and the organization creates preparedness for farmers and forest owners to curb climate change and adapt to it in their economic activities. MTK's climate program in 2018 presented ways to curb climate change.

The most important climate measure is quickly getting rid of fossil fuels and reducing their emissions. Renewable raw materials must replace fossil ones. When talking about increasing the carbon sinks, the rapid regeneration and growth of forests and, through this, carbon sequestration must be secured. At the same time, our forests must have the ability to adapt and also withstand extreme weather phenomena. Society needs to move from a fossil-based economy to a circular bioeconomy, where materials are reused many times, and the new material coming into circulation is from renewable sources.

Climate change also threatens biodiversity. Climate change mitigation also enables the maintaining of the biodiversity. Our nature must be diverse and resistant to change, so that nature can adapt to the changing climate and its consequences.

Smart climate policy - get rid of fossil fuels

Finland must pursue an internationally ambitious climate policy. Mitigation measures must be cost-effective and adequately targeted. The atmosphere does not recognize national borders, so actions must be viewed globally. Under no circumstances should resource- and cost-efficient operations lead to using fossils instead of renewable materials.

Renewable raw materials must have priority over fossil ones. Finland must actively encourage measures to cut the use of fossil energy sources. As long as fossil energy sources are used, it is not justified to reduce the use of bioenergy or other renewables. At the same time, we must take care of our security of supply and reduce our dependence on imported energy.

The focus of EU and domestic policy and industrial and energy production must be on minimizing the use of fossil raw materials. In addition to climate benefits, it should be noted that forest-based business and processing activities are located everywhere in Finland. The regional economic importance of the sector is enormous. The fossil economy is also a transfer of income from home to abroad.

Forests are a vital and multifaceted source of well-being for Finland. This wide-ranging importance should be recognized in climate policy. In the future, wood processing products and the forestry that enables their production can offer even more climate and economic benefits than at present.

Investing in the growth and health of forests is key

A climate policy based on continuously increasing the carbon sinks of forests is impossible. Suppose there are no investments in the management and use of forests. In that case, there is a risk of a negative cycle where tree growth and felling opportunities slow down, and the carbon sequestration capacity of forests weakens. The carbon stock of forests - thanks to decades of good management - has grown continuously, and forests still sequester significantly more carbon than they release.

The carbon storage of Finnish forests can be further increased at the same time as the use of forests is increased. This requires political decisions that encourage timely management that creates forest growth – not non-management. Forest management that maintains the growth of forests is an affordable and effective climate policy measure. The accumulation of forest resources and the production of wood-based products meet the challenge of climate change while strengthening Finland's economy and employment. Forest owners, the wood-using industry, the Finnish economy and the climate benefit from active forest management. Active forest management is an activity in the overall interest of society. It is possible to take actions to increase growth and utilize forests presented here in such a way that the forests' other ecosystem services and biodiversity are safeguarded.

Active and timely management of forests is also part of promoting the health of forests and preventing forest damage, i.e. preparing for the risks caused by climate change and strengthening resilience. To put it simply, forest management reduces the risk of forest damage, which, if realized, can instantly turn the forest from a carbon sink to a source of emissions. Forests are good at sequestering carbon, but especially when the climate changes, the carbon store is uncertain.

Limiting logging is not a good climate policy?

In Finland, two options have been presented to the public for increasing the carbon sinkof forests in practice. The first option discussed recently has been to reduce logging, which harms the well-being of Finns. The carbon sink and storage of forests can only be increased for a short time by limiting the fellings. The risk of the sink drying up and the carbon stock being depleted increases in forests that are over-aged in terms of wood production. Reducing felling would practically mean limiting either regeneration felling or thinning. Reducing regeneration felling would reduce, for example, opportunities for climate-friendly wood construction. Reducing thinning would further increase forest management backlog. At the same time, future logging opportunities and replacement of fossil raw materials would be lost.

Less attention has been paid in recent discussions to investing in the management of forests, which has many benefits for both the climate and the economy. At the same time, investments in safeguarding biodiversity can also be increased. The forest management activities can be further increased and thus carbon sequestration can be enhanced.

Forest management has a successful history in Finland. The growing stock and the carbon stock have increased significantly in the Finnish forests. The combined carbon stock of forests has grown every year since the 1970s. Forests still sequester significant amounts of carbon each year. Reducing the

use of forests and logging would probably lead to a decrease in the carbon sequestration capacity and additional challenges in the future.

The growing stock in Finland's forests is 2.5 billion cubic meters. Theamount is higher than ever during the history of measurements that began in 1921. The annual growth is now 103 million cubic meters. Growth has doubled in the last 50 years. Growth has declined slightly in recent years, but with the right means, the growth trend can be brought back in the future.

Peatland forestry must be viewed as a whole

In climate action, peatlands in particular must be examined carefully. The evaluation of the total emissions of peatlands is essential. In terms of the climate, both methane and carbon dioxide emissions must be included in evaluations.

The draining of peatlands for forestry use in the past decades was powerful. Today, new drainage should be avoided. Mistakes have also been made in ditching, and not always forestry benefits have been achieved. Weakly productive peatland forests should either be restored or left to be restored. In good growing condition the existing peatland forests come close to mineral soils in terms of emissions, and their use for forestry is also beneficial for the climate. In each forest, however, it is worth assessing whether there would be opportunities for continuous cover forestry.

Ash fertilization can improve the growth of peatland forests and climate benefits. In thinning fellings, it is always worth looking into whether ash fertilization can be used on the site in addition to or even instead of re-ditching. This would be beneficial because the growth of trees and at the same time evaporation accelerates, and the water level does not drop too much.

Preparing for climate change also means continuous assessment of forest management methods. In addition to the fact that ditch depths must be considered as a whole, drier summers can mean a general reduction in ditch depths.

Investing in forest management should be done in a variety of ways

The growth of forests and carbon sequestration can also be improved with forestry management practices we know already.

Young forest management

Timely management of the young forests enables the young forest to develop to high-quality log forest for, for example, the needs of wood construction. There are hundreds of thousands of hectares of recently planted and young forests in Finland, where treatment is delayed, and the favourable further development of the forest is endangered. Timely care of young forests strengthens their resistance to damage and adaptability when the climate changes.

Promoting the nutrient balance of forests

Timely and carefully targeted fertilization is the fastest and most cost-effective way to increase carbon sequestration in forests. Increasing ash fertilization on peat soils enables long-lasting nutrient benefits. At the same time the re-ditching can be reduced from the current level by proper allocation, thereby avoiding emissions caused by the decomposition of peat.

Utilization of quality forest reproductive material;

Forest breeding and the use of quality reproductive material can significantly increase tree growth, damage- and climate resistance, and improve the technical quality of wood. Up to 20% better growth can be achieved with quality seed and seedling material compared to natural forest seed. Breeding is based on domestic tree species. Regeneration should be done quickly after felling.

Deforestation prevention and afforestation;

Because Finland is fully covered by forests, Finland is one of the few European countries where the forest area is decreasing. During the last ten years, an average of 14,000 hectares of forest per year have been cleared for other uses. The reduction of the forest area must be stopped by afforestation of idle areas and by preventing the conversion of the forest to other forms of use. Forestry does not cause deforestation in Finland. In fact, securing the conditions for profitable forestry prevents deforestation.

Investing in forest management is an extremely cost-effective way to curb climate change. The cost of a ton of carbon stored into forests with additional measures is only a fraction of what would be lost in value addition if we would actively reduce the use of wood and felling. By increasing the management of forests, future opportunities to utilize forests are improved and thus generate both direct and indirect well-being for Finland.

Most suitable, various methods are used in every location

Forest owners have plenty of different forest management methods at their disposal. Continuous cover forestry is often offered as a general solution. However, the method is not suitable everywhere, but for example in the peatland forestry, increasing continuous cover forestry is justified. The result of continuous cover forestry in southern Finland increases the number of spruces, which increases the risks of, for example, bark beetle damage.

Less successful measures have also been taken in the past in forestry. For example, not all swamp drainages have led to the desired growth of forests. The nature restoration European commission has proposed should be aimed at old, drained areas with low forest growth, and sufficient funding should be secured for the restoration.

Forests should be kept as forests. For example, infrastructure and electricity transmission network construction must be carried out in a way that minimize deforestation. Peatland forests should be keeped as forests and alternatives should be sought against converting forests to another use.

The quality leap in forest management is everyone's responsibility

Finland has solid know-how in good and timely forest management. Recently, however, there have been shortcomings in the quality of forest management. Every operator must invest in high-quality forest management in terms of the climate. The good quality of the first thinning is a guarantee for future tree growth and use. After the change in the Finnish Forest Act, the timing of regeneration felling can be freely chosen. Operators have a big responsibility to help forest owners schedule regeneration felling in such a way that the felling is not carried out too early in terms of the best value growth.

Carbon trading brings income for forest owners and benefits for the climate

Carbon trading can be used to create incentives for carbon sequestration. Carbon trading models are being developed commercially, for example, based on fertilization and extending rotation periods. Market-based and standardized models should be given the opportunity to develop. The development of a transparent carbon sequestration market contributes to effective climate work at the local, national, EU level and internationally. At the same time, it must bring income to the forest owners who produce carbon sequestration benefits.

MTK's forest policy climate toolbox

Main points:

- Smart climate policy – get rid of fossil fuels
- Investing in the growth and health of forests is the key
- Limiting logging is not good climate policy?
- Peatland forestry must be viewed as a whole
- Investing in versatile forest management and selecting methods suitable for the location
- Everyone is responsible for a quality leap in forest management
- Carbon trading generates income for forest owners and benefits the climate

Links to studies and recommendations:

Metsänhoidon suositukset (Forest management recommendations):
https://metsanhoidonsuositukset.fi/fi

Ilmaston muutos ja metsänhoito, LUKE (Climate change and forest management, LUKE):
https://jukuri.luke.fi/bitstream/handle/10024/546573/luke-luobio_98_2020.pdf?sequence=1&isAllowed=y

Suometsät ja ilmasto, LUKE (Peatland forests and climate, LUKE):
https://www.luke.fi/fi/ajankohtaista/teemat-ja-kampanjat/suometsat/suometsat-ja-ilmasto

Jatkuva kasvatus, LUKE (Continuous cover forestry, LUKE):
https://jukuri.luke.fi/handle/10024/551772

Keinot lisätä metsän puun tuotantoa kestävästi ja kannattavasti, LUKE (Ways to increase forest wood production sustainably and profitably, LUKE): https://jukuri.luke.fi/handle/10024/538697

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