

# **The climate benefits of forests are achieved through active management and use - MTK's nine messages for EU's climate discussions**

Forests have a huge potential in mitigating climate change through carbon sequestration and substituting fossil economy with bio-based products. However, restricting forests use and harvests has been often seen as a solution although this approach lacks proper understanding of forests characteristics and potential. In this paper MTK is proposing nine concrete steps for acknowledging forests potential

## **1. Smart climate policy requires phasing out fossil fuels**

Both the EU's and Finland's climate policy has been heavily relying on forest carbon sinks. Due to climate change and its effect on carbon sinks this approach needs to be shifted. The main goal on EU climate policy should be getting rid of fossils emissions and materials.

## **2. EU legislation needs to be updated – forests should not be held responsible for offsetting EU emissions**

EU carbon sinks and carbon accumulation in forests are not infinite and they vary depending on forests 'age as well as climate change-infused factors. The future EU legislation should be reformed to support the sustainable use of forests that allows long-term resilience for forests as managed forests are less prone to climate change-related threats. Supporting sustainable use of forests also enables the development of bioeconomy that is key in substituting fossil economy.

## **3. Investing in forest growth and health brings multiple benefits**

The EU climate policies should give adequate tools for increasing forests growth. Growth can be accelerated by committing to active management and choosing best management methods depending on the site and location of the forest. As 60 percent of forests are owned by private families, supporting and encouraging forests owners is key. If hampering forest owners in taking care of their forests actively, forests can be abandoned and thus be more prone to disasters and contribute less to climate change mitigation.

## **4. There is no justification for restricting logging**

The past EU forest-related regulation has been focusing on restricting forests harvests. However, decreasing harvesting levels would hinder the transition away from the fossil-based economy and have negative implications on forests' growth. It could also shift harvesting activities to other countries where sustainability standards are much less considered

compared to the Europe. Policies restricting forests use in Europe could negatively influence the level-playing field between European and non-European countries.

### **5. Forestry in peatlands must be considered comprehensively**

As in central and northern Europe a reasonable number of forests are on peat soils, it is important to tailor activities acknowledging peatland's characteristics. Climate solutions on peatlands are linked e.g. with ash fertilisation, avoiding re-drainage and possibly implementing continuous cover forest management. Also, peatland afforestation should be seen as a valuable climate action parallel to restoration.

### **6. It is worth investing in diverse forest management practices**

Key solutions for enhancing forest carbon sequestration include the use of improved forest reproductive material, on-time regeneration, duly thinnings and cleanings avoiding too heavy thinnings, and extending rotation periods. Fertilization can also significantly boost growth. All actions should be done hand in hand with biodiversity measures and keeping in mind economic viability.

### **7. Forest management should be adapted to site-specific conditions**

Forests vary in their characteristics, and the most suitable management and harvesting methods depend on local conditions. Forest owners should receive information on which methods serve best their objectives. Harvesting methods and volumes should not be determined by regulations.

### **8. Carbon removal certification can bring income to forest owners and benefits to the climate**

Market-based mechanisms can provide stronger incentives for increasing carbon sequestration and sustainability in forests. However, the methodologies on carbon farming should be applicable and include a wide range of activities. Also, the market should be attractive to encourage forest owners to participate.

### **9. Redeeming the climate benefits of wood construction**

Wood construction creates long-term carbon storage, reduces the use of fossil raw materials, and supports economic recovery. Effective instruments are needed to promote wood construction.

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## **Further elaboration on MTK messages on Achieving the Climate Benefits of Forests through Active Management and Use**

Agriculture and forestry are the only sectors that naturally sequester carbon and help mitigate climate change. Farmers and forest owners work directly with natural resources and have been among the first to experience the impacts of climate change on their livelihoods. MTK supports farmers and forest owners in mitigating and adapting to climate change within their businesses.

The key priority in climate action must be the rapid elimination of fossil fuel use and the reduction of emissions. When discussing carbon sinks, it is essential to focus on the rapid regeneration and growth of forests to maintain carbon sequestration capacity. At the same time, forests must be resilient enough to withstand extreme weather events. Society must transition from a fossil-based economy to a bio-circular economy, where materials are reused multiple times and new materials originate from renewable sources.

Climate change also poses a threat to biodiversity. Sustainable forest management not only mitigates climate change but also helps preserve biodiversity. Nature must be diverse and resilient to adapt to a changing climate and its consequences.

### **1. Smart climate policy requires phasing out fossil fuels – amendment to the climate act under preparation**

The EU must pursue an internationally ambitious climate policy. Mitigation measures must be cost-effective and appropriately targeted. Since the climate change does not recognize national borders, actions must be assessed on a global scale.

Renewable raw materials and resources must take precedence over fossil-based ones. The EU must actively promote measures to phase out fossil fuels. As long as fossil energy sources are still in use, there is no justification for reducing the use of bioenergy or other renewable energy sources. Simultaneously, European energy security must be safeguarded, and dependence on imported energy reduced.

Forests are an essential and diverse source of well-being in Europe, and their broad importance must be recognized in the EU climate policy. The wood processing industry and the forestry sector can provide even greater climate and economic benefits in the future by replacing fossil-based products.

### **2. EU legislation must be updated – forests should not be held responsible for offsetting EU emissions**

The EU has committed to maintaining a significant carbon sink in the LULUCF (Land Use, Land Use Change, and Forestry) sector by 2030 (-310 Mt CO<sub>2</sub> eq). However, current estimates show that many member states will struggle to meet these targets due to increased deforestation and rising soil emissions caused by climate change. The incoming

European Commission must base decisions on the latest scientific data on forest sink dynamics.

Relying solely on carbon sinks in land-use sector policy is not justified, as forest carbon stock development is unpredictable due to climate change. Sink targets must be updated to reflect more realistic expectations and natural variability. Above all, the EU must avoid setting targets based on outdated or unrealistic assumptions.

Instead, the EU should focus on developing a carbon certification framework. The implementation of the Carbon Removal Certification Framework (CRCF) can generate demand for forestry-based climate solutions. The EU must clarify how certified carbon removals from carbon farming will be counted towards the EU climate targets. Participation in the market must remain voluntary for farmers and forest owners.

EU climate policies must recognize that restrictive policies could shift logging to other countries. Researcher Maarit Kallio's preliminary findings suggest that the EU's current sink policy would increase logging in North and South America and China. Meanwhile, production of wood products like sawn timber and panels would decrease in Europe—undermining the effectiveness and credibility of EU climate policy on the global stage.

### **3. Investing in forest growth and health brings multiple benefits**

In addition to phasing out fossil fuels, national and EU climate policy should recognize the importance of sustainable and active forest management. Forest growth in Europe has significantly increased over recent decades thanks to active management. The EU should continue supporting this trend.

Encouraging forest owners to actively manage their forests, rather than imposing restrictions is crucial. Relying heavily on continuously increasing carbon sinks is not feasible. This approach ignores the natural variability in carbon sequestration and the impact of climate change on forests' ability to maintain carbon stocks. With proper and sustainable forest management and policies allowing this trend, the carbon sequestration capacity of forests can be further increased. Without long-term investment in forests' growth and use, there is a risk that forest productivity and harvesting opportunities will decline, which would reduce overall sequestration potential and would also have a negative impact on wood availability for bioeconomy purposes. It is possible to increase forest carbon accumulation and responsible forest use, but this requires policies that encourage active management.

Sustainable forest management is a cost-effective and efficient climate measure. Increasing forest resources and producing wood-based products helps mitigate climate change while also strengthening the economy and employment. Measures to boost growth and forest use must be implemented in ways that protect biodiversity and other ecosystem services.

Moreover, active forest management helps forests adapt to a changing climate. Healthy, sustainably managed forests are less vulnerable to forest damages such as pests, fires and wind outbreaks, which could quickly turn a forest into a source of emissions. While forests

are powerful carbon sinks, they are also unreliable storages especially under climate stress. When evaluating carbon sinks, it is important to recognize that restricting harvesting levels is not a viable method for preventing soil carbon emissions. If soil emissions rise due to climate change, this underlines the fact that forests' sink are not long-term solutions for climate mitigation but the need to reduce fossil fuel emissions is inevitable.

#### **4. Logging restrictions can block climate benefits in forests**

Although forest carbon sink has declined in recent years, the overall forest carbon stock continues to grow in Europe. Forests in Europe are growing at a faster rate than carbon is being removed through harvesting or natural losses. Public debate often presents reduced logging as a climate solution for forests. However, this approach ignores the natural vulnerability that sinks have. The risk of carbon sink collapse is particularly high in overmature forests.

Restricting logging would also negatively affect societal welfare as less material would be used for bioeconomy purposes. If reducing thinning activities that are required in receiving high-quality wood, it would lower the availability of wood that would be suitable for wood-based products. Also, if reducing end fellings it would limit opportunities to shift carbon from living biomass into long-lived products such as wooden buildings and other fossil-substituting materials.

Forest management produces a broad range of wood products, all of which play an important role in reducing fossil material dependency. Restricting logging would also reduce the profitability of forest management and the economic importance of forests—raising the risk of land-use conversion to other alternatives, resulting in the permanent loss of forests.

#### **5. Forestry in peatlands must be considered comprehensively**

Peatlands require special attention in climate action. Soil emissions have increased primarily due to global warming driven by fossil fuel use. A full assessment of peatland emissions must include both methane and carbon dioxide. Although in the past drainage of peatlands was considered as strong policy tool, today, re-drainage must be avoided. Low-productive peatland forests should be either restored or left to naturally regenerate. In some cases, afforestation or restoration on peatland can offer multiple climate benefits.

In some peatland forests continuous cover forest management is a climate-friendly option as trees maintain a favourable water level. All sites should be carefully assessed to choose the best management method.

Ash fertilization can improve growth and climate benefits on peatland forests. When conducting thinning, it's worth considering whether the site can be managed without drainage as tree growth, and linked evapotranspiration can help maintain a suitable groundwater level. Preparing for climate change requires constant evaluation of forest

management techniques. Ditch depths, for instance, should be considered carefully, as drier summers may call for shallower drainage.

## **6. Investing in diverse forest management practices is key**

There are several ways to support climate-friendly management methods in forests. Key measures include the use of improved forest reproductive material, on-time regeneration, early thinning of young stands, avoiding too intense thinnings, and moderately extending the rotation period. These actions can help increase annual forests' growth by nearly ten percent over the next 10–20 years.

Investing in forest management is an extremely cost-effective way to mitigate climate change. The cost per tonne of carbon sequestered through enhanced forest management is only a fraction of the added value that would be lost if wood use and harvesting were restricted.

Timely management of seedlings and young stands promotes fast growth and the production of high-quality timber suitable e.g. for wood construction. Duly management also improves forests' resilience and adaptability to climate change.

Targeted and timely fertilisation is the fastest and most cost-effective way to enhance forest carbon sequestration. Increasing ash fertilisation on peatland soils provides long-term nutrient benefits.

The use of improved forest reproductive material can significantly increase tree growth, improve forests' tolerance to changing climate conditions and resistance to damages while also improving the quality of the forest stand. If widely adopted, improved reproductive material is estimated to result in substantial increase in growth. Importantly, breeding is based on native tree species, and regeneration should take place soon after felling. Improved reproductive material should also be adapted to future climate conditions.

Moderately extending rotation periods and increasing growing stock density can improve growth, biomass accumulation, and carbon sequestration. In well-managed and healthy forests, maintaining slightly higher stand density and allowing for slightly longer growth period before harvesting appears to be an effective way to reconcile timber production with climate goals. In the long term, moderate rotation extensions and denser planting when applied can also improve wood yield.

## **7. Forest management should be adapted to site-specific conditions**

Forest owners have a wide range of forest management methods at their disposal. Continuous cover forestry is often promoted as a universal solution, but this method is not suitable for all sites. For example, it may be more appropriate for peatland forests, but in various areas in Europe it has been associated with increased needle loss in spruce, making trees more vulnerable to diseases such as Heterobasidion root rot (Heterobasidion annosum). Therefore, the EU should not endorse closer-to-nature forestry as a guiding

solution and principle to be implemented to all forests as this method only suits some forest areas.

Management practices should always be selected based on local site conditions. In the past, some forestry measures, such as peatland drainage have not always resulted in the intended growth benefits. Restoration should focus on old, poorly productive drained sites, and sufficient funding should be secured for these efforts.

Forests must remain forests. Infrastructure and power line construction should be planned to minimise forest loss. Europe's forests should not be converted to other land uses, and alternative solutions must be sought wherever possible.

#### **8. Carbon trading can bring income to forest owners and benefits to the climate**

Carbon trading can provide incentives to enhance carbon sequestration. Market models based on fertilisation or extended rotation periods Can bring win-win both for climate and forest owners. Market-based, standardised approaches should be allowed to develop further. A transparent carbon market can support effective climate action at local, national, EU, and global levels while also providing income to forest owners who generate verified climate benefits.

However, the EU market on climate benefits has not yet succeeded in developing carbon farming markets. The methodologies developed by the European Commission should be practical and include a wide range of climate efforts that would enable forest owners to participate in the market. Afforestation should also be included as part of carbon market mechanisms to support climate mitigation as it has long-term climate potential.

#### **9. Redeeming the climate benefits of wood construction**

Promoting wood construction supports multiple societal goals: it reduces emissions when storing carbon in buildings and strengthens the domestic economy by using local materials and expertise.

Wood is an excellent material for energy-efficient, ecological, and low-carbon construction. It is renewable, has a low carbon footprint, and acts as a long-term carbon store throughout the building's life.

The growth of wood construction should be supported through comprehensive policy measures and targeted incentives.

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