

EUSTAFOR Statement¹ on the 2040 Climate Target: Reflections on LULUCF, Forest Sinks, and the Bioeconomy

The European State Forest Association (EUSTAFOR) notes the European Commission's announcement of the 2040 climate target as a step towards climate neutrality by 2050. While recognising its ambition, EUSTAFOR considers that the proposed target for the Land Use, Land-Use Change and Forestry (LULUCF) sector must reflect what is realistically achievable. Forests and sustainable forest management are essential for enhancing carbon sinks, providing renewable materials, and supporting the bioeconomy. EUSTAFOR therefore calls for evidence-based and coherent policies that acknowledge the sector's real potential and ensure its effective contribution to the EU's long-term climate goals.

In this context, EUSTAFOR would like to set out several key points to ensure that the role of forests and the forest-based sector is fully recognized and appropriately reflected in the EU's climate policy framework:

1. Forest sink is declining – the role of LULUCF has changed

Over the past few decades, Europe's forest resources have expanded in terms of total area, average age and growing stock volume². This growth, contributed to an estimated five-fold increase in forest sink capacity between 1950 and 1999, with relative stability up to around 2013³. However, this positive trend has reversed in recent years:

- **Forest in Europe have become older⁴:** Since 1990, as reported by Forest Europe, Europe's forests have become older, with larger shares of mid-aged and mature stands. Ageing forests reach a physiological saturation point, where net carbon uptake slows as growth declines and mortality increases. The rate at which forests absorb atmospheric carbon is highest in young, duly tended forests, and this process declines rapidly once the forest matures (around 70 years old in boreal pine forests)⁵.
- **Climate change impacts:** According to the European Forest Institute⁶, severe droughts, windstorms, wildfires, and rapidly expanding bark beetle infestations have become significantly more frequent, directly impairing forest stability, growth and ultimately dieback. Recent national forest inventories indicate a decline in forest growth⁷, yet the Globiom model adopts optimistic assumptions for the future increment of managed forests. These assumptions are inadequate, as they do not incorporate the impacts of natural disturbances or climate change⁸.
- **Increase in salvage logging:** As a consequence of this growing damage, salvage logging - the practice of harvesting trees that are dead, dying, or severely damaged due to disturbances - has significantly increased. Salvage operations are often necessary to contain pest outbreaks, reduce fire risk, or recover economic value from compromised timber.

¹ Any statement in this document is to be considered as a reflection of the best available professional expertise and does not necessarily reflect the political commitments of individual member organisations.

^{2,3} Forest Europe (2020). State of Europe's Forests 2020: https://foresteurope.org/publications_type/state-of-europes-forests-2020/

³ How has the forest-based carbon sink and stock evolved in the European Union? Key questions on forests in the EU; Author: Harald Mauser (EFI): <https://efi.int/forestaquestions/a16>

⁴ Forest Europe (2020). State of Europe's Forests 2020: https://foresteurope.org/publications_type/state-of-europes-forests-2020/

⁵ Uri, V. et al. (2022). The dynamics of the carbon storage and fluxes in Scots pine (*Pinus sylvestris*) chronosequence. *Science of the Total Environment*, 817, 152973

⁶ How has climate change affected EU forests and what might happen next? Key questions on forests in the EU; Authors:

Marcus Lindner (EFI), Hans Verkerk (EFI): https://efi.int/forestaquestions/a4_en

⁷ Example of France: <https://inventaire-forestier.ign.fr/IMG/pdf/flux2024.pdf>

⁸ Figure 90: Total forest increment of managed forests per year and scenario in EU - Note: The graph depicts the forest increment projections per year for S1, S2, S3 and LIFE. The forest increment does not take natural disturbances or climate change and CO2 fertilisation effects into account; Annex 8, p123, doc3, SWD(2024) 63 final: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52024SC0063>

- **Combined impact on the forest sink:** When the effects of ageing forests, reduced growth from climate stress, and increased salvage logging are taken together, the result is a notable decline in the forest carbon sink. Although EU forests continue to absorb carbon, the net rate of carbon declined, and in some regions, particularly those severely impacted by drought and natural disturbances, it may become negligible or even shift to a net source of emissions. Pilli et al. (2022)⁹ project that, under a business-as-usual scenario, the EU27 + UK forest carbon sink will decline to about $-250 \text{ Mt CO}_2\text{eq yr}^{-1}$ by 2050, falling further to roughly -80 Mt by 2100. They identify forest ageing, with climate change adding significant uncertainty: in 2050, outcomes range from -100 to -400 Mt under RCP2.6 and -100 to -300 Mt under RCP6.0. The study underscores that without a shift in forest management, the sink will continue to weaken, while climate change could either mitigate or exacerbate this decline, effectively doubling or halving the effect of management alone.

Action needed: Forests must be duly managed and rejuvenated according to the requirements of their species-specific ecological requirements to maintain resilience, health and vitality, enabling them to sequester carbon and store it in harvested wood products. Halting harvesting, even temporary, would be counterproductive: lack of management, including harvesting, would lead to an accumulation of older stands that exhibit slower growth rates, produce lower wood quality -thereby undermining the forest's long-term capacity to sequester carbon effectively. Moreover, while the demand for renewable raw materials such as woody biomass is likely going to grow (bio- and circular economy), reduced harvesting within Europe could increase the risk of greater dependence on non-European countries, where sustainability of forest management practices cannot be assured. Such strategy would also destroy jobs in a number of European industries (like sawmilling) who depend on timber. Instead, it is crucial to uphold active forest management practices that promote a balanced age structure and strengthen forest resilience.

Lack of active management also increases vulnerability to natural disturbances, such as wildfires, storms, and pest outbreaks, imposing significant ecological and economic costs. Certain areas face additional, more particular challenges—for instance, landmine contamination in forests, which prevents safe management and limits carbon sequestration potential. In countries like Bosnia and Herzegovina and Ukraine, demining is critical to unlock these forests' carbon storage capacity, ensure safe, sustainable operations, and deliver both climate and socioeconomic benefits, directly supporting EU climate objectives while enhancing local community well-being.

⁹ Pilli, R., Morri, D., D'Amato, D., & Nabuurs, G. J. (2022). *The European forest carbon budget under future climate conditions and current management practices*. *Biogeosciences*, 19, 3263–3280. <https://doi.org/10.5194/bg-19-3263-2022>

2. Assumptions Behind the LULUCF and the 2040 Climate Target Need Recalibration

The impact assessment underpinning the 2040 climate target implies an 88% emissions reduction projection by 2040 under full implementation of existing policies. However, EUSTAFOR considers this figure to be misleading, as it assumes full achievement of the LULUCF 2030 target - despite growing evidence that this target is unlikely to be met¹⁰ due to the challenges outlined above. Moreover, the target was based on outdated trend assumptions, significantly underestimating the gap that must be addressed. The forest sink is not on track to deliver current targets, let alone more ambitious ones. This concern has been flagged repeatedly by experts and stakeholders¹¹. Nevertheless, the assumptions remain in the policymaking, creating a false sense of trajectory. We recommend revisiting these assumptions, integrating realistic forest dynamics, and updated carbon sink projections, rather than relying on legacy assumptions that do not reflect current trends or risks.

3. The Bioeconomy: A Double Benefit – Carbon Storage and Substitution¹²

From a climate perspective, it is more beneficial to utilize the timber and store the carbon, either in long-lived products and by replacing fossil energy, or in the recycling loop, provided that the (SFM) forest management and multifunctionality principles are implemented. The bioeconomy, when built on sustainable forest use, plays a strategic role in climate mitigation:

- Harvested wood products act as a carbon store, keeping CO₂ out of the atmosphere over long periods.
- By rejuvenating the forest after harvest, the new generation will sequester more carbon and will be better prepared for shifting climate conditions
- More importantly, wood-based products will substitute for fossil-based and energy-intensive materials, such as plastics, concrete, or steel.

Climate policy should recognize and support the material substitution value of wood products, which delivers mitigation beyond the forest sector itself as well support the innovation in bioeconomy.

In Conclusion

European forests and wood-based products could make a substantial contribution to climate neutrality. However, forests' role cannot be reduced to a compensatory mechanism for other sectors' emissions. Their dynamics - growth cycles, species composition, resilience to disturbance require long-term, ecologically grounded planning. This planning should be based on models that account for climate change and projects scenarios beyond 2050, as today's forestry choices will have impacts well beyond mid-century. Realizing this potential requires policy instruments that effectively incentivize sustainable forest management and the use of wood, complemented by practical support measures such as sufficient funding and the systematic sharing of best practices across Member States. Pursuing climate targets at the expense of forest health and long-term resilience is not sustainable. Even with financial incentives, natural systems cannot be expected to continuously deliver carbon removals on a fixed schedule. Conversely, effective forest management—combined with the strategic deployment of long-lived wood products—can substantially increase carbon storage and displace fossil- and energy-intensive materials, thereby advancing climate-neutrality objectives.

¹⁰ Enhancing Europe's land carbon sink: status and prospects - EEA Report 17/2024:

<https://www.eea.europa.eu/en/analysis/publications/enhancing-europes-land-carbon-sink>

¹¹ EUSTAFOR feedback1 to the Consultation on EU rules on land use, land use change, and forestry (LULUCF) – _evaluation:

https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14227-EU-rules-on-land-use-land-use-change-and-forestry-LULUCF-evaluation/F3471785_en

¹² Sustainably managed Europe's forests are best fit to boost the EU bioeconomy 2025 - EUSTAFOR's Position:

https://eustafor.eu/uploads/EUSTAFOR-position_EU-bioeconomy-strategy_15072025.pdf

Policymakers can accelerate this transition by:

- Supporting active forest management based on scientifically sound and multifunctionality concepts that will work towards adjusting forest age structures (rejuvenating) to enhance sink potential while maintaining ecological integrity.
- Strengthening the bioeconomy and material substitution.
- Revising LULUCF assumptions in EU target modelling using updated, verified data.
- Recognizing that forest ecosystems operate on long biological cycles and cannot be used to offset other sectors' unreduced emissions and deliver quick fixes for short-term climate targets.

The LULUCF sector offers both opportunity and uncertainty. We believe the EU must proactively address these risks to ensure the 2040 climate targets are both credible and sustainable. This requires rethinking some of the assumptions, reinforcing forest-based solutions, and respecting the long-term rhythms of natural systems.

EUSTAFOR stands ready to actively engage further in developing a science-based, resilient path to 2040.

Brussels 27 October 2025