

Proposal for a Regulation on a monitoring framework for resilient European forests

Position paper



Healthy and resilient forests are crucial for the EU's transition to a climate-neutral economy and for enhancing biodiversity. They are also the foundation of Stora Enso's business.

Stora Enso is a renewable materials company employing 15 000 people in the EU and with longstanding experience in sustainable forest management. We are one of the biggest private forest owners in the world, with approximately 2 million hectares of forest globally, of which 1.7 million hectares are under our direct or indirect ownership in Europe. We also source wood from private forest owners, state forests, and companies in the EU and worldwide, as well as offering sustainable forest management services for private forest owners.

Our goal is to provide 100% regenerative solutions by 2050, and we are committed to achieving a net-positive impact on biodiversity within and beyond our forests and plantations by 2050. We actively seek to integrate new ways of enhancing biodiversity through our sustainable forest management, including by modelling and monitoring biodiversity and our impact on it.

We welcome the proposal for a Regulation on a monitoring framework for resilient European forests, as we believe enhancing the availability and quality of data on forests across the EU can be beneficial. If designed right, the new monitoring framework will offer an accurate picture of the state of forests across the EU, and consequently serve as a good basis for fact and science-based decision-making. This can support the implementation of current legislation in a direction that ensures forests can provide us with multiple ecosystem services both now and in the future. In particular, the mapping of primary and old growth forests, as proposed under Article 5(3)/Annex II, is crucial to help companies comply with the EU Deforestation Regulation and the revised Renewable Energy Directive. While the former bans placing products on the EU market that contributed to the conversion of primary forests into planted forests or plantations, the latter introduces exclusions and limitations to the sourcing of forest biomass for energy purposes from primary and old growth forests.

It is also positive that the proposal recognises and seeks to build on existing National Forest Inventories (NFIs). This is key to ensuring consistency with long-

standing forest monitoring systems already in place in many Member States, and, ultimately, to maximising the cost-effectiveness of the new monitoring system. Most Member States already carry out regular national forest inventories, some of which have gathered forest data and information at national and sub-national levels for up to 100 years. National data is reported by Member States to both UN and pan-European Forest Europe processes. The exchange and harmonisation of information is ensured within the umbrella of the European National Forest Inventory (ENFIN), which has already developed best practices to select e.g., the most appropriate level of forest data to be used, taking into account the sensitivity of sharing information linked to private properties. Alignment with these existing systems and processes is therefore necessary to avoid placing an additional burden on Member States.

However, we also see room for improvement in some parts of the proposed text, to ensure that the new monitoring framework achieves its objectives in a robust, coherent, and cost-effective way. **We would, therefore, urge the decision-makers to consider the following recommendations as the legislative work on this Regulation continues:**

1. The systematic integration of remote sensing technologies and geospatial data with ground-based data is imperative to ensure the accuracy and robustness of the new monitoring system.
2. The proposed indicators need to be clearly defined, in alignment with established terminology, current data collection, and reporting systems, to ensure clarity, coherence, and cost-effectiveness.
3. Two additional indicators, on which data is already widely collected or will be collected as part of prospective reporting requirements, should be monitored (under Article 5(3)/Annex II) to provide an accurate and complete picture of the state of forests in Europe.
4. The inclusion of potential new indicators, which are currently not monitored or reported under existing EU or international frameworks, should be considered as part of future reviews of the regulation after a thorough impact assessment. This will support a transparent and data-driven policymaking process.

Stora Enso contributes to making the EU and world carbon neutral in following ways:

- by capturing, or sequestering, carbon dioxide in growing trees
- by storage of carbon in harvested wood products
- by substitution, when bio-based products and bioenergy replace other products that are fossil-based
- by becoming the first forest products company to have its climate targets approved by the Science Based Targets initiative in 2017.
- In 2022, our total climate impact, including avoided emissions by product substitution and forest sequestration, was – 16.2 million tonnes of CO₂
- In addition to that we also operate at the heart of the bioeconomy and contribute to a circular economy with our renewable and recyclable products

1. The systematic integration of remote sensing technologies and geospatial data with ground-based data is imperative to ensure the accuracy and robustness of the new monitoring system.

We welcome the intention of the European Commission to promote the development of EU-wide satellite imagery from Copernicus-Sentinel as a useful tool to gather forest data. It should reflect the same high quality of satellite imagery used at the Member State level and align with the ongoing ISO standard being developed on remote forest data (ISO/TC 287 – Sustainable processes for wood and wood-based products).

However, as the [new EU Forest Strategy for 2030](#) and [FAO guidelines on forest monitoring](#) both point out, the systematic integration of remote sensing technologies and geospatial data with ground-based data is imperative to ensure the accuracy and robustness of forest monitoring. There have been past instances in which remote sensing led to incorrect interpretations and assumptions. Member States should therefore have the option, if they deem it necessary, to cross-verify data gathered via satellites, as will be the case for the indicators proposed under Article 5(2) and the accompanying Annex I, with ground-based data to confirm the satellite data's accuracy before it is published.

An illustrative example of the pitfalls of relying solely on satellite data is outlined [here](#). The evidence shows that, due to the limitations in satellite sensitivity and calibrations, only a few forest characteristics can be accurately determined through remote sensing. More intricate variables, such as changes in forests due to natural disturbances, can be wrongly attributed to timber harvests if not verified through ground observations. Caution should, therefore, be exercised in the interpretation and communication of forest data from remote sensing. The most reliable facts about forests, for most forest characteristics in most EU countries, can only be obtained through the NFIs, on which international reporting is based.

Consequently, the new forest monitoring system should be designed and operated as a collaborative effort between the European Commission and Member States. The close involvement of Member States in the operation of the system is imperative to guarantee the accuracy of data input and overall effectiveness of the system, as well as ensuring that local specificities are taken into consideration in setting up forest units. Moreover, both the European Commission and Member States should annually assess the quality of the data they monitor and take appropriate remedial actions as appropriate.

2. The proposed indicators need to be clearly defined, in alignment with established terminology, current data collection, and reporting systems, to ensure accuracy, coherence and cost-effectiveness.

The definitions and descriptions of all proposed indicators under Article 5 need to be clear and accurate to ensure legal clarity, prevent diverse interpretations, and avoid potential data distortions. Moreover, the indicators should be aligned with and built upon current data collection by Member States (NFIs) and international reporting systems to support the coherent and cost-effective implementation of existing EU policies affecting forests, in line with the core objective of the proposal.

The **'forest area'** indicator needs to be defined as an area that encompasses both 'forest' and 'other wooded land' in order to accurately represent the interlinked nature of these areas within the landscape. This will ensure alignment with the way Member States have, until now, been collecting data on their 'forest area' and reporting it to the Forest Europe process. This consistency will allow future data to be compared against historical trends. Other wooded land plays an important role in enhancing biodiversity as such land provides habitats for species dependent on its particular characteristics. Especially in the northern parts of Europe, the share of other wooded land in the forest area is very large and, therefore, important to include in the reporting.

The scope of the **'tree cover disturbances'** indicator requires clarification. Tree cover changes can be either negative (losses) or positive (gains), and stem from various factors, e.g. natural disturbances (such as wildfires, droughts, storms, or pest outbreaks), felling or regeneration. Moreover, given the limited information satellites can capture, it would be beneficial for this indicator to be complemented by data gathered by Member States; such information could make it possible to identify the root cause of the tree cover change, and, in the case of natural disturbances, to specify the likely disturbance agent. This would provide key insights to minimise the negative impacts and spread of natural disturbances.

3. Two additional indicators, on which data is already widely collected or will be collected as part of prospective reporting requirements, should be monitored (under Article 5(3)/Annex II) to provide an accurate and complete picture of the state of forests in Europe.

Article 5(3) and the corresponding Annex II, should incorporate a new indicator, called **'Share of forests**

with uneven aged structure. This would reflect a requirement imposed by the Nature Restoration Law (NRL) on the Member States to increase the percentage of forests with uneven-aged structures in forests available for wood supply (FAWS), compared to those with even-aged structures. The forest monitoring regulation is, therefore, the ideal framework to support the implementation of this new legal obligation. However, in addition to monitoring the share of uneven-aged forests in FAWS, as required by NRL, it would be both beneficial and cost-effective for this indicator to also capture data on the share of uneven-aged forests in all forest land, regardless of its protection status, including protected areas that are not available for wood supply (i.e., set-aside areas). This holistic approach would offer a more comprehensive picture of the structural diversity of forests across the EU.

Furthermore, we strongly recommend that an additional indicator on the **regeneration of forests** is also added under Article 5(3) and Annex II, to complement the existing indicators 'Growing stock volume' and 'Net annual increment'. This indicator would allow for the capture of data on the status and method of regeneration of forests that were subject to temporary loss of biomass due to, e.g., harvesting, or natural disturbances. Tracking the viability of forest regeneration is crucial since the density and composition of regeneration drive the future condition of forests. As this indicator would also monitor which tree species were present, it would help assess if the species were adapted to the specific geographical area and fit for the predicted climatic conditions.

4. The inclusion of potential new indicators, which are currently not monitored or reported under existing EU or international frameworks, should be considered as part of future reviews of the regulation after a thorough impact assessment. This will support a transparent and data-driven policymaking process.

Article 8 and the corresponding Annex III create legal uncertainty by proposing a list of future indicators to

be monitored, yet with vague descriptions and without developed methodologies. This makes the rationale unclear and scrutiny difficult. The listed indicators refer to forest data that is not currently being monitored or reported by Member States under existing EU and international frameworks.

To ensure a transparent and data-driven policymaking process, the European Commission should therefore evaluate the need to mandate additional forest data to be monitored as part of future review of the regulation, and, if appropriate, present a legislative proposal once a detailed impact assessment is carried out and its fitness for purpose evaluated. The use of the ordinary legislative procedure is imperative to guarantee legal certainty and to ensure that the technical feasibility and cost-benefit analysis are transparently assessed and taken into account.

Concluding remarks

We agree with the European Commission that forest data is patchy today. The harmonisation of the different existing datasets and their reporting will, therefore, require considerable effort. To make this process robust and cost-effective, it is imperative for the new monitoring framework to be built upon existing data collection and reporting systems by Member States, such as National Forest Inventories and the Forest Europe process. Ultimately, we are convinced that having accurate and well-established science-based data available across user-friendly interfaces will be beneficial, as it will support the implementation of EU policies, as well as forestry operations. If designed right, policymakers, as well as foresters and forest owners, will benefit from the new framework: they will be able to take action in response to the new pressures on forests, ensuring that forests are resilient and perform their multiple functions both now and in the future.

