MEDIA RELEASE

New study report launched prior to International Day of Forests (21 March)

European forests: How climate change, land ownership, and forest-related policies influence future wood supply

Photo by IUFRO

- TEAMING UP 4 FORESTS published a study analysing factors affecting future wood supply in Europe such as climate change, land use and policy developments.
- The study proposes practical response measures for different stakeholder groups, including the wood-based industry, forest management and policymakers.

Vienna (14 March 2024). TEAMING UP 4 FORESTS, a science-business platform connecting stakeholders across the forest value chain, has released today a new study on **"Europe's wood supply in disruptive times"**, which captures the factors identified in numerous scientific studies influencing wood supply from European forests. It outlines the impacts of climate change and also considers other factors, such as political uncertainties and a fragmented forest landscape. Bridging the gap between science and application of insights, it highlights practical implications and response measures for the wood-based industry, forest management and policymakers. The study compiles findings of a wide range of scientific papers and research. Perspectives of different stakeholders have also been evaluated during the process.

The synthesis study report and a business brief are now available on the TEAMING UP 4 FORESTS website at teamingup4forests.com/wood-supply-study.

Key study findings will be discussed by the study authors on 18 March at 1:00 p.m. CET in a Webinar – Europe's wood supply in disruptive times hosted by TEAMING UP 4 FORESTS.

The study author team comprised of forest scientists and experts across Europe. **Dr Metodi Sotirov** from University of Freiburg (Germany), chaired the study team and comments: "*Although this is an evidence-based publication with a strong scientific component, it aims to inform decision-makers that operate mainly outside scientific and academic circles, and to contribute to bridging the gap between science, business and stakeholders in the forest and wood-based sector.*"

Challenges for forests and the wood-based industry

Forests in Europe are strongly affected by climate change, with far-reaching consequences for forest health and ecosystem services including the supply of wood. Tree species of great commercial importance are significantly impacted by disturbances such as extreme drought events, bark beetle infestation, and frequent heatwaves and wildfires. Forests and wood-based industries also face other challenges such as political uncertainties and a fragmented forest landscape caused by alterations in land use and wildfires, among others.

Consideration of different tree species

With forests being highly sensitive to climate change and significantly impacted by disturbances such as drought or heat, forest owners and managers are urged to take adaptive measures. "*We*

need more mixed and structurally diverse forests, including natural regeneration and active assisted migration of species that are more adapted to future climates," explains study author **Dr Manfred Lexer** from University of Natural Resources and Life Sciences (Austria). "*In European forests that are available for wood supply we have six dominant tree species: pine, spruce, fir, beech, oak, and birch. Spruce, beech and pine are among the most vulnerable species, especially to drought*", he adds.

For example, the forest area in Europe suitable for Norway spruce will decrease by about 50% depending on different climate change scenarios, while the suitability for other species will increase significantly. For the wood-based sector, which relies on the sufficient availability of woody biomass, it is key to gradually move away from the current strong dependency on softwoods (such as spruce and pine) and consider the production of new value-added wood-based products. Emerging products such as wood-based plastics, textile fibres or nanofibrillated cellulose for packaging, for example, are less dependent on certain tree species than traditional products.

Transition to bioeconomy and use of technology

"*In view of these challenges and a growing demand for wood-based products, forest-based industries in Europe will need to reflect their current business models. Technological and digital innovation, as well as a cascading use of wood is driving the transition towards a circular economy and supports the adaptation to future changes in wood supply*", comments study author **Dr Anne-Christine Ritschkoff** from VTT Technical Research Centre of Finland Ltd. "*The future of research and innovation should be focused on the holistic and resource-efficient use of wood materials*", she says.

The role of forest ownership

Other factors impacting the supply of wood include forest ownership and demographic changes among landowners. While there are differences in forest ownership between European regions, the share of private forest ownership has increased since the early 1990s, with 56% of European forest area privately owned. In addition, private ownership has become more heterogeneous with more non-traditional, urban or passive owners. This often leads to less interest or capacity among forest owners to supply wood to the market.

"*Wood harvesting and profit maximization are not the only – or even the primary – motivation for many forest owners and, therefore, are not the main goal of their management practices. Therefore, it will be important for policymakers to implement initiatives that engage and incentivize private forest owners,*" comments study author **Dr Špela Pezdevšek Malovrh** from the University of Ljubljana (Slovenia).

Policies to promote sustainable forest management

These factors affecting forests and wood supply need corresponding policy responses at different levels from global to local, particularly a better harmonization and integration of policies that promote sustainable forest management practices. Quite importantly, strategic investments in research and innovation are needed to develop integrated, sustainable wood supply strategies and technologies that can adapt to changing circumstances, including the regionalisation of supply chains and evolving market dynamics. This will support the development of wood supply strategies and technologies to ensure adaptation and resilience of European forests to climate change in the long-term.

Joint measures to secure a future wood supply

To successfully navigate the uncertainties and changes ahead, cooperation and partnerships are paramount for the future of wood supply in Europe. Interdisciplinary, transnational, and cross-

sectoral collaborations facilitate the implementation of successful strategies and can guide the wood-based industry towards innovation, adaptability, and resilience amid evolving challenges. Beyond cooperation, the study shows that education and communication within and outside the forest-based sector are crucial for sustainable forest management and engaging future generations.

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Media contact:
Gerda Wolfrum, IUFRO Communications, Tel: +43-1-8770151-17, wolfrum(at)iufro.org

About the synthesis study
The synthesis study was facilitated by TEAMING UP 4 FORESTS as a key outcome of the partnership in 2023. The study summarises state-of-the-art scientific knowledge and information and provides conclusions by the involved experts including possible future developments, stakeholder perspectives and potential courses of action. The engagement with various stakeholders included sessions at the latest TEAMING UP 4 FORESTS Think Tank meeting in June 2023 with over 40 representatives from science, business, and forestry stakeholders.

The International Union of Forest Research Organizations (IUFRO), as the scientific half of the partnership, carried out the study conceptualisation and process as well as the preparation of publication products. The report is being published as a new volume of the IUFRO World Series. Funding for the study was provided by Mondi. In line with the principles of TEAMING UP 4 FORESTS, the highest standards of scientific quality, integrity and independence have been applied throughout the study.

Study authors: Metodi Sotirov (University Freiburg, Germany), Ragnar Jonsson (Swedish University of Agricultural Sciences, Sweden), Andreas Nikolaus Kleinschmit von Lengefeld (Homo Silvestris Europae, France & Germany), Andrey Krasovskiy (International Institute for Applied Systems Analysis, Laxenburg, Austria), Florian Kraxner (International Institute for Applied Systems Analysis, Laxenburg, Austria), Manfred Lexer (University of Natural Resources and Life Sciences (BOKU), Austria), Špela Pezdevšek Malovrh (University of Ljubljana, Slovenia), and Anne-Christine Ritschkoff (VTT Technical Research Centre of Finland Ltd).
Study editors: Carola Egger, Nelson Grima, Michael Kleine (all IUFRO), Maja Radosavljevic (University of Padua, Italy)

About TEAMING UP 4 FORESTS
TEAMING UP 4 FORESTS was founded in 2021 by IUFRO and Mondi and has established a professional network of 100+ scientists, business representatives and policymakers along the forest value chain since then. The platform aims to translate globally available scientific findings into practical response options for the wood-based sector; offer a meeting point for regular interaction, knowledge exchange and mutual learning; and actively share outcomes and facilitate discussion on the future of forest goods and services. The platform aims to include new partners in the future. **Visit:** https://teamingup4forests.com/

The International Union of Forest Research Organizations (IUFRO) is a non-profit and non-governmental worldwide network of forest scientists, who work together on a voluntary basis to enhance the understanding of the ecological, economic and social aspects of forests and trees.

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