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UNECE/FAO National Forest Policy Dialogue Mechanism

The future of the forestry and wood-based industries sector in the transition to a sustainable bioeconomy

21-23 September 2023, Kastamonu, Türkiye

Report of the Meeting

The UNECE/FAO National Forest Policy Dialogue on *“The future of the forestry and wood-based industries sector in Türkiye in the transition to a sustainable bioeconomy”* was held in Kastamonu, Türkiye on 21-23 September 2023. The meeting was organised by the General Directorate of Forestry (OGM) under the Ministry of Agriculture and Forestry of Türkiye, with the support of the Joint UNECE/FAO Forestry and Timber Section, the Turkish members of the FAO Advisory Committee on Sustainable Forest-based Industries (ACSFI), and the FAO SEC/Türkiye Office.

The meeting was attended by more than 110 participants from the public sector, forest-based organisations, private sector, NGOs, academia, UNECE, FAO, ACSFI members and from the country-based international organisations. Mr İbrahim YUMAKLI, the Minister for the Ministry of Agriculture and Forestry opened the meeting and welcomed participants. The list of participants is included under **Annex II**.

The meeting objectives were to:

- inform national partners about the main outcomes of the Global Forest Sector Outlook 2025 and the regional Forest Sector Outlook Study, 2020-2040 including a long-term outlook for supply and demand for wood, alternatives to address the wood gap as well as other forest goods and services in the region.
- inform the participants about the possible effects of the Green Deal, including the EU Regulation on deforestation-free supply chains, emission trading systems and carbon credits on the forest sector in Türkiye.
- discuss with national partners the possible opportunities and limitations of the application of the circular bioeconomy in forestry and wood-based industries in the region and in the country.
- discuss issues related to the promotion of industrial plantations to meet industry needs, taking into account the possibility of reduced harvesting from semi-natural forests and imports from other countries, including the evaluation of the potential of fast-growing species including poplar, alder, willow, and especially acacia that can grow in arid regions.
- exchange knowledge among the state and non-state national actors regarding the existing situation and future projections for the forestry and wood-based industries.
- propose recommendations and options for the future of the forestry and forest-based industries in Türkiye.
- Identify possible options for UNECE and FAO assistance in the implementation of these recommendations.

The meeting was conducted in line with the agenda which is given under the **Annex I**. All presentations are available at <https://unece.org/info/events/event/383401>



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1- Opening Session

-Mr Bekir Karacabey, General Director of Forestry welcomed participants and stated that changing climate conditions are responsible for our country's agenda, as it has been the agenda of the whole world in recent years, and in this context, while fighting fires on the one hand, floods are also being fought against. He emphasized that as climate conditions are changing, a new normal is entering our lives. Therefore, it is necessary to develop new measures and a new forest management approach rather than resisting these changes.

He stressed that the national dialogue meeting is organized to shed light on the future of Turkish forests and the forest sector by providing an environment where these measures will be discussed and concluded. He added that the wood-based industries sector directly benefits from forests and produces added value, they also support many sub-sectors economically. In addition to changing climate conditions and biological threats, such as pandemics, the importance of bioeconomy has increased. Only sustainably managed forest resources will be able to meet the needs that will arise as bioeconomy develops. Considering the needs of the sector, maintenance works carried out only in natural forests cannot meet these needs. For this reason, industrial plantation studies have gained momentum in recent years and have provided contribution for the sector.

-Mr Meftun Dalli, Kastamonu Governor welcomed the meeting participants as the Governor of the Kastamonu province and highlighted that Kastamonu has one of the highest forest cover provinces in Türkiye and forest-based industries are very important for the local economy and development of the province.

-Prof Dr Ahmet Hamdi Topal, Kastamonu University Rector expressed his pleasure to host the meeting in Kastamonu, especially at the University of Kastamonu. He highlighted the efforts that the university is conducting in sustainable natural resources development and noted the meeting as an important step in this direction.

-Mr Florian Steierer, UNECE, on behalf of the UNECE Forest Land and Housing Division, stressed that Türkiye is a key country in the UNECE region with regards to forests and forest products. The country is an important producer and consumer of a wide range of forest products in Europe. He underlined that the event offers a great opportunity to discuss the current situation and possible options for future developments of the sector in Türkiye. Mr Steierer mentioned that the country was struck by several severe disasters such as earthquakes, forest and wildland fires and flooding and stressed that while these events cannot be fully avoided, the loss of human lives and economic damage can be minimized by ingenious and sustainable management of tree and forest resources. He concluded that wood these sustainably managed forests is a well-suited construction material for developing earthquake proof buildings with a very good energy and carbon balance.



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-Mr Viorel Gutu, FAO stated that forest resources are mainly located in mountainous areas in Türkiye and provide important protective functions in terms of biodiversity conservation, climate change mitigation and adaptation, as well as prevention of land degradation including soil and water conservation. Productive functions of the forests resources are equally important, and they provide several wood and non-wood forest products and services to the society, including wood materials to forest- based industries in the country. Sustainable management of forest resources having the right balance between protective and productive functions is a challenging task for the country. Türkiye has made huge investments into the forest sector in the last decades and made huge progress towards sustainable management of the country's forest resources. Türkiye also became one of the most important regional actors in this area and established strong partnerships with organisations and countries.

Türkiye is among FAO's very important partners in developing and managing forests. In 2014, with a view to supporting global forestry issues, the FAO – Türkiye Forestry Partnership Programme (FTFP) was established under this programme. In collaboration with the Ministry of Agriculture and Forestry, FAO developed comprehensive projects on improving sustainable forest management, preventing, and controlling forest fires and conserving forest biodiversity, as well as introducing innovative and participatory approaches in the restoration of degraded forests.

-Mr Ibrahim Yumaklı, Minister of Agriculture and Forestry stated that he is proud that Türkiye ranks first in Europe and fourth in the world in afforestation efforts. He stressed "Of course, we do not think of forests as an industrial input. Because forests serve not only us, but also thousands of living beings that we know and call our own. There is data that approximately 25 percent of the world's population depends on forests for shelter, livelihood, and food. Also, approximately 40 percent of the world's population uses wood as fuel for heating and cooking needs and more than 60 million people earn their living by being employed in the forest industry. We can multiply these examples."

"Sustainability is possible if you can manage your assets well. This is the case in every issue, in every sector, in every topic, including forest resources. Therefore, sustainable forest management is an extremely important and valuable topic for our country, as it is for the rest of the world. It is extremely important that this will be discussed here for three days. The outcomes that will emerge as a result of these discussions will definitely shed light on the direction of policy in this area. Global climate change can always be talked about, and I always say that climate change is no longer the subject of articles, conferences, and seminars for us. Climate change is now at the heart of our lives. It is a very important fact that will affect our future behaviour in every respect".



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2- Presentations by the national partners

Mr Kenan Akduman, “OGM activities within the scope of Sustainable Forest Management in Türkiye”

He presented the efforts of OGM towards sustainable management of forest resources including prevention and fighting with forest fires, afforestation and forest restoration work, erosion control and donation of the general directorate with necessary equipment and technology. As a result, the forest cover reached 30 % of the territory of the country, which is equivalent to 23,4 million ha. of land, by the end of 2023. He stressed that wood raw material supply comes from: 0.4% imports, 15.4% private sector and 84.2% OGM sales as of 2022. 29 % of the country's forests are internationally certified, while 44% of the annual production is certified. It is stated that 40 % of Turkish forests will be certified by the end of 2023, and 65% of the production will be made from certified forests.

He further added that the OGM is planning to achieve the following targets in the coming next 5 years: (i) to expand the forest area above the world average of 30 percent; (ii) to certify all forests in the country; (iii) to ensure the transformation of all kinds of non-wood forest products, especially of endemic species, into final products; (iv) to ensure that wood is given more space in daily life by further developing the wood projects; and (v) to provide all kinds of legal regulations, technical and material support for industrial afforestation activities to be carried out by the private sector.

Mr Göksel Korkmaz “New Age in Forest Products: "Minus (-) Carbon”

He presented the role and importance of the solid wood sector in the Circular Economy. He highlighted the role and necessity of massive wood materials fighting with the global climate change, reducing carbon emissions through carbon capture and storage, increasing energy efficiency using less energy and energy saving and transition to a Circular Economy. He added that the main principles that they are following regarding the wood products coming from sustainable managed forests is to achieve raw material efficiency, produce long-lasting products, reduce, or stop the conscious consumptions and increase the use of wood in buildings and the built environment. He also shared result of several research and pilot project works with universities, NGOs, UNDP etc.

He stressed that we need to save our next 20 years and concluded that (i) according to the Sector Analysis report, the raw material need in 2040 is calculated as 73 Million m³, including waste, recycling and import, supply planning must be made to ensure this amount, and foreign forest leasing and management alternatives should be evaluated to this end. He further concluded that international carbon regulations and EU regulations may negatively affect the country's economy. It should not be forgotten that forest products are an important source of Negative (-) Carbon in the carbon regulations where Türkiye is late. Efforts to comply with regulations should be accelerated, and the preparation of the country specific carbon action plan should be accelerated, and the positive contributions of forests and forest products in the circular economy and reducing climate impacts should not be ignored.



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Mr Haluk Yildiz “the Present and Future of the Sustainable Wood-Based Panel Sector in the Transition to Bioeconomy”

He presented statistics about the wood-based panel sector in Türkiye including existing production capacities, investments, employment, import and export figures, the sector contributions to the national economy and future projections of the sector. He also presented the sector’s contributions to carbon emissions and linkages with climate change as well as recent developments in the European region including EU Deforestation Regulation, EU Forestry Strategy and sustainable bioeconomy.

He recommended that three roadmaps should be developed for; (i) the implementation of the EU Deforestation Regulation which will have an impact on the trades of timber, furniture, and wood-based panels; (ii) the implementation and support the industrial plantations by the public and private sectors; and (iii) development of closer cooperations with UNECE, FAO and other UN organizations under the overall coordination of the ministry and with the involvement of private sector and other stakeholders.

3- Presentation by Academicians, UNECE/FAO and FAO

Prof Dr Derya EŞEN, "Documentation and Future of Forest Management and Ecosystem Services in Türkiye "

"Forests offer an efficient and affordable strategy to enhance society's adaptation and resilience in response to the consequences of global climate change. Nonetheless, deforestation persists worldwide, and around 10 million hectares of forest are lost annually, perpetuating this issue. Simultaneously, the world's need and demand for wood and ecosystem services are rising. Certification serves as a significant method to reduce deforestation and ensures the sustainable and responsible supply of wood and ecosystem services required by society. It aims to ensure that forest management and ecosystem services are handled in an ecologically, economically, and socially sound manner, which results in valuable gains such as carbon storage, water quality, soil protection, biodiversity conservation, and recreational services. Certification enables forest managers and owners to demonstrate the favourable impact of their forestry practices on ecosystem services. It also provides them additional advantages, including access to new markets, increased prices, compensation for ecosystem services, and enhanced relationships with stakeholders. Forest certification has also emerged as a significant instrument in transitioning towards a bioeconomy.

In this context, further improvements can be made to the forestry practices and certification processes in Türkiye. Including all current forested areas in Türkiye within certification can significantly aid the country's transition towards a bioeconomy. Employing alternative certification systems, such as bringing a few Regional Forest Directorates together with the group certification scheme instead of a single certification, will also decrease costs and allow for an expansion in the size of certified forests in the country. The development and implementation of national standards for forests and ecosystem services that take into account the effects of climate change, as well as Türkiye’s ecological, socio-economic, and forest management circumstances, in the certification process can effectively facilitate the country's



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transition towards a bioeconomy. The incorporation of recent technology, such as digitalization, blockchain, geographic information systems, and artificial intelligence, into timber production, ecosystem services, and certification procedures can greatly enhance their quality. Shifting towards climate-adapted and resilient forest management approaches, such as utilizing efficient water harvesting methods instead of traditional site preparation techniques in arid and semi-arid regions and identifying more drought-resistant tree species and origins, can increase the productive capacity of existing forest areas, while also contributing to the restoration of degraded lands including barren sites and those prone to high erosion. There is a significant potential for enhancing the adaptive capacity and resilience of standing forests by favoring nature-based and regenerative forestry practices."

Prof Dr Yusuf SERENGİL, "The Roadmap to Achieving Climate Neutrality in Türkiye: A Comprehensive Analysis of Long-Term Forestry Strategies."

In 2023, Türkiye submitted its first NDC document and plans to release its 2030 Climate Change Action Plan, followed by its LTS, in 2024. A well-defined strategy is necessary to make significant progress in reducing emissions in the forestry and land sectors.

Türkiye's target year for achieving Climate Neutrality (2053) is ambitious, as it's only three years later than the EU's target year. To achieve cost-effectiveness and co-benefits, biogenic mitigation options must be fully implemented before other expensive options. Several mitigation options have been evaluated and discussed during the event with contributions from the forest products sector and other stakeholders.

"Our assessments indicate that productivity in stock and increment is the key to climate mitigation in the forest sector. Funding for restoration (such as afforestation and rehabilitation), circularity, innovation/technology, and high-added value are also necessary to achieve a sustainable forest products sector. It is crucial to incorporate nature-based solutions (NBSs) in all land uses, especially those related to urban areas, to ensure good practices."

Mr Ekrem Yazici, "EU Regulation on "Certain commodities and products associated with deforestation and forest degradation (EUDR)"

He introduced the regulation by explaining the processes and facts that led to the preparation of the regulation, how the regulation is linked with other EU strategies and regulatory framework, the content and coverage of the regulation, risk assessment of the countries, prohibitions for placing the wood into the markets, regular review of the regulation by the EU and entry into force and date of application of the regulation.

He commented that the impact of the regulation on the Turkish wood products trade would be limited in the short-term considering the listed commodities and products in the regulation and forest management practices in the country. He added that the regulation will be reviewed by the EU regularly, therefore, the coverage might be expanded to other sectors which might have a greater impact on the Turkish wood sector. Consequently, it was advised that the possible implications of the regulation should be communicated with all partners and implementation of the EU regulation by EU should be monitored closely.



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Dr Bahadır Çağrı BAYRAM, “How can sustainability be applied to the forest products industry? Is the circular economy panacea for sustainable production?”

In this presentation, the sustainability and circular economy (CE) concepts were addressed, and their implementation in forest product manufacture has been evaluated. The CE concept may be helpful in implementing sustainability in the forest products industries. To elaborate, this can be achieved by a reduction in the input of virgin natural resources in production systems, by extending the lifetime of wood products through reusing or recycling them, energy recovery from the wood products, and a reduction of CO2 emissions.

Production of wood-based materials such as engineered board products, paper, and furniture from scrap wood is possible, and there are various examples in the world. However, in Türkiye, there are some major obstacles to achieving sustainable manufacturing. Data on scrap wood products does not exist. Consequently, conducting cost-efficiency and feasibility analyses is not possible. Collecting these wastes is another issue. Municipalities and citizens should be involved in the process. Another important issue is the need for large recycling plants. The scrap furniture and wooden materials mostly have chemicals such as dyes and coatings. These must be removed to reuse them in production.

To overcome these issues, at first, a proper waste management system for wood and wood-based industries/products is a must. The citizens and municipalities should be encouraged by the state. Finding waste materials of suitable quality and quantity is a bigger problem than the difficulties that factories will face in incorporating waste materials into their production processes.

Prof. Dr Hülya KALAYCIOĞLU, “Evaluation of Sustainability and Environmental Impact in the Perspective of the Wood Panel Industry in Türkiye”

She evaluated the sustainability and environmental impact assessment in Türkiye from the perspective of the wood-based panel sector. Her presentation included the linkages between forest industries and climate change, including the carbon storage potential of wood products, the carbon cycle of wood-based products, the footprint of greenhouse gases of wood-based panels, the decarbonization of certain activities, carbon impacts of bioenergy and relevant research studies. She also shared the roadmap for the low carbon economy towards 2050, supply and demand for the wood products in Türkiye and the impact of demand for wood products on the forest resources and their social implications.

She made several recommendations for the sustainable management of forest resources and sustainable forest-based industries including (i) OGM should determine the carbon storage capacities of all forests and manage the harvesting volume from the forests according to these capacity values, (ii) forest harvesting should be aligned with the wood storage capacities, (ii) OGM legislation and regulations should be reviewed, and wood material should be standardized again. Which type of wood will be used by which sector should be re-evaluated, (iv) The private sector and NGOs should be encouraged to participate in efforts to create a supply of forest products for their own needs through the partnership with OGM, (v) Wood material should be standardized and used according to the most economical usage area (for example, 1st class logs suitable for

vener production should not be used for the wood-based panel industry or firewood purposes), (vi) the use of wood material in long-lasting products (furniture and construction) should be encouraged, and (vii) the sector should make efforts to use woody waste in agreement with municipalities, collection areas should be created for this purpose, crushing (chipping) facilities should be put into operation in every province (as in plastic products) and the collected wood waste should be sent to energy or panel sector production.

Mr Sven Walter, “Forest-based Bioeconomy and the Global Forest Sector Outlook 2050”

He summarized the key findings of the FAO Global Forest Sector Outlook 2050. He presented forests as a cornerstone in the transition to a bioeconomy as forests (i) provide important contributions to net zero emission targets; (ii) contribute to reducing material footprint and increasing material efficiency; (iii) promote the reduce, reuse, recycle and residual management (the 4 R) approach of forest products; and (v) support pathways to economic recovery in the post-COVID-19 era. He then shared the results of FAO Global Forest Resources Assessment 2020 and recent trends in forest products production and trade based on FAOSTAT. Also, he introduced the FAO Global Forest Sector Outlook 2050 that foresees global consumption of primary processed wood products may increase by 37 % until 2050 under a “business as usual” scenario. An increasing shift to a bioeconomy may increase consumption by 8-23% triggered by substitution of non-renewable materials with mass timber and manmade cellulose fiber in textiles.

Mr Florian Steierer, “UNECE/FAO Regional Forest Outlook Studies”

The UNECE/FAO Forestry and Timber Section presented the Forest Sector Outlook Study 2020-2040. The forest area in the UNECE region will continue to further increase in the area and stocking volume in any of the scenarios. In contrast to the global outlook study presented by FAO, forest plantations are not seen as an important feature to increase the raw material supply since the countries in the region analysed are self-sufficient in wood supply and are amongst the biggest exporters of industrial round wood and wood products in the world. Establishing highly productive (short rotation) plantations may appear on marginal or abandoned agricultural land. A few European countries use forest outlook studies as a tool for long-term strategic planning for the development of their forest-based sector. Namely, Sweden, Germany but also other countries of the European Union recently conducted outlook studies to assess the national development in the global context and the impacts of global mega trends on their national forest-based sector. Mr Steierer emphasised that an outlook study requires multi stakeholder involvement with clearly differentiated roles of various actors at the national level in preparing and conducting such a study. The need for an outlook study is identified and policy makers who also define the main questions such a study should provide answers for. The role of academia or experienced consulting companies in that field then conduct the assessment independently based on the best tools (models, data, etc.) and methods and data available (under the given resources). Depending on the approach and methodology applied, all the studies can use an iterative process which may include several rounds of interim result presentations and feedback from the policy level. Once such a study is concluded and the results are available, policymakers use the results and findings for drawing conclusions and developing possible next steps,



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strategies or policies. The speaker also informed the audience that open-source forest sector outlook tools and information is available to help conduct such a study in the future and invited the audience to consider using such a detailed outlook study in the Turkish context in the future to enable evidence-based policymaking for this is or the next strategic plan.

Mr Sven Walter, “FAO’s ACSFI and CPF Initiative “Sustainable Wood for a Sustainable World (SW4SW)”

He made a presentation on the role of wood-based industries in the transition to a sustainable bioeconomy highlighting the role of FAO’s Advisory Committee on Sustainable Forest Based Industries (ACSFI) and the Joint Initiative of the Collaborative Partnership of Forests called Initiative Sustainable Wood for a Sustainable World (SW4SW). Through the ACSFI, the forest private sector provides guidance to FAO on forest-related issues. Established in 1960, the ACSFI is a formal FAO statutory body composed of senior executives from the private sector industry worldwide, including two members from Türkiye. The ACSFI provides FAO with a forum for dialogue with the private sector to enhance the understanding of emerging opportunities, and to identify strategic actions that promote sustainable forest management, as well as sustainable consumption and production patterns related to forest products. SW4SW is a joint initiative of international organizations to deliver a strong message on the utmost importance of sustainable wood value chains to achieve SDGs and accelerate climate change objectives. It aims to strengthen sustainable wood value chains to enhance their social, economic, and environmental benefits from sustainable production to consumption. The Initiative operates at four levels addressing policy, operational, scientific, and political issues at global, regional, and country levels.

Ms Alicja Kacprzak, “Circularity Concepts in Forest-based Industries”

She informed participants about the circular economy model and how its principles apply to forest-based industries, in particular wood construction, furniture and pulp and paper production.

She informed the audience why it is important to consider circular economy in the forest sector and forest-based industries, in the context of increasing demand for raw materials, the pressure on ecosystems, climate change, pollution, and waste. Forest sector and forest-based industries can benefit from a transition towards a circular economy however there are also threats related to increased consumption of forest-based biomass and related pressure on forest ecosystems. Therefore, sustainable forest management, reforestation and ecosystem restoration are key to achieving the goals of circular economy in the long term.

She also provided the audience with real life examples of how circularity approaches are applied at different stages of forest-based value chains and informed that innovative design, aiming at the longevity of forest-based products or recyclability and cascaded use, is equally important for all value chains.

Finally, an increased recovery of waste wood, taking into consideration material and energy efficiency, can contribute to decreasing demand for raw materials and consequently the pressure on forests.



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All that can be achieved only through cross-cutting cooperation along the forest-based value chains and when economically viable and environmentally sustainable.

Conclusion or the follow-up: Education about circularity and sustainability in Türkiye is still low. In particular, a significant amount of waste streams is generated during wood processing, due to not enough coordination it cannot be used by other industry actors. Consequently, mapping of industry actors, possible synergies, and coordination opportunities for increasing circularity is needed.

Ms Alicja Kacprzak “Circularity and the Use of Man-made Cellulose Fibres Relevant to the Turkish Textile Industry”

She informed participants about the production characteristics, market trends and circularity aspects of man-made cellulosic fibers.

Conclusion or the follow-up: there is a need to explore the circular economy approaches relevant to the sector at the national level and for identification of the niche of specialization for sustainable and circular production based on the country existing capacities.

Mr Florian Steierer, “Wood Construction”

The UNECE/FAO Forestry and Timber Section provided a short introduction on how to better promote wood as a low-carbon construction material. The speaker emphasised that based on the experiences in other countries boosting wood as a construction material would require to focus on carbon and carbon footprint and embodied carbon and embodied energy. Using more wood in construction is of high interest to the forest-based sector since this will significantly increase demand for wood and processed wood products and positively influence demand and increase prices for round wood. A well-developed sawmill sector is key to any further development of domestic wood construction capacities. The speaker also emphasised that the forest sector cannot boost wood construction alone and will need to reach out to other sectors involved. The speaker emphasised that communication about the key features of wood as low construction material is key in order to have the buy-in from all relevant players at the national level at the consumer. The UNECE/FAO Forestry and Timber Section has various communication materials available on its website such as:

- A YouTube video [*“The Three Little Pigs & Climate Change -the benefits of wood as a low-emission construction material”*](#)
- The UN Forest Podcast on [*“building with wood”*](#)
- A publication on [*“Circularity Concepts in Wood Construction”*](#)
- A publication on [*“Promoting sustainable building materials and the implications on the use of wood in buildings”*](#)

Sawmill experts and structural engineers in the audience informed other participants about the currently ongoing pilot projects for using wood to rebuild state forest service buildings that were destroyed by the earthquake in Türkiye, in early 2023.

4-Group works

After the presentations, the participants were divided into two groups to discuss how to manage the wood material supply and demand in the country.

A- Group 1: Sustainable wood material provisions to the market and supply opportunities

The group discussed the issue from the supply dimension and concluded following recommendations:

- Industrial plantations carried out by the public on suitable forest lands should be improved and continued.
- Incentives for industrial plantations activities by the private sector, especially on non-forest lands, should be increased and necessary regulations should be developed. Priority should be given to industrial plantations to be carried out by the private sector on treasury lands, to be allocated by the General Directorate of National Property.
- Allocating suitable parts of marginal agricultural lands, unused pastures and degraded lands for plantations to produce wood raw material.
- Aspen (*P. tremula*) should be managed as a primary tree species, and action plans and genetic improvement studies should be carried out regarding aspen.
- Ownerships and utilisation disputes should be resolved in areas where alder (*Alnus sp.*) is widespread, and action plans and genetic improvement studies regarding alder should be carried out.
- Revising regulations to increase the existing 25% grant for industrial plantations for private forestry practices and the production of wood raw materials.
- Ensuring the supply of wood raw materials from natural forests within the scope of sustainable forest management principles and taking the necessary measures by the public and private sectors to meet the remaining demand from other sources.
- Determining and renting wood raw material production areas in abroad under the auspices of the Republic of Türkiye and carrying out studies to meet the demand.
- By developing new approaches to increase the quantity and quality of workers working in the production of wood raw materials, realizing a professional forestry workforce, ensuring social security, and making it an attractive profession, specifically for young generation, by providing necessary equipment and training.
- Improving standing tree sales tenders based on the product classification system, determining the usage areas of forest products considering the country's needs, and increasing measures to ensure that the right product is used by the right sector.
- Taking additional measures to ensure that the forest harvesting operations is carried out by contracting method.
- Updating the Turkish Standard Institute (TSE) standards applied to wooden materials.
- Making an inventory of forest products, also making an inventory of the sector processing forest products by the Ministry of Industry and Trade and determining raw material supply sources.
- Revising Article 40 of the Forestry Law according to current conditions, taking additional measures to solve problems in areas where there is conflict in forest harvesting.



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- In price determination regarding the sale of wood raw materials, revision of the pricing policy for regions far from the market (for example, Erzurum, Artvin, Trabzon etc. regional directorates).
- Improvement and expansion of the forest road network.
- Carrying out R&D studies on oak due to its ecological and economic importance / establishing a separate institute.
- Encouraging and developing agro-forestry practices in non-forest areas.
- Ensuring regulation and control activities to increase the capacity of the forest industry.
- Promoting circular bioeconomy in the wood industry, making recycling (waste/scrap wood) mandatory, and supporting SMEs in these matters.
- International agreements such as climate change and biodiversity conservation should be taken into account in wood raw material supply and planning.
- Inclusion in planning and implementation processes of necessary capacity-building activities regarding international agreements and commitments to which the country is a party.
- Providing incentives and making necessary arrangements for plantation on treasury lands/municipality lands outside the forest area for the carbon certification of plantations.
- Implementing a regular consultation mechanism between OGM, the industry and ORKOOP, strengthening and activating the ORKAMOTEK Committee of the Ministry of Industry and Technology.
- Reporting the methods and practices used in the supply of wood produced from industrial plantations or natural forests to the sectors in Europe, through a study to be carried out together with UNECE, FAO, OGM and the private Sector.
- Informing the public about the activities carried out by OGM and the forest industry.

B- Group 1: Wood demand efficiency and management

The group discussed the issue from the demand dimension and concluded following recommendations:

- Conducting studies on the carbon emission taxation system.
- Establishing legislation and incentive mechanisms regarding wood recycling within the scope of expanded producer responsibility.
- Preparation of Türkiye's wood waste inventory and carrying out benefit/cost analysis in all relevant sectors.
- Determining the standards of the products produced by the wood industry, ensuring production in accordance with these standards and establishing an inspection mechanism.
- Reducing waste during production, producing thinner wood panels, using the manufactured products in the right places, extending the shelf life of the first product, reviewing production technologies, and providing high-quality wood raw materials to the sectors that manufacture products with high-added value.
- Establishing a market surveillance and control system regarding the wood raw materials used by the wood industry and the products it produces, together with its technical regulations.



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- Reconsidering the possibilities of establishing and managing energy forests for biomass production.
- Forest products other than industrial wood (for example, bush wood, rhododendron, cutting residues, root wood, etc.) should continue to be supplied to the bioenergy sector.
- A product tracking system should be established for both wood raw materials and finished forest products, and controls/inspections should be increased.
- An industry that will produce high-value-added products should be established, and the transition to value-added products should be ensured by evaluating the innovative products in the world.
- A common R&D platform for innovative wood products and production systems should be established, where universities, industry and the public come together, and studies to this end should be accelerated; cooperation opportunities with international institutions and organizations should be sought.
- Wood-based sectors should consult with relevant public institutions, especially OGM, when making decisions on investments or capacity increases.
- Legislation and national standard studies for the prevention of deforestation should be developed, studies should be carried out in accordance with EU legislation, and forest resources should be managed and documented in accordance with the SFM criteria and indicators.
- In order to ensure the traceability of forest-based industries, LCA carbon footprint studies must be carried out (taking into account all parameters and with a single method) to ensure the traceability of the carbon production and storage capacity of the entire sector, and to this end, all stakeholders must act together.
- Certifying compliance with standards in the production of wood products and introducing the obligation of certified production.



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5- Conclusions and possible follow up activities

There was a consensus among workshop participants that Türkiye is an important producer and consumer of a wide range of forest products in Europe and the sector is expected to continue to further develop. The sector might face a bottleneck in terms of wood material provision in the medium term. There are many opportunities and options for better planning and management of wood provisions both from the supply and demand sides, discussed and concluded by the working groups.

The possible follow-up actions could include:

- (i) development of a national forest sector outlook study for 2050 based on econometric and natural resource and market (supply and demand) modelling.
- (ii) review and assessment of the wood market enabling environment including existing wood products allocations, incentives and subsidies, etc.
- (iii) assessment of possible impacts of a climate change on future wood availability in the country considering biotic and abiotic factors (floods, storms, fires, etc).
- (iv) development of a national study on the feasibility of the industrial plantations on marginal/abandoned agricultural land considering potential tree species, potential plantation areas, land tenure issues, stakeholder participation, fibre requirements etc.
- (v) assessment of existing forest management plan objectives and silvicultural techniques considering changing needs of the forest-based industries in line with new technologies; and
- (vi) exploring circular bioeconomy approaches relevant to the sector at the national level and identifying sustainable and circular production based on the country's existing capacities, including more coordinated use of waste streams from wood processing.



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Annex I: Agenda of the Workshop

Dates and time	Agenda items
DAY 1, 21 September 2023	
Moderator- ÖMER KÜÇÜK	
10.00-10.40	Opening remarks -Mr Meftun Dalli, Kastamonu Governor -Prof Dr Ahmet Hamdi Topal, Kastamonu University Rector -Mr Bekir Karacabey, General Director of Forestry, Ministry of Agriculture and Forestry -Mr Florian Steierer, UNECE -Mr Viorel Gutu, FAO -Mr Ibrahim Yumaklı, Minister of Agriculture and Forestry
10.40-11.00	Coffee break
11.00 – 12.30	<ul style="list-style-type: none">• Introduction of the workshop objectives, (Ekrem YAZICI, UNECE/FAO)• Presentation by the General Directorate of Forestry (OGM) on “OGM activities within the scope of Sustainable Forest Management in Türkiye, Mr Kenan Akduman• Presentations by the private sector,• New Age in Forest Products: "Minus (-) Carbon by Mr Göksel Korkmaz, Turkish Forest Products Industrialists and Businessmen's Association• The Present and Future of the Sustainable Wood-Based Panel Sector in the Transition to Bioeconomy by Haluk YILDIZ, (MDF and Particle Board Industrialists Association, YOMSAD Preside
12.30-13.30	Lunch break
13.30 -15:00	<ul style="list-style-type: none">• "Documentation and Future of Forest Management and Ecosystem Services in Türkiye " Prof Dr Derya EŞEN• “The Roadmap to Achieving Climate Neutrality in Türkiye: A Comprehensive Analysis of Long-Term Forestry Strategies.” Prof Dr Yusuf SERENGİL• EU Deforestation process, Regulation on Deforestation-free products by Ekrem Yazici (UNECE/FAO) https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32023R1115&qid=1687867231461• How can sustainability be applied to the forest products industry? Is the circular economy panacea for sustainable production? Dr Bahadır Çağrı BAYRAM• “Evaluation of Sustainability and Environmental Impact in the Perspective of the Wood Panel Industry in Türkiye” Prof. Dr Hülya KALAYCIOĞLU



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Dates and time	Agenda items
DAY 1, 21 September 2023	
15.00 – 15.15	Coffee break
15.15 – 17.30	<ul style="list-style-type: none"> • FAO presentation on forest-based bioeconomy and the Global Forest Sector Outlook 2050, Sven Walter, FAO • Presentation UNECE/FAO Regional Forest Outlook Studies, Florian Steierer, UNECE/FAO • Presentation on FAO's ACSFI and CPF Initiative "Sustainable Wood for a Sustainable World (SW4SW)", Sven Walter, FAO
17:30	Closure of Day 1
Moderator YUSUF SERENGİL DAY 2, 22 September 2023	
09.30 – 11.00	<ul style="list-style-type: none"> • Presentation on circularity concepts in forest-based industries, Alicja Kacprzak, UNECE/FAO • Presentation on circularity and the use of man-made cellulose fibres relevant to the Turkish textile industry –Alicja Kacprzak, UNECE/FAO • Wood construction, Florian Steierer, UNECE/FAO • Discussions
10.00– 11.15	Coffee break
11:00 – 12.30	Group works
12.30 – 13.30	Lunch break
13.30 – 14.30	Keep Group Working ...
14.30 – 15.00	Presentation of group works and Q&A
15.00 - 15.15	Coffee break
15.15 -16.30	Conclusion of the workshop results and possible action points for the future
16.30.17.00	Closure of the meeting
DAY 3, 23 September 2023	
DAY 3, 23 September 2023	
10:00-12:30	Field visit to the private forest processing company



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Annex II: List of Participants

No.	Name, Surname	Institution	Title
1	İbrahim YUMAKLI	Ministry Agriculture and Forestry	Minister
2	Bekir KARACABEY	General Directorate of Forestry	General Director
3	Recep ATEŞ	General Directorate of Forestry	Deputy General Director
4	Kenan AKDUMAN	General Directorate of Forestry	Deputy General Director
5	İbrahim YÜZER	General Directorate of Forestry	Deputy General Director
6	Ahu Peruzhan ÖZYAKUP	General Directorate of Forestry	Head of Department
7	Kahraman TEMUR	General Directorate of Forestry	Head of Department
8	İsmet EROL	General Directorate of Forestry	Head of Department
9	Kenan AKYÜZ	General Directorate of Forestry	Inspector
10	Ahmet AYDIN	General Directorate of Forestry	Inspector
11	Mümin DÖNGEZ	General Directorate of Forestry	Inspector
12	Ümit TURHAN	General Directorate of Forestry	Deputy Head of Department
13	Mehmet Ridvan ÇÖRTÜ	General Directorate of Forestry	Deputy Head of Department
14	Reşat BENLİ	General Directorate of Forestry	Deputy Head of Department
15	Ahmet YALVAC	General Directorate of Forestry	Deputy Head of Department
16	Gediz Metin KOCAELİ	General Directorate of Forestry	Branch manager
17	Bülent GÜNEŞ	General Directorate of Forestry	Branch manager
18	Bahadır KURT	General Directorate of Forestry	Branch manager



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19	Perihan ÜNSAL	General Directorate of Forestry	Branch manager
20	Emrah AKDEMİR	General Directorate of Forestry	Forest Engineer
21	Uğur KARAKOÇ	General Directorate of Forestry	Forest Engineer
22	Engin KURT	General Directorate of Forestry	Forest Engineer
23	Hasan Niyazi GÖKMEN	General Directorate of Forestry	Forest Engineer
24	Nadide BOZAN	General Directorate of Forestry	Translator and interpreter
25	Tamer ERDOĞMUŞ	General Directorate of Forestry	Technician
26	Mahmut ŞENTÜRK	Bolu Regional Directorate of Forestry	Regional director
27	Halis BELEN	Bolu Regional Directorate of Forestry	Deputy Regional Manager
28	Rüstem GÜRSOY	Bolu Regional Directorate of Forestry	Deputy Branch Manager
29	Murat YILDIZ	Bolu Regional Directorate of Forestry	Düzce Forest Management Director
30	Vasfi Cem BULUT	Bolu Regional Directorate of Forestry	Gerede Forest Management Director
31	Veysel KODALAK	Ankara Regional Directorate of Forestry	Regional Director
32	Nizamettin ÖREN	Ankara Regional Directorate of Forestry	Deputy Regional Manager
33	Turker GÜVEN	Ankara Regional Directorate of Forestry	Branch Manager
34	İbrahim POLATLI	Ankara Regional Directorate of Forestry	Branch Manager
35	Erkan Muhammet ELİBOL	Ankara Regional Directorate of Forestry	Branch Manager
36	Ferdi ÖZER	Amasya Regional Directorate of Forestry	Regional director
37	Rıdvan KALELİOĞLU	Amasya Regional Directorate of Forestry	Deputy Regional Manager
38	Murat BEYKOZ	Amasya Regional Directorate of Forestry	Branch Manager
39	Mehmet Eren KARGI	Amasya Regional Directorate of Forestry	Manager



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40	Oğuzhan AYTAŞ	Amasya Regional Directorate of Forestry	Manager
41	Celal Kanbur	Sinop Regional Directorate of Forestry	Regional director
42	Uğur Tamer Çelik	Sinop Regional Directorate of Forestry	Deputy Regional director
43	Rüveyde Korkmaz Kapucu	Sinop Regional Directorate of Forestry	Manager
44	Mustafa Diktaş	Sinop Regional Directorate of Forestry	Sinop Forest Operations Manager
45	Evren Faik Ayran	Sinop Regional Directorate of Forestry	Boyabat Forest Management Manager
46	Faruk BAYRAKTAROGLU	Zonguldak Regional Directorate of Forestry	Regional director
47	Mehmet PINAR	Zonguldak Regional Directorate of Forestry	Deputy Regional Manager
48	Eyüp ÜNALDI	Zonguldak Regional Directorate of Forestry	Business and Marketing Branch Manager
49	Ayhan YALÇI N	Zonguldak Regional Directorate of Forestry	Manager
50	Umut YILMAZ	Zonguldak Regional Directorate of Forestry	Manager
51	Mustafa İŞÇİOĞLU	Poplar and Fast Growing Forest Trees Research Institute Directorate	Director Of The Institution
52	Dr. Güven KAYA	Marmara Research Institute Directorate	Chief Engineer V.
53	Mustafa ŞAHİNER	Presidential Strategy and Budget Directorate	Strategy and Budget Expert
54	İbrahim Ethem ÇAKIR	General Directorate of Nature Conservation and National Parks	Agriculture and Forestry Specialist
55	Osman Uğur AKINÇ	General Directorate of Nature Conservation and National Parks	Engineer
56	Büşra PINARBAŞI	Ministry of Industry and Technology	Specialist
57	Sema OKAY	Ministry of Industry and Technology	Engineer
58	Murat ATEŞOĞULLARI	Ministry of Environment, Urbanization and Climate Change	Engineer



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59	Evrin DOĐAN ÖZTÜRK	Ministry of Environment, Urbanization and Climate Change	Environment and Urbanization Expert
60	Elif Berrak TAŞYÜREK	Ministry of Commerce	Trading Expert
61	Ozden GORICI	Kahraman Maraş Sütçü İmam University	Prof. Dr.
62	Yusuf SERENGİL	Istanbul-Cerhhaşa University	Prof. Dr.
63	Hülya KALAYCIOĐLU	Karadeniz Technical University	Prof. Dr.
64	Derya EŞEN	Izmir Katip Çelebi University	Prof. Dr.
65	Bahadır Çađrı BAYRAM	Kastamonu Univ. Faculty of Forestry	Associate Professor.
66	Cem DEMİRCİOĐLU	Plywood Producers Association (KONÜDER)	Vice president
67	Gökhan ŞEN	Kastamonu Univ. Faculty of Forestry	Associate Professor.
68	Tarık CİĐER	Mediterranean Tree and Forest Producers Association (AKOD)	Chairman
69	Cihat CİĐER	Mediterranean Tree and Forest Producers Association (AKOD)	Manager
70	Ali Necat ALTINOK	Mediterranean Tree and Forest Producers Association (AKOD)	Manager
71	Abdullah ÖKMEN	Mediterranean Tree and Forest Producers Association (AKOD)	Member
72	İsmail ERCAN	Plywood Producers Association (KONÜDER)	Manager
73	Hüseyin TAKLACI	Turkish Woodworking Tradesmen and Craftsmen Federation (TAİF)	President
74	İbrahim AYDIN	Turkish Woodworking Tradesmen and Craftsmen Federation (TAİF)	Member



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75	Göksel KORKMAZ	Turkish Forest Products Industrialists and Businessmen Association (TORİD)	Member
76	Zeki ŞAHİN	Turkish Forest Products Industrialists and Businessmen Association (TORİD)	Member
77	Celalettin AKÇA	National Wood Association	Member
78	Mahir ARIN	National Wood Association	Member
79	Yalçın TOY	National Wood Association	Member
80	Sinan KARTAL	All Wooden Packaging Pallet Industrialists Businessmen Association	Secretary General
81	Adem KAYA	All Wooden Packaging Pallet Industrialists Businessmen Association	Vice president
82	Salim GUNDOĞDU	All Wooden Packaging Pallet Industrialists Businessmen Association	Accountant
83	Haluk YILDIZ	MDF and Particle Board Industrialists Association	Manager
84	Tevfik DEDEBAŞ	MDF and Particle Board Industrialists Association	Advisor
85	Serhat DAYANIKLIOĞLU	MDF and Particle Board Industrialists Association	Secretary General
86	Türker YARDIMCI	Pallet Manufacturers Association	Board member
87	Ayberk KUMBAS	Pallet Manufacturers Association	Executive Board Member
88	Sedat Özcan ÖZDEMİR	Central Union of Turkish Forestry Cooperatives OR-KOOP	Board member
89	Erdem KAPLAN	Central Union of Turkish Forestry Cooperatives OR-KOOP	General manager
90	Özgür BALCI	Chamber of Forest Engineers	Board member
91	Mehmet Metin AVŞAROĞLU	Turkish Foresters Association	Member
92	Özcan ÇATAK	Kastamonu Entegre A.Ş.	Raw Material Director
93	Adem GENÇ	Kastamonu Entegre A.Ş.	Raw Material Supply Regional Manager



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94	Ali ŞAHİN	Kronospan Inc.	Raw Material Supply Manager
95	Hasan ORUÇ	Yıldız Entegre A.Ş.	Raw Material Supply Manager
96	İlhan GÜNDÜZ	Orman A.Ş.	Coordinator
97	Cemal ŞAK	AGT Inc.	Raw Material Supply Manager
98	Mehmet KUZUBAŞ	Vezirköprü Forest. Inc.	Raw Material Supply Manager
99	Muharrem TULUM	Starwood Inc.	Raw Material Supply Manager
100	Viorel GUTU	FAO	FAO-SEC Director
101	Ekrem YAZICI	UNECE/FAO	Forestry officer at FAO Central Asia Sub-Regional Office (SEC)
102	Sven Walter	FAO	Senior Forestry Officer, FAO Forestry Division
103	Florian Steierer	UNECE/FAO	UNECE/FAO Joint Forestry and Timber Division Economic Affairs Officer
104	Alicja Kacprzak	UNECE/FAO	Employee at FAO Forestry Department
105	Burak AVCIOĞLU	FAO	FAO Contracted Consultant
106	Deniz EĞERCİ	FAO	Translator
107	Murat MOREL	UNDP	Project manager
108	Kitti Horvath	FAO	International forestry specialist