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Organization of the
United Nations**

**Regional non-wood forest products workshop
in Eastern Europe, Central Asia and Caucasus**

7–12 October 2024, Fethiye, Muğla, Türkiye

Regional non-wood forest products workshop
in Eastern Europe, Central Asia and Caucasus

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Introduction

A Letter of Agreement (LoA) has been signed between the Food and Agriculture Organization of the United Nations (FAO) and the Chamber of Forest Engineers in Türkiye (OMO) on **29 August 2024** for provision of *“Developing regional guidelines on value chain development and market access for non-wood forest products (NWFPs) in Eastern Europe, Central Asia and Caucasus, implementing a regional capacity building workshop and conducting an online training on the use of the guideline”*.

As part of this LoA, the “Regional workshop on non-wood forest products in Eastern Europe, Central Asia and Caucasus” was organized in Fethiye, Muğla, Türkiye between 7 and 12 October 2024.

Experts from Albania, Azerbaijan, Bosnia and Herzegovina, Georgia, Kazakhstan, Kyrgyzstan, Montenegro, North Macedonia, Republic of Moldova, Uzbekistan, Tajikistan, Turkmenistan, and Türkiye participated in the workshop.

Additionally, experts from FAO headquarters in Rome, Italy, the FAO Regional Office for Europe and Central Asia based in Budapest, Hungary, the Joint ECE/FAO Forestry and Timber Section in Geneva, and the FAO Subregional Office for Central Asia based in Ankara, Türkiye, along with NGOs and private sector representatives, supported the workshop.

The aim of the workshop was to promote regional cooperation for the sustainable management of NWFPs, share experiences, support capacity building, and enhance market access and value chain development. Specific objectives included strengthening policy frameworks, promoting sustainable harvest practices, supporting innovation, and improving market connections.

The workshop served as a platform for participants to discuss country-specific challenges and opportunities, exchange knowledge, and identify priority actions for the protection, sustainable use, and economic development of NWFPs.

The workshop included country presentations on the status of NWFPs, panel discussions on key topics such as conservation, value creation, and enabling environments, and a field visit to observe NWFP practices in the Muğla region. Participants shared their experiences and views on sustainable management practices, innovative approaches, and the challenges related to policy implementation and market integration.

By fostering dialogue and cooperation, the workshop aimed to create an enabling environment for NWFP value chains to effectively contribute to the Sustainable Development Goals. The knowledge and recommendations gained during the workshop will form a basis for improving the sustainable management and use of NWFPs, enhancing rural livelihoods, and protecting forest ecosystems across Eastern Europe, Central Asia, and the Caucasus.

Welcoming speeches

Hasan Türkyılmaz, President of the Chamber of Forest Engineers, expressed his gratitude to the participants during the opening of the "Regional Non-Wood Forest Products Workshop for Southern and Eastern Europe, Central Asia, and the Caucasus," organized in collaboration with the General Directorate of Forestry and FAO. He emphasized the importance of the workshop. The workshop will address the protection, economic value, and sustainable use of non-wood forest products, with on-site examinations through field visits. Additionally, information was provided about the activities and national and international collaborations of the Chamber of Forest Engineers, and a moment of remembrance was held for foresters who lost their lives in forest fires. The speech concluded with wishes for a successful workshop and gratitude to those who contributed to its organization.

Sven Walter, Senior Forestry Officer, FAO, emphasized the significant role of Non-Wood Forest Products (NWFP) in supporting local economies, sustainable development, and cross-sector contributions, including nutrition and biochemistry. Speaking on behalf of FAO, he highlighted the importance of collaboration, knowledge exchange, and addressing challenges like hunger and disasters. The workshop aims to explore NWFP's critical roles in socio-economic growth, underscoring their importance for both local communities and global industries as well as for the transition to a sustainable bioeconomy.

Mustafa Ülküdür, Muğla Regional Director of Forestry, indicated that the region, which is 56 percent forested (2.05 million hectares), is rich in NWFPs, particularly bay leaves, pine honey, sage, and thyme. Efforts include the establishment of 29 honey forests, the planting of 350 000 saplings, and the completion of the inventory of coppice forests. The 96 380 hectares of coppice forests are classified under forest management, with a 160-year management plan that limits regeneration while maintaining low thinning quotas. In 2022, *Erica purpurea* was identified in 7 808 hectares, and 13 utilization plans were developed for species like carob and thyme, resulting in a harvest of 3 511 tonnes across 19 types of non-wood products.

İsmail Hakkı Ertaş, District Governor of Fethiye, stated that scientific studies and initiatives like this workshop are beneficial for the region. He provided general information about the Fethiye district and highlighted the importance of the region in terms of tourism.

İsmail Belen, Chamber of Forest Engineers, provided participants with general information about the workshop and the program. He stated that the goal of this workshop is to provide inputs to guidelines on "*non-wood forest products value chain and market access*". The guidelines aim to be region-specific while at the same time relevant for other regions.

Visiting exhibitions

After the welcoming speeches, participants had the opportunity to visit an exhibition showcasing local craftsmanship and sustainable practices, highlighting the connection between the community and the forest ecosystem. The following exhibitors were present:

Olivia Gökçeovacık: An example of local olive cultivation and products, showcasing the importance of sustainable agricultural practices and their contribution to the local economy.

Rugs and Dastar- Fethiye Likya Women Cooperative: A display of traditional rugs and dastar (woven cloth), representing the rich cultural heritage of the Fethiye region. This cooperative empowers local women by providing them with opportunities for economic independence through the production and sale of handmade goods.

Local Beekeeper- Muzaffer Tonbak: A local beekeeper who demonstrated the importance of beekeeping in the region, which not only supports biodiversity through pollination but also contributes to the livelihoods of rural communities through the production of honey and other bee-related products.



Figure 1: Exhibitions. © Chamber of Forest Engineers (OMO)

Summary of presentations

FAO presentations

Understanding bioeconomy in general and related strategies/policies- **Alicja Kacprzak**, Forestry Officer, Joint ECE/FAO Forestry and Timber Section

The presentation sets the context for discussions on how the bioeconomy and the circular economy concepts relate to the forest sector and the NWFP. It explored bioeconomy characteristics, referring to the production and consumption of biomass-based goods, which encompass forestry, agriculture, fisheries, and the food industry. It also described the circular economy model and its principles: to design materials and products to minimize waste and pollution; to keep products and materials in use as long as possible; and to regenerate natural systems. The presentation also reflected on how these concepts relate to strategies addressing climate change and how they impact the forest sector and the NWFP. The presenter highlighted the importance of developing policies that support sustainable harvesting, certification, and market access to ensure NWFPs' competitiveness. Innovation in value addition was a key focus, particularly through new processing technologies that could elevate NWFPs to higher-value markets. The presentation also stressed the need for a collaborative approach, involving governments, local communities, and the private sector, to

create an enabling environment for NWFPs that contributes to both economic resilience and ecological sustainability.

The contribution of NWFP to bioeconomy- **Sven Walter**, Senior Forestry Officer, FAO

The presentation on NWFPs and the sustainable bioeconomy emphasized how NWFPs contribute to both environmental conservation and economic growth. It focused on the role of NWFPs in supporting rural communities, enhancing livelihoods, and promoting biodiversity conservation. The speaker underscored the need for comprehensive policy frameworks to support sustainable harvesting and market integration, ensuring that NWFP value chains are resilient and economically viable. Key points included fostering innovation in NWFP processing, increasing market access through certification, and building local capacities to engage in value-added activities. Collaboration among stakeholders—governments, private sectors, and local communities—was highlighted as essential to creating a thriving bioeconomy that benefits people and ecosystems alike.

NWFPs in the Western Balkans - **Kitti Horváth**, Forestry Specialist, FAO

The presentation covered the findings of the study conducted between 2021 and 2024 on NWFPs in the Western Balkans, specifically in Albania, Bulgaria, Montenegro, North Macedonia, and Serbia. The study included a legal review, data collection, and household surveys to understand NWFP management and use. It highlighted the fragmented legal environment, inconsistent methodologies for determining quotas, and the need for centralized data collection. The presentation concluded with recommendations for cross-country cooperation, capacity building, promotion of business associations, and investment in research and innovation to support the sustainable use and value addition of NWFPs in the region.

Certification and NWFP - **Burak Avcioglu**, Forestry Specialist, FAO

The presentation focused on the application of Forest Stewardship Council (FSC) certification to low-density dryland forests in Türkiye as part of the Sustainable Land Management and Climate Friendly Agriculture Project. This project, conducted by FAO and the Ministry of Agriculture and Forestry, aims to certify these areas for sustainable forest management to enhance biodiversity and improve income generation through non-timber forest products. The certification, covering 278 000 hectares, is the first of its kind in Türkiye to include biodiversity management in both production and conservation areas. Future plans involve expanding certification to include products like honey, contributing further to sustainable forest-based economic activities.

Country presentations

Albania

Hektor Xhomara- Head of Forest and Pasture Sector, Ministry of Tourism and Environment

The presentation on NWFPs in Albania highlighted the country's significant contribution to the global market, particularly in medicinal and aromatic plants (MAPs) like sage, oregano, and thyme, which represent 20 percent of Albania's agricultural exports. Albania is one of the top exporters of these plants globally, with over 80,000 households involved in the sector, providing an essential source of income for rural families.

Challenges include the need for updated methodologies, improved certification schemes, and better processing facilities to meet international standards. Recommendations include government incentives for sustainable collection, support for rural communities, and investments in technology to enhance value chain development.

Key challenges for NWFPs in Albania

- Lack of Comprehensive Data: Inadequate and outdated inventory data hampers effective resource management and planning for sustainable use.
- Weak Institutional Framework: Inconsistent regulations and lack of clear guidelines affect the management and enforcement of NWFP practices.
- Limited Market Access: Poor infrastructure and weak market linkages restrict NWFP producers from reaching broader markets.
- Unsustainable Harvesting: Overharvesting due to lack of guidelines poses a risk to species sustainability and forest health.
- Lack of Certification: Absence of certification schemes limits access to high value markets and restricts competitiveness.
- Limited Capacity Building: Insufficient training for stakeholders on sustainable practices and value addition affects the potential of NWFPs.

Key opportunities for NWFPs in Albania

- Rich Diversity of NWFPs: Albania is home to a diverse range of NWFPs, such as medicinal herbs, mushrooms, and wild fruits, providing significant potential for value addition and market growth.
- Strong Cultural Knowledge: Albania has a long history of using NWFPs, with traditional knowledge that can support sustainable harvesting and product differentiation in niche markets.
- Community Involvement: Local communities are actively involved in NWFP collection, which supports sustainable management practices and community-driven conservation efforts.
- Emerging Export Opportunities: Increasing international demand for natural and organic products offers significant opportunities for Albanian NWFPs to access higher-value markets.
- Government Initiatives: Recent government efforts to promote rural development and sustainable forest management provide a supportive framework for enhancing NWFP production and commercialization.

Azerbaijan

Akif Habilov, Director of the Forest Development Service Forestry Activity Centre

The presentation on NWFPs in Azerbaijan highlighted the rich biodiversity of the country, which hosts more than 4 500 flowering plant species, with about 435 tree and shrub species, including over 70 endemics. Forests are primarily located in mountainous regions and cover 12 percent of the country's land area. Key NWFPs include wild medicinal and food plants, mushrooms, honey, and natural dyes, which contribute to the local economy and livelihoods. The management of NWFPs is under the purview of the Ministry of Ecology and Natural Resources, focusing on sustainable use, enhancing biodiversity, and addressing the damage done during conflicts. Recommendations for improving the sector include promoting the cultivation of NWFPs, increasing value addition, and establishing a supportive policy framework to enhance Azerbaijan's role in the global bioeconomy.

Key challenges for NWFPs in Azerbaijan

- **Limited Data and Inventory Management:** There is a lack of comprehensive data on NWFP resources in Azerbaijan, which hampers effective management and sustainable utilization planning.
- **Regulatory Inconsistencies:** Inconsistent and fragmented regulatory frameworks create confusion among stakeholders and make it difficult to implement sustainable NWFP practices effectively.
- **Underdeveloped Processing Infrastructure:** Limited infrastructure for processing NWFPs restricts the potential for value addition, affecting their competitiveness in both local and international markets.
- **Unsustainable Harvesting:** The lack of clear guidelines and enforcement on sustainable practices has led to overharvesting, endangering key NWFP species and biodiversity.
- **Low Awareness and Training:** Insufficient awareness and training among local communities and stakeholders limit their capacity to engage in sustainable harvesting and value-added activities.
- **Limited Market Access:** NWFPs from Azerbaijan face challenges in accessing international markets due to a lack of certification and branding, which makes it difficult for them to compete effectively.

Key opportunities for NWFPs in Azerbaijan

- **Rich Biodiversity:** Azerbaijan is home to diverse forest ecosystems and a wide range of NWFPs, such as medicinal herbs, berries, and nuts, which can be sustainably utilized to boost rural incomes.
- **Traditional Knowledge:** The rich traditional knowledge of local communities regarding NWFP use offers an opportunity to develop high-value products with unique characteristics that appeal to niche markets.
- **Emerging Export Opportunities:** The growing international demand for organic and natural products provides significant export opportunities for Azerbaijani NWFPs, especially for products such as medicinal plants and nuts.
- **Cross-Border Cooperation:** Opportunities for regional cooperation with neighboring countries can facilitate knowledge sharing, harmonization of practices, and greater market integration for Azerbaijani NWFPs.

Bosnia and Herzegovina

Azer Jamaković, Forestry Engineer – Forestry Association of the Federation of Bosnia and Herzegovina (NGO)

The NWFP sector in Bosnia and Herzegovina primarily includes mushrooms, medicinal herbs, forest fruits, essential oils, forest vegetables, and honey, with mushrooms being the main export. Despite its potential, the sector faces significant challenges such as inadequate legislation, lack of certification systems, and unorganized market structures, leading to issues like black-market trade and limited value-added processing. To fully capitalize on NWFPs, Bosnia and Herzegovina need to establish a robust regulatory framework, introduce certifications, improve infrastructure for processing, and provide better market access and capacity-building for local communities, ultimately enhancing both the economic and environmental benefits of NWFPs.

Key challenges for NWFPs in Bosnia and Herzegovina

- **Fragmented Regulatory Framework:** The governance of NWFPs in Bosnia is fragmented, leading to inconsistencies in the enforcement of regulations and management practices.
- **Lack of Accurate Data:** Insufficient data collection and outdated inventories create challenges in planning sustainable NWFP management.

- **Underdeveloped Market Infrastructure:** Poor infrastructure limits the capacity to process and add value to NWFPs, restricting access to high-value markets.
- **Overharvesting and Sustainability Issues:** Due to limited awareness and regulatory enforcement, unsustainable harvesting practices are prevalent, posing a threat to biodiversity.
- **Limited Coordination Among Stakeholders:** There is a lack of coordination among various stakeholders, including government agencies, local communities, and NGOs, which hampers effective NWFP management.

Key opportunities for NWFPs in Bosnia and Herzegovina

- **Rich NWFP Diversity:** Bosnia has diverse forest ecosystems that provide a variety of high-value NWFPs, including medicinal plants and wild berries.
- **Established Tradition in NWFP Use:** There is a strong cultural tradition of using NWFPs, which can be leveraged for sustainable product development.
- **Community Engagement:** Active involvement of local communities in NWFP collection supports sustainable management and preservation of traditional knowledge.
- **High Potential for Export:** The high quality of NWFPs, particularly medicinal and aromatic plants, offers strong potential for export, especially to European markets.
- **Growing SME Sector:** The increase in small and medium enterprises focused on NWFP processing provides opportunities for local economic development and innovation.
- **Support from NGOs and Government:** Support from both NGOs and government initiatives in rural development and forestry provides an enabling environment for the growth of the NWFP sector.

Georgia

Mariam Maisuradze, Second Category Senior Specialist of Forest Policy Division, Biodiversity and Forestry Department

The presentations on NWFPs in Georgia emphasized the country's significant forest resources and their use for food, medicinal, and cosmetic purposes. Since the adoption of the Forest Code in 2020, the legal framework has improved, making it easier to obtain permits for both personal and commercial use. Key NWFPs include fir cones, *Galanthus* sp., and *Rosa canina*, which are valuable for export. Despite the progress, challenges such as insufficient inventory data, lack of secondary processing facilities, and difficulties in setting sustainable quota persist. Addressing these issues through improved research, investments in processing, and certification could enhance the economic potential of NWFPs in Georgia.

Key challenges for NWFPs in Georgia

- **Outdated Inventory Systems:** Lack of modern inventory methods makes it challenging to effectively track and manage NWFP resources.
- **Inconsistent Regulations:** Discrepancies in regulations create confusion, affecting sustainable harvesting and market access.
- **Limited Market Infrastructure:** Poor infrastructure and insufficient market access restrict opportunities for NWFP producers.
- **Overharvesting:** Unsustainable practices due to a lack of awareness and clear guidelines lead to overexploitation of resources.
- **Limited Certification Programs:** Few certification opportunities restrict access to premium markets and limit the competitiveness of Georgian NWFPs.

- **Capacity Gaps:** There is a need for greater capacity building among local communities to enhance skills in sustainable harvesting, value addition, and market linkage.

Key opportunities for NWFPs in Georgia

- **Strong Tradition in NWFP Use:** Georgia has a strong cultural tradition of using NWFPs, providing a solid foundation for value chain development.
- **Community Engagement:** Active community involvement in NWFP collection and management supports sustainable practices and local ownership.
- **Export Market Potential:** Growing global demand for organic and natural products offers significant export opportunities for Georgian NWFPs.
- **Biodiversity:** Rich biodiversity provides a variety of high-value NWFPs that can be utilized sustainably.
- **Growing Small and Medium Enterprises (SMEs):** There is an increasing number of SMEs in the NWFP sector, fostering local entrepreneurship and contributing to economic growth.
- **Supportive Government Policies:** Government support for rural development and sustainable forest management provides an enabling environment for NWFP growth.

Kazakhstan

Aidyn Turezhanov, Deputy Head of the Project Office of the Committee of Forestry and Wildlife of the Ministry

The presentation on NWFPs in Kazakhstan highlighted the importance of sustainable forest management and the regulatory framework guiding the sector. Kazakhstan's forested area makes up 5 percent of the country, with regulations governing the collection of products like mushrooms, berries, medicinal plants, and honey. A forest permit is required for most NWFP activities, with different provisions for long-term and short-term forest use, emphasizing sustainable harvesting and restoration of resources. The legislative environment includes the Forest Code and related acts, but challenges remain, such as improving institutional frameworks and enhancing value chain development to better capitalize on the sector's economic potential while ensuring ecological sustainability.

Key challenges for NWFPs in Kazakhstan

- **Limited Data Availability:** Kazakhstan lacks comprehensive data on NWFP resources, which affects sustainable planning and the development of NWFP value chains
- **Underdeveloped Value Chains:** There are gaps in the NWFP value chains, particularly in terms of processing infrastructure, which limit the economic potential of NWFPs.
- **Low Market Visibility:** NWFPs from Kazakhstan face difficulties in accessing international markets due to limited branding and certification programs.

Key opportunities for NWFPs in Kazakhstan

- **Growing Interest in Medicinal Plants:** Increasing global demand for natural and medicinal products presents opportunities for Kazakhstan to capitalize on its rich supply of medicinal plants.
- **Potential for Export Growth:** With improved value addition and certification, Kazakhstan's NWFPs could tap into high-value international markets, especially in Europe and Asia.
- **Innovation and Processing:** Opportunities exist to invest in processing infrastructure to add value to NWFPs, thereby enhancing competitiveness and income for local producers.

Montenegro

Danilo Ostojic- Ministry of Agriculture, Forestry and Water Management

The presentation on NWFPs in Montenegro outlined the diverse range of NWFPs that contribute significantly to the livelihoods of rural communities. Montenegro's forests, which cover 69.4 percent of the country, are rich in various NWFPs, including mushrooms (such as porcini, chanterelle, and black trumpet), wild fruits (like blueberries and juniper berries), and medicinal herbs (such as thyme, sage, and elderflower). Approximately 30 000 people are involved in NWFP collection, primarily for additional income. The domestic market for NWFPs is mainly comprised of dried mushrooms, jams, juices, and medicinal herbs, while exports focus on raw or semi-processed products, mainly mushrooms and wild berries. The sector faces challenges like overexploitation and limited infrastructure but holds opportunities for cooperative development, branding, and certification to boost international competitiveness and sustainability.

Key challenges for NWFPs in Montenegro

- **Limited Resource Data:** Montenegro faces challenges related to the lack of accurate data and comprehensive inventories for NWFPs, which hampers effective management and sustainable use planning.
- **Fragmented Legal Framework:** The regulatory framework for NWFPs is fragmented, leading to inconsistencies in enforcement and confusion among stakeholders regarding harvesting rights and sustainable practices.
- **Small-Scale Operations:** Most NWFP-related activities in Montenegro are carried out by small-scale producers who lack access to the resources needed for value addition and market growth, limiting their capacity to scale up operations.
- **Market Limitations:** The lack of market infrastructure and certification schemes makes it difficult for Montenegro NWFPs to penetrate international markets, reducing their overall competitiveness.
- **Insufficient Capacity Building:** There is a lack of training and awareness among local communities regarding sustainable harvesting methods and value chain development, which impacts the quality and sustainability of NWFP production.
- **Overharvesting Risks:** Inadequate guidelines and monitoring have led to overharvesting, threatening the long-term availability of valuable NWFP species in Montenegro.

Key opportunities for NWFPs in Montenegro

- **Rich Forest Resources:** Montenegro has extensive forest coverage and diverse ecosystems, providing a wide range of NWFPs, including mushrooms, medicinal plants, and wild fruits, with strong potential for sustainable harvesting.
- **Government and EU Support:** The Montenegrin government, along with European Union support, is investing in rural development and sustainable forestry, which creates opportunities for growth in the NWFP sector.
- **Community-Led Initiatives:** Strong community engagement in NWFP collection supports sustainable practices and helps preserve traditional knowledge, which can be leveraged for niche product development.
- **High-Value Products:** Montenegro's NWFPs, such as medicinal herbs and wild mushrooms, have high potential for value addition through processing and certification, making them attractive to international markets.

- **Tourism Integration:** Montenegro's growing ecotourism industry provides an opportunity to integrate NWFPs into tourism experiences, such as forest tours, wild herb collection, and local product tastings, which can enhance both economic value and public awareness.

North Macedonia

Vladimir Stojanovski, Faculty of Forest Sciences, Landscape Architecture and Environmental Engineering

The presentation on NWFPs in North Macedonia highlighted the importance of NWFPs as an underappreciated yet vital part of the country's forest economy, focusing on mushrooms, berries, and medicinal and aromatic plants (MAPs). Despite contributing only 0.3 – 0.5 percent to the national GDP, NWFPs are becoming more significant for economic growth, environmental sustainability, and social well-being. The presentation emphasizes the challenges faced by the NWFP sector, such as the lack of access to modern processing technologies, the need for better training on post-harvest handling, bureaucratic export processes, and limited market information. Policy initiatives have included promoting R&D investments, supporting small businesses, and introducing digital tools to improve market access. The presentation calls for improved certification schemes and capacity building at the local level to enhance NWFP value chain development, aiming for increased integration into the global bioeconomy.

Key challenges for NWFPs in North Macedonia

- **Insufficient Data and Monitoring:** Lack of comprehensive data on NWFP resources limits effective management and planning.
- **Regulatory Gaps:** Inadequate regulations and inconsistencies in existing policies hinder sustainable management practices.
- **Limited Infrastructure for Value Addition:** Poor infrastructure for processing and adding value to NWFPs limits the economic potential of these products.
- **Unsustainable Practices:** Overharvesting and lack of guidelines on sustainable collection threaten long-term availability of NWFP resources.
- **Market Barriers:** Limited access to both local and international markets restrict the growth potential of NWFPs.
- **Low Awareness and Capacity:** Insufficient training and low awareness about sustainable practices affect the quality and sustainability of NWFPs.

Key opportunities for NWFPs in North Macedonia

- **Rich Forest Resources:** North Macedonia's abundant forest resources offer a wide range of NWFPs with high potential for sustainable use and economic benefits.
- **Community-Based Management:** Strong local community involvement in NWFP management can support sustainable harvesting and conservation efforts.
- **Diverse NWFP Range:** The diversity of NWFPs, including medicinal herbs, mushrooms, and wild fruits, provides opportunities for niche markets and specialized products.
- **Export Potential:** High demand for natural and organic products in international markets presents opportunities for North Macedonia to expand its NWFP exports.
- **Government Support for Rural Development:** Government initiatives aimed at rural development and forestry provide a supportive environment for enhancing the NWFP sector.
- **Cross-Sector Collaboration:** Opportunities to collaborate with agriculture, tourism, and other sectors to create synergies and add value to NWFPs.

Republic of Moldova

Victoria Covali, National Office for the Implementation of Environmental Projects, president of the Association of Forestry Women from the Republic of Republic of Moldova

The presentation on NWFPs in Republic of Moldova emphasized the significant role of forests, which cover over 13 percent of the country, in supporting NWFPs and the local economy. Key resources include wild fruits, medicinal plants, and other non-timber goods that are vital for local livelihoods. Republic of Moldova has developed a comprehensive legal framework to regulate the harvesting, processing, and marketing of NWFPs, including laws on plant conservation and export regulations under CITES. However, the country faces challenges such as a lack of specialized personnel, limited infrastructure for processing, and a focus on raw rather than value-added products. To boost the sector, Republic of Moldova aims to improve regulatory mechanisms, support sustainable harvesting, and expand processing capabilities to increase the economic value of NWFPs.

Key challenges for NWFPs in Republic of Moldova

- **Limited Data and Inventory Management:** Republic of Moldova lacks comprehensive and up-to-date data on NWFP resources, making it challenging to plan for sustainable management and utilization.
- **Weak Institutional Framework:** The regulatory framework for NWFPs is underdeveloped, resulting in inconsistencies in enforcement and confusion among stakeholders, which hampers sustainable practices.
- **Underdeveloped Market Infrastructure:** Limited infrastructure for processing and marketing NWFPs reduces the sector's potential to add value and access high-value markets.
- **Low Capacity for Value Addition:** There is a lack of infrastructure and expertise for value-added processing of NWFPs, which restricts Republic of Moldovan products to raw or minimally processed forms.
- **Limited Awareness and Skills:** Insufficient awareness and capacity-building programs among local communities hinder the adoption of sustainable harvesting practices and effective value chain development.
- **Market Barriers:** The Republic of Moldovan NWFP sector struggles with limited access to international markets due to a lack of certification, quality standards, and market linkages.

Key opportunities for NWFPs in Republic of Moldova

- **Rich NWFP Variety:** Republic of Moldova's diverse forest landscapes provide a range of valuable NWFPs, including medicinal herbs, berries, and nuts, which have the potential to contribute to the rural economy.
- **Community Engagement:** Local communities are actively involved in NWFP collection, which promotes sustainable use and can contribute to community-driven economic development.
- **Growing International Demand:** The increasing global demand for natural and organic products presents opportunities for Republic of Moldovan NWFPs to access high-value markets, particularly in Europe.
- **Potential for Niche Products:** Republic of Moldova's NWFPs, such as medicinal plants and nuts, can be developed into niche products with unique characteristics that cater to specific markets, especially those interested in natural remedies and organic produce.

Türkiye

Ozgur Balci, Department Head – Department of Ecosystem Services, General Directorate of Forestry, Türkiye

The presentation on NWFPs in Türkiye by the Department of Ecosystem Services emphasized the integration of biodiversity into forest management plans across 3.5 million hectares, aiming for sustainable forest resource utilization. Türkiye has a wide variety of NWFPs, including plant-based, animal-based, mushrooms, and others like cones and barks. Inventory and planning for NWFPs across 2.2 million hectares include 360 different species to ensure sustainable use. The production of NWFPs in state forests follows specific regulations, with auction-based sales for some products. Action plans such as Bay, Truffle Forest, Cedar Mushroom, and Acorn have been implemented to enhance production, rehabilitation, training, and inventory management, with significant hectares rehabilitated and targets set for improved yield. Moreover, the department is enhancing public awareness and promoting ecotourism in forest areas to encourage the sustainable appreciation and use of forest resources.

Key challenges for NWFPs in Türkiye

- **Complex Regulatory Landscape:** The regulatory framework for NWFPs in Türkiye is often complex, leading to confusion among harvesters and stakeholders. Different regions may have varying regulations, which complicates enforcement.
- **Limited Value Addition and Processing:** Türkiye's NWFP sector lacks sufficient infrastructure for processing and adding value to products. This limitation reduces the economic potential of NWFPs, confining them mainly to raw or minimally processed forms.
- **Market Access Barriers:** Accessing international markets is challenging due to a lack of certification and quality standards. This restricts Türkiye's ability to sell NWFPs at competitive prices globally.

Key opportunities for NWFPs in Türkiye

- **Diverse NWFP Resources:** Türkiye has a wide variety of NWFPs, including pine honey, truffles, medicinal herbs, and mushrooms, due to its diverse climate and rich forest ecosystems. This biodiversity offers substantial potential for product differentiation and value addition.
- **Cultural Heritage and Traditional Knowledge:** There is a strong tradition of NWFP use in Türkiye, and local knowledge can be leveraged to develop niche products for both domestic and international markets.
- **Pine Honey Production:** Türkiye is one of the world's largest producers of pine honey, a high-value NWFP with strong export potential. This unique product can be further promoted in international markets through certification and branding.
- **Government Support and Policy Initiatives:** Recent government initiatives aimed at promoting rural development and sustainable forest management provide a supportive environment for NWFP sector growth.
- **Tourism Integration:** Türkiye's well-established tourism industry provides an opportunity to integrate NWFPs into tourism experiences. For example, forest-based tours that feature wild herb collection or truffle hunting can create additional value for local communities.
- **Regional and International Market Potential:** Growing demand for natural and organic products presents significant export opportunities for Turkish NWFPs, particularly in European and Middle Eastern markets.

- **Certification and Branding Initiatives:** Türkiye has the potential to enhance the value of its NWFPs through organic certification, Fair Trade labeling, and geographical indications (GI), which can help increase product appeal and access to premium markets.

Turkmenistan

Bakynazar Babayev, Deputy Director of Forestry Administration of the Ministry of Environment Protection of Turkmenistan

The presentation on NWFPs in Turkmenistan highlighted the recent administrative reforms aimed at improving the agricultural sector, including the establishment of new ministries to better manage agriculture and environmental protection. Turkmenistan's forest areas primarily consist of mountainous, desert, and riparian types, with a significant focus on afforestation and forest management. NWFP production is an essential part of the country's economy, with medicinal plants such as *Ferula* (used for pharmaceuticals, food, and fuel) and licorice (known for its health benefits) being significant. These plants not only contribute to traditional medicine and the pharmaceutical industry but also help improve rural livelihoods through the sustainable use of natural resources.

Key challenges for NWFPs in Turkmenistan

- **Lack of Comprehensive Resource Data:** Limited availability of accurate and up-to-date data on NWFPs impedes effective management and strategic decision-making for sustainable harvesting.
- **Regulatory and Policy Gaps:** The absence of a clear and cohesive regulatory framework for NWFPs creates challenges in implementing sustainable practices and discourages potential investors.
- **Underdeveloped Value Chains:** There is limited infrastructure for processing NWFPs, which restricts the potential for value addition and market growth, leaving most NWFPs in raw or minimally processed forms.
- **Insufficient Market Access:** The absence of proper certification and quality standards, combined with a lack of market linkages, makes it challenging for NWFPs from Turkmenistan to access higher-value international markets.
- **Low Awareness of Economic Potential:** Limited awareness among local communities regarding the economic opportunities associated with NWFPs results in underutilization of these resources.
- **Unsustainable Harvesting Practices:** Inadequate guidelines and training lead to unsustainable harvesting, threatening the long-term sustainability of key NWFP species.

Key opportunities for NWFPs in Turkmenistan

- **Diverse NWFP Resources:** Turkmenistan's diverse ecosystems provide a variety of NWFPs, such as medicinal plants, wild herbs, and nuts, which have significant potential for sustainable utilization and market growth.
- **Government Support for Rural Development:** Recent government initiatives aimed at rural development and sustainable forest management offer a supportive framework for the NWFP sector, helping improve production and commercialization.
- **Traditional Knowledge and Practices:** The traditional knowledge of local communities regarding NWFPs can be leveraged to create unique, value-added products that appeal to niche markets both domestically and internationally.

- **Community Involvement:** Strong community participation in the collection and management of NWFPs supports sustainable practices and helps preserve traditional ecological knowledge.
- **High Potential for Medicinal Plants:** Turkmenistan's rich supply of medicinal plants offers an opportunity to tap into the growing demand for natural and herbal products, particularly in the pharmaceutical and health sectors.
- **Regional Collaboration:** Opportunities to collaborate with neighboring countries can help share knowledge, improve best practices, and facilitate greater access to international markets for Turkmen NWFPs.

Uzbekistan

Abduvokhid Zakhadullaev, Forestry Agency Under the Ministry of Ecology

The presentation on NWFPs in Uzbekistan highlighted the diverse types of NWFPs, including medicinal and food plants, wild fruits, and nuts, which hold significant economic and ecological importance. Key products like licorice, rosehip, and capers are essential for local communities and export markets, though the sector faces challenges such as inconsistent resource management, underdeveloped processing capabilities, and poor market organization. Uzbekistan is focusing on expanding reforestation, establishing plantations, enhancing value-added processing, and developing certifications to boost the market appeal of NWFPs. The country also aims to strengthen community-based management and improve access to both local and international markets to ensure sustainable development and enhance the livelihoods of rural communities.

Key challenges for NWFPs in Uzbekistan

- **Limited Data Collection:** Lack of comprehensive data on NWFP inventories affects effective planning and management of these resources.
- **Regulatory Gaps:** Insufficient regulations and a lack of clear policy guidelines hinder sustainable NWFP management, leading to inefficiencies.
- **Underdeveloped Value Chains:** Limited infrastructure and expertise for processing NWFPs restrict the sector's potential for value addition and economic growth.
- **Unsustainable Harvesting Practices:** Inadequate guidelines lead to overharvesting, posing threats to the sustainability of NWFPs and forest ecosystems.
- **Market Access Issues:** Difficulty in accessing international markets, compounded by limited branding and certification, prevents Uzbekistan NWFPs from achieving their full market potential.
- **Low Awareness of NWFP Economic Potential:** Lack of awareness among local communities and stakeholders about the economic benefits of NWFPs limits their growth and market integration.

Key opportunities for NWFPs in Uzbekistan

- **Rich NWFP Diversity:** Uzbekistan boasts a diverse range of NWFP resources, including medicinal plants, which provide significant opportunities for sustainable utilization and economic growth.
- **High-Value Medicinal Plants:** Uzbekistan is rich in medicinal plants that are increasingly in demand, both regionally and internationally, providing a potential export advantage.

Private sector speakers

Meltem Kurtsan introduced the Otaci brand that focuses on medicinal and aromatic plants as their resource of production for their pharmaceutical products.

Ali Ihsan Uysal, as a bay leave producer, drew attention to NWFPs in the Muğla region and provided information about the challenges faced during the harvesting process in laurel production.

Cahit Emir Onat made a presentation on Turkish pine honey, highlighting its importance as a unique natural product primarily produced from red pine (*Pinus brutia*) or stone pine (*Pinus pinea*) trees, through the activity of the pine cottony scale insect (*Marchalina hellenica*). Türkiye is the leading producer of pine honey, accounting for 92 percent of global production, with the majority coming from the Muğla region. Annually, Türkiye produces 35 000 – 40 000 tonnes of pine honey, contributing approximately 900 million TL to the national economy. Pine honey production is notable for its sustainability, with trees yielding honey for up to 150 years without negative effects from the insect. Efforts to improve production include research on the chemical composition of host trees, molecular variation, and sustainable practices in Muğla's red pine forests, ensuring both environmental and economic benefits for beekeepers and the forestry sector.

Field visits

Truffle orchard

Participants departed from the Ömer Eşen Fire Training Centre and arrived at the land within the boundaries of Karaçulha Forest Management Directorate, where truffle harvesting is conducted.



Figure 2: Truffle orchard. © Chamber of Forest Engineers (OMO)

Mr İsmail Belen highlighted the importance of the ongoing work in the field, emphasizing the value of sustainable management of non-wood forest products, particularly truffles. He stressed the need for the continued development of such initiatives to promote biodiversity conservation while also enhancing rural livelihoods. His remarks underscored the critical role of non-wood forest products in contributing to both the local economy and environmental sustainability.

Emir Demirsoy, a local producer engaged in truffle harvesting and lavender cultivation, provided detailed information about the processes involved in producing these valuable non-wood forest products. He explained the significance of sustainable harvesting methods and how these products contribute to both economic gains and the ecological balance of the region. His talk served as a practical insight into the cultivation and harvesting of these key products.

Mr Özgür Balci, in his address, focused on the ongoing projects related to the sustainable management of forest ecosystems and the cultivation of non-wood forest products. He emphasized the importance of integrating biodiversity conservation with rural development and highlighted the critical role of community involvement in achieving these objectives. His speech reinforced the significance of collaborative efforts in preserving the ecological balance while fostering economic growth.

Mr Hasan Türkyilmaz expressed his gratitude to all participants and stakeholders for their contributions to the successful execution of the fieldwork. He acknowledged the efforts of local producers and forest management teams in promoting sustainable practices, particularly in non-wood forest products like truffles and lavender. He also spoke about the importance of international cooperation in forestry projects, emphasizing the need for continued dialogue and knowledge sharing.

Mr Hakan Duman provided an overview of the technical aspects of the fieldwork, focusing on truffle cultivation and the development of non-wood forest product markets. He discussed the challenges faced in the field and the strategies implemented to overcome them. His speech highlighted the importance of research and innovation in improving the productivity and sustainability of these forest products, ensuring that they contribute to both the local economy and environmental health.

Yanıklar fire centre

The group departed from the field and arrived at the Yanıklar Fire Training Centre for lunch. Following the meal, participants were given an informative session on the equipment used by firefighting helicopters, including details on their role in forest fire prevention and response operations.



Figure 3: Yanıklar fire centre. © Chamber of Forest Engineers (OMO)

Pine honey production area

Participants visited to Karacaören Village, where the honey forest was explored, and information was gathered about the ongoing honey production activities.

Non-wood forest product exhibition in Karacaören village

Participants attended the event held in Karacaören Village. Mr İsmail Belen spoke about the richness of the village in terms of its cultural and natural values, followed by a speech from Mr İsmail Hakkı Ertaş, the District Governor of Fethiye.



Figure 4: Non-wood forest product exhibition in Karacaören village. © Chamber of Forest Engineers (OMO)

Workshop agenda

7 October 2024: Arrival to Fethiye

8 October 2024

09.00 – 10.00 Registration/Visiting Exhibitions

10.00 – 11.00 Speeches

- Welcoming Speech
 - OMO (Hasan Türkyilmaz- President of the Chamber of Forest Engineers of Türkiye)
 - FAO (Sven Walter - Senior Forestry Officer and Team Leader, Forest Products and Bioeconomy, Secretary of the Advisory Committee on Sustainable Forest-based Industries of FAO)
 - OGM- Mustafa Ülküdür- Director of Muğla Regional Directorate- General Directorate of Forests
 - Fethiye District Governorate- İsmail Hakkı Ertaş
- Brief Background, Scope and agenda of the workshop of the workshop
 - OMO – İsmail Belen

11.00 – 11.30 Coffee Break and Visiting the Exhibitions

- Medicinal and Aromatic Plants- CALCA-İncirköy-Fethiye-Ali İhsan Uysal
- Rugs and Dastar- Fethiye Likya Women Cooperative
- Local Beekeeper- Muzaffer Tonbak

11.30 – 12.30 FAO and OMO Presentations

- Introduction of Participants
- Understanding bio economy in general and related strategies/policies- **Alicja Kacprzak** (Forestry Officer, Joint ECE/FAO Forestry and Timber Section)
- The contribution of NWFP to bioeconomy- **Sven Walter** (Senior Forestry Officer, FAO)
- NWFPs in the Western Balkans- **Kitti Horváth** (Forestry Specialist, FAO)
- Certification and NWFP- **Burak Avcioglu** (Forestry Specialist, FAO)
- Guidelines and tools for NWFP value chain development – **Dr Çağlar Başsüllü**- Online
- Q and A

12.30 – 14.00 Lunch

14.00 – 14.30 Introduction of Key Topics:

Topic 1 – Ensuring the conservation and sustainable supply (NWFP production and harvesting)

Moderator: Kitti Horváth and Burak Avcioglu

- Resource base (multi-functional forest management, agroforestry, investments, domestication).
- Ensure sustainable harvest levels and fair and secure access to the resource.
- Quality and standards.
- Monitoring and inventories.

Topic 2 – Innovating for adding value along the NWFP chain

Moderator: Sven Walter and Alicja Kacprzak

- Business models and co-management.
- Market access, certification and traceability.
- Processing and technology (research and development).
- Economic viability and job creation
- Social and ecological value.

Topic 3 – Enabling environment for NWFP value chains to thrive

Moderator: Ekrem Yazıcı and Cuma Uykun

- Identifying national and regional demand/key outlets for NWFP
- Strengthening policy and legal frameworks (policy coherence).
- Data and knowledge generation and sharing.
- Facilitating investments.

14:30 – 15:30 Country Presentations/Discussions

1. Albania
2. Azerbaijan
3. Bosnia and Herzegovina
4. Georgia

15:30 – 16:00: Coffee Break

16:00 – 17:30: Country Presentations/Discussions

1. Kazakhstan
2. Kyrgyzstan
3. Republic of Moldova
4. Montenegro
5. North Macedonia

17:30 End of Day

18:00 Dinner

9 October 2024

09:00 – 10:30 Country Presentations/Discussions

1. Tajikistan
2. Türkiye
3. Turkmenistan
4. Uzbekistan

10:30 – 11:00 Coffee Break

11:00 – 12:30 Panel Discussions on Topics

12:30 – 13:30 Lunch Break

13:30 – 15:00 Panel Discussions on Topics

15:00 – 15:30 Coffee Break

15:30 – 16:45 Panel Discussions on Topics

16:45 – 17:00 Briefing on Field Trip
17:00 End of Day

10 October 2024: Field Trip

11 October 2024

09:30 – 10:30 Looking Ahead

Challenges, opportunities and priorities for the development of NWFPs value chains.

10:30 – 11:00 Coffee Break

11:00 – 12:00 Possible outline of NWFP guidelines: Presentation and plenary discussion of outline- **Dr Çağlar**

Başsüllü

12:00 – 14:00 Lunch Break

14:00 – 15:00 Next Steps/Discussions

15:00 – 15:30 Coffee Break

15:30 – 17:00 Closure

12 October 2024: Departures

Main observations resulting from thematic discussions

Key challenges for NWFPs management across eastern Europe, Central Asia and Caucasus

- **Lack of Comprehensive Inventory Data**
 - Insufficient and outdated data on NWFPs is a widespread issue, affecting effective planning and sustainable resource management (e.g. Albania, Georgia, Turkmenistan, Uzbekistan).
- **Fragmented Regulatory Frameworks**
 - Complex and inconsistent regulations across regions hinder sustainable NWFP management. Many countries have highlighted the need for a unified legal framework (e.g. Turkmenistan, Bosnia and Herzegovina).
- **Underdeveloped Market Access and Value Addition**
 - Poor market infrastructure and limited value addition opportunities restrict NWFPs' market potential, resulting in reduced profitability for producers (e.g. Azerbaijan, Republic of Moldova).
- **Limited Certification and Quality Standards**
 - Lack of certification schemes restrict access to high-value markets. Certification and quality standards are crucial for improving competitiveness (e.g. North Macedonia, Kazakhstan).
- **Unsustainable Harvesting Practices**
 - Unsustainable harvesting due to inadequate guidelines and enforcement poses a serious threat to NWFP resources and biodiversity (e.g. Bosnia and Herzegovina, North Macedonia).
- **Low Awareness and Capacity Building Needs**
 - There is a significant need for awareness and capacity-building programs for local communities and stakeholders. Insufficient training on sustainable harvesting practices and value addition is a key barrier (e.g. Montenegro, Albania, Turkmenistan).
- **Small-Scale Operations and Limited Processing Infrastructure**
 - NWFP operations in many regions are primarily small-scale, lacking the necessary processing infrastructure for value addition and scaling up production (e.g. Georgia, Montenegro, Republic of Moldova).
- **Market Barriers and Limited International Trade**
 - Limited access to international markets due to weak branding, certification, and poor market linkages restricts NWFPs from reaching their potential (e.g. Uzbekistan, Republic of Moldova, Azerbaijan).
- **Weak Monitoring and Control Mechanisms**
 - Inadequate monitoring and control mechanisms lead to poor enforcement of sustainable harvesting practices and regulatory compliance (e.g. Albania, Turkmenistan).
- **Lack of Cross-Sector Collaboration**
 - Weak collaboration between sectors, such as forestry, agriculture, tourism, and health, limits the potential to create synergies that could enhance sustainable NWFP management (e.g. North Macedonia).
- **Absence of Technological Tools for Effective Monitoring**

- Limited use of technological tools such as GIS for resource mapping and real-time monitoring hinders efficient data collection and management of NWFP resources (e.g. Georgia, Albania).
- **Need for Strengthening Institutional Capacity**
 - Many countries face challenges related to weak institutional frameworks, which limit effective implementation of policies and regulations related to NWFP management (e.g. Bosnia and Herzegovina).
- **Economic Dependency and Livelihood Concerns**
 - Many rural communities are heavily reliant on NWFPs for their livelihoods, yet economic benefits are limited due to lack of value addition and sustainable market integration (e.g. North Macedonia, Georgia).
- **Inadequate Integration with Ecotourism**
 - There is an opportunity to better integrate NWFPs with ecotourism initiatives, which is currently underutilized across regions.
- **Regional Differences in NWFP Resource Management**
 - Differences in resource availability, traditional practices, and regulatory environments across regions make it challenging to create a standardized approach to NWFP management (e.g. varying regulatory and harvesting practices in Central Asian countries).

Ensuring the conservation and sustainable supply (NWFP production and harvesting)

- **Comprehensive Inventory Systems:** Reliable and up-to-date inventories of NWFP resources are essential for effective planning and sustainable management.
- **Cohesive Regulatory Frameworks:** A unified and clear regulatory framework helps ensure consistent management practices and facilitates effective governance of NWFP resources.
- **Monitoring and Quota Systems:** Effective monitoring and quota systems are crucial to regulating the sustainable harvesting of NWFPs and preventing overexploitation.
- **Capacity Building and Community Involvement:** Empowering local communities through capacity building enhances sustainable harvesting practices and encourages active stakeholder participation.
- **Certification and Value Addition:** Certification schemes and value addition are key to improving the competitiveness and market potential of NWFPs.
- **Integration with Ecotourism:** Linking NWFPs to ecotourism initiatives provides opportunities for income generation and raises awareness about conservation.
- **Technological Adoption for Monitoring:** Adopting technological tools such as GIS and open-access data portals improves the monitoring of NWFP resources and enhances transparency.
- **Cross-Sector Collaboration:** Leveraging cross-sector collaboration, following best practices from integrated projects, helps to enhance NWFP management through synergies across forestry, agriculture, health, and tourism sectors.
- **Financial Incentives and Market Integration:** Financial incentives, such as subsidies and microfinance, help promote sustainable practices and support NWFP market integration.
- **Public Awareness and Advocacy:** Increasing public awareness about the importance of sustainably harvested NWFPs fosters long-term support for conservation initiatives.

Enabling environment for NWFP value chains to thrive

1. Integration with National Strategies and Management Plans

- Integrate NWFPs into national forest management plans and strategies. Develop clear national guidelines for the sustainable use and management of NWFPs, ensuring that they align with broader environmental policies, such as those aimed at combating desertification under EU regulations.
- Include NWFP management in existing or new forest management plans, allowing for a dual approach that encompasses overall forest management and NWFP utilization.

2. Promotion and Awareness Initiatives

- Increase the visibility of NWFPs at the country level by promoting the sector through targeted campaigns. Utilize new communication strategies, such as collaborating with influencers or working closely with local communities, to raise awareness about NWFP value chains.
- Develop awareness campaigns highlighting the social, ecological, and economic value of NWFPs, with special emphasis on their contribution to health, nutrition, and environmental conservation.

3. Data Collection, Monitoring, and Research

- Establish data collection mechanisms for NWFP inventories, focusing on systematically collecting data and ensuring its proper utilization. This includes setting up online databases, knowledge hubs, and using GIS for mapping NWFP resources.
- Strengthen collaboration between scientific institutions, private sector, and governmental organizations to generate reliable data and conduct market research to explore the economic potential of NWFPs.
- Ensure the implementation of monitoring systems for assessing NWFP resource conditions, including mechanisms for controlling license holders and verifying quota compliance.

4. Coordination Among State Institutions

- Improve coordination between government agencies, ensuring clear communication and collaboration in NWFP management. Addressing the current coordination gaps among state institutions will help streamline efforts in NWFP utilization and conservation.
- Foster partnerships between government agencies, academia, and the private sector to bridge gaps in research, monitoring, and innovation.

5. Addressing Overharvesting and Sustainability Concerns

- Implement sustainable harvesting guidelines and enforce control measures to ensure that NWFPs are harvested within sustainable limits. This includes licensing systems, quota allocation, and improved oversight of harvesting activities.
- Address the impact of diseases and pests affecting NWFP resources, such as chestnut blight, by including them in forest management strategies.

6. Investment Facilitation and Financial Incentives

- Facilitate domestic and international investments in the NWFP sector by providing financial incentives, such as tax breaks and grants. Special attention should be given to supporting startups and SMEs engaged in NWFP value chains.
- Develop a funding mechanism that provides transparency in the allocation of funds and ensures alignment with international standards.
- Foster public-private partnerships that leverage investments for infrastructure development, technology transfer, and market expansion.

7. Capacity Building and Community Engagement

- Provide targeted training for local communities and forest stakeholders to enhance their skills in NWFP harvesting, processing, and sustainable management. Encourage programs similar to those implemented in Georgia, where foresters provided training to villagers to raise awareness of sustainable practices.
- Strengthen the role of local communities in NWFP management through co-management models, empowering them to contribute to decision-making processes, sustainable harvesting practices, and monitoring efforts.

8. Strengthening Market Access and Certification

- Introduce certification schemes for NWFPs, such as organic, Fair Trade, and sustainability certifications, to facilitate market access and increase the value of NWFPs in both domestic and international markets.
- Improve traceability systems and quality standards for NWFPs to enhance market credibility and consumer confidence, particularly in export markets. Leverage international standards to create a uniform framework for quality assurance.

9. Knowledge Sharing and Regional Cooperation

- Develop regional platforms to share the best practices, lessons learned, and research outcomes related to NWFP management. Strengthen cooperation among countries to harmonize regulations, exchange knowledge, and build capacity in the NWFP sector.
- Create knowledge hubs and information-sharing systems to ensure that all stakeholders have access to data on market trends, resource inventories, and sustainable practices, facilitating informed decision-making.

10. Addressing Information and Research Gaps

- Identify and address gaps in current research related to NWFP biodiversity, value chains, and market opportunities. Promote research on processing technologies, market access pathways, and socio-economic impacts to enhance innovation and development in the sector.

- Strengthen connections with international experts to support local research efforts, especially in areas like biodiversity data collection, resource assessment, and market analysis.

Draft outline of the guidelines

The following draft outline was presented to and discussed with participants:

1. Important NWFPs in the region and contribution of NWFP production in the region
2. Global context of NWFP value chain development in the context of sustainable bioeconomy
3. The contribution of NWFP to bioeconomy
4. A review and analysis of existing studies and data related to NWFPs value chains (The value chain development will be considered at the level of production, processing, and marketing in consideration of real needs and identified gaps in the NWFP sector).
5. Policies, initiatives, tools, innovative approaches and technologies for NWFP value chain development in the context of sustainable bioeconomy
 - a. Research and development,
 - b. Product diversification,
 - c. Value-added processing techniques
6. Global best practice examples and methodologies in NWFP value chain development
7. Best practice examples and methodologies from the region in NWFP value chain development
8. Recommendations for the adaptation of the best practice examples
9. Certification schemes and NWFPs in the region
10. Ensuring the conservation and sustainable supply (NWFP production and harvesting)
 - a. *Resource base (multi-functional forest management, agroforestry, investments, domestication).*
 - b. *Sustainable harvest levels and fair and secure access to the resource.*
 - c. *Quality and standards.*
 - d. *Monitoring and inventories.*
11. Innovating for adding value along the NWFP chain
 - a. Business models and co-management
 - b. Market Access, certification, and traceability
 - c. Processing and technology (research and development)
 - d. Social and ecological values

12. Enabling environment for NWFP value chains to thrive
 - a. Strengthening policy and legal frameworks (policy coherence).
 - b. Data and knowledge generation and sharing.
 - c. Facilitating investments.
13. How to enhance NWFP value chains in the region
14. Main opportunities and challenges, as well as associated technical support requirements to optimize the development of NWFP value chains
15. Prioritized proxy regional agenda of actions to optimize the development of NWFP value chains for sustainable bioeconomy
16. Creating opportunities to improve market access in the region
17. How to maximize the benefits from NWFPs
18. Strengths, weaknesses, opportunities, and threats in the region regarding the NWFPs value chain, certification, and market access
19. Accessing to capital and mapping of the sectors by identifying the direct (i.e. collection, marketing including exporting and consumption) and indirect (i.e. transport, warehousing, food safety institutions, logistics and marketing) value chain stakeholders
20. Recommendations for the development of systematic interventions for the improvement of the competitiveness of the value chain
21. Selected NWFPs to provide examples on the value chain development and providing a set of recommendations to improve market access
 - a. Pine honey
 - b. Truffle
 - c. Laurel (bay)
22. Guidance on the content/outline of the regional guidelines on NWFP value chain development

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