



Workshop on Biodiversity-Friendly Forest Management in the Alpine Biogeographic Region

8 April 2024 – Workshop in Turin

Event Overview

The Workshop on Biodiversity-Friendly Forest Management in the Alpine Biogeographic Region is organised to support the implementation of the New EU Forest Strategy 2030 in the Alpine region. The workshop presents the relevant 3 sets of EU Guidelines (Closer-to-nature Forest Management, Biodiversity-friendly afforestation, reforestation and tree planting, and defining, mapping and monitoring EU primary and old-growth forests) and the 3 billion Additional Trees EU pledge. It focuses on the specificities of forest management in the Alpine region, involving representatives from Italy, France, Slovenia and Austria.

Detailed Event Overview

Stefania Crotta, Director of the Environment, Energy, and Territory Department of the Piedmont Region

Stefania Crotta, representing the Piedmont Region, welcomes participants and introduces the workshop objectives. She highlights that the Piedmont Region is proud to host the event in collaboration with the European Commission and the Alpine Convention to present good practices from across the Alpine arc. The Region is strongly committed to protecting and enhancing its forest heritage through various regulations. Piedmont's forest assets cover 37% of the region's surface area and represent a fundamental asset in terms of biodiversity and ecosystem services. The Region's sustainable development strategy aims to protect this natural and cultural heritage and promote the energy transition and climate change mitigation.

Marta Ballesteros, Senior Lawyer at Milieu Consulting SRL

Marta Ballesteros outlines the main objectives of the project led by Milieu supporting the implementation of the EU Forest Strategy 2030 commitments. Emerging trends highlight the need to emphasise nature and biodiversity conservation criteria in sustainable forest management. Over three years, the project aims to ensure reinforced sustainable forest management for biodiversity, climate adaptation, and forest resilience with a closer-to-nature approach, providing technical expertise and collecting evidence from different sources such as desk research, surveys, interviews and events such as webinars, local workshops and conferences. The workshops will be organised across the different biogeographical regions to discuss the problems and challenges of implementing closer-to-nature forest management. Ms Ballesteros then presents the agenda of the event and his objective to foster an understanding of sustainable forest management, focusing on biodiversity-friendly approaches and challenges within the Alpine biogeographical region and in line with the European Commission's Guidelines.

Alenka Smerkolj, Secretary General of the Alpine Convention

Alenka Smerkolj presents the pioneering role of the Alpine Convention and its Protocol on Mountain Forests (1996) in sustainable forest management policy. The Protocol, in fact, besides specifying the importance of many of the functions of Alpine mountain forests, for the first time, opens the door to the question of climate balance and water resources. Forests, which cover over 40% of the Alps, play a key role in climate balance, natural hazards prevention as well as biodiversity preservation. The Alpine Convention's dedicated Thematic Working Group specifically deals with identifying new opportunities for mountain territories in terms of agricultural and forestry productions and management approaches that favour or are already in line with ecological transition and circular economies. Additionally, Ms Smerkolj mentions the EU Strategy for the Alpine Region (EUSALP, 2015), which prioritises economic growth, innovation, energy and environmental sustainability, including the multifunctionality of forests and sustainable wood management.

Paolo Angelini, Chair of the Alpine Biodiversity Board of the Alpine Convention (ABB) – Italian Ministry of Environment and Energy Security

Paolo Angelini stresses that forests are an important reservoir of biodiversity in the Alpine region. He highlights the correlation between the degree of naturalness of forests and biodiversity. Natural forests, without forest management, sometimes appear less protected, but in reality, there, biodiversity is at its highest potential. Moreover, in the mountains, the ecological richness of the forests increases due to the altitude gradients and access difficulties. There is an altitudinal gradient that favours diversification. It is clear that as altitude increases, it is more difficult to have a human impact and therefore forests are richer in naturalness and therefore biodiversity. The richness of biodiversity gives forests a certain resilience in the face of threats such as climate change and preserves the functionality of ecological services, including ecosystem services. The Alpine Biodiversity Board aims to bring to light the importance of mountain biodiversity and the ecosystem services it provides at international and national negotiating tables. By the end of 2026, the aim is to draw up an action plan for Alpine biodiversity that will be stimulating other mountain regions around the world.

Marco Onida, Senior Expert at European Commission, Directorate Environment

Marco Onida presents the EU initiatives under the EU Forest Strategy 2030. He emphasises that while forests are managed by territories and local authorities, the EU has a shared competence to legislate

on forests as part of the environment and provide policy support. Mr Onida presents an overview of European forests. On average, about 85% of the forests are used for timber production and primary forests and so-called old-growth forests are now reduced to 3% (almost entirely in Sweden, Finland, Romania and Bulgaria). 60% per cent of the forests are privately owned. Another common trend in European forests is that they are currently under several pressures, including intensive timber use, increasing natural disturbances, and consequent loss of biodiversity. One of the main strategies to address these challenges is to adopt a more nature-based forest management approach. This approach aims to mimic the natural processes within forests, maintaining structural complexity and biological diversity. However, there are practical challenges associated with the transition from a more intensive to a more conservation-oriented forest management model, including issues related to training and assistance to forest managers. Another key initiative is to map and protect primary and old-growth forests, conserve these valuable habitats and ensure the continuity of the ecosystem services they provide (they are particularly valuable for their biodiversity and carbon storage role). This process requires a clear and concise definition of what constitutes a primary or old-growth forest, as well as coordinated efforts at the European level to ensure that the areas identified are effectively protected and sustainably managed. Finally, there is a growing recognition of the economic value of ecosystem services provided by forests, such as water purification, soil protection and climate regulation. Adopting policies that incentivise payment for these services can provide a financial incentive for forest owners to manage their land sustainably and conserve biodiversity. In summary, addressing the challenges of forest management and biodiversity conservation requires an integrated approach that takes into account economic, social and environmental needs. By setting clear objectives, adopting targeted policies and involving all stakeholders, Europe can work towards more sustainable forest management and the conservation of valuable forest ecosystems. Mr Onida also introduces the EU's pledge to plant 3 billion additional trees by 2030, which is a voluntary and political project. He emphasises the importance of planting trees in the right way, and with a closer-to-nature approach. The European Commission provides guidelines and political and communication support for such initiatives, encouraging participation and monitoring the number of trees planted.

Renzo Motta, Professor at Universita' di Torino

Renzo Motta discusses the closer-to-nature guidelines and their link with Italian forest management. In Italy, we are used to discussing "close to nature" forest management but the addition of the letter "R" to make it "closer to nature" is significant. Rather than a fixed model, the guidelines indicate a pathway, toward appreciating and improving the quality of European forests. Mr Motta emphasised that the guidelines are an attempt at the European level to imitate nature in forest management by maintaining the complexity of nature. The guidelines provide general principles that should be adaptable to all European forests, such as developing natural processes, increasing heterogeneity and complexity, integrating spatial scales, and focusing on what is left in the forest rather than what is taken out. Until the 1960s, the prevailing theory in Europe regarding forest management was the Wake/Kielvasser theory: the growth of biomass is a primary value to be properly managed, whilst all other functions are secondary values, depending on the former. Nowadays we are trying to reconcile the economic and social needs of societies with the ecological and environmental ones, for long-term forest conservation. Mr Motta highlights some priorities and challenges for applying these strategies in the Italian context, such as the abandonment of Italian forests, the prevalence of coppice forests, the natural disturbance-based management and the need for more planning and integration of biodiversity into forest management.

Alessandra Stefani, Director General of the Directorate General for Forestry of the Ministry of Agriculture, Food and Forestry

Alessandra Stefani illustrates how Italy has coordinated forest policies at the national level to provide minimum requirements for the regions. She emphasises that sustainable forest management has been entrusted exclusively to the regions since 1977, and each region has its forest law and regulations, that prioritise conservation alongside societal needs. Italy's forest assets are predominantly located in mountainous and hilly areas, with 100% subject to landscape constraints, 85% to hydrogeological protection and 28% in protected areas. The wood-furniture-design system, Italy's third-largest manufacturing sector by export value is mainly based on imported timber. Forests are protected for their landscape value, with stringent regulations enforced since 1985 to prevent deforestation. Italy prioritises sustainable forest management to balance ecological, economic, and social benefits. Leading Europe in wood recycling at 94%, Italy fosters a circular bioeconomy. Collaborative efforts among stakeholders, including government ministries, are guided by the Forest Code of 2018, emphasising sustainability. Italy's forest strategy involves public input, addressing global challenges while complying with EU regulations like the EUTR. Key principles include banning clear-cutting, conserving native species, and managing litter to reduce wildfire risks, reflecting Italy's commitment to conservation and heritage preservation.

Enrico Gallo, Manager of the Forestry Sector, Environment, Energy and Territory Directorate, Regione Piemonte

Enrico Gallo presents the Piedmont Region's approach to implementing the EU guidelines in light of the current regional regulations. The Region's forest law promotes sustainable forest management with a scientific approach open to innovations from good practices and experiences. The regional regulation defines silvicultural interventions and establishes the rules for their execution according to the principles of naturalistic silviculture, establishes the modalities and procedures for the management of forests located in protected areas or Natura 2000 network sites, including conservation measures for forest habitats of Community interest, and indicates the rules for the conservation of biodiversity in the forest environment. Mr Gallo highlights how the regulation addresses various aspects of the closer-to-nature forest management guidelines, such as promoting natural tree regeneration, ensuring respectful harvest conditions, minimising other management interventions, preserving forest soil and water ecosystems, optimising deadwood retention, setting areas aside, protecting specific species on-site, managing ungulate species at natural carrying capacity and taking a scale specific approach. The region is also activating instruments to promote closer-to-nature forest management, such as rural development measures, payments for forest-environmental and climate commitments, forest structure diversification, maintenance of senescence islands, release of habitat trees, creation and maintenance of clearing, preventive silvicultural interventions aimed at improving the resistance and resilience of forest stands, interventions for the ecological and functional restoration and/or recovery of forest ecosystems affected by disasters, and activities to identify areas that can be defined as old-growth forests (activity recently initiated in collaboration with Professor Motta's research group, IPLA).

Giorgio Matteucci, Co-chair of the Mountain Agriculture and Mountain Forestry Working Group of the Alpine Convention – Director CNR-IBE

Giorgio Matteucci presents two case studies of implementing multifunctional forest management in Alpine regions. The first project, LIFE ManFor C.BD (2010-2016), compared traditional management practices with innovative options aimed at multifunctionality, considering carbon, biodiversity and socio-economic aspects. The results showed that increasing structural diversity through a mosaic of

interventions, increasing dead wood and maintaining veteran and senescent trees can enhance biodiversity and carbon efficiency, still providing wood according to the cascading principle. Furthermore, increasing the diversity of the vertical structure can increase the efficiency of light use, stimulating forest growth. In this sense, it favours longer-term carbon storage. The second is an ongoing project, LIFESPAN (2020-2026), that focuses on proposing and testing management solution for productive stands aimed at protecting and enhancing forest biodiversity. This solution sustains saproxylic biodiversity through deadwood management and integration of proposed/existing solutions. It involves the creation of a connected system of senescent islands, microhabitats, and open areas within the productive forest matrix (Saproxylic Habitat Network).

Nicolas Gouix, Forest program coordinator, CEN Occitanie_ Associate researcher El Purpan

Nicolas Gouix introduces the French context with a focus on preserving ancient and mature forests (AMF) and integrating biodiversity into forest management. France's forest cover reaches around 50% of the Alpine biogeographic region, but few of them can be considered ancient and mature. Inventories in the Pyrenees show that less than 4% of the Alpine biogeographic area's forest cover are AMFs. After this introduction, Mr Gouix presents the French legal framework, which aims to guarantee sustainable forest management through the Forestry Code (introduced in 1827), the National Forest and Wood Program (PNFB, introduced by the Law on the Future of Agriculture, Food and Forestry of October 13, 2014) and regional schemes. He highlights the need for progress towards integrated forest management that ambitiously incorporates nature conservation objectives. France's national strategy for biodiversity conservation includes objectives such as ensuring long-term support for forest renewal and developing payments for ecosystem services. Mr Gouix then explains the plans for implementing payment for ecosystem services and protecting old-growth forests in France. He mentions a national action plan aimed at strictly protecting all old-growth and sub-natural forests. Moreover, NGOs such as the one he works for (Conservatoire d'Espaces Naturels) play a role in acquiring and preserving such forests, using a combination of public and private funding. He presents the Real Environmental Obligation, a contract between property owners and environmental associations to ensure sustainable forest management and forest preservation for 99 years, even after sale. He advocates for economic incentives to support forest owners like ecosystem service payments.

Dušan Roženberger, assistant professor at the Department of Forestry and Renewable Forest Resources, Biotechnical faculty, University of Ljubljana, Slovenia

Dušan Roženberger explains the history, legislation, and implementation of close-to-nature forestry in Slovenia. Legally, close-to-nature forest management started in Slovenia in 1947 with a Forest Act that prohibited clear-cuts and mandated forest management and silviculture planning. This approach was developed in response to the degradation of landscapes due to burning, grazing, and wood extraction. The concept of close-to-nature forest management emerged in European countries post-World War II, culminating in the establishment of Pro Silva Europa in Slovenia. The Declaration of Robanov Kot emphasises “patient silviculture that respects natural laws, promotes diversity, sustainable development, structural richness, and natural generation of forest composed of local native species” contrasts with conventional silviculture primarily oriented towards timber production. Pro Silva's founders sought inspiration from old-growth forests, foundational to close-to-nature forest management principles. Slovenia's current Forest Act (1993) requires all forests to be managed according to Forest Management Plans (FMP) adopted by the state with input from all stakeholders (forest service, forest owners, local communities, NGOs). The Slovenia Forest Service (SFS, 1994), covering all Slovenian

forests regardless of ownership, is responsible for monitoring, planning, tree marking, advice, and subsidy control. Roženberger concludes his speech by presenting the silviculture systems used in Slovenia, including "single-tree selection," "irregular shelterwood," "freestyle silviculture," and new approaches that address climate change challenges.

Georg Frank, Head of the Natural Forest Reserves, Department of Forest Biodiversity and Nature Conservation, Austrian Research Centre for Forests

Georg Frank provides an overview of the legal framework and implementation of closer-to-nature forestry in Austria. Austria is a country with mainly private forests (around 80%). Approximately 76% of forests serve a productive function, while only 2% are coppice forests found mainly in lowlands with unfavourable climatic conditions. Austria's mountainous terrain means that protective forests, which safeguard both natural ecosystems and human infrastructure, are of paramount importance. Concerning the naturalness of the Austrian forests, there was a study carried out in the 1990s. There are hemerob (natural) forests and artificial forests, more or less in balance. As for the legal framework in Austria, the Forest Law has its basis in the so-called Reichsforstgesetz of the Austrian-Hungarian monarchy in 1852 (very poor forest condition, degraded forests after overexploitation, forest grazing, large-scale clear-cutting, plundering). The Federal Forest Act of 1975 aims to ensure the maintenance of forest resources and functions while allowing sustainable utilisation. The responsibility for forest legislation lies with the federal government, while the administration is led by the nine provinces. Mr Frank analyses the Forest Act's relevance for close-to-nature forestry and found limited direct reference. He presented the principles of Pro Silva Austria, which promotes closer-to-nature forest management based on ecological, economic, and social sustainability. Frank concludes that in addition to the three pillars of closer-to-nature management (tree species composition, natural regeneration, and selective harvesting), the consideration of biodiversity needs to be included in the concept.

Panel discussion

The panel discussion is chaired by Marco Onida (European Commission) and Piergiorgio Terzuolo (IPLA). The speakers and the audience discuss various aspects of forest management and conservation in European countries, including Austria, Slovenia, France, Italy, and others. They touch on voluntary approaches to forest reserve management, compensation schemes for ecosystem services, and challenges faced in implementing sustainable practices. The debate also addresses issues such as the absence of legal definitions for old-growth forests, mapping and monitoring biodiversity, and the importance of stakeholder involvement in decision-making. Overall, the discussion underscores the complexity of managing forests while balancing environmental, economic, and social considerations.

Closing Remarks and Future Directions:

The workshop concludes with closing remarks from Marco Onida, who emphasises the importance of the discussions for informing the implementation of the EU Forest Strategy 2030 in the Alpine region. He highlights the need for continued collaboration between the European Commission, the Alpine Convention, and the various stakeholders to promote sustainable and biodiversity-friendly forest management practices. The insights and experiences shared during the workshop will contribute to shaping future policies and actions in the Alpine biogeographic region.