Bratislava 2021
Bratislava Ministerial Declaration

“The Future We Want: The Forests We Need”

Adopted by Expert Level Meeting through a silence procedure on 16 December 2020 for consideration and signature by the ministers at the Eighth FOREST EUROPE Ministerial Conference

We, the representatives of the Signatories of FOREST EUROPE, at the Eighth Ministerial Conference on the Protection of Forests in Europe, held in Bratislava on 14-15 April 2021,

1. STRESSING the vital role of forests and sustainable forest management in Europe for providing multiple benefits for the environment, economic and social development, and livelihoods.

2. NOTING the unprecedented situation of the COVID-19 pandemic and its negative effects on the European and global economy and societies, and in this regard STRESSING the irreplaceable role that European forests play for human health and well-being.

3. EMPHASIZING that forests and sustainable forest management in Europe play a critical role in achieving the 2030 Agenda for Sustainable Development and its Sustainable Development Goals, the Global Forest Goals of the United Nations Strategic Plan for Forests, and contributing positively to the implementation of the goals and objectives of the United Nations Framework Convention on Climate Change and the Paris Agreement, the Katowice Forest Declaration, the United Nations Convention to Combat Desertification, and the Convention on Biological Diversity, as well as the European Union’s Green Deal.

4. RECALLING the historical background and long-term tradition of sustainable forest management in the European region.

5. REAFFIRMING the definition and principles of sustainable forest management from the H1 Helsinki Resolution, which provides the principal policy framework for balancing the provision of ecological, economic, and social functions of forests in Europe to contribute to these three dimensions of sustainable development.

6. RECALLING the Pan-European Operational Level Guidelines for Sustainable Forest Management that provide guidance for implementing this overall concept.

7. REAFFIRMING the role of FOREST EUROPE, as the voluntary high-level political process for dialogue and cooperation on forests in Europe.

8. REAFFIRMING the mission of FOREST EUROPE to enhance cooperation on forest policies in Europe, under the leadership of ministers, and to secure and promote sustainable forest management with the aim of maintaining the multiple functions of forests crucial to society.

9. RECOGNISING the essential role of forests and sustainable forest management in protecting the environment, including biodiversity, habitats, soil, water sources, climate, and air quality, and REAFFIRMING that the implementation of sustainable forest management provides for the conservation of primary and climax forests.

---

1 H1 Helsinki Resolution, the Second Ministerial Conference on the Protection of Forests in Europe, Helsinki, Finland, June 1993
2 L2 Lisbon Resolution, the Third Ministerial Conference on the Protection of Forests in Europe, Lisbon, Portugal, June 1998
3 Taking into account recommendations from the review process conducted in 2017 in response to the Madrid Ministerial Declaration on the future direction of FOREST EUROPE: Final Report of Working Group
10. BEING HIGHLY CONCERNED about negative impacts of climate change and associated natural hazards on forests in Europe and worldwide, such as the increased frequency and severity of disturbances by storms, fires, droughts, pests, and diseases affecting forests’ ability to fulfil their multiple functions.

11. BEING AWARE of other developments affecting forests, such as growing urbanization, depopulation of rural areas, and the need for transformation to a sustainable circular bio-economy, while NOTING the potential growing demand for forest biomass which can cause trade-offs in view of demands and policies in other sectors.

12. BEING CONCERNED about deforestation, forest degradation, and fragmentation worldwide, with their negative impacts on biodiversity and climate, and the role that European societies play in this regard.

13. STRESSING that sustainable forest management is an essential approach for enhancing the role of forests in mitigating the above mentioned negative trends, addressing the challenges and concerns.

14. STRESSING that the full value of forests and the ecosystem services they provide need to be taken into account in policies and programmes which are relevant to forests.

15. ACKNOWLEDGING that forests and the forest-based sector are crucial for making our societies more sustainable and resilient. They represent great potential for sustainable economic and social development, generating green jobs, income and livelihoods, in particular in rural and peri-urban areas. The supply of renewable bio-based materials and products from sustainable sources provides benefits for society as a whole and contributes to climate neutrality, as well as to the development of local wood-based value chains.

16. HIGHLIGHTING the importance and role of a skilled workforce in implementing sustainable forest management.

17. WELCOMING the progress made on sustainable forest management, while RECOGNISING the challenges ahead in implementing sustainable forest management in the European region.

18. WELCOMING the progress made in achieving the Goals for European Forests and the European 2020 Targets, while, on the other hand, RECOGNISING gaps and challenges ahead.

19. REITERATING the Madrid Extraordinary Ministerial Decision of 2015 and Ministerial Decision on Resuming the Negotiations on a Legally Binding Agreement on Forests in Europe of 2019, and in this regard TAKING NOTE of the lack of consensus as regards the FOREST EUROPE Signatories’ invitation to resume negotiations on a possible legally binding agreement on forests in Europe.

20. BUILDING ON the vision for forests in Europe from the Oslo Ministerial Decision “European Forests 2020”, and HIGHLIGHTING the need to update this vision to reflect recent international developments.

---

5 As reflected in the State of Europe’s Forests 2020 report.
6 As reflected in the report Implementation of the FOREST EUROPE Commitments, 2016-2020.
7 Decision ECE/EX.2020/3 relating to the possible Legally Binding Agreement on Forests in Europe adopted by the Executive Committee of the United Nations Economic Commission for Europe
We, the representatives of the Signatories of FOREST EUROPE commit ourselves:

**Vision for European forests 2030**

21. To share the vision that European forests are sustainably managed to be resilient, healthy, productive, and multifunctional, and contribute to sustainable development by providing economic, social, environmental, and cultural benefits for present and future generations. At the same time, the role and importance of trees outside forests in rural and urban areas is recognised.

22. To recognise the key role of public and private forest owners and managers in achieving this vision.

23. To acknowledge the importance of stakeholder involvement in realizing this vision.

24. To support forest research and to communicate evidence-based knowledge on forests and sustainable forest management in the light of society’s needs and concerns in order to ensure broad public support for this vision.

**Goals for European Forests and the 2030 European Targets**

25. To continue to implement sustainable forest management because its holistic and iterative approach facilitates continuous adaptation to changing environmental conditions and societal demands on forests.

26. To affirm and to retain the existing Goals for European Forests and decide to update the European Targets to be achieved by 2030 exemplifying the shared vision and sustainable forest management:

I. Signatories are developing and implementing national forest programmes, or their equivalents, in line with the shared vision and goals and the pan-European approach to national forest programmes.

II. In addressing emerging issues, forest knowledge is improved through research, education, innovation, information sharing, and communication.

III. In response to political objectives on climate and circular bio-economy, signatories are promoting carbon sequestration and storage in forests, as well as the sustainable supply of wood with due regard to storage of carbon in forest products and substitution of non-renewable materials and energy sources.

---

9. Meeting the targets refers to the level of signatories, not individual forest stands or spatial units lower than whole signatory countries.
10. The pan-European approach to national forest programmes endorsed at the Fourth Ministerial Conference on the Protection of Forests in Europe, Vienna, Austria, April 2003
IV. The value of forest ecosystem services across Europe is being estimated with a view to using standard valuation approaches\textsuperscript{11}, and that values are increasingly reflected in relevant national policies and market-based instruments, such as payments for ecosystem services.

V. Signatories implement strategies for forests and climate change adaptation through national forest programmes or equivalents and other relevant instruments, including, as appropriate, making use of relevant financial mechanisms.

VI. The rate of loss of forest biodiversity at habitat level is brought close to zero, and where possible, halted, and measures are taken to significantly reduce forest fragmentation and degradation and to restore degraded forests.

VII. The role of forests and their sustainable management in combating land degradation and desertification is fully recognised and forests are also managed to that end.

VIII. Signatories have policies and measures which ensure a significant increase in socio-economic and cultural benefits, especially for human health\textsuperscript{12}, livelihoods, rural development, and employment from forests.

IX. Effective measures are taken at regional, sub-regional, and national levels to eliminate illegal logging and associated trade in Europe and worldwide.

X. The role of urban and peri-urban forests, as well as urban trees, in providing benefits to the public and making European cities sustainable and resilient, is fully recognised.

National and pan-European Actions

27. To jointly explore measures to improve monitoring of progress towards the above targets, and report by one of the next Ministerial Conferences on the implementation of actions to achieve them.

28. To further promote and support interdisciplinary research and development, innovation, including digitalization, in relation to forests, sustainable forest management, and the forest-based sector, contributing to a sustainable circular bio-economy, addressing climate change and disaster risk management, safeguarding biodiversity, and developing social aspects of forests.

29. To fully recognise the essential role of sustainably managed, genetically diverse and healthy forests in relation to the conservation of biological diversity and the sustainable use of its components.

\textsuperscript{11} Overview of approaches and methods that are practically applicable and used for valuation of forest ecosystem services in Europe is available at Forest Europe web-based portal on forest ecosystem services https://foresteurope.org/overview-valuation-approaches-methods/

\textsuperscript{12} Examples can be found in the recommendations of the FOREST EUROPE Expert Group on Human Health and Well-being https://foresteurope.org/wp-content/uploads/2016/08/HHWB-Key-conclusions_web.pdf
30. To recognise the need for dynamic conservation and utilization of forest tree genetic resources and management of forest tree species populations for production of forest reproductive material and continue pan-European collaboration on forest genetic resources through the EUFORGEN to this end.

31. To enhance the attractiveness of forest-based sector employment on the labour market, by promoting, for example, fair income, adequate health and safety standards, and ensuring equality, non-discrimination, and promoting gender balance.

32. To promote enhanced cooperation with the education sector in order to identify the skills and qualification profiles required by labour markets, while streamlining forest education and training to meet the dynamic needs of the forest sector and ensure a highly qualified workforce in the long run.

33. To work further on valuation of forest ecosystem services and on exploring potential policies and instruments, including market-based, especially those that reward their provision, while taking into account regional particularities and needs, differences in national legislation and, where applicable, the existence of traditional rights of owners and citizens.

34. To further promote the important role of forests, the forest-based sector and, where relevant, sustainable afforestation, reforestation, and forest restoration in rural development policies and in other inter-sectoral policies affecting rural welfare, addressing land abandonment, and demographic imbalances.

35. To promote the development of a circular bio-economy where forests contribute to, inter alia, sustainably sourced innovative bio-based products, long-lived wood products, and non-wood forest products.

36. To promote and use a proactive science-policy dialogue to further inform decision-makers.

37. To raise awareness of the importance, role, and multiple benefits of sustainably managed forests for society at large and in achieving sustainable development, inter alia, through strengthening dialogue with society in the most effective ways.

38. To further strengthen multi-stakeholder dialogue and involvement, including indigenous peoples and local communities, giving special attention to the most disadvantaged and marginalised groups, and by integrating a gender perspective as a cross-cutting approach, as well as to strengthen cross-sectoral collaboration, in particular with the tourism, health-care, and land-use planning sectors.

---

13 As reflected in the updated pan-European indicator for sustainable forest management 4.6 Genetic Resources
14 European Forest Genetic Resources Programme
15 Pan-European Guidelines for Afforestation and Reforestation with a special focus on the provisions of the UNFCCC
FOREST EUROPE beyond 2020

39. To continue to work on the Pan-European Criteria and Indicators for Sustainable Forest Management, in cooperation with all relevant partners, with a view to further implement and strengthen monitoring, reporting, and assessment of forest resources and sustainable forest management in Europe.

40. To continue to regularly report on, based on the Pan-European Criteria and Indicators for Sustainable Forest Management, and provide a comprehensive picture of European forests in the next “State of Europe’s Forests” report.

41. To continue working on and providing guidance on policy relevant topics, as well as on emerging issues that relate to forests and the forest-based sector, while promoting policy coherence, synergies, and improving communication.

42. To strengthen inter-sectoral and cross border cooperation on the protection of European forests due to the transboundary nature of threats.

43. To analyse the need for updating the “Pan-European Operational Level Guidelines for Sustainable Forest Management”, endorsed at the Third Ministerial Conference in 1998, with a view to bringing such a possible decision on updated guidelines to the attention of the Ninth Ministerial Conference.

44. To focus our work at the pan-European level in the next programming period, with the support of the Liaison Unit and guided by the General Coordinating Committee and, as far as resources are available, on, *inter alia*, adaptation of forests to climate change and their role in climate change mitigation, on safeguarding biodiversity, facilitating the development of a sustainable circular bio-economy, and on the promotion of green jobs and forest-based sector employment.

45. To continue and further enhance, as appropriate, cooperation and synergies with the United Nations Forum on Forests (UNFF) and other relevant international actors, including other processes on criteria and indicators for sustainable forest management.
Bratislava Ministerial Resolution

Adapting pan-European Forests to Climate Change

Adopted by Expert Level Meeting through a silence procedure on 17 November 2020 for consideration and signature by the ministers at the Eighth FOREST EUROPE Ministerial Conference

We, as representatives of the Signatories of FOREST EUROPE, at the Eighth Ministerial Conference on the Protection of Forests in Europe, held in Bratislava on 14-15 April 2021,

1. RECALLING and BUILDING on FOREST EUROPE resolutions, declarations, and decisions, specifically Strasbourg Resolution 4, Helsinki Resolution 4, Vienna Resolution 5, and Madrid Resolution 2.

2. RECALLING that the impetus for the First Ministerial Conference (Strasbourg, 1990) was the need to tackle specific challenges in forest protection, such as combating the negative effects of air pollution, and STATING that our forests now face similarly grave threats.

3. ACKNOWLEDGING that climate change and biodiversity loss are the pressing and urgent issues of our time and their impacts are global in scope and unprecedented in scale, and therefore ACKNOWLEDGING that FOREST EUROPE should revisit and enhance its engagements.

4. RECALLING the findings of the IPCC Special Report on Climate Change and Land, the IPBES Global Assessment Report on Biodiversity and Ecosystem Services, the IPBES Assessment Report on Land Degradation and Restoration, and the EEA report Climate Change, Impacts and Vulnerability in Europe 2016.

5. RECOGNISING that urgent actions to maintain and enhance the health condition of forests and the multiple role they play, including for future generations, are necessary to implement the objectives of the Convention on Biological Diversity, the United Nations Framework Convention on Climate Change, and the Paris Agreement.

6. BEING CONCERNED about negative impacts on European forests from storms, fires, drought, pests and diseases, which are increasing in severity due to climate change, affecting the ability of forests to fulfil their multiple functions.

7. UNDERLINING that the adaptation of forests to the negative effects of climate change is necessary if forests are to fulfil their essential role in mitigating climate change, as well as to prevent damage to forests, enhance their resilience, and safeguard the multiple functions of forests.

8. RECOGNISING that halting the loss and degradation of forest ecosystems and promoting their restoration are essential to reaching the targets of the Paris Agreement, and, in relation to that, RECALLING the United Nations Decade on Ecosystem Restoration.
9. UNDERLINING that sustainable forest management safeguards the biodiversity and enhances
the productivity, regeneration capacity, vitality, and resilience of forests, while maintaining
relevant ecological, economic, and social functions in harmony with other terrestrial
ecosystems.

10. ACKNOWLEDGING the potential of forests to provide long-term mitigation of climate change,
including through sustainable forest management, afforestation, forest restoration, sustainable
use and conservation of forest genetic resources, and sustainable use of forest biomass in
the development of a bio-economy, reducing the use of fossil-based products and materials
associated with high emissions of greenhouse gases.

11. HIGHLIGHTING that the further development of forest-based, renewable resources into
innovative bio-based products and long-lived wood products, as well as non-wood products
and other ecosystem services that healthy and sustainably managed forests provide, can
make significant contributions to sustainable development and climate change mitigation.

12. RECOGNISING that action taken to address climate change is most effective if based on
the best available scientific knowledge and fact-based evidence fed by forest management
experience, both being continually re-evaluated in the light of new findings.

13. EMPHASIZING that forests are the most biologically rich terrestrial systems and it is therefore
vital to sustainably manage them in order to safeguard and restore their biodiversity and the
ecosystem services they provide.

14. NOTING the recommendations of the FOREST EUROPE Expert Group on Adaptation to
Climate Change, WELCOMING the on-going work on forest protection and risk management
carried out by international organizations and processes, and APPRECIATING the need to
further cooperate with those actors.
As representatives of the Signatories of FOREST EUROPE, we commit ourselves to:

I. Strengthen our national efforts in order to:

15. Further increase work on the adaptation of forests and implement findings into forest management policy and practice to prevent and mitigate adverse impacts caused by changing conditions at local, national, and regional levels in order to secure all functions of forests while increasing their resilience to natural hazards and protecting them against threats.

16. Continue to raise public awareness of the vital role of sustainable forest management in protecting forests and strengthening their vitality, and increase efforts in the dialogue with society and forest owners.

17. Strengthen the national implementation of policies, tools, and measures for the protection, conservation, and appropriate use of forest genetic resources in order to contribute to the adaptation of forests to changing climatic and site conditions.

18. Facilitate research in the fields of protection of genetic diversity, adaptation of forests and forest management to climate change, including testing and selecting of species and suitable provenances for future conditions in line with international recommendations on Invasive Alien Species as well as on forest damage.

19. Strengthen work on forest landscape restoration, the rehabilitation of degraded forests and, where relevant, on afforestation.

20. Strengthen the work on development and implementation of disturbance risk assessment approaches in the context of national forest programmes and strategies, namely those that can be caused by biotic and abiotic agents, such as pests and forest fires, with the aim of better prevention and increased preparedness towards disturbances and managing them, if they occur.

21. Invest in the education and training of skilled forest staff and forest owners in order to promote and embed appropriate adaptation attitudes and actions into sustainable forest management practices.

22. Accelerate our actions to ensure that the global contribution of forests and forest products to mitigating climate change is maintained and enhanced by 2050, in order to reach the targets of the Paris Agreement.

II. Improve international cooperation in the pan-European region in order to:

23. Share examples of best practice and lessons learned, *inter alia*, on sustainable forest management, in order to make forests more resilient to the impact of climate change.

24. Continue to exchange experience on the restoration and rehabilitation of degraded forests.
25. Further promote interaction between research, innovation, policy, and sustainable forest management practice on the adaptive capacities of forests to climate change and the prevention of natural hazards in cooperation with international organizations and initiatives active in this field.

26. Further support transboundary forest health monitoring and enhance initiatives in the field of vegetation vitality monitoring, especially with a view to the identification of long-term trends.

III. Connect national and international activities to work towards a coordinated pan-European forest risk knowledge mechanism

27. Work towards a coordinated pan-European forest risk knowledge mechanism. The format will be defined by terms of reference to be adopted by the signatories of FOREST EUROPE, taking into account already existing mechanisms and networks at European and sub-regional levels, with the premises to synergize efforts, add value, and avoid duplication. When developing the terms of reference, stable funding for such a mechanism and the potential role of national focal points will be duly considered, taking into account the following topics, inter alia:

a. Science-based best practice to inform policy makers and forest practitioners on how best to enhance forest resilience and foster adaptive capacity in the forest sector in order to manage forest disturbance risks;

b. Transboundary cooperation on disturbance risk management with specific but not exclusive focus on pests and diseases and forest fires;

c. Risk prevention and preparedness to improve the ability to cope with future disturbance events and thus offer assistance at the pan-European level;

d. Early response and recovery best practice to inform forest practitioners and decision makers after disturbance events;

e. Enhanced knowledge exchange opportunities in order to build expert capacity in the field of disturbance risk management;

f. Improved information sharing on climate change impacts and natural hazards, changes in site conditions, damaged areas, types of forests affected and wood volumes as well as insect, pest, and disease dynamics;

g. Proactive engagement with the public and media, and dissemination of information in an accessible and appropriate format.
Madrid 2015
Madrid Ministerial Declaration
25 years together promoting Sustainable Forest Management in Europe

We, as representatives of the Signatories of FOREST EUROPE, at the 7th Ministerial Conference on the Protection of Forests in Europe, held in Madrid on 20-21 October 2015,

1. ACKNOWLEDGING the achievements of FOREST EUROPE in its 25 years of existence and EMPHASISING the status of FOREST EUROPE as the voluntary high level political process for forests in Europe that has contributed to the strengthening and implementation of sustainable forest management in Europe.

2. REITERATING the vision that all European forests are vital, productive and multifunctional.

3. REAFFIRMING the mission of FOREST EUROPE to enhance the cooperation on forest policies in Europe under the leadership of ministers, and to secure and promote sustainable forest management with the aim of maintaining the multiple functions of forests crucial to society.

4. ACKNOWLEDGING that sustainable forest management is a successful framework concept whose implementation has increased benefits from forests to society in Europe and contributed substantially to addressing global and regional challenges, notably climate change and social and economic development.

5. REAFFIRMING that forests are important for sustainable development and TAKING NOTE of the important role that forests play in the well-being of European society.

6. RECOGNISING that European forests are vital in combating climate change and that adaptation of forests to climate change will be necessary to ensure a sustained mitigation effect and TAKING NOTE that the expanding forest area as well as sustainably managed forests in Europe provide carbon sequestration and storage in forest biomass and soils, as well as in forest products.

7. HIGHLIGHTING the protective role of forests for preventing land degradation and desertification by stabilizing soils, reducing water and wind erosion, and maintaining water and nutrient cycling in soils.

1 FOREST EUROPE vision as in the Oslo Ministerial Decision: European Forests 2020
8. WELCOMING the progress made on the implementation of sustainable forest management in the pan-European region, and an increase of the number of countries with improved national forest policy instruments, such as National Forest Programmes, as reflected in the State of Europe’s Forests 2015 report; while ACKNOWLEDGING the need for further improvement of forest related information.

9. WELCOMING the progress made towards the achievement of the Goals for European Forests and the European 2020 Targets, EMPHASIZING the need to continue working towards the FOREST EUROPE’s vision, and ACKNOWLEDGING the need for further implementation and improved information on progress made towards the goals and 2020 targets.

10. REAFFIRMING the role and contributions of sustainably-managed forests to the green economy by creating green jobs and improving human well-being and social equity, while improving ecosystem services and significantly reducing environmental risks.

11. RECOGNISING that forest management must adapt to challenges such as increasing temperatures, the variability of rainfall, more extreme events, including storms, floods, fires, droughts, pests and diseases and that forests must be actively managed to secure their multifunctionality as well as increase their productivity in the context of a rapidly changing environment.

12. TAKING INTO ACCOUNT the work undertaken at the global level concerning forests and sustainable forest management, and also progress made in the fields of climate change, biodiversity, desertification as well as sustainable development that may have a significant impact on forest policies.

13. WELCOMING the progress made in the achievement of the global objectives on forests in the region while RECOGNISING the challenges ahead².

14. FURTHER WELCOMING the ministerial declaration and resolution of the eleventh session of the United Nations Forum on Forests (UNFF) on the International Arrangement on Forests (IAF) beyond 2015 and the invitation addressed to the regional actors to strengthen the collaboration with UNFF within IAF.

² Ref. UNECE/FAO study “Forests in the ECE region: Trends and challenges in achieving the Global Objectives of Forests”.
As representatives of the Signatories of FOREST EUROPE, we commit ourselves to:

**Addressing global challenges at the regional level**

15. Raise awareness of the importance of forests in the post-2015 development agenda as a key contributor to sustainable development, and in particular of their contribution to the achievement of several of the sustainable development goals and targets.

16. Enhance the role of forests, sustainable forest management and the use of forest-based products in mitigating climate change.

17. Continue efforts to adapt forests to climate change through sustainable forest management.

18. Strengthen the use of sustainable forest management tools developed by FOREST EUROPE, particularly in the future climate change regime.

19. Promote the role of sustainable forest management in landscape restoration to contribute to sustainable development in a broader context and in the strive to achieve a land degradation-neutral world.

20. Enhance the sustainable use of goods and services from forest ecosystems and the development of agroforestry, which have the potential to make the rural population less vulnerable to the potential impacts of desertification and land degradation.

21. Monitor and report on the achievements in the implementation of the goals and targets of European Forests 2020.

22. Increase efforts to raise awareness on the multifunctionality of forests and the benefits they offer to society, as well as to increase the efforts on communicating the importance of sustainable forest management in managing and protecting forests in Europe.

23. Work towards integrated, holistic and cross-sector approaches with other related areas such as climate change, biodiversity, desertification water and plant health, and other sectors such as energy, agriculture, rural development and construction which may impact on the forest sector, in order to strengthen synergies.

24. Increase efforts to enable the mobilization of financial resources from all sources to support sustainable forest management inter alia through enhancing research and development of new products and services related to forests with the view to improve profitability of the forest sector.

---

3 Such as Pan-European Criteria and Indicators for sustainable forest management, Pan-European Operational Level Guidelines for sustainable forest management, MCPFE Approach to National Forest Programmes in Europe, Pan-European Guidelines for Afforestation and Reforestation.

Pan-European and National Actions

25. Provide regional inputs to the work of the International Arrangement on Forests through the United Nations Forum on Forests.

26. Strengthen cooperation with relevant regional and global actors, inter alia, by requesting the Liaison Unit to carry out work to this end.

27. Endorse the updated pan-European indicators for sustainable forest management (Annex 1) as adopted by the Expert Level Meeting on 1st July 2015 in Madrid, Spain, and use them in forest policy, forest monitoring, as appropriate, and for collaboration with other sectors.

28. Further develop and update policies and tools for sustainable forest management in order to adapt them, where appropriate, to changing circumstances and to make them fit for addressing new regional and global challenges.

29. Invite other sectors to use the pan-European criteria and indicators for forest related assessments.

30. Use subsets of the pan-European criteria and indicators as appropriate for communicating the achievements of sustainable forest management, and explore the possibilities for various applications for them, notably in relation to other policy areas.

31. Work together as well as with relevant international organisations when appropriate on elaboration and implementing approaches for evaluation of sustainability in forest management.

32. Strengthen the fruitful cooperation and collaboration with other processes on criteria and indicators for sustainable forest management, pursuing joint efforts to continue streamlining reporting requirements.
Annex 1 to Madrid Ministerial Declaration:

UPDAted pan-europEan indicaTorS for sustAinable forest management

as adopted by the
FOREST EUROPE Expert Level Meeting
30 June - 2 July 2015, Madrid, Spain

Introduction

This document contains the updated set of pan-European indicators for sustainable forest management (SFM) both quantitative and qualitative.

Since the first set of pan-European indicators for sustainable forest management in 1998 and its improvement in 2003, experience has shown that criteria and indicators are a very important tool for European forest policy. Based in the improvement of knowledge and data collection systems as well as the current and upcoming information needs an update of the indicators is needed. Thus, the Expert Level Meeting (ELM) on January 2015 decided to update the existing set of pan-European indicators for SFM.

An Advisory Group, representing countries and relevant organizations expertise in Europe, was set up to facilitate the updating process, a participatory process to consult with countries and stakeholders was established (through two online consultations and a workshop) and a wide range of experts were consulted. The first online consultation was conducted from mid-December 2014 to end of January 2015, the second online consultation on March 2015 and the FOREST EUROPE Workshop on Updating the Pan-European Indicators for SFM was held on April 2015 in Madrid.

The updated list of indicators, as presented, is the result of this participatory process and the work of the Advisory Group. It is presented in the framework of the existing criteria and structured following a linkage between the qualitative and the quantitative indicators’ proposal.

The new indicators (2.5 Forest land degradation, 4.7 Forest fragmentation, 4.10 Common forest bird species) need to be further elaborated before implementation, and measurement methods should be subject to an in-depth review and discussion at the implementation stage. During the next reporting period, pilot projects to check the availability, feasibility and reliability of data of the referred indicators should be carried out.

Additional information on rationales, international data providers, measurement units, current periodicity of data availability as well as underlying definitions, as contained in the supplementary documents “Background Information for the Updated Pan-European Indicators for Sustainable Forest Management” and “Relevant Definitions Used for the Updated Pan-European Indicators for Sustainable Forest Management”, to be further developed.

5 The final report of the Advisory Group, the supplementary documents and related information of the updating process can be found at: http://www.foresteurope.org/content/updating-pan-european-set-indicators-sfm.
<table>
<thead>
<tr>
<th>No.</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>National Forest Programmes or equivalent</td>
</tr>
<tr>
<td>2</td>
<td>Institutional frameworks</td>
</tr>
<tr>
<td>3</td>
<td>Legal/regulatory framework: National (and/or sub-national) and International commitments</td>
</tr>
<tr>
<td>4</td>
<td>Financial and economic instruments</td>
</tr>
<tr>
<td>5</td>
<td>Information and communication</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Criteria</th>
<th>No.</th>
<th>Indicator</th>
<th>Full text</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criterion 1: Maintenance and Appropriate Enhancement of Forest Resources and their Contribution to Global Carbon Cycles</td>
<td>C1</td>
<td>Policies, institutions and instruments to maintain and appropriately enhance forest resources and their contribution to global carbon cycles</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>Forest area</td>
<td>Area of forest and other wooded land, classified by forest type and by availability for wood supply, and share of forest and other wooded land in total land area</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>Growing stock</td>
<td>Growing stock on forest and other wooded land, classified by forest type and by availability for wood supply</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>Age structure and/or diameter distribution</td>
<td>Age structure and/or diameter distribution of forest and other wooded land, classified by availability for wood supply</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>Forest carbon</td>
<td>Carbon stock and carbon stock changes in forest biomass, forest soils and in harvested wood products</td>
</tr>
<tr>
<td>Criterion 2: Maintenance of Forest Ecosystem Health and Vitality</td>
<td>C2</td>
<td>Policies, institutions and instruments to maintain forest ecosystems health and vitality</td>
<td></td>
</tr>
<tr>
<td></td>
<td>21</td>
<td>Deposition and concentration of air pollutants</td>
<td>Deposition and concentration of air pollutants on forest and other wooded land</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>Soil condition</td>
<td>Chemical soil properties (pH, CEC, C/N, organic C, base saturation) on forest and other wooded land related to soil acidity and eutrophication, classified by main soil types</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>Defoliation</td>
<td>Defoliation of one or more main tree species on forest and other wooded land in each of the defoliation classes</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>Forest damage</td>
<td>Forest and other wooded land with damage, classified by primary damaging agent (abiotic, biotic and human induced)</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>Forest land degradation⁶</td>
<td>Trends in forest land degradation</td>
</tr>
</tbody>
</table>

⁶ Requires to be further developed and checked under which Criterion (2 or 5) better fits.
### Criteria and Indicators

<table>
<thead>
<tr>
<th>Criteria</th>
<th>No.</th>
<th>Indicator</th>
<th>Full text</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Criterion 3: Maintenance and Encouragement of Productive Functions of Forests (Wood and Non-Wood)</strong></td>
<td></td>
<td>C.3 Policies, institutions and instruments to maintain and encourage the productive functions of forests</td>
<td></td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>Increment and fellings</td>
<td>Balance between net annual increment and annual fellings of wood on forest available for wood supply</td>
</tr>
<tr>
<td></td>
<td>32</td>
<td>Roundwood</td>
<td>Quantity and market value of roundwood</td>
</tr>
<tr>
<td></td>
<td>33</td>
<td>Non-wood goods</td>
<td>Quantity and market value of non-wood goods from forest and other wooded land</td>
</tr>
<tr>
<td></td>
<td>34</td>
<td>Services</td>
<td>Value of marketed services on forest and other wooded land</td>
</tr>
<tr>
<td><strong>Criterion 4: Maintenance, Conservation and Appropriate Enhancement of Biological Diversity in Forest Ecosystems</strong></td>
<td></td>
<td>C.4 Policies, institutions and instruments to maintain, conserve and appropriately enhance the biological diversity in forest ecosystems</td>
<td></td>
</tr>
<tr>
<td></td>
<td>41</td>
<td>Diversity of tree species</td>
<td>Area of forest and other wooded land, classified by number of tree species occurring</td>
</tr>
<tr>
<td></td>
<td>42</td>
<td>Regeneration</td>
<td>Total forest area by stand origin and area of annual forest regeneration and expansion</td>
</tr>
<tr>
<td></td>
<td>43</td>
<td>Naturalness</td>
<td>Area of forest and other wooded land by class of naturalness</td>
</tr>
<tr>
<td></td>
<td>44</td>
<td>Introduced tree species</td>
<td>Area of forest and other wooded land dominated by introduced tree species</td>
</tr>
<tr>
<td></td>
<td>45</td>
<td>Deadwood</td>
<td>Volume of standing deadwood and of lying deadwood on forest and other wooded land</td>
</tr>
<tr>
<td></td>
<td>46</td>
<td>Genetic resources</td>
<td>Area managed for conservation and utilisation of forest tree genetic resources (in situ and ex situ genetic conservation) and area managed for seed production</td>
</tr>
<tr>
<td></td>
<td>47</td>
<td>Forest fragmentation&lt;sup&gt;7&lt;/sup&gt;</td>
<td>Area of continuous forest and of patches of forest separated by non-forest lands</td>
</tr>
<tr>
<td></td>
<td>48</td>
<td>Threatened forest species</td>
<td>Number of threatened forest species, classified according to IUCN Red List categories in relation to total number of forest species</td>
</tr>
<tr>
<td></td>
<td>49</td>
<td>Protected forests</td>
<td>Area of forest and other wooded land protected to conserve biodiversity, landscapes and specific natural elements, according to MCPFE categories</td>
</tr>
<tr>
<td></td>
<td>410</td>
<td>Common forest bird species&lt;sup&gt;8&lt;/sup&gt;</td>
<td>Occurrence of common breeding bird species related to forest ecosystems</td>
</tr>
<tr>
<td><strong>Criterion 5: Maintenance and Appropriate Enhancement of Protective Functions in Forest Management (notably soil and water)</strong></td>
<td></td>
<td>C.5 Policies, institutions and instruments to maintain and appropriately enhance of the protective functions in forest management</td>
<td></td>
</tr>
<tr>
<td></td>
<td>51</td>
<td>Protective forests - soil, water and other ecosystem functions - infrastructure and managed natural resources</td>
<td>Area of forest and other wooded land designated to prevent soil erosion, preserve water resources, maintain other protective functions, protect infrastructure and managed natural resources against natural hazards</td>
</tr>
</tbody>
</table>

<sup>7</sup> Requires to be further developed and tested.

<sup>8</sup> Requires further development and testing for consideration.
### Criteria

<table>
<thead>
<tr>
<th>No.</th>
<th>Indicator</th>
<th>Full Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.6</td>
<td>Policies, institutions and instruments to maintain other socioeconomic functions and conditions</td>
<td></td>
</tr>
<tr>
<td>61</td>
<td>Forest holdings</td>
<td>Number of forest holdings, classified by ownership categories and size classes</td>
</tr>
<tr>
<td>62</td>
<td>Contribution of forest sector to GDP</td>
<td>Contribution of forestry and manufacturing of wood and paper products to gross domestic product</td>
</tr>
<tr>
<td>63</td>
<td>Net revenue</td>
<td>Net revenue of forest enterprises</td>
</tr>
<tr>
<td>64</td>
<td>Investments in forests and forestry</td>
<td>Total public and private investments in forests and forestry</td>
</tr>
<tr>
<td>65</td>
<td>Forest sector workforce</td>
<td>Number of persons employed and labour input in the forest sector, classified by gender and age group, education and job characteristics</td>
</tr>
<tr>
<td>66</td>
<td>Occupational safety and health</td>
<td>Frequency of occupational accidents and occupational diseases in forestry</td>
</tr>
<tr>
<td>67</td>
<td>Wood consumption</td>
<td>Consumption per head of wood and products derived from wood</td>
</tr>
<tr>
<td>68</td>
<td>Trade in wood</td>
<td>Imports and exports of wood and products derived from wood</td>
</tr>
<tr>
<td>69</td>
<td>Wood energy</td>
<td>Share of wood energy in total primary energy supply, classified by origin of wood</td>
</tr>
<tr>
<td>610</td>
<td>Recreation in forests</td>
<td>The use of forests and other wooded land for recreation in terms of right of access, provision of facilities and intensity of use</td>
</tr>
</tbody>
</table>

\[ \Sigma = 34 \text{ quantitative indicators} + 11 \text{ qualitative indicators (total 45 indicators)} \]
Madrid Ministerial Decision
The future direction of FOREST EUROPE

As representatives of the Signatories of FOREST EUROPE, we

1. ACKNOWLEDGE the relevance of the work carried out during these last 25 years since the First Ministerial Conference in 1990 addressing common challenges and opportunities related to forests in Europe.

2. ARE AWARE of new challenges and demands in and beyond the forest sector in Europe.

3. RECOGNISE the significant achievements of the Ministerial Conference on the Protection of Forests in Europe, known as FOREST EUROPE, guided by ministerial declarations, resolutions, decisions and statements, including their related sustainable forest management tools¹, with relevance at national, sub-regional, regional and global level.

4. ACKNOWLEDGE the role of FOREST EUROPE in facilitating an open and inclusive policy dialogue between governments, governmental organizations, civil society, non-governmental organizations, and the private sector.

5. REAFFIRM the role of FOREST EUROPE, as a voluntary high-level political process for dialogue and cooperation on forest policies in Europe.

6. RECALL the outcomes of the work and reflections based on the “Review of the MCPFE” (2009) and TAKE NOTE of the “Assessment of the achievements and added value of the FOREST EUROPE process (2015).”

¹ http://www.foresteurope.org/sfm_criteria
7. WELCOME the progress made in regional forest related work in particular by the United Nations Economic Commission for Europe, the Food and Agriculture Organization of the United Nations, the United Nations Environment Programme as well as the European Forest Institute and emphasize importance of cooperation between FOREST EUROPE and these organisations.

8. UNDERLINE that FOREST EUROPE needs to be re-examined to respond to current and new challenges and opportunities in order to maintain and enhance its contribution to sustainable forest management in Europe and make FOREST EUROPE fit for the future.

9. DECIDE to review the FOREST EUROPE process, specially its structure, procedures and work modalities, reflecting on the lessons learnt, in order to make it more effective and inclusive, with the specificities set out in forthcoming terms of reference and roadmap to be agreed at the first Expert Level Meeting after the 7th Ministerial Conference.

10. DECIDE to maintain and enhance good cooperation with forest related organizations in the region on the implementation of the FOREST EUROPE resolutions and decisions, in particular the goals and targets as contained in the Oslo Ministerial Decision: European Forests 2020.
We, as representatives of the Signatories of FOREST EUROPE, at the 7th Ministerial Conference on the Protection of Forests in Europe, in Madrid on 20-21 October 2015,

1. RECALLING and BUILDING ON the Lisbon Declaration and Resolution 1 “People, Forests and Forestry- Enhancement of Socio-Economic Aspects of Sustainable Forest Management”, Vienna Resolution 3 “Preserving and Enhancing the Social and Cultural Dimensions of Sustainable Forest Management in Europe” and the Oslo Ministerial Decision “European Forests 2020”.

2. WELCOMING the global and regional on-going work on green economy and social issues, such as the Rio+20 and post-2015 development agenda including the development of the Sustainable Development Goals, the Decent Work Agenda of the International Labor Organization and the Rovaniemi Action Plan for the Forest Sector in a Green Economy and TAKING NOTE of the outcomes of the World Forestry Congress “Forests and People: Investing in a Sustainable Future”1.

3. AWARE that the current status of our forests provides opportunities to create employment and enhance the values of our forests, as well as to substitute more energy demanding construction material by wood and to increase the use of biomass for energy.

4. NOTING that in the context of this ministerial resolution, the term “decent work” involves opportunities for work that is productive and delivers a fair income, security in the workplace and social protection for families, better prospects for personal development and social integration, freedom for people to express their concerns, organise and participate in the decisions that affect their lives, and equality of opportunity and treatment for all women and men as defined by the International Labor Organization.

5. NOTING that a green economy offers important opportunities to the forest sector, and creates the potential to secure green decent jobs and increase social inclusion.

6. ACKNOWLEDGING that forests are a source of employment with great potential to generate jobs and income opportunities also through new forest products and services as well as to contribute to rural development, human well-being and social equity, enabling also the long term economic viability and competitiveness of forestry and forest-based industries by serving as a sound basis for bioeconomy.

1 The World Forestry Congress took place on 07-11 September 2015.
As representatives of the Signatories of FOREST EUROPE, we commit ourselves to:

I. Enhancing the role of the sustainable forest management in a green economy

7. Improve the understanding and recognition of the forest-based economic, social and environmental benefits by highlighting the contribution of sustainable forest management to a green economy.

8. Enhance the contribution of sustainable forest management in a bio-based low carbon economy stressing its importance for the development of economic growth and jobs, also for renewable energy supply and material substitution of fossil based products and for environment sustainability and so ensuring a sound basis for bioeconomy.

9. Promote innovation and research by enabling the necessary conditions, such as financing, workforce and skills, and encouraging the development of a culture of innovation as well as the exchange of good practices and know-how.

10. Encourage the use of wood from sustainably managed forests in order to stimulate the transition of societies to a green economy.

II. Enhancing the social aspects of sustainable forest management, including promoting green jobs in forests

11. Promote a forest sector and its related value chain that provides society with increasing opportunities for green jobs, which means that they are decent and connected to the management and use of forests and to environmentally friendly production processes based on goods and services from sustainably managed forests.

12. Adapt education and training systems to changing conditions, technologies and new skills required in the forest sector and beyond.

13. Promote social inclusion and efforts towards gender equality along the whole forest value chain.

III. Incorporating the value of forests ecosystem services in a green economy

14. Recognise the key role of forest ecosystem services in the contribution of forests to a green economy.

15. Promote the exchange of information on methodologies and practices on the valuation of and payments for forest ecosystem services as well as policy approaches to this end.
16. Support the development and possible application of common methodologies for the valuation of forest ecosystem services.

17. Make further efforts to have the full value of forest ecosystem services better reflected in forest related policies and tools inter alia national forest programmes or equivalents, guidelines, market based instruments and payments for ecosystem services.

Pan-European and National Actions

18. Exchange information on policy measures and lessons learnt to promote the use of wood from sustainable sources as a key renewable resource in a green and bio-based economy.

19. Develop guidelines on the promotion of green jobs in the forest sector in the region.

20. Exchange of knowledge and experience in education and training systems and in particular requirements for new skills for forest workers, forest managers and forest owners, in collaboration with the relevant institutions, with a view to identifying possible pan-European recommendations to this end.


22. Explore ways to use national forest programmes or equivalents to improve occupational health and safety standards and practices, to adapt forestry education, labour skills and qualification of the workforce to the current demands, and to promote job stability, as well as social equity and gender equality in the forest sector.

23. Share information and experience related to science-policy integration to facilitate both policy development and innovation for the long-term competitiveness of the whole forest sector.
Madrid Ministerial Resolution 2
Protection of forests in a changing environment

We, as representatives of the Signatories of FOREST EUROPE, at the 7th Ministerial Conference on the Protection of Forests in Europe, in Madrid on 20-21 October 2015,

1. RECALLING and BUILDING ON numerous relevant FOREST EUROPE resolutions, declarations and decisions1;

2. RECALLING that sustainable forest management integrates the protection of the long-term capacity of forests and forest ecosystems to maintain and improve their stability, vitality, resistance, and regenerative, adaptive and mitigating capacity as well as their potential to provide multiple goods and services while fulfilling relevant ecological, economic and social functions.

3. AWARE that sustainably managed forests are more resilient.

4. AWARE of a changing climate and natural hazards such as erosion, forest fires, desertification, storms and damage caused by pests or pathogenic organisms, among others, that may represent transboundary threats to forest resources, as well as the pressure of a growing population and the challenges of land-use changes.

5. REAFFIRMING the need to strengthen cooperation in the protection of European forests due to the transboundary nature of threats.

6. RECOGNISING the need to secure the protective functions of forests.

7. TAKING NOTE of the on-going work on forest protection and risk management carried out by international organisations and processes.

8. TAKING NOTE that recent developments on international fora and the work by FOREST EUROPE throughout the last 25 years generate a need and provide the opportunity to reaffirm the meaning and significance of the protection of forests in sustainable forest management.


Madrid 2015
As representatives of the Signatories of FOREST EUROPE, we commit ourselves to:

I. Enhancing the protection of forests

9. Further develop pan-European approaches to forest protection as an integral part of sustainable forest management to address new, varied challenges and threats posed to European forests, including climate change, and to further strengthen the role of sustainable forest management to this end.

10. Raise awareness on the vital role of sustainable forest management in protecting forests.

11. Increase the work on adaptation of forests and forest management to climate change to prevent and mitigate damage caused by changing conditions at the local and regional scales in order to secure all functions of European forests, including their resilience to natural hazards and protection against human-induced threats, maintaining their productive and protective functions.

12. Promote national implementation of strategies and guidelines for dynamic conservation and appropriate use of forest genetic resources under changing climate conditions.

II. Strengthening cooperation in the pan-European region

13. Continue pan-European collaboration on forest genetic resources through the European Forest Genetic Resources Programme (EUFORGEN).

14. Share expertise in the region and reinforce the collaboration between countries on the prevention and fight against forest fires, storms, floods, avalanches, the spread of pests and diseases, as well as handling invasive species and combating desertification, erosion, natural hazards and any other threat of transboundary character.

Pan-European and National Actions

15. Exchange information on management experiences in maintaining the protective functions, taking stock of the particular experiences and solutions under different climatic conditions.

16. Exchange experiences on restoration and rehabilitation of degraded forests.

17. Promote interaction between research, policy and forest management about forest hazards.
Madrid Ministerial Decision

Adopted by the Expert Level Meeting on 2 July 2015 for consideration by the ministers at the FOREST EUROPE Extraordinary Ministerial Conference Madrid 21 October 2015

RECALLING the Oslo Ministerial Mandate for Negotiating a Legally Binding Agreement on Forests in Europe, June 2011, establishing the Intergovernmental Negotiating Committee to develop a legally binding agreement on forests in Europe (INC),

FURTHER RECALLING that the Intergovernmental Negotiating Committee was requested to present its results to an Extraordinary FOREST EUROPE Ministerial Conference.

As representatives of the signatories of FOREST EUROPE, we:

1. Acknowledge the work of the Intergovernmental Negotiating Committee and take note of the outcome as contained in the report of the fourth resumed and final session of the Intergovernmental Negotiating Committee to the Extraordinary Ministerial Conference in 2015.

2. Recognize that the Draft Negotiating Text for a Legally Binding Agreement on forests in Europe as contained in the report of the fourth resumed and final session of the Intergovernmental Negotiating Committee to the Extraordinary Ministerial Conference in 2015 should serve as a basis for potential further consideration of a Legally Binding Agreement.

3. At an appropriate time and at latest by 2020, will explore possible ways to find common ground on the Legally Binding Agreement.
Oslo 2011
Oslo Ministerial Mandate for Negotiating a Legally Binding Agreement on Forests in Europe

1. RECALLING the Declarations of the Ministerial Conferences in Strasbourg 1990, Helsinki 1993, Lisbon 1998, including the vision for the European forest sector, Vienna 2003 and Warsaw 2007, which identified issues of transboundary nature and common concern with regard to forests and recognised the need for strengthening cooperation between the states of the entire European continent in the field of sustainable management of their forests;

2. REITERATING commitments to work towards addressing global environmental challenges and contributing to the achievement of the Non-Legally Binding Instrument on all Types of Forests, with its Four Global Objectives on Forests, as well as other global objectives such as the Millennium Development Goals, the Aichi Biodiversity Targets of the Convention on Biological Diversity and the climate change commitments;

3. REITERATING former FOREST EUROPE commitments, and TAKING INTO ACCOUNT the work undertaken by other international forums on forest-related policies, including the Rio Conventions and the United Nations Forum on Forests as well as regional organisations and initiatives;

4. TAKING NOTE of the recent findings of the State of Europe’s Forests 2011 report, stating significant progress made in most indicators for sustainable forest management as well as future challenges and opportunities for forests and their sustainable management in Europe, while acknowledging the improvements achieved in data collection as well as the need for further improvement in forest information;

5. REAFFIRMING that sustainable forest management means the stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfil, now and in the future, relevant ecological, economic and social functions, at local, national, and global levels, and that does not cause damage to other ecosystems;

6. RECOGNISING that climate change is one of the gravest threats faced by society and AWARE that urgent action is required to minimise risks of damage from events such as storms, floods, fire, drought, pests and diseases in order to protect European forests and their functions;

7. RECOGNISING that forests and sustainable forest management contribute to climate change mitigation and adaptation, provide renewable raw material, energy supply, water and soil protection and other ecosystem services as well as protect society and societal infrastructures against natural hazards;

8. RECOGNISING the importance of economic functions of forests and their potential in fostering a green economy and for generating and maintaining jobs and income, contributing to rural development and enabling the long term economic viability and competitiveness of forestry and forest-based industries;
9. BEING CONCERNED about the negative impacts of illegal logging and related trade on society, the environment and markets, and CONVINCED about the need to further strengthen efforts to improve forest law enforcement and governance;

10. RECOGNISING the value of adequate and accessible forest information, such as forest inventories, monitoring, assessing and reporting on implementation of sustainable forest management as well as science-based knowledge, for decision making at all levels;

11. SEEKING the best way to enhance the role of European forests in contributing to solving the national and global challenges posed by climate change, desertification, loss of biodiversity and other environmental challenges while responding to the growing need for timber as a renewable material, and maintaining the ability of Europe’s forests to contribute to the quality of life and the well-being of people;

12. STRESSING the importance of national circumstances, national sovereignty over natural resources and national responsibilities in implementing sustainable forest management bearing in mind the forest ownership structure in Europe and UNDERLINING the added value of European cooperation and joint actions for enhancing progress in sustainable management of forest and of sharing forest-related information;

13. TAKING NOTE of the External Review of the FOREST EUROPE process carried out in 2008/2009 and WELCOMING the outcomes of the work and reflections done afterwards;

14. AWARE that the challenges faced by forests in a rapidly changing environment cannot be addressed through forest policy measures alone and SEEKING to strengthen relationships and synergies in the work of the forest sector with other sectors and institutions for greater coherence in forest-related policy-making;

15. UNDERLINING the will to ensure that all forests in Europe are sustainably managed, and to promote and raise awareness in society about their multiple goods and services;

16. CONVINCED about the need to take effective measures to improve coherence in forest policy development and implementation with appropriate participation of stakeholders;

17. CONVINCED that a legally binding agreement on forests in Europe is necessary to reinforce and strengthen implementation of sustainable forest management with the view to achieving balanced and stable continuity of all economic, environmental, cultural and social forest functions in Europe, and will contribute to achieving the vision, goals and targets for forests in Europe (Oslo Ministerial Decision: European Forests 2020).

As representatives of the Signatories of FOREST EUROPE, we

18. DECIDE to take further international action consisting of the elaboration of a legally binding agreement on forests in Europe and DECIDE to establish an Intergovernmental Negotiating Committee with the mandate to develop a legally binding agreement on forests in Europe;

19. DECIDE to adopt the Rules of Procedure which will apply to the Intergovernmental Negotiating Committee and which are annexed to this Mandate (Annex 1);

20. DECIDE to establish a Bureau for the Intergovernmental Negotiating Committee, which shall consist of the Chair of the Committee and representatives of the following countries: Austria, Czech Republic, France, Norway, Poland, Russian Federation, Turkey and Ukraine, and Spain as permanent observer;

21. NOMINATE Mr. Jan Heino (Finland) for the Chairmanship of the Committee;

22. REQUEST the Chair and the Bureau of the Intergovernmental Negotiating Committee to facilitate the work of the Intergovernmental Negotiating Committee in fulfilling its mandate and to guide the secretariat in providing necessary service to the negotiations;
23. DECIDE that the Intergovernmental Negotiating Committee, basing its work on existing FOREST EUROPE Resolutions and Declarations and relevant international commitments relating to forests, and taking into account the Non-paper on a possible legally binding agreement on forests in Europe, is to develop a holistic legally binding framework agreement for forests, to address, inter alia, the following possible subjects:

- a. To ensure sustainable forest management in Europe and the long-term provision of a broad range of goods and forest ecosystem services;
- b. To maintain and enhance forest resources in Europe, their health, vitality and resilience, and their adaptation to climate change;
- c. To increase the resilience of forests to natural hazards and to protect forest against human-induced threats;
- d. To enhance the contributions of forests to the mitigation of climate change;
- e. To maintain and enhance the protective and productive potential of European forests;
- f. To halt the loss of forest biodiversity in Europe and combat desertification;
- g. To create and maintain enabling conditions for European forests to contribute to a green economy, employment and the development of rural and urban areas;
- h. To maintain and enhance the cultural and social functions of forests in Europe;
- i. To reduce, with the aim of eliminating, illegal logging and associated trade in timber and timber products;
- j. To improve the forest knowledge base through research, education, information sharing and communication;
- k. To enhance participation and cooperation on forests at local, national, regional and global levels;

24. REQUEST that the Intergovernmental Negotiating Committee, in developing a legally binding framework agreement for forests, considers the following:

- a. The importance of flexibility, so that Parties can take decisions adjusted to their specific forest conditions and to provide for addressing changing and emerging needs in the future;
- b. Global discussions on possible improvement of international arrangements on forests, including those related to the United Nations Conference on Sustainable Development (Rio +20 Conference), with the view to seeking for synergies;
- c. The need to achieve cooperation and coordination and to avoid unnecessary duplication of proposed actions with relevant provisions contained in other international agreements;
- d. The importance of securing the effective participation of stakeholders;
- e. Agreement on common terms and definitions, based on the broader involvement of FAO and other organisations with the necessary expertise;
- f. Efficient organisation and streamlined secretariat arrangements;
- g. The possibility of the agreement being brought under the United Nations umbrella;
25. DECIDE that participation in the Intergovernmental Negotiating Committee will be open to FOREST EUROPE Signatories (Annex 2) and INVITE them to actively contribute to the success of the negotiating process;

26. INVITE FOREST EUROPE observer States, agencies and organisations, including non-governmental organisations, to participate in the work of the Intergovernmental Negotiating Committee, in accordance with the Rules of Procedure;

27. REQUEST the Liaison Unit and INVITE the United Nations Economic Commission for Europe, the Food and Agriculture Organization of the United Nations, the United Nations Environment Programme and the European Forest Institute to service jointly the negotiating process in accordance with the Annex to the Rules of Procedure and based upon the respective expertise of each organisation and the resources that they can contribute within their mandates;

28. INVITE also other interested governments and organisations to contribute by supporting the negotiation process;

29. DECIDE that the Intergovernmental Negotiating Committee will commence its work not later than 31 December 2011 with the goal to completing its work not later than 30 June 2013 and will present its results to an extraordinary FOREST EUROPE ministerial conference to be organised within six months after the conclusion of the negotiations, for its consideration and possible adoption and opening for signature.
Annex 1:
Rules of Procedure for the Intergovernmental Negotiating Committee to prepare a legally binding agreement on forests in Europe

I. PURPOSE

Rule 1 – Purpose and application

These Rules of Procedure shall govern the negotiations on a legally binding agreement on forests in Europe, conducted by the Intergovernmental Negotiating Committee established by the Oslo Ministerial Mandate for Negotiating a Legally Binding Agreement on Forests in Europe.

II. DEFINITIONS

Rule 2 – Definitions

1. “Party” means a UN member state or a regional economic integration organisation, which is a Signatory to Forest Europe and which is participating in the work of the Intergovernmental Negotiating Committee for a legally binding agreement on forests in Europe.

2. “Regional economic integration organisation” means an organisation constituted by sovereign States of a given region to which its member States have transferred competence in respect of matters covered by the Committee’s work.

3. “Committee” means the Intergovernmental Negotiating Committee (INC), for the purpose of negotiating a legally binding agreement on forests in Europe.

4. “Chair” means the Chair nominated by paragraph 21 of the Oslo Ministerial Mandate for Negotiating a Legally Binding Agreement on Forests in Europe.

5. “Bureau” means the Bureau established by paragraph 20 of the Oslo Ministerial Mandate for Negotiating a Legally Binding Agreement on Forests in Europe.

6. “Secretariat” means the secretariat established by paragraph 27 of the Oslo Ministerial Mandate for Negotiating a Legally Binding Agreement on Forests in Europe.

7. “Representatives present and voting” means representatives of Parties present and casting an affirmative or negative vote. Representatives who abstain from voting are considered as not voting.

8. “Official documents” means documents directly related to agenda items and which form the basis of discussions foreseen on the agenda.


III. PLACE AND DATES OF SESSIONS

Rule 3 – Place and dates of sessions

1. The Committee shall hold up to four sessions.

2. The date and place of the first session shall be decided by the Bureau.

3. The places and dates of the subsequent sessions shall be decided by the Committee in consultation with the Bureau and the Secretariat.
4. The Secretariat shall notify all Parties of the date and place of a session at least six weeks before the session is to take place.

IV. AGENDA

Rule 4.1 – Provisional agenda for sessions

1. The Secretariat shall, after approval by the Bureau, submit to the Committee at each session the provisional agenda for the following session. The provisional agenda shall include all items proposed by the Committee.

2. The Secretariat shall circulate the provisional agenda for the first session at least six weeks before the session takes place.

3. The Secretariat shall, at the request of a Party or the Bureau and with the agreement of the Chair, include in an addendum to the provisional agenda any issue suitable for the agenda that may arise between the dispatch of the provisional agenda and the opening of the session.

Rule 4.2 – Adoption and revision of the agenda

At the beginning of each session, the Committee shall adopt its agenda for the session based on the provisional agenda, and has the option to add, delete, defer or amend items.

V. REPRESENTATION

Rule 5.1 – Composition of delegations

The delegation of each Party participating in any session shall consist of a head of delegation and such alternate representatives and advisers as may be required. No credentials are required for the sessions of the Committee.

Rule 5.2 – Alternates and advisers

The head of delegation may designate an alternate representative or an adviser to act as a representative.

VI. BUREAU

Rule 6.1 – Number of officers and the Chair

The Bureau is established by paragraph 20 of the Oslo Ministerial Mandate for Negotiating a Legally Binding Agreement on Forests in Europe and is comprised of one Chair and eight other members who will act as Vice-Chairs, and one permanent observer.

Rule 6.2 – Substitution of a Chair

If the Chair is absent from a session or any part thereof, a Vice-Chair shall act as Chair.

Rule 6.3 – Replacement of the Chair

If the Chair is unable to continue to perform his or her functions, the Committee shall elect by consensus decision the Chair for the unexpired term. If no consensus can be reached, the decision shall be taken be a three-quarters majority of the representatives present and voting.

Rule 6.4 – Substitution and replacement of other members of the Bureau

Without prejudice to Rule, 6.1, 6.2, 6.3

1. If a member of the Bureau is temporarily unable to fulfill his or her function, a representative of the same
Party shall be named by the Party concerned to replace the said member. Such substitution shall not exceed the period of one session;

2. If a member of the Bureau resigns or is otherwise unable to complete or perform his or her function, a representative of the same Party shall be named by the Party concerned to replace the said member. If the Party does not provide the replacement, election of a new Bureau member shall take place according to Rule 6.5 at the next session.

**Rule 6.5 – Election of officers**

Without prejudice to Rule 6.3 for any replacement the Committee shall choose, by consensus decision a Party who shall nominate its representative to the Bureau. If no consensus can be reached, the decision shall be taken be a three-quarters majority of the representatives present and voting.

**Rule 6.6 – Permanent Observer to the Bureau**

Permanent observer to the Bureau as nominated by paragraph 20 of the Oslo Ministerial Mandate for Negotiating a Legally Binding Agreement on Forests in Europe contributes to the work of the Bureau, but cannot act as Chair and cannot vote.

**VII. RESPONSIBILITIES OF THE SECRETARIAT**

**Rule 7.1 – The Secretariat**

The Secretariat, established by paragraph 27 of the Oslo Ministerial Mandate for Negotiating a Legally Binding Agreement on Forests in Europe is tasked to service the Intergovernmental Negotiating Committee under the guidance of the Bureau and perform all work that the Committee may require, as per the Annex to these Rules of Procedure.

**Rule 7.2 – Session management**

The Secretariat shall be responsible for convening sessions in accordance with rules 3 and 4 and for making all the necessary arrangements for sessions, including ensuring interpretation into the official languages during sessions, the preparation and distribution of all documentation for the session by e-mail and on the website at least six weeks before the opening of a session.

**Rule 7.3 – Document management**

1. For all sessions of the Committee, the Secretariat shall in accordance with these Rules:
   a. receive, translate into official languages and distribute the official documents;
   b. circulate the documents of the sessions;
   c. publish and circulate relevant documentation to the Parties;
   d. have the custody of the documents in the Committee’s archives.

2. The Secretariat shall distribute the draft negotiating text of each session of the Committee in official languages to the Parties and observers no later than six weeks after the closure of the session to which the negotiating text relates.

**Rule 7.4 – Report of the sessions**

The Chair shall prepare the reports by the end of the sessions and shall distribute the final reports in the official languages to the FOREST EUROPE Signatories and observers.
VIII. LANGUAGES AND RECORDS OF THE SESSION

Rule 8.1 - Languages of the sessions

English, French and Russian shall be the official languages of the sessions.

Rule 8.2 - Interpretation

Interventions made in a language of the sessions shall be interpreted into the other official languages.

Rule 8.3

A representative may speak in a language other than an official language of the sessions. In this case he or she shall himself or herself provide interpretation into one of the languages of the session, and interpretation into the other languages may be based on the interpretation given in the first language.

IX. CONDUCT OF BUSINESS

Rule 9.1 - Quorum

1. The Chair may declare a session open and permit the debate to proceed when at least one third of the Parties participating in the session are present. The presence of a majority of Parties so participating shall be required for any decision to be taken.

2. For the purpose of determining a quorum for a decision to be taken on a matter within the competence of a regional economic integration organisation, that organisation shall be counted to the extent of the number of votes it is entitled to cast according to the Rule 10.3.2.

Rule 9.2 - Powers of the Chair

1. The Chair is to facilitate the Committee in achieving its objectives with the support of the Bureau.

2. In addition to exercising the powers conferred upon him or her elsewhere by the present Rules, the Chair shall:
   a. declare the opening and closing of each session;
   b. direct the discussion;
   c. ensure observance of the present Rules;
   d. accord the right to speak;
   e. put questions to the vote;
   f. announce decisions.

3. The Chair shall rule on points of order and, subject to the present Rules, have control over the proceedings of the sessions and over the maintenance of order at sessions.

4. The Chair may propose to the session the limitation of the time to be allowed to speakers, the limitation of the number of times each Party may speak on any subject, the closure of the list of speakers or the closure of the debate. The Chair may also propose the suspension or the adjournment of the session or of the debate on the question under discussion.

5. The Chair, in the exercise of his or her functions, remains under the Committee's authority.
Rule 9.3 - Vice Chair acting as Chair

A Vice-Chair acting as Chair shall have the same powers and duties as the Chair.

Rule 9.4 - Voting of the Chair

The Chair or a vice-Chair acting as a Chair shall not vote.

Rule 9.5 - Rules for Debate

No one may address a session without having previously obtained the Chair’s permission. Subject to these rules, the Chair shall call upon speakers in the order in which they signify their desire to speak. However, a Party will be given precedence over Observers. The Chair shall call a speaker to order if his or her remarks are irrelevant to the subject under discussion.

Rule 9.6 - Points of order

1. During the discussion of any matter, a representative of a Party may at any time raise a point of order and the point of order shall be immediately decided upon by the Chair in accordance with these Rules. A representative of a Party may appeal against the Chair’s ruling. The appeal shall be put to the vote immediately and the Chair’s ruling shall stand unless overruled by a majority vote of the representatives present and voting.

2. A representative of a Party raising a point of order may not speak on the substance of the matter under discussion.

Rule 9.7 - Time limit, closing list of speakers and adjournment of debate

1. The Chair may limit the time allowed to each speaker and the number of times that each speaker may speak on any question. When debate is limited and a speaker has spoken for his or her allotted time, the Chair shall call him or her to order without delay.

2. During the course of a debate, the Chair may announce the list of speakers and, with the Committee’s consent, declare the list closed. The Chair may, however, accord the right of reply to any Party if, in his or her opinion, a speech delivered after he or she has declared the list closed renders this justified. When the debate on an item is concluded because there are no other speakers, the Chair, with the Committee’s consent, shall declare the debate closed.

3. During the discussion of any matter, a representative of a Party may move the adjournment of the debate on the subject under discussion. In addition to the proposer of the motion, one representative of a Party may speak in favour of and one against the motion, after which the motion shall be immediately put to the vote.

Rule 9.8 - Closure of debate

A representative of a Party may at any time request the closure of the debate on the subject under discussion, whether or not any other representative of a Party has signified his or her wish to speak. Permission to speak on the closure of the debate shall be accorded only to two representatives of Parties opposing the closure, after which the motion shall be immediately put to the vote. If the Committee is in favour of the closure, the Chair shall declare the closure of the debate.

Rule 9.9 - Suspension or adjournment of a session

During the discussion of any matter, a representative of a Party may request the suspension or the adjournment of any session. Such motion shall not be debated but shall immediately be put to the vote.
Rule 9.10 – Order of procedural motions

Regardless of the order in which they are submitted, the following motions shall have precedence, in the following order, over all other proposals or motions before the session:

a. To suspend the session;

b. To adjourn the session;

c. To suspend the debate on the subject under discussion;

d. To adjourn the debate on the subject under discussion.

Rule 9.11 – Proposals and amendments

1. Proposals and amendments shall normally be introduced in writing and submitted to the Secretariat, which shall circulate copies in official languages to all representatives of Parties 6 weeks before the opening of the session. As a general rule, no proposal shall be discussed or put to the vote at any session of the Committee unless copies of it have been circulated in the official languages of the session to all representatives of Parties not later than the day preceding the session. Subject to the Committee's consent, the Chair may, however, permit the discussion and consideration of proposals or amendments that have not been circulated or have only been circulated the same day, in which case the proposal or amendment has to be read out in a formal session.

2. A motion is considered to be an amendment to a proposal if it adds to, deletes from or revises that proposal. The Committee shall decide on an amendment before it decides on the proposal to which it relates, and if the amendment is adopted, the amended proposal shall then be voted on.

X. DECISIONS

Rule 10.1 – Adoption of decisions

1. The Committee shall make every effort to reach agreement on all matters of substance by consensus. If all efforts to reach consensus have been exhausted and no agreement is reached, the decision shall, as a last resort, be taken by a three-quarters majority of the representatives present and voting.

2. Decisions of the Committee on procedural matters shall be taken by a majority of the representatives present and voting.

3. If a vote is divided equally, the proposal shall be regarded as rejected.

4. Where there is disagreement as to whether a matter to be voted on is a substantive or procedural matter, that issue shall be decided by a three-quarters majority of the representatives present and voting.

Rule 10.2 – Voting on proposals and amendments

1. If two or more proposals relate to the same question, the Committee shall, unless it decides otherwise, decide on the proposals in the order in which they have been submitted. Any proposals or motions requiring that no decision be taken on the substance of such proposals shall, however, be considered as previous questions and shall be put to the vote before them.

2. When an amendment to a proposal is moved, the amendment shall be voted on first. If two or more amendments to a proposal are moved, the Committee shall first decide on the amendment furthest removed in substance from the original proposal, then on the amendment next furthest removed from the original proposal and so on, until all amendments have been decided on. Where, however, the adoption of one amendment necessarily implies the rejection of another amendment, the latter amendment shall
not be put to the vote. If one or more amendments are adopted, the amended proposal shall then be voted upon. If no amendments are adopted, the proposal shall be put to the vote in its original form.

Rule 10.3 - Voting rights

1. Each Party shall have one vote, except as provided for in paragraph 2.

2. A regional economic integration organisation shall, on matters within its competence, exercise its right to vote with a number of votes equal to the number of its member States participating in the Committee. Such an organisation shall not exercise its right to vote if any of its member States exercises its right to vote, and vice versa.

Rule 10.4 - Method of voting

The Committee shall normally vote by show of hands, but any representative of a Party may request a roll-call, which shall then be taken in the English alphabetical order of the names of the Parties, beginning with the Party whose name is drawn by lot by the Chair. If, however, at any time a Party requests a secret ballot, that shall be the method of voting on the issue in question.

Rule 10.5 - Recording of roll-call

The vote of each Party participating in a roll-call shall be recorded in the report of the meeting.

Rule 10.6 - Conduct during voting

After the Chair has announced the beginning of voting, no representative of a Party shall interrupt the voting except on a point of order in connection with the actual conduct of the voting. The Chair may permit representatives of Parties to explain their votes, either before or after the voting - except when the vote is taken by secret ballot - and may limit the time allowed for such explanations.

Rule 10.7 - Division of proposals or amendments

A representative of a Party may request that parts of a proposal or of an amendment shall be voted on separately. If objection is made to the request for division, the motion for division shall be voted upon. Permission to speak on the motion for division shall be given to only two representatives of Parties in favour and two against. If the motion for division is carried, those parts of the proposal or of the amendment that are subsequently approved shall be put to the vote as a whole. If all operative parts of the proposal or of the amendment have been rejected, the proposal or the amendment shall be considered to have been rejected as a whole.

XI. OBSERVERS

Rule 11.1

Any State not a Signatory to FOREST EUROPE may be represented at the Committee as observer.

Rule 11.2

Organisations with a status as observer of FOREST EUROPE can obtain the status of an observer within the Committee in accordance with Rule 11.3.

Rule 11.3

Any body or agency qualified in matters relevant to this agreement which is either:

a. an international agency or body, either governmental or non-governmental, or a national governmental agency or body; or
b. a national non-governmental agency or body which has been approved for this purpose by the State in which it is located,

and which has informed the Secretariat of its desire to be represented at the Committee by observers, shall be permitted to be so represented unless one-third of the Representatives present and voting object. Once admitted, the right of observers to be represented may be withdrawn if so agreed by one-third of the Representatives present and voting.

**Rule 11.4**

The Chair may invite observers to participate in discussions on specific issues, or particular problems. No proposal by an observer shall be discussed unless this proposal is supported by at least one Party.

**Rule 11.5**

Observer delegations may provide written statements to the Secretariat. The Secretariat shall distribute copies of the written statements in the language in which the statement was made available to them.

**XII. SUSPENSION AND AMENDMENT OF THE RULES OF PROCEDURE**

**Rule 12.1**

Any Rule of Procedure may be amended or suspended by a decision of the Committee taken by consensus in accordance with the procedure of Rule 9.11, provided that at least 24 hours’ notice of the proposal has been given.

**Rule 12.2**

In the event of a conflict between any provision of these Rules and the Oslo Ministerial Mandate the latter shall prevail.
Annex to the Rules of Procedure: Distribution of roles among the Liaison Unit, UNECE, FAO, UNEP and EFI

To the extent that the resources and mandate of the Liaison Unit, UNECE, FAO, UNEP and EFI allow, the tasks should be allocated as shown below. If, for any reason, this becomes impossible, adjustments may be made by the Bureau of the Intergovernmental Negotiating Committee in consultation with all parties.

**Liaison Unit**

- Facilitating arrangements for servicing the negotiating process
- Supporting other work in the inter-sessional periods as requested by the Bureau or the Committee
- Advising on FOREST EUROPE matters and the Ministerial Conference on the Protection of Forests in Europe commitments as well as providing a link to the FOREST EUROPE work programme
- Liaising with countries, other processes, stakeholders and civil society
- Developing and maintaining the website
- Preparing and organising the next Ministerial Conference
- Undertaking communication activities

**UNECE, FAO and UNEP**

- Servicing meetings of the Intergovernmental Negotiating Committee and its Bureau including session management, document management and reporting as well as any other relevant tasks as requested by the Bureau or the Committee
- Providing legal advice
- Providing advice on synergies with Multilateral Environmental Agreements and processes
- Liaising with UN organisations
- Providing analysis and information in support of the negotiations

**European Forest Institute**

- Providing independent scientific and policy advice in support of the negotiations
- Providing inputs to information needs identified by the Committee.
Annex 2:
FOREST EUROPE Signatories

Albania
Andorra
Austria
Belarus
Belgium
Bosnia and Herzegovina
Bulgaria
Croatia
Cyprus
Czech Republic
Denmark
Estonia
European Union
Finland
France
Georgia
Germany
Greece
Holy See
Hungary
Iceland
Ireland
Italy
Latvia
Liechtenstein
Lithuania
Luxembourg
Malta
Monaco
Montenegro
Netherlands
Norway
Poland
Portugal
Republic of Moldova
Romania
Russian Federation
Serbia
Slovak Republic
Slovenia
Spain
Sweden
Switzerland
The Former Yugoslav Republic of Macedonia
Turkey
Ukraine
United Kingdom

Additional successor states of the former Soviet Union not mentioned in the above list should be entitled to join the Intergovernmental Negotiating Committee, as the USSR was a signatory of the Strasbourg Resolutions of 1990.
Oslo Ministerial Decision: European Forests 2020

1. RECALLING the Declarations of the Ministerial Conferences in Strasbourg 1990, Helsinki 1993, Lisbon 1998, including the vision for the European forest sector, Vienna 2003 and Warsaw 2007, which identified issues of transboundary nature and common concern with regard to forests and recognised the need for strengthening cooperation between the states of the entire European continent in the field of sustainable management of their forests;

2. REITERATING commitments to work towards addressing global environmental challenges and contributing to the achievement of the Non-Legally Binding Instrument on all Types of Forests, with its Four Global Objectives on Forests, as well as other global objectives such as: the Millennium Development Goals, the Aichi Biodiversity Targets of the Convention on Biological Diversity and the climate change commitments;

3. REITERATING former FOREST EUROPE commitments, and TAKING INTO ACCOUNT the work undertaken by other international forums on forest-related policies, including the Rio Conventions and the United Nations Forum on Forests as well as regional organisations and initiatives;

4. TAKING NOTE of the recent findings of the State of Europe’s Forests 2011 report, stating significant progress made in most indicators for sustainable forest management as well as future challenges and opportunities for forests and their sustainable management in Europe, while acknowledging the improvements achieved in data collection as well as the need for further improvement in forest information;

5. REAFFIRMING that sustainable forest management means the stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfil, now and in the future, relevant ecological, economic and social functions, at local, national, and global levels, and that does not cause damage to other ecosystems;

6. RECOGNISING that climate change is one of the gravest threats faced by society and AWARE that urgent action is required to minimise risks of damage from events such as storms, floods, fire, drought, pests and diseases in order to protect European forests and their functions;

7. RECOGNISING that forests and sustainable forest management contribute to climate change mitigation and adaptation, provide renewable raw material, energy supply, water and soil protection and other ecosystem services as well as protect society and societal infrastructures against natural hazards;

8. RECOGNISING the importance of economic functions of forests and their potential in fostering a green economy and for generating and maintaining jobs and income, contributing to rural development and enabling the long term economic viability and competitiveness of forestry and forest-based industries;
9. BEING CONCERNED about the negative impacts of illegal logging and related trade on society, the environment and markets, and CONVINCED about the need to further strengthen efforts to improve forest law enforcement and governance;

10. RECOGNISING the value of adequate and accessible forest information, such as forest inventories, monitoring, assessing and reporting on implementation of sustainable forest management as well as science-based knowledge, for decision making at all levels;

11. SEEKING the best way to enhance the role of European forests in contributing to solving the national and global challenges posed by climate change, desertification, loss of biodiversity and other environmental challenges while responding to the growing need for timber as a renewable material, and maintaining the ability of Europe’s forests to contribute to the quality of life and the well-being of people;

12. STRESSING the importance of national circumstances, national sovereignty over natural resources and national responsibilities in implementing sustainable forest management bearing in mind the forest ownership structure in Europe and UNDERLINING the added value of European cooperation and joint actions for enhancing progress in sustainable management of forest and of sharing forest-related information.

13. TAKING NOTE of the External Review of the FOREST EUROPE process carried out in 2008/2009 and WELCOMING the outcomes of the work and reflections done afterwards;

14. AWARE that the challenges faced by forests in a rapidly changing environment cannot be addressed through forest policy measures alone and SEEKING to strengthen relationships and synergies in the work of the forest sector with other sectors and institutions for greater coherence in forest-related policy-making;

15. UNDERLINING the will to ensure that all forests in Europe are sustainably managed, and to promote and raise awareness in society about their multiple goods and services;

16. CONVINCED about the need to take effective measures to improve coherence in forest policy development and implementation with appropriate participation of stakeholders;

As representatives of the Signatories of FOREST EUROPE, we

VISION FOR FORESTS IN EUROPE

17. SHARE the following vision:

To shape a future where all European forests are vital, productive and multifunctional. Where forests contribute effectively to sustainable development, through ensuring human well-being, a healthy environment and economic development in Europe and across the globe. Where the forests’ unique potential to support a green economy, livelihoods, climate change mitigation, biodiversity conservation, enhancing water quality and combating desertification is realised to the benefit of society.

GOALS FOR EUROPEAN FORESTS

18. DECIDE on the following goals for European forests in support of the shared vision:

I. Sustainable management of all European forests ensures multiple forest functions and enhances lasting provision of goods and services

II. European forests contribute to a green economy, including through increased provision of wood, other forest products and ecosystem services from sustainable sources

III. Forest management in Europe is being adapted to changes in climate, forests are healthy and resilient to natural hazards and protected against human-induced threats such as forest fires, and the productive and protective functions of forests are maintained
IV. The potential of European forests to mitigate climate change, through carbon sequestration in trees and soils, carbon storage in forest products and substitution of non-renewable materials and energy sources, is utilised to minimise Europe's ecological footprint without harming the global carbon balance.

V. The loss of forest biodiversity in Europe is halted and degraded forests are restored or rehabilitated.

VI. The role of forests in combating the progress of desertification is strengthened.

VII. Socioeconomic and cultural benefits, especially for livelihoods, rural development and employment from European forests are optimised.

VIII. Illegal logging and associated trade in wood and other forest products are eliminated in Europe.

EUROPEAN 2020 TARGETS

19. DECIDE on the following European targets to be achieved by 2020 in support of the shared vision and the goals for forests:

I. All European countries have developed and are implementing national forest programmes, or its equivalent, in line with the shared vision and goals and the pan-European approach to national forest programmes.

II. In addressing emerging issues forest knowledge is improved through research, education, innovation, information sharing and communication.

III. In response to political objectives on the use of renewable raw material and energy in Europe, the supply of wood and other forest products from sustainably managed forests has increased substantially.

IV. The full value of forest ecosystem services across Europe is being estimated with a view to using common valuation approaches, and that values are increasingly reflected in relevant national policies and market-based instruments such as payments for ecosystem services.

V. All European countries include strategies for forests and climate change adaptation and mitigation in national forest programmes or equivalents and all other relevant national strategies.

VI. The rate of loss of forest biodiversity at habitat level is at least halved and where feasible brought close to zero, and measures are taken to significantly reduce forest fragmentation and degradation and to restore degraded forests.

VII. The role of forests in combating desertification is fully recognised and forests are also managed to that end.

VIII. All European countries have policies and measures which ensure a significant increase in socioeconomic and cultural benefits, especially for human health, livelihoods, rural development and employment from forests.

IX. Effective measures are taken at regional, sub-regional and national levels to eliminate illegal logging and associated trade.

MISSION OF FOREST EUROPE

20. DECIDE on the following mission for FOREST EUROPE to advance realisation of the shared vision, the goals and the 2020 targets for forests:

FOREST EUROPE enhances the cooperation on forest policies in Europe under the leadership of ministers, and secures and promotes sustainable forest management with the aim of maintaining the multiple functions of forests crucial to society.
21. **DECIDE** that to fulfil the mission, FOREST EUROPE will undertake the following tasks:

   a. Develop and update policies and tools for sustainable forest management, including by facilitating open and flexible policy dialogue, active participation by relevant stakeholders and cross-sectoral cooperation and coordination with other actors;

   b. Monitor, assess and facilitate implementation of commitments on forests and sustainable forest management in all European countries and in the region as a whole;

   c. Promote education, research and the use of scientific knowledge and facilitate sharing of experiences across countries, sectors and stakeholders on all aspects of sustainable forest management and other forest related issues;

   d. Raise awareness and understanding of contributions by FOREST EUROPE to sustainable forest management in relevant fora including at international level and among the public, including through implementation of the communications strategy.

**EUROPEAN AND NATIONAL ACTIONS**

22. **ENDORSE** the Pan-European Guidelines for Afforestation and Reforestation with a special focus on the provisions of the UNFCCC, developed in collaboration with Environment for Europe/Pan-European Biological and Landscape Diversity Strategy;

23. **NOTE** the progress made on European Forest Types and encourage continued refinement of forest classification integrated with work on further reporting and development of sustainable forest management and its tools;

24. **DECIDE** to develop a FOREST EUROPE work programme with prioritised joint European actions to be carried out in cooperation with partners and other organisations, such as the Food and Agriculture Organization of the United Nations, the United Nations Economic Commission for Europe and the European Forest Institute. The work programme should, in parallel to the work of the Intergovernmental Negotiating Committee on preparing a legally binding agreement, address the following actions:

   a. **Further development of sustainable forest management and its tools**

   Responding to increasing attention and new scientific knowledge on the multiple roles that forests and sustainable forest management play in tackling global challenges, FOREST EUROPE will step up efforts and further consolidate the pan-European policies and tools for sustainable forest management, taking into account biodiversity and climate change commitments, emerging threats to and pressure on forest resources as well as the role of forest owners;

   b. **Further improvements in forest monitoring and reporting**

   Stressing the importance of adequate, accessible and evidence-based forest information at all levels of policy making, and for informing the broader public, FOREST EUROPE will further improve the basis for forest monitoring and harmonised reporting systems to serve emerging needs, including for verification of legality and sustainability;

   c. **Strengthened efforts against illegal logging and related trade**

   Responding to the severe consequences of illegal logging and related trade and to the challenges posed by global deforestation, and in order to complement and underpin efforts by the European Union and the ENA/FLEG process against illegal logging and related trade, FOREST EUROPE will further strengthen efforts for good governance and forest law enforcement, inter alia by cooperating to ensure that timber traded within or into FOREST EUROPE signatories’ derives from legally harvested forests, and by facilitating the exchange of lessons learned.
\subsection*{d. Valuation of forest ecosystem services}

Stressing the importance of the full range of forest goods and services, FOREST EUROPE will develop a common approach to valuation of forest ecosystem services and promote its use, with the aim of raising awareness of the contributions to societies of multiple forest functions, to serve informed decision making and to assess achievements against the 2020 targets.

25. COMMIT to further develop and implement national policies for sustainable forest management in accordance with national and local conditions and priorities, and to monitor and report on the progress towards sustainable forest management, and in line with this jointly explore measures to improve monitoring of the achievements of the European 2020 targets.

26. COMMIT to identify and implement national actions to fulfil the shared vision and the related goals and 2020 targets for forests in Europe.

27. ENCOURAGE potential donors, on request, to support the development and implementation of national forest programmes or forest sector plans and strategies in countries undertaking forest sector reform, particularly countries with economies in transition.
Warsaw 2007
WARSAW DECLARATION

Conditions of life on our planet are threatened and call for immediate action. The challenge for all governments and civil society is to protect and sustainably use the Earth’s natural resources. European forests have a vital role to play, as they can improve and benefit the quality of life and in particular contribute to climate change mitigation, energy supply and water protection.

1. Being aware of continuous change of climate conditions and the foreseen consequences for forest ecosystems and forestry, and recognising the role of forests, sustainable forest management and forest products in climate change mitigation, as well as the ongoing need for adaptation to climate change.

2. Stressing the importance of using sustainably produced wood as a renewable raw material and renewable energy source and recognising the need to enhance wood supply.

3. Stressing the role of forests for water quality and quantity and for alleviating floods and droughts, as well as noting impacts of climate change on forest and water.

4. Recognising the importance of the full economic value of the multiple services provided by forests and the need to have adequate means and measures to secure these services.

5. Acknowledging that secure property and land tenure rights are a prerequisite for the implementation of sustainable forest management.

6. Emphasizing that sustainable forest management contributes significantly to environmental, economic, social and cultural dimensions of sustainable development and particularly to the achievement of internationally agreed goals, including the Four Global Objectives on Forests agreed by the United Nations Forum on Forests (UNFF), the Millennium Development Goals, the 2010 Biodiversity Targets of the Convention on Biological Diversity (CBD) and the Pan-European Biological and Landscape Diversity Strategy (PEBLDS).
7. Highlighting the importance of providing European input to the international forest policy dialogue.


9. Building on the 17 years of achievements and experiences and continuous efforts of the Ministerial Conference on the Protection of Forests in Europe (MCPFE) to strengthen the economic, environmental, social and cultural aspects of forests at all levels.

As representatives of the Signatory States and the European Community, we commit ourselves to:

**Benefiting Quality of Life**

10. ensure that forests and their sustainable management play an active role in the sustainable development and well being of European society, for both rural and urban areas,

11. ensure that forests and their sustainable management play an active role in combating the negative effects of climate change through both mitigation and adaptation measures,

12. maintain, conserve, restore and enhance the biological diversity of forests, including their genetic resources through sustainable forest management,

13. enhance the use of wood as a renewable raw material and source of energy from sustainably managed forests,

14. ensure that forests and their sustainable management play an active role in maintaining and enhancing water quality and quantity and in mitigating natural hazards, such as floods, droughts, avalanches, land slides as well as in combating soil erosion and desertification,

**Tackling Challenges**

15. strengthen the competitiveness of the forest sector in order to increase its capacity to benefit the quality of life,

16. raise the profile and awareness of the multiple benefits of forests and forestry as well as the role of the forest sector, within government structures, private sector and with the general public,

17. create enabling conditions in order to increase the mobilisation of wood from sustainably managed forests for all uses,
18. ensure that all wood production, including short rotation and fast growing energy crops, is guided by the principles of sustainability in order to provide for fair competition between sectors,

19. continue to contribute to mitigation of and adaptation to climate change and in this regard to further develop Pan-European guidance for afforestation and reforestation,

20. establish coherence between policies on forest and water resources and coordinate sustainable forest management and integrated water resources management,

21. develop and implement innovative tools for securing water-related services provided by forests, such as payments for ecosystem services (PES)\(^1\) or other measures,

22. further promote national forest programmes or equivalents for cross-sectoral coordination and as a means for coherent implementation of forest related international commitments,

23. further strengthen efforts to promote good governance and forest law enforcement to combat illegal logging and related trade of forest products, inter alia by cooperating on and promoting public procurement policies that demand timber and timber products from legal and sustainable sources,

24. take effective measures to improve understanding between policy makers, practitioners and the scientific community in order to better use scientific knowledge and research results relevant to forests and the forest sector as a sound basis for decision making,

25. strengthen forest and forest sector related employment, education, training and communication and ensure equal opportunities in accessing them,

26. promote research, especially on the role of forests in climate change mitigation, adaptation of forests to climate change as well as the use of wood and biomass, the relationship between forest and water and functioning of forest ecosystems,

**Global - Regional Cooperation and Partnerships**

27. further promote effective implementation of sustainable forest management at all levels and contribute to the international forest policy dialogue by continued cooperation on forest issues in Europe and by sharing European achievements and experiences with other regions,

---

\(^1\) payments for ecosystem services (PES)- contractual transactions between buyers and sellers for ecosystem services or land use/management practices likely to secure those services. In: “Recommendations on Payments for ecosystem services in Integrated Water Resources Management”, UNECE Water Convention, 2006.
28. further support and cooperate with countries undertaking forest sector reform, particularly those countries with economies in transition to fully incorporate the principles of sustainable forest management in their forest sectors,

29. contribute to the achievement of the Four Global Objectives on Forests as well as the implementation of the Non-legally Binding Instrument on All Types of Forests and the Multi-year Programme of Work of the United Nations Forum on Forests for 2007 – 2015,

30. develop, in cooperation with other regional bodies, processes and agreements, consistent inputs from the Pan-European region to the work of the United Nations Forum on Forests for 2007 – 2015, addressing issues of the agenda items of UNFF sessions and strengthening the collaboration with the international arrangement on forests, inter alia, through sharing regional perspectives, approaches and experiences,

31. support objectives and actions at the Pan-European level that enhance the regional contribution to the achievements of the Four Global Objectives on Forests agreed by the UNFF and other relevant global commitments,

32. undertake further efforts towards strengthening collaboration of the MCPFE with the United Nations Framework Convention on Climate Change (UNFCCC) with the aim to recognise diverse roles of forests and their products in climate change mitigation, in the context of the post-2012 climate regime, as far as it contributes to the ultimate objectives of the UNFCCC,

33. strengthen collaboration of the MCPFE with the United Nations Convention on Combating Desertification (UNCCD) with the view to enhance the role of forests in combating desertification and combating floods,

34. contribute to the implementation of the relevant programmes of work of the CBD through effectively implementing the MCPFE commitments,

35. encourage joint activities of the forest and water sectors and enhance cooperation between the MCPFE and the Water Convention of the United Nations Economic Commission for Europe (UNECE),

36. support Forest Law Enforcement and Governance (FLEG) ministerial processes and enhance collaboration between the MCPFE and the Europe and North Asia Forest Law Enforcement and Governance (ENA FLEG),

37. use innovative and effective approaches to further strengthen the existing cooperation with other regional bodies and processes in Europe, such as Environment for Europe/PEBLDS, Food and Agriculture Organization of the United Nations European Forestry Commission (FAO EFC), and UNECE Timber Committee (UNECE TC) in order to benefit from synergies, including for the development of consistent Pan-European input to UNFF sessions,
Putting MCPFE commitments into action

38. develop a work programme for the implementation of commitments of the Fifth Ministerial Conference on the Protection on Forests in Europe in cooperation with relevant organizations, institutions and processes and to reinforce implementation of previous commitments,

39. organise in this context together with stakeholders actions to communicate at all levels and to raise public awareness on the cross-sectoral importance of forests, and the forest sector,

40. carry out a review of the MCPFE process by the Sixth Ministerial Conference, by assessing progress made and obstacles faced in the implementation of its commitments.
WARSAW RESOLUTION 1

Forests, Wood and Energy

1. Supporting the objectives of mitigating climate change and increasing security of supply of energy.

2. Emphasising that forest biomass, wood processing residues and recovered wood represent important sources of renewable energy that can reduce greenhouse gas emissions by replacing fossil fuels.

3. Recognising the need to improve both energy and resource efficiency in production and consumption of bio-energy.

4. Recognising the need to increase knowledge on the role of forest ecosystems as well as forest based products in long term carbon sequestration as a contribution to mitigate climate change in the context of the post-2012 climate regime.

5. Acknowledging that sustainable forest management practices and enlargement of the forest area in Europe have resulted in an increased availability of forest resources, providing in many parts of Europe the potential for increasing wood mobilisation while respecting the principles of sustainable forest management.

6. Recognising the significance of European forestry and forest-based industries, as well as the importance of maintaining their long term economic viability and competitiveness and emphasising that forests provide raw material for the forest-based sector as well as for energy.

7. Noting the increased competing demand for wood as a renewable raw material and as a renewable energy carrier and the need to avoid undue distortion of competition between different end uses.

8. Noting a need for improved and more comprehensive information on wood resources and wood consumption as a basis for better informed policy making and strategy setting.
9. Recognising that an increasing demand for wood, creates new income opportunities for forest owners, entrepreneurs and managers and also for wealth, jobs and economic growth, especially in rural areas.

10. Being aware that the fragmentation of forest ownership in Europe represents a challenge for maintaining active and sustainable management of forests and mobilising wood.

11. Recognising the complementary role of using woody biomass in reducing forest fire risk.

12. Building on previous MCPFE commitments, and recognising the ongoing work in the area of forests, wood and energy carried out by international conventions, organisations and processes.

The Signatory States and the European Community, commit themselves to:

I. Enhancing the role of the forest sector in energy production

13. take effective measures within the framework of sustainable forest management to increase the use of woody biomass for energy generation, taking into account the importance of processing residues and recovered wood as renewable energy sources,

14. assess environmental impacts of wood production for energy including impacts on soil, water, biodiversity and nutrient cycles,

15. adjust policies and instruments, including research and development, to support enabling conditions that encourage investments in the production and distribution of bio-energy, increased mobilisation, efficient use of wood and energy,

16. strengthen the position of the forest sector in cross-sectoral debates concerning energy through developing communication and raising awareness about present assets, the existing potential in the forest sector and the multiple benefits of using wood fuel,

17. encourage partnerships among public and private forest owners, forest-based industries and energy producers aiming at the development of markets for bio-energy,

II. Mobilisation of wood resources

18. analyse and assess on a scientific and practical basis, and in dialogue with stakeholders, the existing and potential wood resources in Europe, inter alia, based on national forest inventories, as well as the feasibility and constraints for wood mobilisation,
19. develop and further improve systems of data collection on the consumption of wood for energy,

20. ensure enabling conditions for increased sustainable wood production through stronger interlinking of national forest policies with policies on sustainable development, agriculture, land use, rural development, environment, energy and industry,

21. identify and remove unintended barriers to an increase of sustainable wood production and mobilisation in forests of all types of ownership,

22. examine different practices under sustainable forest management and promote the use of a range of sustainable management systems including short rotation and coppice forestry in accordance with national law, to increase wood production and mobilisation in order to effectively address a growing demand for wood,

23. assess feasibility of mobilising wood resources from areas outside forests,

24. encourage capacity building of forest owners and their cooperatives and facilitate their cooperation and information exchange, inter alia, on access to wood markets, providing information, education, training and extension services, to empower and motivate proactive sustainable forest management in order to mobilise more wood,

25. promote development of the capacity of the forest workforce, entrepreneurs and managers in order to increase their ability to better respond to the needs of wood markets through education, training, and the use of innovative techniques,

26. promote adequate forestry and logistical infrastructures in order to facilitate access to wood resources and flexibility in responding to market demands,

27. support mobilisation of biomass from forests with high risk of fires, decreasing in this way a level of forests vulnerability,

28. encourage the application of sustainable management practices for wood production outside forests.
WARSAW RESOLUTION 2

Forests and Water

1. Recognising the close interrelation between forests and water.
2. Concerned that there is a growing imbalance between freshwater supply and demand.
3. Aware of the need to ensure adequate water quality and quantity.
4. Stressing the need for adequate water conditions in order to sustain European society.
5. Emphasising the role of forests and forest management for biodiversity of water ecosystems.
6. Concerned that climate change will have severe effects on the frequency, scale and intensity of natural hazards such as floods, debris flow, avalanches, storms, and droughts and will have an impact on forest and water resources and their management.
7. Stressing the role of forests and forest management in protecting water quality, managing water resources for the quantity of all waters, flood alleviation, combating desertification and soil protection as well as the importance of mountain forests in the reduction of land slides, erosion and effects of avalanches.
8. Concerned that the frequency and size of forest fires is increasing and that fires occur more frequently, even at higher latitudes and altitudes, resulting in severe impacts on watersheds, water quality, quantity and soil erosion.
9. Emphasising that the full economic value of forests has to be adequately recognised and in particular the value of providing ecosystem services.
10. Recognising that forest owners have rights and responsibilities and noting the importance of prior consultations regarding the provision of water-related services.
11. Stressing the need to involve local communities and other relevant stakeholders in planning and implementation of water related forest policies.
12. Building on previous MCPFE commitments and recognising the ongoing work in the area of forests and water carried out by international conventions, organizations and processes.

The Signatory States and the European Community, commit themselves to:

I. Sustainable management of forests in relation to water

13. maintain and enhance the protective functions of forests for water and soil, as well as for mitigating local water-related natural disasters through sustainable forest management, including through public and private partnerships,
14. assess afforestation and reforestation programmes in terms of their effects on quality and quantity of water resources, flood alleviation and soil,
15. promote the restoration of degraded forests, particularly in floodplains and upper watershed areas for the benefit of the water environment, flood reduction, conservation of biodiversity and soil protection,

II. Coordinating policies on forests and water

16. develop and improve policies for forest and water resources management that contribute to the maintenance of ecosystems and the sustainable provision of their services,
17. coordinate forest and water resources management policies through national forest programmes or equivalents and integrated water resources management plans and strategies at the appropriate levels,
18. develop adequate or improve the existing institutional arrangements to better cooperate in addressing the interrelation between forest and water issues,
19. address the management of forests and water at the transboundary watershed level through enhanced international cooperation,
20. enhance education, training, research and extension services to promote knowledge and understanding of forest and water interactions,
21. increase awareness of the relationship between forests and water as well as the potential of forests and their sustainable management to improve the water environment,
III. Forests, water and climate change

22. develop a deeper understanding of the potential consequences of climate change on forest and water interactions, including desertification and biodiversity loss as well as the frequency, scale and intensity of floods, storms, droughts, forest fires, pests and diseases,

23. develop appropriate policies and strategies for managing forests and water resources sustainably to adapt to climate change and contribute to its mitigation,

IV. Economic valuation of water-related forest services

24. assess the economic value of forest services related to quality and quantity of water resources and flood alleviation from which society benefits,

25. incorporate the economic valuation of water-related forest services into relevant policies and strategies on forests and water,

26. facilitate the development and implementation of measures, which may include economic tools such as payments for ecosystem services (PES)\(^1\) in order to broaden and diversify the financial basis for sustainable forest management and to maintain the protective functions of forests.

---
\(^1\) payments for ecosystem services (PES) – contractual transactions between buyers and sellers for ecosystem services or land use/management practices likely to secure those services. In: “Recommendations on payments for ecosystem services in Integrated Water Resources Management”, UNECE Water Convention, 2006.
Vienna 2003
VIENNA LIVING FOREST SUMMIT DECLARATION

EUROPEAN FORESTS – COMMON BENEFITS, SHARED RESPONSIBILITIES

1. Living forests are a basis of life on Earth. By sustaining forests, we sustain life.

2. Forests create multiple benefits: they provide the raw material for renewable and environmentally friendly products and play an important role for economic welfare, biological diversity, the global carbon cycle and water balance. They are essential for providing environmental, protective, social and recreational services, especially in the light of an increasingly urbanised society. Forests are an important resource for rural development providing livelihoods for a diverse workforce, local communities, millions of forest owners as well as forest related enterprises. We, as policy makers, are responsible for achieving, in the forest sector and pro-actively with other sectors, a balance between the economic, ecological, social and cultural roles of forests in the context of sustainable development.

3. Forest sector policies contribute to sustainable development as a whole and are themselves often influenced by major cross-sectoral decisions. We are convinced that co-ordination and partnerships are crucial to further promote all benefits of forests in Europe and for the sustainable development of our societies.

4. The Ministerial Conference on the Protection of Forests in Europe (MCPFE), as a regional policy process, has pursued the protection of forests by further strengthening the sustainable management of European forests since 1990. Being aware of the continuous process of implementing previous MCPFE commitments and the emerging new challenges, we commit ourselves to continue our efforts to that end and further contribute to the achievement of sustainable development.

5. Global commitments, most recently those of the WSSD\(^1\), need to be translated for and implemented at the regional, national, and sub-national level. In this respect we underline the role of the MCPFE and other regional forest-related processes and agreements in implementing global commitments on the management, conservation and sustainable development of forests.

\(^1\) World Summit on Sustainable Development
6. We also recognise our role in contributing to the development of forest-related commitments at a global scale.

As representatives of the Signatory States and the European Community, we commit ourselves to

**Benefiting rural livelihood and urban societies**

7. strengthen conditions for the economic viability of sustainable forest management and support the role of forests, forestry and forest-based industries in maintaining and developing rural livelihoods as well as in meeting the demands of urbanised societies,

8. promote incentives for the protection and sustainable management of forests, and remove incentives with a negative impact on forests and their biodiversity,

9. take measures to increase the sound use of wood from sustainably managed forests as a renewable and environmentally friendly resource,

10. take measures to maintain and strengthen the services of forests in providing protection from natural hazards,

11. fully reflect the social and cultural dimensions of sustainable forest management in forest-related policies,

12. address the challenges that forest owners are facing in Central and Eastern European Countries, especially those related to changes in forest ownership,

**Building strong partnerships**

13. improve understanding of how policies and strategies developed in other sectors strongly influence the forest sector and vice versa,

14. identify key cross-sectoral issues, actors and interactions and, on this basis, establish a dialogue to seek joint solutions; the resulting policy choices should both further sustainable forest management and sustainable development as a whole,

15. develop new and strengthen existing partnerships at the international and national level between governments, governmental organisations, civil society including non-governmental organisations and the private sector,

16. use national and sub-national forest programmes as a means for effective inter-sectoral co-ordination, reflecting a balanced decision making process,

17. take forest-related decisions based on science, take measures that support and strengthen research and increase interdisciplinary research,
18. continue the fruitful pan-European co-operation with all partners, especially with UNECE/FAO² and Environment for Europe/PEBLDS³, and increase co-operation with other regional forest processes,

19. further develop co-operation among countries with different socio-economic situations, especially with regard to Central and Eastern Europe,

Tackling global challenges

20. take effective measures to promote good governance and forest law enforcement, and to combat illegal harvesting of forest products and related trade, and contribute to international efforts to this end,

21. take concrete measures to contribute to the overall reduction of greenhouse gas concentrations in the atmosphere and promote the concept of sustainable forest management in relation to UNFCCC⁴ and its Kyoto Protocol,

22. take further steps to maintain, conserve, restore and enhance biological diversity of forests, including their genetic resources, in Europe and also on a global scale,

23. further support the United Nations Forum on Forests, with the assistance of the Collaborative Partnership on Forests, as key intergovernmental mechanisms to facilitate and co-ordinate the implementation of sustainable forest management at all levels,

24. further promote and contribute to the full implementation of the IPF/IFF⁵ proposals for action, the Multi Year Programme of Work of UNFF⁶ and its Plan of Action, as well as the CBD⁷ Expanded Programme of Work on Forest Biological Diversity and other global forest-related commitments,

Putting MCPFE commitments into action

25. promote sustainable forest management by further implementing, applying, and if necessary improving, criteria and indicators for monitoring, assessing and reporting progress on sustainable forest management; in this regard we endorse the use of the “Improved Pan-European Indicators for Sustainable Forest Management as adopted by the MCPFE Expert Level Meeting, 7-8 October 2002, Vienna, Austria”;

² United Nations Economic Commission for Europe / Food and Agriculture Organization
³ Pan-European Biological and Landscape Diversity Strategy
⁴ United Nations Framework Convention on Climate Change
⁵ Intergovernmental Panel on Forests / Intergovernmental Forum on Forests
⁶ United Nations Forum on Forests
⁷ Convention on Biological Diversity
26. develop a work programme for the implementation of the commitments of this Fourth Ministerial Conference on the Protection of Forests in Europe and the reinforced implementation of previous commitments, in co-operation with all relevant organisations, institutions and processes.
IMPROVED PAN-EUROPEAN INDICATORS
FOR SUSTAINABLE FOREST MANAGEMENT

as adopted by the
MCPFE Expert Level Meeting
7-8 October 2002, Vienna, Austria
INTRODUCTION

Since the first set of Pan-European Indicators for Sustainable Forest Management (SFM) had been developed in the early 90s, experience has shown that criteria and indicators are a very important tool for European forest policy. In the meantime knowledge and data collection systems as well as information needs have gradually developed further. Thus, initiated through the Lisbon Conference in 1998, the Ministerial Conference on the Protection of Forests in Europe (MCPFE) decided to improve the existing set of Pan-European Indicators for SFM.

This document contains the improved set of quantitative and qualitative Pan-European Indicators for Sustainable Forest Management.

An Advisory Group\(^1\), representing relevant organisations in Europe, was formed to ensure that best use is made of the existing knowledge on indicators and data collection aspects in Europe and to assist the MCPFE during the improvement process. The Advisory Group consulted with a wide range of experts through a series of four workshops. These workshops ensured that the diversity of national situations and experiences as well as the work undertaken by various bodies in Europe were adequately reflected. The first MCPFE Workshop on the Improvement of Pan-European Indicators for SFM was held in March 2001 in Triesenberg, Liechtenstein. The second workshop took place in September 2001 in Copenhagen, Denmark, the third one in January 2002 in Budapest, Hungary. The fourth and final workshop was convened in May 2002 in Camigliatello Silano, Italy.

The indicators under all criteria, as presented in this document, are results of these four workshops and the work of the Advisory Group. The improved Pan-European Indicators for Sustainable Forest Management have been adopted at expert level at the MCPFE Expert Level Meeting, 7-8 October 2002 in Vienna, Austria.

More detailed information on rationales, international data providers, measurement units, current periodicity of data availability as well as underlying definitions is given in the supplementary documents “Background Information for Improved Pan-European Indicators for Sustainable Forest Management” and “Relevant Definitions Used for the Improved Pan-European Indicators for Sustainable Forest Management”.

\(^1\) Members of the Advisory Group were: Mr. Michael Köhl (IUFRO/UNECE Team of Specialists TBFRA 2000), Mr. Thomas Haußmann (ICP Forests), Mr. Tor-Björn Larsson (European Environment Agency), Mr. Risto Päivinen (European Forest Institute), Mr. Derek Peare (IWGFS/Eurostat) and Mr. Christopher Prins (UNECE/FAO).
# 1. QUANTITATIVE INDICATORS

<table>
<thead>
<tr>
<th>Criteria</th>
<th>No.</th>
<th>Indicator</th>
<th>Full text</th>
</tr>
</thead>
<tbody>
<tr>
<td>C 1: Maintenance and Appropriate Enhancement of Forest Resources and their Contribution to Global Carbon Cycles</td>
<td>1.1</td>
<td>Forest area</td>
<td>Area of forest and other wooded land, classified by forest type and by availability for wood supply, and share of forest and other wooded land in total land area</td>
</tr>
<tr>
<td></td>
<td>1.2</td>
<td>Growing stock</td>
<td>Growing stock on forest and other wooded land, classified by forest type and by availability for wood supply</td>
</tr>
<tr>
<td></td>
<td>1.3</td>
<td>Age structure and/or diameter distribution</td>
<td>Age structure and/or diameter distribution of forest and other wooded land, classified by forest type and by availability for wood supply</td>
</tr>
<tr>
<td></td>
<td>1.4</td>
<td>Carbon stock</td>
<td>Carbon stock of woody biomass and of soils on forest and other wooded land</td>
</tr>
<tr>
<td>C 2: Maintenance of Forest Ecosystem Health and Vitality</td>
<td>2.1</td>
<td>Deposition of air pollutants</td>
<td>Deposition of air pollutants on forest and other wooded land, classified by N, S and base cations</td>
</tr>
<tr>
<td></td>
<td>2.2</td>
<td>Soil condition</td>
<td>Chemical soil properties (pH, CEC, C/N, organic C, base saturation) on forest and other wooded land related to soil acidity and eutrophication, classified by main soil types</td>
</tr>
<tr>
<td></td>
<td>2.3</td>
<td>Defoliation</td>
<td>Defoliation of one or more main tree species on forest and other wooded land in each of the defoliation classes “moderate”, “severe” and “dead”</td>
</tr>
<tr>
<td></td>
<td>2.4</td>
<td>Forest damage</td>
<td>Forest and other wooded land with damage, classified by primary damaging agent (abiotic, biotic and human induced) and by forest type</td>
</tr>
<tr>
<td>C 3: Maintenance and Encouragement of Productive Functions of Forests (Wood and Non-Wood)</td>
<td>3.1</td>
<td>Increment and fellings</td>
<td>Balance between net annual increment and annual fellings of wood on forest available for wood supply</td>
</tr>
<tr>
<td></td>
<td>3.2</td>
<td>Roundwood</td>
<td>Value and quantity of marketed roundwood</td>
</tr>
<tr>
<td></td>
<td>3.3</td>
<td>Non-wood goods</td>
<td>Value and quantity of marketed non-wood goods from forest and other wooded land</td>
</tr>
<tr>
<td></td>
<td>3.4</td>
<td>Services</td>
<td>Value of marketed services on forest and other wooded land</td>
</tr>
<tr>
<td></td>
<td>3.5</td>
<td>Forests under management plans</td>
<td>Proportion of forest and other wooded land under a management plan or equivalent</td>
</tr>
<tr>
<td>C 4: Maintenance, Conservation and Appropriate Enhancement of</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.1</td>
<td>Tree species composition</td>
<td>Area of forest and other wooded land, classified by number of tree species occurring and by forest type</td>
</tr>
<tr>
<td></td>
<td>4.2</td>
<td>Regeneration</td>
<td>Area of regeneration within even-aged stands and uneven-aged stands, classified by regeneration type</td>
</tr>
<tr>
<td>Criteria</td>
<td>No.</td>
<td>Indicator</td>
<td>Full text</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>-----</td>
<td>----------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Biological Diversity in Forest Ecosystems</td>
<td>4.3</td>
<td>Naturalness</td>
<td>Area of forest and other wooded land, classified by “undisturbed by man”, by “semi-natural” or by “plantations”, each by forest type</td>
</tr>
<tr>
<td></td>
<td>4.4</td>
<td>Introduced tree species</td>
<td>Area of forest and other wooded land dominated by introduced tree species</td>
</tr>
<tr>
<td></td>
<td>4.5</td>
<td>Deadwood</td>
<td>Volume of standing deadwood and of lying deadwood on forest and other wooded land classified by forest type</td>
</tr>
<tr>
<td></td>
<td>4.6</td>
<td>Genetic resources</td>
<td>Area managed for conservation and utilisation of forest tree genetic resources (in situ and ex situ gene conservation) and area managed for seed production</td>
</tr>
<tr>
<td></td>
<td>4.7</td>
<td>Landscape pattern</td>
<td>Landscape-level spatial pattern of forest cover</td>
</tr>
<tr>
<td></td>
<td>4.8</td>
<td>Threatened forest species</td>
<td>Number of threatened forest species, classified according to IUCN Red List categories in relation to total number of forest species</td>
</tr>
<tr>
<td></td>
<td>4.9</td>
<td>Protected forests</td>
<td>Area of forest and other wooded land protected to conserve biodiversity, landscapes and specific natural elements, according to MCPFE Assessment Guidelines</td>
</tr>
<tr>
<td>C 5: Maintenance and Appropriate Enhancement of Protective Functions in Forest Management (notably soil and water)</td>
<td>5.1</td>
<td>Protective forests – soil, water and other ecosystem functions</td>
<td>Area of forest and other wooded land designated to prevent soil erosion, to preserve water resources, or to maintain other forest ecosystem functions, part of MCPFE Class “Protective Functions”</td>
</tr>
<tr>
<td></td>
<td>5.2</td>
<td>Protective forests – infrastructure and managed natural resources</td>
<td>Area of forest and other wooded land designated to protect infrastructure and managed natural resources against natural hazards, part of MCPFE Class “Protective Functions”</td>
</tr>
<tr>
<td>C 6: Maintenance of other socio-economic functions and conditions</td>
<td>6.1</td>
<td>Forest holdings</td>
<td>Number of forest holdings, classified by ownership categories and size classes</td>
</tr>
<tr>
<td></td>
<td>6.2</td>
<td>Contribution of forest sector to GDP</td>
<td>Contribution of forestry and manufacturing of wood and paper products to gross domestic product</td>
</tr>
<tr>
<td></td>
<td>6.3</td>
<td>Net revenue</td>
<td>Net revenue of forest enterprises</td>
</tr>
<tr>
<td></td>
<td>6.4</td>
<td>Expenditures for services</td>
<td>Total expenditures for long-term sustainable services from forests</td>
</tr>
<tr>
<td></td>
<td>6.5</td>
<td>Forest sector workforce</td>
<td>Number of persons employed and labour input in the forest sector, classified by gender and age group, education and job characteristics</td>
</tr>
<tr>
<td></td>
<td>6.6</td>
<td>Occupational safety and health</td>
<td>Frequency of occupational accidents and occupational diseases in forestry</td>
</tr>
<tr>
<td>Criteria</td>
<td>No.</td>
<td>Indicator</td>
<td>Full text</td>
</tr>
<tr>
<td>----------------------</td>
<td>------</td>
<td>-------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>6.7 Wood consumption</td>
<td>6.7</td>
<td>Wood consumption</td>
<td>Consumption per head of wood and products derived from wood</td>
</tr>
<tr>
<td>6.8 Trade in wood</td>
<td>6.8</td>
<td>Trade in wood</td>
<td>Imports and exports of wood and products derived from wood</td>
</tr>
<tr>
<td>6.9 Energy from wood resources</td>
<td>6.9</td>
<td>Energy from wood resources</td>
<td>Share of wood energy in total energy consumption, classified by origin of wood</td>
</tr>
<tr>
<td>6.10 Accessibility for recreation</td>
<td>6.10</td>
<td>Accessibility for recreation</td>
<td>Area of forest and other wooded land where public has a right of access for recreational purposes and indication of intensity of use</td>
</tr>
<tr>
<td>6.11 Cultural and spiritual values</td>
<td>6.11</td>
<td>Cultural and spiritual values</td>
<td>Number of sites within forest and other wooded land designated as having cultural or spiritual values</td>
</tr>
</tbody>
</table>

\[ \sum = 35 \text{ quantitative indicators} \]
2. QUALITATIVE INDICATORS

A. Overall policies, institutions and instruments for sustainable forest management

A.1 National forest programmes or similar
A.2 Institutional frameworks
A.3 Legal/regulatory frameworks and international commitments
A.4 Financial instruments/economic policy
A.5 Informational means

B. Policies, institutions and instruments by policy area

<table>
<thead>
<tr>
<th>Ind. No.</th>
<th>Crit.</th>
<th>Policy area</th>
<th>Main objectives</th>
<th>Relevant institutions</th>
<th>Main policy instruments used</th>
<th>Signific. changes since last Ministerial Conference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Legal/regulatory</td>
<td>Financial/economic</td>
<td>Informational</td>
</tr>
<tr>
<td>B.1</td>
<td>C1</td>
<td>Land use and forest area and OWL(^2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.2</td>
<td>C1</td>
<td>Carbon balance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.3</td>
<td>C2</td>
<td>Health and vitality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.4</td>
<td>C3</td>
<td>Production and use of wood</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.5</td>
<td>C3</td>
<td>Production and use of non-wood goods and services, provision of especially recreation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.6</td>
<td>C4</td>
<td>Biodiversity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.7</td>
<td>C5</td>
<td>Protective forests and OWL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.8</td>
<td>C6</td>
<td>Economic viability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.9</td>
<td>C6</td>
<td>Employment (incl. safety and health)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.10</td>
<td>C6</td>
<td>Public awareness and participation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.11</td>
<td>C6</td>
<td>Research, training and education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.12</td>
<td>C6</td>
<td>Cultural and spiritual values</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^2\) OWL = other wooded land
VIENNA RESOLUTION 1

STRENGTHEN SYNERGIES FOR SUSTAINABLE FOREST MANAGEMENT IN EUROPE THROUGH CROSS-SECTORAL CO-OPERATION AND NATIONAL FOREST PROGRAMMES

1. Recognising the need to strengthen coherence and synergies between policies aimed at sustainable forest management and other relevant policies, programmes and strategies through adequate approaches aimed at integration and co-ordination,

2. building on the consensus achieved by the IPF\(^1\), we agree that, as developed in the MCPFE Approach to National Forest Programmes in Europe, a national forest programme (nfp) constitutes a participatory, holistic, inter-sectoral and iterative process of policy planning, implementation, monitoring and evaluation at the national and/or sub-national level in order to proceed towards the further improvement of sustainable forest management as defined in Helsinki Resolution H1, and to contribute to sustainable development,

3. noting that nfp processes are an important means to strengthen coherence and synergies within the forest sector as well as between the forest sector and other sectors in order to facilitate work on forest relevant cross-sectoral issues through inter-sectoral co-ordination,

4. aiming to further the concept of national forest programmes in Europe to address the national needs and contribute to the implementation of forest-related global commitments and internationally agreed actions,

the Signatory States and the European Community commit themselves to

5. work towards an improved understanding of cross-sectoral issues at the pan-European level, identify key issues, actors and interaction to be considered in the regional context and enhance co-operation and dialogue to pro-actively seek solutions,

6. enhance inter-sectoral policy co-ordination by establishing or improving mechanisms

   a) for regular communication between the forest sector and other relevant sectors to increase the exchange of information and consultation,

\(^1\) Intergovernmental Panel on Forests: Document E/CN.17/1997/12
b) to strengthen collaboration with these sectors and to develop inter-sectoral agreement on common priorities,

7. develop and implement national forest programmes, applying, as far as possible, the MCPFE Approach to National Forest Programmes in Europe,

8. using nfp processes among other tools to
   a) identify and address key cross-sectoral issues of relevance to forests and sustainable forest management,
   b) assess gaps and inconsistencies in forest-relevant policies, programmes, strategies and legislation and take action to minimise them,

9. encourage the full consideration of the outcomes of nfp processes in overall national sustainable development strategies and other relevant processes and strategies,

10. continuously exchange country experiences gained in the nfp process, in particular the practical application of the MCPFE Approach to National Forest Programmes in Europe, and the use of criteria and indicators for sustainable forest management as a component of the nfp process,

11. make best use of information on mechanisms for implementation and financing of national forest programmes, of research, education as well as national and international programmes, such as the National Forest Programme Facility and PROFOR\(^2\).

In this context the Signatory States and the European Community adopt the “MCPFE Approach to National Forest Programmes in Europe” (Annex).

Annex: MCPFE Approach to National Forest Programmes in Europe

---

\(^2\) Programme on Forests (hosted at the World Bank)
ANNEX TO VIENNA RESOLUTION 1

MCPFE APPROACH TO NATIONAL FOREST PROGRAMMES IN EUROPE

Building on the consensus achieved on national forest programmes (nfps) by the Intergovernmental Panel on Forests (IPF) and its successor, the Intergovernmental Forum on Forests (IFF), the MCPFE shares the following MCPFE approach to national forest programmes in Europe:

“A national forest programme constitutes a participatory, holistic, inter-sectoral and iterative process of policy planning, implementation, monitoring and evaluation at the national and/or sub-national level in order to proceed towards the further improvement of sustainable forest management as defined in Helsinki Resolution H1, and to contribute to sustainable development. It

- is based on national sovereignty and country leadership and on long-term high level political commitment,
- makes best use of existing capacities and is supportive to the development of intellectual, human and institutional capacity in the field of sustainable forest management, and is characterised by the following principles”:

<table>
<thead>
<tr>
<th>Principles of nfps in Europe:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation</td>
</tr>
<tr>
<td>Holistic and inter-sectoral approach</td>
</tr>
<tr>
<td>Iterative process with long-term commitment</td>
</tr>
<tr>
<td>Capacity building</td>
</tr>
<tr>
<td>Consistency with national legislation and policies</td>
</tr>
<tr>
<td>Integration with national sustainable development strategies</td>
</tr>
<tr>
<td>Consistency with international commitments recognising synergies between international forest related initiatives and conventions</td>
</tr>
<tr>
<td>Institutional and policy reform</td>
</tr>
<tr>
<td>Ecosystem approach</td>
</tr>
<tr>
<td>Partnership for implementation</td>
</tr>
<tr>
<td>Raising awareness</td>
</tr>
</tbody>
</table>

The nfp process could make use of the six pan-European criteria for sustainable forest management (SFM) as a framework which encompasses the ecological, economic and socio-cultural dimensions of sustainable development.

Within the nfp process, policy issues are addressed at the national and/or sub-national level in accordance with the principles of the process as stated below. These issues are derived from various levels, ranging from local to global, and include the national and/or sub-national
implementation of relevant international forest related commitments. These include commitments made at the pan-European level and the global level, such as the outcomes of the UNFF, CBD, UNFCCC and CCD¹.

As a tool to periodically monitor, assess and report on the state of and changes in SFM, criteria and indicators for SFM could constitute a component of the nfp process. They can help to evaluate the output of an nfp process with regard to SFM.

**Principles of nfps in Europe**

The MCPFE reaffirms that all general elements and principles of national forest programmes (nfps) agreed upon by the Intergovernmental Panel on Forests are generally of relevance in the European context, given the wide scope of national backgrounds in that region.

*In the countries participating in the MCPFE process, the following principles of nfps should be considered as a basis which further specifies the global consensus in the European context.*

(The principles are not presented in any order of importance.)

**Participation²**

Nfps are characterised by participation. Building on the findings of the FAO/ECE/ILO Joint Committee’s Team of Specialists on Participation in Forestry (ToS) participation can be described as a “voluntary process whereby people, individually or through organised groups, can exchange information, express opinions and articulate interests, and have the potential to influence decisions or the outcome of the matter at hand”. The process of participation can be characterised as a process which is inclusive with respect to interests, voluntary with respect to participation, may be a complement to legal requirements, should be fair and transparent to all participants, should be based on participants acting in good faith and sharing benefits and responsibilities, and does not guarantee – or predetermine – what the outcome will be. Sound information, inter alia derived from research, and adequate access to it is an important aspect of effective participation. Decentralisation as well as the development of human and institutional capacity constitute important aspects that are closely linked to participation.

¹ At the global level, these commitments notably include the outcomes of the United Nations Forum on Forests, the Intergovernmental Panel on Forests/Intergovernmental Forum on Forests process, as well as the Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests (Forest Principles) and chapter 11 of Agenda 21, the Convention on Biological Diversity, the United Nations Convention on Climate Change and the United Nations Convention to Combat Desertification.

² Ref. E/CN.17/1997/12, paragraphs 9, 10 as well as 17 lit.(a), (e) and (f)
The type or intensity of participation varies from deliberation/consultation to more elaborate forms of collaborative decision-making. Conflict resolution schemes should be applied as appropriate in this respect. The type or intensity of participation can be different in individual phases of the nfp process (formulation, implementation, evaluation) and at different levels (national, sub-national, local).

Furthermore, different models of participation can be applied, spanning from models involving representatives of interest groups or experts to broad public participation. The selection of appropriate models of participation, inter alia, depends on the issues addressed, the nature of the interest groups and the phase of the nfp process, and can vary according to country’s specific cultural, social and economic conditions.

**Holistic and inter-sectoral approach**

Nfps adopt a holistic and inter-sectoral approach that considers the impact of the forest sector on other sectors and the impact of other sectors on the forest sector. Nfps are a comprehensive policy framework for activities in the forest sector. They help to guide policies, strategies and programmes in other relevant sectors at national and sub-national levels, thus creating coherence and consistency of national policies and with international commitments. Raising awareness of forest sector policies and goals to other sectors, participation and developing human and institutional capacity are important aspects closely linked to this holistic and inter-sectoral approach.

Suitable co-ordination mechanisms and instruments, established at sub-national and/or national levels, will allow links to be created both horizontally with other sectors, institutions and stakeholder groups and vertically, between the different levels.

**Iterative process with long-term commitment**

Nfps are long-term iterative processes that are continuously adapted to reflect new knowledge and changes in the natural, economic and socio-political environment. To ensure consistency and continuity, nfps are based on long-term high level political commitment and long-term engagement of stakeholders.

Acknowledging the long-term nature of forests and forestry, suitable monitoring and evaluation procedures are developed, appropriate information collection systems established and appropriate evaluation periods determined. Different approaches and intervals could be chosen for evaluating general (strategic) goals and for evaluating specific targets, measures, activities and topics.

---

3 Ref. E/CN.17/1997/12, paragraphs 8, 9, 10 as well as 17 lit.(a)
4 Ref. E/CN.17/1997/12, paragraphs 10, 17 lit.(a) as well as E/CN.17/2000/14, paragraph 9 lit(e)
Furthermore, in a holistic, inter-sectoral approach, evaluation procedures for nfps also take into account periods of other sectoral strategies, programmes or plans at national, regional and international levels touching upon forests and the forest sector.

As an instrument for monitoring, assessment and reporting on the state of sustainable forest management (SFM), national and sub-national criteria and indicators for SFM could constitute a component of an nfp. The Pan-European Criteria and Indicators for SFM are a basis for the development of national indicators\(^5\).

**Capacity building\(^6\)**

An nfp process can profit from adequate competencies and skills of the actors involved provided that appropriate participatory models and techniques are applied. Therefore, nfps aim to further develop the intellectual, human and institutional capacity and an enabling environment for sustainable forest management. The importance of building new capacities by means of training, education and research, and making best use of existing capacities is emphasised in particular with regard to Central and Eastern European Countries.

Building capacity and knowledge at all levels also supports and facilitates a holistic and inter-sectoral approach.

**Consistency with national legislation and policies\(^7\)**

Nfps reflect national and/or sub-national needs and priorities and ensure consistency with national, sub-national or local legislation, policies and strategies.

**Integration with national sustainable development strategies\(^8\)**

In the nfp process, SFM in all its dimensions is considered in the context of overall sustainable development. Accordingly, nfps are integrated with national sustainable development strategies.

---

\(^5\) Ref. E/CN.17/1997/12, paragraph 17 lit.(d)
\(^6\) Ref. E/CN.17/1997/12, paragraphs 14, 17 lit.(g)
\(^7\) Ref. E/CN.17/1997/12, paragraphs 10, 17 lit.(a)
\(^8\) Ref. E/CN.17/1997/12, paragraph 10
Consistency with international commitments recognising synergies between international forest related initiatives and conventions

Forests are addressed by various international and regional initiatives and conventions. Coordination needs in the framework of forest-related initiatives and conventions can be identified at three levels, the national, regional and international level. Nfps aim to strengthen consistency with and synergies between relevant initiatives and conventions in each country and identify the appropriate levels and requirements for co-operative efforts and activities.

Institutional and policy reform

Developing suitable conditions for SFM might also require institutional and forest/non-forest policy reform, including decentralisation and issues of land tenure arrangements as well as conflict resolution schemes.

Ecosystem approach

Developing, implementing, monitoring and evaluating national forest programmes takes into consideration the ecosystem approach. However, the relation between the ecosystem approach and sustainable forest management needs to be further explored, taking into account the outcome of the conceptual analysis by the CBD Secretariat.

Partnership for implementation

The implementation of forest policies in the framework of nfps can benefit from co-operation between governments, businesses and civil society. In order to improve the effectiveness of an nfp, it makes best use of partnerships and shared resources.

---

9 At the global level, these forest related initiatives and conventions notably include the outcomes of the United Nations Forum on Forests, the Intergovernmental Panel on Forests/Intergovernmental Forum on Forests process, as well as the Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests (Forest Principles) and chapter 11 of Agenda 21, the Convention on Biological Diversity, the United Nations Convention on Climate Change and the United Nations Convention to Combat Desertification.

10 Ref. E/CN.17/1997/12, paragraphs 9, 14, 17 lit.(a)

11 Ref. E/CN.17/1997/12, paragraph 17 lit.(a)

12 Compare IPF Proposal for action 17 (a) which states that the Panel “encouraged countries (...) to develop, implement, monitor and evaluate national forest programmes, taking into consideration the following: (...), ecosystem approaches that integrate the conservation of biological diversity and sustainable use of biological resources; (...),”

13 Ref. E/CN.17/1997/12, paragraph 17 lit.(i)
Raising awareness

Forests contribute significantly to the overall well-being of society in rural as well as in urban areas. Nfps are important instruments to raise the visibility of the forest sector and to enhance public awareness and understanding of the multiple benefits of forests for society. Nfps give particular importance to the role of sound information to strengthen public confidence in forest policy and forest management.

Raising awareness of forest sector policies and goals constitutes an important prerequisite to achieve mutual consistency and coherence between the forest policy and other relevant sectoral policies.
VIENNA RESOLUTION 2

ENHANCING ECONOMIC VIABILITY OF SUSTAINABLE FOREST MANAGEMENT IN EUROPE

1. Noting that economic viability is a key pillar of sustainable forest management and of crucial importance for maintaining forests and their multiple benefits for society, contributing to sustainable development and to human livelihood especially in rural areas,

2. being aware that sustainable forest management in Europe relies on millions of private owners, forest-related enterprises, public bodies as well as on a highly qualified workforce, and being aware that forests provide raw material, goods and services for a range of sectors and are a basis for income and employment,

3. concerned that conditions for sustainable forest management have led to economic challenges for the forest sector in many regions of Europe,

4. recognising that forests provide a broad range of social, cultural and environmental values to society, striving to improve the economic viability of sustainable forest management through income generated from marketable goods and services as well as, where appropriate, from revenues from currently non-marketed values,

5. building on the related Resolution L1 “People, Forests and Forestry – Enhancement of Socio-Economic Aspects of Sustainable Forest Management” and its follow-up as well as the relevant decisions taken by the UNFF¹, the WSSD² and the CBD³,

6. aiming to enhance the contribution of European forests and forestry to sustainable development and to human livelihood, especially in rural areas, through encouraging new perspectives and approaches to secure economic viability,

the Signatory States and the European Community commit themselves to

7. adjust policy and legal frameworks and instruments to support sound enabling conditions for sustainable forest management that encourage investment and economic activity in the forest sector, including effective measures for forest law enforcement and for combating illegal harvesting of forest products and related trade,

8. promote the use of wood from sustainably managed forests as an environmentally friendly, renewable and reusable raw material, and thereby contribute to sustainable production and consumption patterns,

¹ United Nations Forum on Forests
² World Summit on Sustainable Development
³ Convention on Biological Diversity
9. improve enabling conditions for the market-based provision of a diversified range of non-wood goods and services from sustainably managed forests, inter alia, through identifying and removing unintended impediments and setting appropriate incentives,

10. work towards common approaches to the practical application of the valuation of the full range of goods and services provided by forests and contribute to existing information systems, in co-operation with relevant organisations; incorporate the outcome of these valuations in relevant policies and programmes,

11. enhance the competitiveness of the forest sector by promoting innovation and entrepreneurship among all relevant stakeholders, notably for the efficient provision of new and improved wood and non-wood goods and services,

12. support research as well as mechanisms for the dissemination of generated knowledge,

13. enhance the quality of education, training, extension and skills conducive to the sustainable and competitive development of the forest sector; encourage stakeholders to continuously improve the working environment as well as the safety conditions of forest owners and the forest workforce,

14. strengthen the support of institutions concerned with workforce safety and education as well as related research, thus contributing to the future availability of a highly qualified staff and workforce,

15. enhance inter-sectoral co-ordination and collaboration of all sectors relevant for an economically viable management of forests,

16. promote the incorporation of the maintenance and enhancement of the economic viability of sustainable forest management into rural development policies and strategies,

17. promote the use of innovative economic instruments for achieving forest related goals and targets,

18. encourage the voluntary co-operation of forest owners to develop opportunities for improving the economic viability, in particular of small-scale forest holdings,

19. promote the development of and encourage the participation in associations of forest owners, of the forest workforce and of forest entrepreneurs, in particular in Central and Eastern European countries.
VIENNA RESOLUTION 3

PRESERVING AND ENHANCING THE SOCIAL AND CULTURAL DIMENSIONS OF SUSTAINABLE FOREST MANAGEMENT IN EUROPE

1. Recognising the relationship between people and forests and that the social and cultural dimensions of sustainable forest management are reflected in landscapes, historical sites and monuments, artistic, traditional or linguistic knowledge, values, experiences and traditional practices related to forests and uses of wood, non-wood goods and services,

2. based on the understanding that social and cultural values change over time as societies develop, and recognising that globalisation and urbanisation have an effect on forestry,

3. taking into account the decisions of the UNFF\(^1\) and the CBD\(^2\), related to the social and cultural dimensions of sustainable forest management, and the work done by UNESCO\(^3\),

4. aiming to further promote and raise awareness of the social and cultural dimensions of sustainable forest management as an important asset to the education, recreation, environment, rural development and economy of society,

the Signatory States and the European Community, commit themselves to

5. address the social and cultural dimensions of sustainable forest management in national forest programmes and other relevant policies,

6. encourage the identification, expression and communication of the social and cultural dimensions of sustainable forest management inter alia by including them in education and rural development programmes,

7. secure the property rights and land tenure arrangements of forest owners, local and indigenous communities taking into account their economic interests as well as their various social and cultural values, making sure that their land use is in line with sustainable forest management in accordance with relevant national legislation,

---

1 United Nations Forum on Forests
2 Convention on Biological Diversity
3 United Nations Educational, Scientific and Cultural Organization
8. maintain and further develop both the material (e.g. wood in architecture, medicinal plants) and the non-material (e.g. recreation, well-being, health) social and cultural aspects and benefits of sustainable forest management,

9. maintain and increase the attractiveness of the landscape by, inter alia, enhancing and preserving traditional elements of the cultural landscape; raise awareness of the contribution of traditional knowledge and practices in sustainable forest management for the protection of landscapes, the conservation of biological diversity as well as for protection against natural hazards,

10. identify, assess and encourage the conservation and management of significant historical and cultural objects and sites in forests and related to forests in collaboration with relevant institutions,

11. encourage multi-disciplinary research into the role of the social and cultural aspects of sustainable forest management in the overall goal of sustainable development, including the role of traditional forest-related knowledge.
VIENNA RESOLUTION 4

CONSERVING AND ENHANCING
FOREST BIOLOGICAL DIVERSITY IN EUROPE

1. Recognising the importance of forests for biological diversity and reaffirming that the conservation and appropriate enhancement of biological diversity in all types of forests is an essential element for their sustainable management,

2. building on the commitments of Resolution H2 “General Guidelines for the Conservation of the Biodiversity of European Forests”, the CBD\(^1\), including its Expanded Programme of Work on Forest Biological Diversity, the IPF/IFF\(^2\) Proposals for Action, the decisions of the UNFF\(^3\), as well as the Plan of Implementation of the WSSD\(^4\),

3. aiming to further maintain, conserve, restore and, as appropriate, enhance forest biological diversity,

the Signatory States and the European Community commit themselves to

4. strive for co-ordinated implementation of the Expanded Programme of Work on Forest Biological Diversity of the CBD and the Proposals for Action of the IPF/IFF at all levels,

5. address the maintenance, conservation, restoration and appropriate enhancement of forest biological diversity in national forest programmes and other relevant policies and programmes, and to set measures to achieve the coherence and mutual supportiveness of these policies,

6. assess the impact of relevant policies and programmes on forest biological diversity, collaborate in removing distortions and failures of policies resulting in loss of forest biological diversity, and in promoting the compatibility of trade regulations with forest biodiversity related goals,

7. provide and analyse information about the impact and underlying causes of illegal harvesting of forest products and related trade on forest biological diversity; take effective measures to combat illegal harvesting of forest products and related trade, and build capacity to ensure effective forest law enforcement,

---

\(^{1}\) Convention on Biological Diversity

\(^{2}\) Intergovernmental Panel on Forests / Intergovernmental Forum on Forests

\(^{3}\) United Nations Forum on Forests

\(^{4}\) World Summit on Sustainable Development
8. develop a regional understanding of the linkages between the ecosystem approach and sustainable forest management as defined by the MCPFE; share this understanding with the relevant bodies in the assessment of the relation between the ecosystem approach and sustainable forest management at the global level,

9. apply the MCPFE Assessment Guidelines for Protected and Protective Forest and Other Wooded Land in Europe (Annex 2) and further develop them, when appropriate,

10. analyse and further develop protected forest networks, taking into account existing networks, in terms of their comprehensiveness, representativeness and adequacy relative to forest types and the effectiveness of their management with regard to the conservation goal,

11. prevent and mitigate losses of forest biological diversity due to fragmentation and conversion to other land uses and maintain and establish ecological connectivity, where appropriate,

12. promote, as appropriate, the restoration of forest biological diversity in degraded forests and forests established on former forestlands or other landscapes, including plantations, and enhance incentives to promote natural regeneration and regeneration with native tree species and provenances,

13. improve the assessment and monitoring of forest biological diversity in Europe, taking into account existing monitoring systems and contribute to harmonised international classification systems through developing a pan-European understanding on forest classification systems including forest types, naturalness and introduced forest species, in line with the Pan-European Criteria and Indicators for Sustainable Forest Management,

14. contribute to the development of a pan-European strategy which prevents and mitigates the impacts of invasive alien species that threaten ecosystems, in accordance with the decisions of the CBD,

15. promote forest management planning and practices and landscape planning that is specifically suited to maintain, conserve, restore and enhance forest biological diversity, making use of the natural processes of forests,

16. promote the conservation of forest genetic resources as an integral part of sustainable forest management and continue the pan-European collaboration in this area,

17. encourage and support inter-disciplinary research in order to take knowledge-based decisions on sustainable forest management aiming at maintenance, conservation, restoration and enhancement of forest biological diversity

18. continue the fruitful collaboration with the ministerial process “Environment for Europe”/PEBLDS⁵, and put into action the “Framework for Co-operation” (Annex 1) by identifying common objectives and activities, especially through the co-operation of the MCPFE Liaison Unit and the Joint Secretariat of the PEBLDS,

---

⁵ Pan-European Biological and Landscape Diversity Strategy
and adopt

19. the “Framework for Co-operation” (Annex 1) between the MCPFE and the ministerial process “Environment for Europe”/PEBLDS,

20. the “MCPFE Assessment Guidelines for Protected and Protective Forest and Other Wooded Land in Europe” (Annex 2) whilst proceeding to further co-operate with IUCN\(^6\) and its World Commission on Protected Areas to aim at full comparability with their Protected Area Management Categories.

Annexes:
Annex 1: Framework for Co-operation Between the MCPFE and Environment for Europe/PEBLDS
Annex 2: MCPFE Assessment Guidelines for Protected and Protective Forest and Other Wooded Land in Europe

\(^6\) IUCN The World Conservation Union
ANNEX 1 TO VIENNA RESOLUTION 4

FRAMEWORK FOR CO-OPERATION BETWEEN MCPFE AND ENVIRONMENT FOR EUROPE / PEBLDS

The Ministerial Conference on the Protection of Forests in Europe (MCPFE) constitutes the high-level process for forest policy dialogue and co-operation in Europe, including forest biodiversity issues. "Environment for Europe" is the high-level process for environment related co-operation in Europe. Within the ministerial process "Environment for Europe", the Pan-European Biological and Landscape Diversity Strategy (PEBLDS) constitutes the co-ordinating framework for efforts to conserve biological and landscape diversity in Europe1, including forest biodiversity.

PEBLDS has incorporated activities related to forest biodiversity in its first Action Plan (1996 – 2000) under Action Theme “Forest Ecosystems”. PEBLDS also addresses the issue in its current Rolling Work Programme, which is now structured in line with the Strategic Plan of the CBD2, with focus on the European situation through the co-operation of relevant European instruments and processes. The PEBLDS Joint Secretariat collaborates with the CBD Secretariat in the frame of a Memorandum of Co-operation to promote a consistent approach and common objectives for national and regional action to implement the CBD in Europe.

The European ministers responsible for forests have taken regard to the fact that the conservation and appropriate enhancement of biological diversity in all types of forests is an essential element in sustainable forest management. The MCPFE has therefore tackled the subject since its beginnings in 1990 through commitments at the Ministerial Conferences and subsequently in the follow-up processes. The 2nd Ministerial Conference in 1993 in Helsinki explicitly adopted General Guidelines for the Conservation of the Biodiversity of European Forests in Resolution H2 in response to the forests related outcomes of the UNCED 19923, especially the CBD. In addition biodiversity conservation was explicitly included in the Guidelines for Sustainable Management of Forests in Europe, adopted by the Ministers as Resolution H1. The MCPFE is co-operating with the CBD to contribute to the regional implementation of the decisions on forest biological diversity.

The joint “Work Programme on the Conservation and Enhancement of Biological and Landscape Diversity in Forest Ecosystems 1997–2000”, endorsed by both the Ministerial Conference on the Protection of Forests in Europe (MCPFE) and “Environment for Europe” at their ministerial meetings in Lisbon and Aarhus in 1998, proved to be a useful tool for the collaboration on forest biodiversity issues between the pan-European forest and environment processes. Based on these experiences, the decision-making bodies of the MCPFE and “Environment for Europe”/PEBLDS underlined the benefit of a continued co-operation. Building on the work done so far and considering the synergies and complementarities to be

---

1 The PEBLDS was endorsed by the ministers of the environment in Sofia in 1995.
2 Convention on Biological Diversity
enhanced by the two processes in relation to forest biodiversity, and the importance of regional approaches in contributing to global fora, the MCPFE and Environment for Europe/PEBLDS agree on the following:

**Areas for co-operation**

The respective priorities of both processes in the conservation of biological diversity in European forests should be considered as areas for co-operation. Recalling the regional contribution of the MCPFE to global level initiatives and the Memorandum of Co-operation between the PEBLDS Joint Secretariat and the CBD Secretariat, the work under this Framework for Co-operation should also contribute to the deliberation on and implementation of forest biodiversity related global activities.

In this context the collaborative work should focus on pan-European priorities in forest biodiversity conservation in the implementation of the Expanded Work-Programme of the CBD and the UNFF Multi-year Programme of Work and Plan of Action. The forest biodiversity related commitments of the Fourth Ministerial Conference on the Protection of Forests in Europe should be an important basis for the selection of common themes and related tasks for co-operation. The specific themes and related tasks to be selected should especially contribute to creating synergies between the two ministerial processes and to facilitate a joint regional contribution to ongoing global processes.

The co-operation between the MCPFE and “Environment for Europe”/PEBLDS should also serve as a stimulus for co-operation at global level (UNFF-CBD/other CPF partners) and for other regions.

**Modalities of co-operation**

The selection of common themes and related tasks for co-operation should be undertaken by both the MCPFE Expert Level Meetings and PEBLDS Council Meetings. The results should be reflected in the respective work programmes, indicating the joint activities. Along the same lines, the results of the common pan-European activities should be reported regularly to MCPFE Expert Level Meetings and PEBLDS Council Meetings. A joint presentation of results and/or proposals to the ministerial conferences of the MCPFE and “Environment for Europe” and to global fora such as CBD and UNFF should take place when appropriate.

The Framework for Co-operation between MCPFE and EfE/PEBLDS does not have a specific time limit. Priorities for co-operation will, however, change over time. The priority themes for co-operation for the first period after the endorsement of the Framework for Co-operation are reflected in the annex to this document.

---

Annex to Framework for Co-operation

Priority Themes for Co-operation Between MCPFE and EFE/PEBLDS for the Period 2003-2005

This annex presents priority themes and tasks for co-operation, which were selected for the period 2003 – 2005 as a rolling work programme, which will be updated, as required.

Themes for co-operation

Pan-European contributions to the four following themes, which are global and pan-European priorities at the same time, are considered suitable areas for co-operation between PEBLDS and MCPFE. All these themes refer to commitments made at the 4th Ministerial Conference on the Protection of Forests in Europe:

- The theme “Ecosystem approach” will contribute to the clarification of the relationship between the Ecosystem Approach and Sustainable Forest Management (SFM), building on the work achieved so far by MCPFE on SFM.

- The theme “Protected forest areas” will contribute to the global work on protected forest areas and simultaneously contribute to the general work on protected areas for CBD-COP7 (2004) by making a link between the concepts of protected forest areas and protected areas in general. In the Pan-European context, the work will build on existing work on protected areas of the MCPFE and current work on ecological networks.

- The theme “Forest law enforcement with regard to biodiversity conservation” is a global cross-cutting issue, which is also of pan-European relevance and refers to the impacts of illegal harvesting and related trade and institutional capacity building.

- The elaboration of “Recommendations for site selection for afforestation” in the context of the decisions of the UNFCCC and its Kyoto Protocol, taking account of biodiversity interests, was identified as a fourth area of co-operation. This work will build on recent work by IUCN and UNEP, adapted to the European situation.
ANNEX 2 TO VIENNA RESOLUTION 4

MCPFE ASSESSMENT GUIDELINES FOR PROTECTED AND PROTECTIVE
FOREST AND OTHER WOODED LAND IN EUROPE

1 Introduction

The MCPFE Assessment Guidelines for Protected and Protective Forest and Other Wooded Land in Europe are an outcome of the implementation of the joint “Work-Programme on the Conservation and Enhancement of Biological and Landscape Diversity in Forest Ecosystems 1997 – 2000” of the MCPFE and “Environment for Europe”\(^1\). They are based on the analysis of national data on protected and protective forest and other wooded land in the European countries, which has been collected in the frame of a supplementary TBFRA\(^2\) enquiry in 2000. The MCPFE Assessment Guidelines were elaborated in a consultative process in preparatory groups, working groups and workshops, involving the countries and organisations participating in the MCPFE.

The MCPFE Assessment Guidelines aim to give a comprehensive picture of protected and protective forest and other wooded land in Europe, while keeping links to international classification systems used for all kinds of protected areas\(^3\). As comparability at the international level is a goal of the MCPFE Assessment Guidelines, terms and definitions used are in compliance with the TBFRA terminology.

The MCPFE Assessment Guidelines for Protected and Protective Forest and Other Wooded Land in Europe should thus provide an important tool for further MCPFE work on the conservation of all types of forest and other wooded land.

2 General Principles

Protected and protective forest and other wooded land have to comply to the following general principles in order to be assigned according to the MCPFE Assessment Guidelines:

- Existence of legal basis
- Long term commitment (minimum 20 years)
- Explicit designation for the protection of biodiversity, landscapes and specific natural elements or protective functions of forest and other wooded land

“Explicit designation” in the context of these guidelines comprises both:

- Designations defining forest and other wooded land within fixed geographical boundaries delineating a specific area
- Designations defining forest and other wooded land not within fixed geographical boundaries, but as specific forest types or vertical and horizontal zones in the landscape

---

\(^1\) The pan-European ministerial process of the ministers for the Environment

\(^2\) Temperate and Boreal Forest Resource Assessment of UNECE/FAO

\(^3\) There is a clear distinction between protected forests and protective forests, as the first are especially dedicated to the conservation of forest biodiversity, while protective forests are mainly managed for the protection of other natural resources, infrastructure and people.
Data on forest and other wooded land according to these two designation types should be distinguished in the reporting.

In addition to the regimes complying to these principles, the MCPFE takes account of protected and protective forest and other wooded land based on voluntary contributions without legal basis. As far as possible these forests and other wooded lands should be assigned to the same classes as used for the legally based regimes. However, data on these forests and other wooded lands should be compiled separately.

3 Structure

Protected and protective forests and other wooded lands are grouped according to their main management objective. In addition, restrictions to interventions are used as distinguishing factors. As a result, five classes of protected and protective forest and other wooded land in Europe are defined. As far as possible these classes are associated to the respective Protected Area Management Categories of IUCN – The World Conservation Union*. In addition, they are linked to the designation types used by EEA5 in its Data Base on Designated Areas. The intention is to establish proper linkages between the MCPFE Assessment Guidelines for Protected and Protective Forest and Other Wooded Land in Europe and these systems, which are used for all kinds of protected areas. The references are agreed with IUCN and EEA as indicated in the table below.

<table>
<thead>
<tr>
<th>MCPFE Classes</th>
<th>EEA*</th>
<th>IUCN**</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Main Management Objective “Biodiversity”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1: “No Active Intervention”</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>1.2: “Minimum Intervention”</td>
<td>A</td>
<td>II</td>
</tr>
<tr>
<td>1.3: “Conservation Through Active Management”</td>
<td>A</td>
<td>IV</td>
</tr>
<tr>
<td>2: Main Management Objective “Protection of Landscapes and Specific Natural Elements”</td>
<td>B</td>
<td>III, V, VI</td>
</tr>
<tr>
<td>3: Main Management Objective “Protective Functions”</td>
<td>(B)</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

* References as identified in the Standard Data Form of the Natura 2000 and Emerald networks, and used in the same way in the framework of the Common Database on Designated Areas (CDDA), managed by the EEA on behalf of two other organisations (Council of Europe and UNEP-WCMC). The groups (A, B or C) are related to designation types and not to individual sites.

** Indicative reference:
- The equivalence of IUCN Categories may vary according to the specific management objective (of the forested part) of each individual protected area. A technical consultation process with IUCN and its World Commission on Protected Areas (WCPA) is underway to ensure full comparability between the MCPFE and IUCN systems.
- IUCN Categories III, V and VI have biodiversity conservation as their primary management objective. However, they fit more easily under MCPFE Class 2 than 1.

The area of forest and other wooded land assigned to the classes 1 and 2 should not be summed up with the data collected under class 3 to avoid double counting.

---

4 World Conservation Union
5 European Environment Agency
4 Definition of Classes

The individual classes of protected and protective forest and other wooded land are defined by the management objective and restrictions to interventions as follows:

Class 1: Main Management Objective “Biodiversity”

Class 1.1: “No Active Intervention”

- The main management objective is biodiversity
- No active, direct human intervention is taking place
- Activities other than limited public access and non-destructive research not detrimental to the management objective are prevented in the protected area

Class 1.2: “Minimum Intervention”

- The main management objective is biodiversity
- Human intervention is limited to a minimum
- Activities other than listed below are prevented in the protected area:
  - Ungulate/game control
  - Control of diseases/insect outbreaks*
  - Public access
  - Fire intervention
  - Non-destructive research not detrimental to the management objective
  - Subsistence resource use**

* In case of expected large diseases/insect outbreaks control measures using biological methods are allowed provided that no other adequate control possibilities in buffer zones are feasible.

** Subsistence resource use to cover the needs of indigenous people and local communities, in so far as it will not adversely affect the objectives of management.

Class 1.3: “Conservation Through Active Management”

- The main management objective is biodiversity
- A management with active interventions directed to achieve the specific conservation goal of the protected area is taking place
- Any resource extraction, harvesting, silvicultural measures detrimental to the management objective as well as other activities negatively affecting the conservation goal are prevented in the protected area
Class 2:  **Main Management Objective "Protection of Landscapes and Specific Natural Elements"**

- Interventions are clearly directed to achieve the management goals landscape diversity, cultural, aesthetic, spiritual and historical values, recreation, specific natural elements
- The use of forest resources is restricted
- A clear long-term commitment and an explicit designation as specific protection regime defining a limited area is existing
- Activities negatively affecting characteristics of landscapes or/and specific natural elements mentioned are prevented in the protected area

Class 3:  **Main Management Objective “Protective Functions”**

- The management is clearly directed to protect soil and its properties or water quality and quantity or other forest ecosystem functions, or to protect infrastructure and managed natural resources against natural hazards
- Forests and other wooded lands are explicitly designated to fulfil protective functions in management plans or other legally authorised equivalents
- Any operation negatively affecting soil or water or the ability to protect other ecosystem functions, or the ability to protect infrastructure and managed natural resources against natural hazards is prevented
VIENNA RESOLUTION 5

CLIMATE CHANGE AND SUSTAINABLE FOREST MANAGEMENT IN EUROPE

1. Recognising the threats posed to forests by human induced climate change, including their ability to provide multiple benefits for society, and being aware of the role of European forests in the global carbon cycle,

2. taking into account Resolution H4 “Strategies for a Process of Long-term Adaptation of Forests in Europe to Climate Change”\(^1\) the decisions in the follow-up to the UNFCCC\(^2\), its Kyoto Protocol and the Marrakech Accords, as well as the decisions taken at the WSSD\(^3\),

3. underlining that the main emphasis should be put on the reduction of greenhouse gas emissions,

4. aiming to ensure the sustainable management of European forests and the sustained provision of their multiple benefits whilst enhancing their contribution to the overall reduction of greenhouse gas concentrations in the atmosphere,

the Signatory States and the European Community commit themselves to

5. contribute to the reduction of greenhouse gas net emissions, inter alia from burning fossil fuels through
   a) promoting the efficient and sound use of wood in order to replace non-renewable resources and energy intensive production techniques,
   b) promoting a significant increase in the efficient generation and use of bio-energy from sustainably managed forest resources as well as wood residues,

6. contribute to the implementation of the UNFCCC and the Kyoto Protocol by maintaining the carbon stock and enhancing carbon sequestration of forests in Europe through
   a) encouraging sustainable forest management practices, taking into account the possible implementation of forestry activities under the Kyoto Protocol,
   b) national forest programmes or plans that provide appropriate guidance so that afforestation and reforestation takes due regard of environmental, in particular

\(^1\) This reference applies only to those MCPFE countries that have signed Resolution H4.
\(^2\) United Nations Framework Convention on Climate Change
\(^3\) World Summit on Sustainable Development
biodiversity, economic and social values, with a view to mitigating potential negative effects of large scale afforestation,

c) supporting research and analysis on the potential scope and methods of carbon sequestration in forests and of carbon storing in forest products, of related benefits and costs as well as ways and means to share them,

7. support research and, as appropriate, monitoring activities to better understand the possible impact of climate change on forests and on their goods and services, and on their ability to reduce the impact of disasters, such as extreme weather events, including floods, and other calamities,

8. enhance policies and measures and develop forestry for a better adaptability of forests to climate change,

9. further contribute to the on-going work under the UNFCCC on the elaboration of methods to estimate, measure, monitor and report changes in carbon stocks in forest ecosystems and forest products, based on existing systems and in co-operation with relevant organisations,

10. share experiences at the pan-European level on forest-related national and regional strategies for mitigation of and adaptation to climate change and contribute to develop related policies; contribute actively to the further deliberations of the UNFCCC and its Kyoto Protocol in order to ensure that decisions on forest-related measures as well as their implementation are taken in line with sustainable forest management
Lisbon 1998
GENERAL DECLARATION

We, the Ministers responsible for Forests, at the Third Ministerial Conference on the Protection of Forests in Europe, held in Lisbon, 2-4 of June 1998, recalling the forest-related decisions and agreements of UNCED\(^1\), UNGASS\(^2\) and XI World Forestry Congress as well as the provisions of the United Nations Conventions, CBD\(^3\), FCCC\(^4\) and CCD\(^5\); recognising the progress and achievements made in the implementation of the commitments of the Strasbourg and Helsinki Ministerial Conferences; and being aware of the many challenges, opportunities as well as threats related to forests and sustainable forest management, share the following Vision:

In the 21\textsuperscript{st} century, the European forest sector, while respecting the social, economic, environmental and cultural functions of forests, will optimise its contribution to the sustainable development of society, especially to the development of rural areas, the provision of renewable resources and the protection of the global and local environment.

Society, understanding the multiple roles of forests and recognising the importance of the conservation and sustainable management of forests, will support a sound development of the forest sector by providing conducive regulatory, institutional, economic and social frameworks for practising sustainable forest management, taking informed decisions on the best possible use of wood and non-wood forest products and services, and reducing existing strains on forest health and vitality.

An effective partnership between society and the forest sector will be strengthened, recognising the role of forests as a key renewable resource, the responsibility of forest owners in their sustainable management, and the responsibility of Europe in demonstrating the integration of all forest functions and in the innovative production and use of wood and non-wood forest products and services.

\(^{1}\) UNCED: United Nations Conference on Environment and Development

\(^{2}\) UNGASS: United Nations General Assembly Special Session

\(^{3}\) CBD: Convention on Biological Diversity

\(^{4}\) UN/FCCC: United Nations Framework Convention on Climate Change
The heritage of healthy and biologically diverse forests for future generations, the positive contribution to the global carbon and hydrological cycles, the protection of soil and water resources, the protection of population and infrastructures against natural hazards, the creation of income and employment particularly in rural areas and the excellence for providing recreational and cultural values for all people, are characteristics associated with forests on which generations of forest owners and society in general have built and will continue to build present and future values.

In the spirit of the above vision, we declare our commitment to:

1. Enhance the social and economic elements of sustainable forest management and strengthen the links between the forest sector and society by increasing dialogue and mutual understanding on sustainable forest management and the role of forests and forestry. Develop to their full value the potential contributions from the forest sector to rural development, employment, environment and to overall sustainable development of society by implementing the Resolution L1, “People, Forests and Forestry – Enhancement of the Socio-Economic Aspects of Sustainable Forest Management”.

2. Further promote sustainable forest management contributing, inter alia, to the conservation of biological diversity, to the mitigation of the negative effects of air pollution and climatic change, and to the combat of the desertification, by:

   a) Adopting the six Pan-European criteria for sustainable forest management, endorsing, implementing, while continually improving the Pan-European indicators for sustainable forest management and endorsing the voluntary “Pan-European Operational Level Guidelines for Sustainable Forest Management”, by implementing the Resolution L2, “Pan-European Criteria and Indicators and Operational Guidelines for Sustainable Forest Management”;

   b) Collaborating with the Ministerial Process “Environment for Europe”, especially through endorsing the “Work-Programme on the Conservation and Enhancement of Biological and Landscape Diversity in Forest Ecosystems 1997-2000”, promoting its implementation and future revision, in line of resolution H2 and the proposals for action agreed at the United Nations Intergovernmental Panel on Forests;

   c) Taking action to stimulate and promote the sound use of wood and other forest based products as environmentally friendly and renewable materials;

   d) Evaluating the role of forest ecosystems to the mitigation of climatic change, in line with the United Nations Framework Convention on Climate Change, as a carbon

---

5 CCD: Convention to Combat Desertification
6 H2: Helsinki Resolution 2 “General Guidelines for the Conservation of the Biodiversity of European Forests”
sink and reservoir, combined with growing use of long life-cycle wood products and enhancing the multiple contributions of forest ecosystems to the conservation and enrichment of soils and for the regulation of water cycles.

3. Take national as well as co-operative actions towards the implementation of the decisions of the United Nations General Assembly Special Session (UNGASS) concerning the proposals for action agreed at the ad-hoc Intergovernmental Panel on Forests (IPF) and contributing to the work of the Intergovernmental Forum on Forests under the United Nations Commission on Sustainable Development (UNCSD/IFF).

4. Continue to share the results obtained in the Pan-European Process with all interested parties and in all important international fora, within and outside the United Nations system, and thereby contributing positively with our experience and achievements to promote sustainable forest management at all levels, to build consensus on forest policy issues and to the implementation of the important forest related political commitments and agreements.

5. Develop a programme of work to implement the decisions of this Conference and to reinforce the implementation of previous commitments made at Strasbourg and Helsinki Ministerial Conferences, in collaboration with international bodies and organisations, in particular FAO, European Forestry Commission, UN/ECE Timber Committee, UNEP, ILO, NGO’s and other relevant stakeholders. This programme will be based on scientific and technical co-operation in Europe, providing a dynamic approach to problem solving in European forestry.

6. Pursue within the spirit that presided Strasbourg and Helsinki Ministerial Conferences, reaffirming the principles agreed for the implementation of the decisions taken by these Conferences and continuation of the Ministerial Process. Further Conferences should be convened when considered necessary by a sufficient number of Signatory States and progress in implementing commitments has been made at national and regional levels.

7. Actively work towards consensus building on the need and possible elements of a global legally binding instrument on the management, conservation and sustainable development of all types of forests within the work of UNCSD/IFF, recalling our firm commitment to such an instrument.

---

7 FAO: Food and Agriculture Organisation of the United Nations
8 UN/ECE: United Nations Economic Commission for Europe
9 UNEP: United Nations Environment Programme
10 ILO: International Labour Organisation
11 NGO’s: Non-Governmental Organisations
RESOLUTION L1

People, Forests and Forestry –
Enhancement of Socio-Economic Aspects of Sustainable Forest Management

The Signatory States and the European Community,

A. Recalling the objectives of sustainable forest management as stated in the Forest Principles¹ adopted by the United Nations Conference on Environment and Development (UNCED)² and recalling the definition of sustainable forest management adopted at the Helsinki Ministerial Conference in Resolution H1³;

B. Recognising the significant role of the forest sector and sustainable forest management in the overall sustainable development of society,

C. Recognising the importance of the social and economic functions of forests together with the environmental, ecological and cultural functions as essential elements for sustainable forest management, and the need to address these in order to positively respond to increasing and sometimes conflicting demands of society,

D. Aware of the need for an increasing dialogue between the forest sector and the general public to define widely accepted objectives for forest policy,

E. Affirming that forests and forestry constitute one of the main pillars of sustainable rural development and recognising the complementarity between forestry and other sectors for sustainable development,

¹ Forest Principles – “Non-legally binding authoritative statement of principles for a global consensus on the management, conservation and sustainable development of all types of forests”

² ‘Forest resources and forest lands should be sustainably managed to meet the social, economic, ecological, cultural and spiritual human needs of present and future generations’

³ ‘Sustainable management means the stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfil, now and in the future, relevant ecological, economic and social functions, at local, national and global levels, and that does not cause damage to other ecosystems’
F. Aware of the contribution of the forest sector in most European countries as a source of direct and indirect employment, and the potential to generate new job and income opportunities mainly in rural areas in such diverse businesses as non-traditional small scale industry, other forest related activities such as recreation and eco-tourism, and other emerging ventures,

G. Recalling that sound and adequate regulatory, institutional and economic frameworks are important for practising sustainable forest management,

H. Recalling that forest management in Europe, relies on millions of private owners as well as on the activities of state bodies and other public structures with long traditions and rights,

I. Emphasising the renewable and environmentally friendly nature of wood and non-wood forest products from forests under sustainable management, and that development of proper assessment and valuation methods are needed for the non-marketed forest goods and services,

J. Acknowledging the valuable contribution of the FAO/ECE/ILO Team of Specialists on Social Aspects of Sustainable Forest Management, notably through the report “People, Forests and Sustainability”; commit themselves to promote:

1. The implementation of the General Guidelines and Future Actions set out in this resolution;

2. The exchange of experience and co-operation in carrying out the Future Actions within Europe through existing international organisations and institutions.

PART I: GENERAL GUIDELINES

1. The interaction between forestry and society in general, should be promoted through partnerships, and be strengthened by raising general awareness of the concept of sustainable forest management and the role of forests and forestry in sustainable development. Therefore an adequate level of participation, education, public relations and transparency in forestry is needed.

2. Sound regulatory, institutional and economic frameworks should be maintained and improved at national level, conducive to enabling and motivating all forest owners to practice sustainable forest management and to make long term investments in forestry.

---

3. Structures of co-operation, particularly organisations of forest owners, should be encouraged in their development and capacity to reinforce sustainable forest management practices and to facilitate *inter alia*, information flow, production and marketing of products and services, including new and hitherto non-marketed forest products and services.

4. The contribution of forestry to sustainable rural development should be fully utilised through the coherence of forest policies and programmes and activities in other sectors, such as agriculture, tourism, environment, energy and industry taking advantage of complementarities and synergies.

5. The marketed and non-marketed cultural, social and environmental services of forests should be assessed and their contributions to society and sustainable rural development should be integrated in the overall policies and programmes of the forest and other sectors.

6. New employment and income opportunities in sustainable forestry should be stimulated notably through diversification of activities related to forests.

7. Human resources development policies should stimulate the adaptation to changing job opportunities related to forests, broaden the competence of forest owners and managers and forestry workforce in forest management, and to strive to offer equal opportunities in employment, income, training and careers.

8. Gender aspects in European forestry and their potential in further development of sustainable forest management should be recognised and fully utilised.

9. The production, marketing and consumption of wood and other forest products and services from forests under sustainable management, a key renewable resource, should be actively promoted as a means for improving the economic viability of forest management, taking advantage of the new market opportunities.

**PART II: FUTURE ACTIONS**

*The Signatory States and the European Community, commit themselves to:*

1. Develop, at adequate levels, a dialogue with the public and efficient programmes to increase awareness of the benefits of sustainable forestry for society.

2. Continue to develop the conditions for the participation of relevant stakeholders in the development of forest policies and programmes.

3. Explore ways and means to maintain and develop at national level sound regulatory, institutional and economic frameworks conducive to enabling and motivating all forest
owners to practice sustainable forest management and to make long term investment in forestry.

4. Adapt education and training systems and programmes contributing to the development of a highly skilled, multidisciplinary workforce, also enhancing the involvement of women in forest related activities.

5. Encourage studies on gender aspects of forest policy and practices in Europe especially in the context of education, training, communication and decision making to improve sustainable forest management.

6. Promote the development of education and training programmes, especially directed to forest owners and managers, focusing on new opportunities and techniques for the production of goods and services from forests under sustainable management.

7. Encourage comparative studies of wood and non-wood substitutes, considering their complete life-cycles and strive for conditions favourable for the production, marketing and consumption of wood and other products and services from forests under sustainable management, as viable alternatives to competing products using non-renewable natural resources, generating more employment and income.

8. Promote the improvement and application of appropriate safety and health standards and practices, professionalism of forest owners, forest workers, and contractors, and skills certification.

9. Engage further research efforts on the socio-economic aspects of sustainable forest management, in particular on the assessment and valuation of the full range of forest goods and services, in order to provide reliable information for policy and decision making and public dialogue.

10. Promote the incorporation of the results of assessment and valuation of wood and non-wood forest goods and services into national economic and natural resource accounting systems.

11. Evaluate the potential impacts of quality assurance systems and programmes such as voluntary and independent forest certification systems on sustainable forest management in the line of the proposals for action agreed by the Intergovernmental Panel on Forests (IPF).
RESOLUTION L2
Pan-European Criteria, Indicators and Operational Level Guidelines
for Sustainable Forest Management

The Signatory States and the European Community,

A. Recalling the resolutions adopted at the Helsinki Ministerial Conference, namely in Resolution H1 “General Guidelines for the Sustainable Management of Forests in Europe” and Resolution H2 “General Guidelines for the Conservation of the Biodiversity of European Forests”, and noting that pan-European criteria, indicators and operational level guidelines for sustainable forest management are based on Resolutions H1 and H2,

B. Acknowledging the co-operative work between the European countries and organisations in the formulation of criteria, describing the different aspects of sustainable forest management in Europe; through quantitative and descriptive indicators the development of a coherent set of tools to assess and assist further progress in sustainable forest management, at the international and national levels; and, guidelines for practical use on a voluntary basis at operational level,

C. Noting that criteria and indicators are potentially useful tools in promoting sustainable forest management by providing relevant information for forest policy development and evaluation, national forest policies, plans and programmes and as a basis for cross-sectoral forest related data collection,

D. Noting that the pan-European operational level guidelines, despite their voluntary nature, can contribute to improved communication, awareness building and implementation of appropriate action at the practical level for sustainable forest management when adapted to the specific conditions of the implementation level,

E. Aware of the need to refine and improve these pan-European tools as the concept of sustainable forest management evolves, technical and scientific knowledge improves and relevant international agreements are developed,
F. Recognising the effort made and progress achieved by European and other countries and international organisations to expand the development and use of criteria and indicators for sustainable forest management,

G. Acknowledging the contacts and co-operation with other international and regional processes and initiatives, as well as international organisations, for the development and implementation of criteria and indicators, and emphasising the importance to continue the co-operation to promote comparability among the various sets of criteria and indicators,

H. Acknowledging the collaboration with UN/ECE\(^1\) and FAO\(^2\), and particularly the support given in data collection by inclusion of most of the existing pan-European quantitative indicators in the temperate and boreal component of the Forest Resource Assessment (FRA) Programme.

**have decided to:**

1. Adopt the six criteria for sustainable forest management from the “Pan-European Criteria and Indicators for Sustainable Forest Management” (Annex 1) and endorse the associated indicators as a basis for international reporting and for development of national indicators;

2. Proceed to implement, continuously review and further improve the associated indicators;

3. Endorse the “Pan-European Operational Level Guidelines for Sustainable Forest Management” (Annex 2) as a framework of recommendations for sustainable forest management for practical use on a voluntary basis.

**and commit themselves to:**

1. Promote the development and implementation of national criteria and indicators using the Pan-European criteria and indicators as a reference framework, and taking into account specific country conditions and integrate them into national forest programmes or other relevant policy frameworks.

2. Improve the quality and promote the necessary adaptations of national data collection systems, to fulfil the needs of information for national and international reporting on sustainable forest management recognising the need for continuity of terms and definitions.

3. Use to the extent possible the criteria and indicators in international reporting on the status and conditions of European forests. Also call upon the UN/ECE, FAO and other

---

\(^1\) UN/ECE: United Nations Economic Commission for Europe

\(^2\) FAO: Food and Agriculture Organisation of the United Nations
relevant organisations to consider whether their regular international reporting, particularly the Forest Resource Assessment (FRA) Programme, could take into account the most updated criteria and indicators.

4. Encourage national and international research institutes to evaluate the consistency, relevance and cost effectiveness of indicators in assessing sustainable forest management, as well as availability of national data. Together with governments and organisations, identify needs, promote and support necessary co-operative research to improve and better assess the multiple functions and uses of forests which are considered as being insufficiently covered by the existing set of criteria and indicators.

5. Evaluate, at a national level, the development over time in measurable indicators with respect to the agreed developed objectives in order to assess progress made in sustainable forest management.

6. Engage efforts with other international and regional processes and initiatives, FAO, UNEP\(^3\) and other relevant international organisations as well as conventions, to further elaborate common definition of key terms and concepts, as well as methodologies for data collection, storage and dissemination in order to enhance comparability of the different sets of criteria and indicators for sustainable forest management.

7. Encourage the adaptation of the “Pan-European Operational Level Guidelines for Sustainable Forest Management” to the specific national, sub-national and local economic, ecological, social and cultural conditions, with participation of the interested parties.

8. Disseminate the “Pan-European Operational Level Guidelines for Sustainable Forest Management” or equivalent existing national standards in line with the guidelines, to the forest owners, forest managers, forest organisations, general public, and other interested parties, and encourage their voluntary use.

Annexes:
(1) Pan-European Criteria and Indicators for Sustainable Forest Management
(2) Pan-European Operational Level Guidelines for Sustainable Forest Management

\(^3\) UNEP: United Nations Environment Programme
ANNEX 1 OF THE RESOLUTION L2
Pan-European Criteria and Indicators for Sustainable Forest Management

Criteria and Quantitative Indicators were adopted at expert level by the First Expert Level Follow-Up Meeting of the Helsinki Conference, held in Geneva in June 24, 1994.

The Descriptive Indicators were adopted at expert level for possible use by the Second Expert Level Follow-Up Meeting of the Helsinki Conference, held in Antalaya in January 23, 1995.

CRITERION 1: Maintenance and Appropriate Enhancement of Forest Resources and their Contribution to Global Carbon Cycles

CONCEPT AREA: GENERAL CAPACITY

Descriptive indicators (examples):

1. Existence of a legal / regulatory framework, and the extent to which it:
   • provides an overall policy framework for conservation and sustainable management of forests

2. Existence and capacity of an institutional framework to:
   • provide guidelines for national plans or programmes

3. Existence of economic policy framework and financial instruments, and the extent to which it:
   • permits the flow of capital in and out of the forest sector in response to market signals and public policy decisions
4. Existence of informational means to implement the policy framework, and the capacity to:
   • recognise the full range of forest values and potentials with periodic forest-related planning and assessment of national forest resources

CONCEPT AREA: LAND USE AND FOREST AREA

Quantitative indicator:

1.1. Area of forest and other wooded land and changes in area (classified, if appropriate, according to forest and vegetation type, ownership structure, age structure, origin of forest)

Descriptive indicators (examples):

1. Existence of a legal / regulatory framework, and the extent to which it:
   • maintains forest resources and prevents forest degradation;
   • clarifies property rights and provides for appropriate land tenure arrangements

2. Existence and capacity of an institutional framework to:
   • carry out integration between land-use planning and forest management

3. Existence of economic policy framework and financial instruments, and the extent to which it:
   • supports mechanisms promoting integration between land-use planning and forest management planning

4. Existence of informational means to implement the policy framework, and the capacity to:
   • conduct and apply management guidelines for land-use planning in relation to forest resources
   • enhance conversion of agricultural and other treeless land to forest land by afforestation

CONCEPT AREA: GROWING STOCK

Quantitative indicator:

1.2. Changes in:

   a. total volume of the growing stock
   b. mean volume of the growing stock on forest land (classified, if appropriate, according to different vegetation zones or site classes)
   c. age structure or appropriate diameter distribution classes
Descriptive indicators (examples):

1. Existence of a legal / regulatory framework, and the extent to which it:
   • supports sustainable management while increasing the growing stock of both merchantable and non-merchantable tree species on forest land available for timber production
2. Existence and capacity of an institutional framework to:
   • undertake and develop regular assessment of forest resources
3. Existence of economic policy framework and financial instruments, and the extent to which it:
   • provides appropriate incentives to support forest policy aiming at bigger growing stock
4. Existence of informational means to implement the policy framework, and the capacity to:
   • improve execution of forest resources assessment by acknowledged research institution or other similar organisations

CONCEPT AREA: CARBON BALANCE

Quantitative indicator:

1.3. Total carbon storage and, changes in the storage in forest stands

Descriptive indicators (examples):

1. Existence of a legal / regulatory framework, and the extent to which it:
   • clarifies policies for enhancing the use of forest products for energy
2. Existence and capacity of an institutional framework to:
   • develop programmes for enhancing the use of forest products for energy
3. Existence of economic policy framework and financial instruments, and the extent to which it:
   • provides subventions for the use of wood for energy
4. Existence of informational means to implement the policy framework, and the capacity to:
   • enhance studies on the length of the life cycle of wood products
   • enhance effectively organised collection of waste paper
CRITERION 2: Maintenance of Forest Ecosystem Health and Vitality

Quantitative indicators:

2.1. Total amount of and, changes over the past 5 years in depositions of air pollutants (assessed in permanent plots)

2.2. Changes in serious defoliation of forests using the UN/ECE and EU defoliation classification (classes 2, 3, and 4) over the past 5 years

2.3. Serious damage caused by biotic or abiotic agents:
   a. severe damage caused by insects and diseases with a measurement of seriousness of the damage as a function of (mortality or) loss of growth
   b. annual area of burnt forest and other wooded land
   c. annual area affected by storm damage and volume harvested from these areas
   d. proportion of regeneration area seriously damaged by game and other animals or by grazing

2.4. Changes in nutrient balance and acidity over the past 10 years (pH and CEC); level of saturation of CEC on the plots of the European network or of an equivalent national network

Descriptive indicators (examples):

1. Existence of a legal / regulatory framework, and the extent to which it:
   • enforces laws and policies related to maintaining forest health and vitality

2. Existence and capacity of an institutional framework to:
   • develop mechanisms for controlling the occurrence of serious damages / damage agents

3. Existence of economic policy framework and financial instruments, and the extent to which it:
   • creates appropriate incentives to prevent extreme disruption of ecological processes

4. Existence of informational means to implement the policy framework, and the capacity to:
   • strengthen regular field monitoring on forest health status and inventories of soil acidification
   • prevent serious damage caused by machinery and forestry operations: compaction of soil, injuries into standing trees, etc.
CRITERION 3: Maintenance and Encouragement of Productive Functions of Forests (wood and non-wood)

CONCEPT AREA: WOOD PRODUCTION

Quantitative indicators:

3.1. Balance between growth and removals of wood over the past 10 years

3.2. Percentage of forest area managed according to a management plan or management guidelines

Descriptive indicators (examples):

1. Existence of a legal / regulatory framework, and the extent to which it:
   - encourages forest owners to practice environmentally sound forestry based on a forest management plan or equivalent guidelines

2. Existence and capacity of an institutional framework to:
   - develop institutions and mechanisms advocating economic, environmental and social factors as essential elements in wood production
   - develop and maintain efficient physical infrastructure to facilitate the delivery of forest products and services

3. Existence of economic policy framework and financial instruments, and the extent to which it:
   - supports investment and taxation policies which recognise the long-term nature of investments in forestry
   - supports non-discriminatory trade policies for forest products

4. Existence of informational means to implement the policy framework, and the capacity to:
   - improve technologies and plans based on proper forest inventories

CONCEPT AREA: NON-WOOD PRODUCTS

Quantitative indicator:

3.3. Total amount of and changes in the value and/or quantity of non-wood forest products (e.g., hunting and game, cork, berries, mushrooms, etc.)
Descriptive indicators (examples):

1. **Existence of a legal / regulatory framework, and the extent to which it:**
   - provides legal instruments to regulate forest management practices for recreation and the harvesting of important non-wood forest products

2. **Existence and capacity of an institutional framework to:**
   - support appropriate organisations for extension services on non-wood benefits

3. **Existence of economic policy framework and financial instruments, and the extent to which it:**
   - enables the implementation of guidelines for management of non-wood benefits

4. **Existence of informational means to implement the policy framework, and the capacity to:**
   - develop management plans for non-wood benefits

**CRITERION 4: Maintenance, Conservation and Appropriate Enhancement of Biological Diversity in Forest Ecosystems**

**CONCEPT AREA: GENERAL CONDITIONS**

Descriptive indicators (examples):

1. **Existence of a legal / regulatory framework, and the extent to which it:**
   - clarifies the concept of management, conservation and sustainable development of forest
   - provides for national adherence to international legal instruments

2. **Existence and capacity of an institutional framework to:**
   - maintain, conserve and appropriately enhance biological diversity at the ecosystem, species and genetic levels
   - identify economic value in forests whose management is adjusted in favour of maintaining biological diversity

3. **Existence of economic policy framework and financial instruments, and the extent to which it:**
   - creates new resources and incentives to enhance the mechanisms for predicting impacts of human interventions on forests
   - supports economic value in forests whose management is adjusted in favour of maintaining biological diversity
4. Existence of informational means to implement the policy framework, and the capacity to:
   • develop new inventories and ecological impact assessments on biological diversity
   • develop tools to assess the effects of forest management on biological diversity

CONCEPT AREA: REPRESENTATIVE, RARE AND VULNERABLE FOREST ECOSYSTEMS

Quantitative indicator:

4.1. Changes in the area of:
   a. natural and ancient seminatural forest types
   b. strictly protected forest reserves
   c. forests protected by special management regime

Descriptive indicators (examples):

1. Existence of a legal / regulatory framework, and the extent to which it:
   • provides for legal instruments to protect representative, rare or vulnerable forest ecosystems

2. Existence and capacity of an institutional framework to:
   • develop and maintain institutional capacity and distribution of responsibilities related to protected areas
   • maintain degree of implementation of confirmed national forest conservation programmes

3. Existence of economic policy framework and financial instruments, and the extent to which it:
   • supports the representativeness of protected forests in relation to ecological and regional distribution

4. Existence of informational means to implement the policy framework, and the capacity to:
   • enhance measures to re-establish the endemic biological diversity in forests managed for production
   • apply measures for rehabilitation of degraded forest areas
CONCEPT AREA: THREATENED SPECIES

Quantitative indicator:

4.2. Changes in the number and percentage of threatened species in relation to total number of forest species (using reference lists e.g., IUCN, Council of Europe or the EU Habitat Directive)

Descriptive indicators (examples):

1. Existence of a legal / regulatory framework, and the extent to which it:
   • provides for legal instruments to protect threatened species

2. Existence and capacity of an institutional framework to:
   • develop and maintain institutional instruments to protect threatened species

3. Existence of economic policy framework and financial instruments, and the extent to which it:
   • supports implementation of management guidelines to take into account threatened species

4. Existence of informational means to implement the policy framework, and the capacity to:
   • construct periodically reviewed lists of threatened forest species
   • enhance level of knowledge on threatened species / assessments, inventories or research on threatened species

CONCEPT AREA: BIOLOGICAL DIVERSITY IN PRODUCTION FORESTS

Quantitative indicators:

4.3. Changes in the proportions of stands managed for the conservation and utilisation of forest genetic resources (gene reserve forests, seed collection stands, etc.); differentiation between indigenous and introduced species

4.4. Changes in the proportions of mixed stands of 2-3 tree species

4.5. In relation to total area regenerated, proportions of annual area of natural regeneration

Descriptive indicators (examples):

1. Existence of a legal / regulatory framework, and the extent to which it:
   • provides for legal instruments to ensure regeneration of managed forests
2. Existence and capacity of an institutional framework to:
   • develop and maintain institutional instruments to ensure regeneration of managed forests
   • conduct inventories on proportion of area covered by trees significantly older than the acceptable age of exploitation currently used

3. Existence of economic policy framework and financial instruments, and the extent to which it:
   • provides for economic incentives for taking account of environmental issues in management planning
   • conducts inventories / assessments on bioindicators

4. Existence of informational means to implement the policy framework, and the capacity to:
   • take measures to maintain or to re-establish biological diversity in old forests
   • monitor changes in the proportions of afforested or reforested areas covered by indigenous and introduced species, conifer and deciduous species

CRITERION 5: Maintenance and Appropriate Enhancement of Protective Functions in Forest Management (notably soil and water)

CONCEPT AREA: GENERAL PROTECTION

Descriptive indicators (examples):

1. Existence of a legal / regulatory framework, and the extent to which it:
   • provides for legal instruments to regulate or limit forest management practices in forests protected for infrastructure / protection forests

2. Existence and capacity of an institutional framework to:
   • develop and maintain institutional instruments to regulate or limit forest management practices in forests protected for infrastructure / protection forests

3. Existence of economic policy framework and financial instruments, and the extent to which it:
   • supports the preparation of management guidelines for infrastructure and protection forests

4. Existence of informational means to implement the policy framework, and the capacity to:
   • conduct research on infrastructure and protection forests in relation to land use practices / forest management
CONCEPT AREA: SOIL EROSION

Quantitative indicator:

5.1. Proportion of forest area managed primarily for soil protection

Descriptive indicators (examples):

1. Existence of a legal / regulatory framework, and the extent to which it:
   • provides for legal instruments to regulate or limit forest management practices in areas with vulnerable soils

2. Existence and capacity of an institutional framework to:
   • strengthen institutional instruments to regulate or limit forest management practices in areas with vulnerable soils

3. Existence of economic policy framework and financial instruments, and the extent to which it:
   • supports the preparation of management guidelines for areas with vulnerable soils

4. Existence of informational means to implement the policy framework, and the capacity to:
   • conduct inventories and research on soil erosion

CONCEPT AREA: WATER CONSERVATION IN FORESTS

Quantitative indicator:

5.2. Proportion of forest area managed primarily for water protection

Descriptive indicators (examples):

1. Existence of a legal / regulatory framework, and the extent to which it:
   • provides for legal instruments to regulate or limit forest management practices in favour of water conservation or protection of water resources

2. Existence and capacity of an institutional framework to:
   • develop and maintain institutional instruments to regulate or limit forest management practices in favour of water conservation or protection of water resources
3. Existence of economic policy framework and financial instruments, and the extent to which it:
   • supports the preparation of management guidelines for taking into consideration water conservation in forest management practices

4. Existence of informational means to implement the policy framework, and the capacity to:
   • conduct inventories and research on water quality and flow characteristics in relation to land use practices / forest management

**CRITERION 6: Maintenance of other Socio-Economic Functions and Conditions**

**CONCEPT AREA: SIGNIFICANCE OF THE FOREST SECTOR**

**Quantitative** indicator:

6.1. Share of the forest sector from the gross national product

**Descriptive** indicators (examples):

1. Existence of a legal / regulatory framework, and the extent to which it:
   • provides for legal instruments to ensure development of the forest sector

2. Existence and capacity of an institutional framework to:
   • develop and maintain efficient physical infrastructure to facilitate the supply of forest products

3. Existence of economic policy framework and financial instruments, and the extent to which it:
   • ensures new investments in the forest sector to meet future demands

4. Existence of informational means to implement the policy framework, and the capacity to:
   • develop and put into practice new improved technology
   • conduct market analysis to better fulfil the needs of society

**CONCEPT AREA: RECREATIONAL SERVICES**

**Quantitative** indicator:

6.2. Provision of recreation: area of forest with access per inhabitant, % of total forest area
Descriptive indicators (examples):

1. Existence of a legal / regulatory framework, and the extent to which it:
   • recognises customary and traditional rights of indigenous people, and provides means of resolving access disputes

2. Existence and capacity of an institutional framework to:
   • undertake planning and assessment in recreational services on forestry

3. Existence of economic policy framework and financial instruments, and the extent to which it:
   • supports forestry constituencies to conserve special environmental, cultural, social and scientific values in relation to recreational services

4. Existence of informational means to implement the policy framework, and the capacity to:
   • conduct assessment on recreation

CONCEPT AREA: PROVISION OF EMPLOYMENT

Quantitative indicator:

6.3. Changes in the rate of employment in forestry, notably in rural areas (persons employed in forestry, logging, forest industry)

Descriptive indicators (examples):

1. Existence of a legal / regulatory framework, and the extent to which it:
   • provides for legal instruments for securing income levels in forest sector

2. Existence and capacity of an institutional framework to:
   • develop and maintain human resource skills in all relevant tasks

3. Existence of economic policy framework and financial instruments, and the extent to which it:
   • supports programmes to ensure employment in rural areas in relation to forestry

4. Existence of informational means to implement the policy framework, and the capacity to:
   • secure a fair share of income from non-wood products coming from rural sources of income
CONCEPT AREA: RESEARCH AND PROFESSIONAL EDUCATION

Descriptive indicators (examples):

1. Existence of a legal / regulatory framework, and the extent to which it:
   - provides for national programmes for research and professional education

2. Existence and capacity of an institutional framework to:
   - develop and maintain institutional instruments to enhance forest related research and education

3. Existence of economic policy framework and financial instruments, and the extent to which it:
   - provides public and private funding for research, educational and extension programmes

4. Existence of informational means to implement the policy framework, and the capacity to:
   - guarantee a sufficient number of people educated at different levels of forestry and cross-cutting field of education

CONCEPT AREA: PUBLIC AWARENESS

Descriptive indicators (examples):

1. Existence of a legal / regulatory framework, and the extent to which it:
   - provides opportunities for public access to information

2. Existence and capacity of an institutional framework to:
   - strengthen organisations to provide extension services for general public

3. Existence of economic policy framework and financial instruments, and the extent to which it:
   - guarantees that part of forest revenues are reinvested in informing the public about forests

4. Existence of informational means to implement the policy framework, and the capacity to:
   - support teaching and informing of environmental issues and other forestry related subjects
CONCEPT AREA: PUBLIC PARTICIPATION

Descriptive indicators (examples):

1. Existence of a legal / regulatory framework, and the extent to which it:
   • provides opportunities for public participation in public policy and decision making on forests

2. Existence and capacity of an institutional framework to:
   • enforce institutional mechanisms for the involvement of local people and NGOs in decision-making

3. Existence of economic policy framework and financial instruments, and the extent to which it:
   • attracts public outreach and preparatory planning

4. Existence of informational means to implement the policy framework, and the capacity to:
   • enhance public participation in decision-making processes related to implementation of forest policy

CONCEPT AREA: CULTURAL VALUES

Descriptive indicators (examples):

1. Existence of a legal / regulatory framework, and the extent to which it:
   • provides for programmes and management guidelines which recognise cultural heritage in relation to forestry

2. Existence and capacity of an institutional framework to:
   • develop and maintain programmes to conserve culturally valuable sites and landscapes

3. Existence of economic policy framework and financial instruments, and the extent to which it:
   • provides for sufficient financial incentives for acknowledgement of cultural values in forest management planning

4. Existence of informational means to implement the policy framework, and the capacity to:
   • conduct studies on proportion of culturally valuable sites and sites with special visual value
ANNEX 2 OF THE RESOLUTION L2
Pan-European Operational Level Guidelines for Sustainable Forest Management

The Operational Level Guidelines form a common framework of recommendations that can be used on a voluntary basis and as a complement to national and/or regional instruments to further promote sustainable forest management at the field level, on forest areas in Europe.


1. INTRODUCTION

Forests in Europe grow in a wide and diverse range of ecological conditions, from boreal to Mediterranean and from alpine to lowlands. These forests have been influenced by human settlement and action over the centuries, and in some countries planted forests constitute a major part of the resource. Forest management in Europe is characterized by a large proportion of private, fragmented, small-scale farm-related ownership structures in the majority of countries, as well as a large proportion of public forests and forests owned by private forest enterprises in others.

Forest management takes place within clearly established ownership rights and with a long history of national/regional laws and regulations based on long-term planning. Thus, the concept of sustainability has a long tradition in forestry in Europe. However, the meaning of ‘sustainable forest management’ has developed over time according to the changing needs of society. Originally, sustainability in forest management was mainly considered as the sustained yield of timber to cope with historic wood shortages. However, the importance of other multiple functions of forests have gradually been incorporated in forest management. During the 1980’s the concern about the deterioration of forests throughout Europe led to an increasing awareness of the economic, ecological, social and cultural values of forests by the
broader public. Nowadays many important aspects of sustainable forest management are covered by national and/or regional laws and regulations and are already being regularly monitored.

The wish for a concerted effort at a political level to protect and further improve the sustainable management of European forests led to the First Ministerial Conference on the Protection of Forests in Europe held in Strasbourg in 1990. At the Second Ministerial Conference, held in Helsinki in 1993, the ministers responsible for forestry in Europe embraced the internationally accepted UNCED1 Forest Principles, taking a further step in the history of the concept of sustainable forest management by adopting, inter alia, Resolution H1 “General Guidelines for Sustainable Management of European Forests” and Resolution H2 “General Guidelines for the Conservation of the Biodiversity of European Forests”. These General Guidelines represent the political commitment of the signatory states of the Helsinki Resolutions by providing a general policy direction and a long-term goal to meet the demands on European forests for multiple goods and services in a manner that is consistent with their sustainable management, and conservation and enhancement of their biological diversity.

A new, common definition of ‘sustainable forest management’ was laid down in Resolution H1:

> the stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfil, now and in the future, relevant ecological, economic and social functions, at local, national, and global levels, and that does not cause damage to other ecosystems

For the follow-up and the implementation of the General Guidelines, the pan-European national level criteria and indicators2 were adopted at the expert level within the Follow-Up Process of the Helsinki Ministerial Conference in 1994. They are a policy instrument for evaluating and reporting progress towards sustainable forest management, as described in Resolution H1, in individual European countries and in Europe as a whole.

The six pan-European criteria for sustainable forest management are:

1. Maintenance and appropriate enhancement of forest resources and their contribution to global carbon cycles;
2. Maintenance of forest ecosystem health and vitality;
3. Maintenance and encouragement of productive functions of forests (wood and non-wood);

---

2 Criteria characterise or define the essential elements or set of conditions or processes by which sustainable forest management may be assessed. The direction of change within each criterion is shown by periodically measured indicators.
4. Maintenance, conservation and appropriate enhancement of biological diversity in forest ecosystems;
5. Maintenance and appropriate enhancement of protective functions in forest management (notably soil and water); and
6. Maintenance of other socio-economic functions and conditions.

The Pan-European Operational Level Guidelines have been elaborated to further promote sustainable forest management in Europe by translating the international commitments down to the level of forest management planning and practices. They represent a common framework of recommendations for reference at the field level that can be used on a voluntary basis. These Guidelines are directly based on Resolutions H1 and H2, and they follow the structure of the six pan-European criteria that were identified as the core elements of sustainable forest management. For clarity they are divided into ‘Guidelines for Forest Management Planning’ and ‘Guidelines for Forest Management Practices’, focusing on basic ecological, economical and social requirements for sustainable forest management within each criterion.

The Pan-European Operational Level Guidelines are designed to be applied in the context of, and in full respect to, national and/or regional instruments and actions. They cannot be used in isolation to determine sustainability in forest management. Their purpose is to identify complementary actions at the operational level which will further contribute to sustainability of forest management. This should reflect national, economic, ecological, social and cultural conditions, research and traditional knowledge, and must respect forest and environmental legislation, decisions on protected areas, other general principles, as well as codes for forest practice such as standards used for forest management in any given country.

The effective implementation of these Guidelines implies recognizing the major role and the legal rights of forest owners. Furthermore, the implementation of sustainable forest management in the field requires continuous extension, training and education of forest managers, owners and workers, for which the Pan-European Operational Level Guidelines can provide an important reference.

2. POTENTIAL USES OF THE PAN-EUROPEAN OPERATIONAL LEVEL GUIDELINES

In general, the Pan-European Operational Level Guidelines are designed for sub-national applications at a practical level. Whenever used, their content should be adapted to the specific local, economic, ecological, social and cultural conditions, as well as to the respective forest management and administrative systems already in place; in this process participation of all interested parties should be encouraged. Therefore, all guidelines may not necessarily be relevant for all levels, all types of forest, or ownership categories.
In order to facilitate the implementation of these voluntary Guidelines, there might be a need for the promotion and equitable support by government, society and other beneficiaries to create and maintain a sound balance of interests including a sound economic basis for forestry.

The potential applications and users of the Pan-European Operational Level Guidelines are:

- **Forest managers and forest owners**
  The Guidelines can assist forest managers and forest owners in planning and implementing improved sustainable management practices and operations in the field. They can be used for increasing communication and awareness in relation to the evolving concept of sustainable forest management and the desired actions at the operational level amongst forest owners, managers, employees, contractors or others.

- **Sub-national organisations**
  The sub-national (regional or local) organisations can use the guidelines as a reference tool in informing and advising forest owners and forest managers, in planning the practices and/or in supervising their implementation. These types of organisations include, for example, sub-national administrational forestry organisations and forest owners or management associations.

- **National/governmental decision makers**
  The Guidelines can be used as an internationally agreed framework for the guidance of forest management bringing the commitments made in the international policy fora (UNCED Forest Principles and Helsinki Resolutions) down to the field level. They can serve as a reference for setting codes for forest practice and forest management planning.

- **International forest dialogue**
  The Guidelines form a European reference to the global forest dialogue. They can contribute, as an instrument representing consensus within the Pan-European Process, to the achievement of further consensus on sustainable management of all types of forests on a global scale.

- **Communication tools and certification systems**
  These guidelines can serve as a tool to improve communication and awareness building related to sustainable forest management. In addition, although certification and other quality assurance systems or programmes as such would remain independent from the Pan-European Process and are voluntary to the interested parties, the Guidelines could provide an indicative reference for the establishment of standards for those systems.
3. PAN-EUROPEAN OPERATIONAL LEVEL GUIDELINES FOR SUSTAINABLE FOREST MANAGEMENT

CRITERION 1. Maintenance and appropriate enhancement of forest resources and their contribution to global carbon cycles

<table>
<thead>
<tr>
<th>1.1 Guidelines for Forest Management Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Forest management planning should aim to maintain or increase forest and other wooded area, and enhance the quality of the economic, ecological, cultural and social values of forest resources, including soil and water. This should be done by making full use of related services such as land-use planning and nature conservation.</td>
</tr>
<tr>
<td>b. Inventory and mapping of forest resources should be established and maintained, adequate to the local and national conditions, and in correspondence with the topics described in these Guidelines.</td>
</tr>
<tr>
<td>c. Management plans or their equivalents, appropriate to the size and use of the forest area, should be elaborated and periodically updated. They should be based on legislation as well as existing land use plans, and adequately cover the forest resources.</td>
</tr>
<tr>
<td>d. Monitoring of the forest resources and evaluation of their management should be periodically performed, and their results should be fed back into the planning process.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.2 Guidelines for Forest Management Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Forest management practices should safeguard the quantity and quality of the forest resources in the medium and long term by balancing harvesting and growth rates, and by preferring techniques that minimise direct or indirect damage to forest, soil or water resources.</td>
</tr>
<tr>
<td>b. Appropriate silvicultural measures should be taken to maintain the growing stock of resources at - or bring to - a level that is economically, ecologically and socially desirable.</td>
</tr>
<tr>
<td>c. Conversion of abandoned agricultural and treeless land into forest land should be taken into consideration, whenever it can add economic, ecological, social and/or cultural value.</td>
</tr>
</tbody>
</table>
CRITERION 2. Maintenance of forest ecosystem health and vitality

2.1 Guidelines for Forest Management Planning

a. Forest management planning should aim to maintain and increase the health and vitality of forest ecosystems and to rehabilitate degraded forest ecosystems, whenever this is possible by silvicultural means.

b. Health and vitality of forests should be periodically monitored, especially key biotic and abiotic factors that potentially affect health and vitality of forest ecosystems, such as pests, diseases, overgrazing and overstocking, fire, and damage caused by climatic factors, air pollutants or by forest management operations.

c. Forest management plans or their equivalents should specify ways and means to minimise the risk of degradation of and damages to forest ecosystems. Forest management planning should make use of those policy instruments set up to support these activities.

2.2 Guidelines for Forest Management Practices

a. Forest management practices should make best use of natural structures and processes and use preventive biological measures wherever and as far as economically feasible to maintain and enhance the health and vitality of forests. Adequate genetic, species and structural diversity should be encouraged and/or maintained to enhance stability, vitality and resistance capacity of the forests to adverse environmental factors and strengthen natural regulation mechanisms.

b. Appropriate forest management practices such as reforestation and afforestation with tree species and provenances that are suited to the site conditions or the use of tending, harvesting and transport techniques that minimise tree and/or soil damages should be applied. The spillage of oil through forest management operations or the indiscriminate disposal of waste on forest land should be strictly avoided.

c. The use of pesticides and herbicides should be minimised, taking into account appropriate silvicultural alternatives and other biological measures.

d. In case fertilisers are used they should be applied in a controlled manner and with due consideration to the environment.
CRITERION 3. Maintenance and encouragement of productive functions of forests (wood and non-wood)

3.1 Guidelines for Forest Management Planning

a. Forest management planning should aim to maintain the capability of forests to produce a range of wood and non-wood forest products and services on a sustainable basis.

b. Forest management planning should aim to achieve sound economic performance taking into account possibilities for new markets and economic activities in connection with all relevant goods and services of forests.

c. Forest management plans or their equivalents should take into account the different uses or functions of the managed forest area. Forest management planning should make use of those policy instruments set up to support the production of merchantable and non-merchantable forest goods and services.

3.2 Guidelines for Forest Management Practices

a. Forest management practices should be ensured in quality with a view to maintain and improve the forest resources and to encourage a diversified output of goods and services over the long term.

b. Regeneration, tending and harvesting operations should be carried out in time, and in a way that do not reduce the productive capacity of the site, for example by avoiding damage to retained stands and trees as well as to the forest soil, and by using appropriate systems.

c. Harvesting levels of both wood and non-wood forest products should not exceed a rate that can be sustained in the long term, and optimum use should be made of the harvested forest products, with due regard to nutrient offtake.

d. Adequate infrastructure, such as roads, skid tracks or bridges should be planned, established and maintained to ensure efficient delivery of goods and services while at the same time minimising negative impacts on the environment.
CRITERION 4. Maintenance, conservation and appropriate enhancement of biological diversity in forest ecosystems

<table>
<thead>
<tr>
<th>4.1 Guidelines for Forest Management Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Forest management planning should aim to maintain, conserve and enhance biodiversity on ecosystem, species and genetic level and, where appropriate, diversity at landscape level.</td>
</tr>
<tr>
<td>b. Forest management planning and terrestrial inventory and mapping of forest resources should include ecologically important forest biotopes, taking into account protected, rare, sensitive or representative forest ecosystems such as riparian areas and wetland biotopes, areas containing endemic species and habitats of threatened species, as defined in recognised reference lists, as well as endangered or protected genetic <em>in situ</em> resources.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4.2 Guidelines for Forest Management Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Natural regeneration should be preferred, provided that the conditions are adequate to ensure the quantity and quality of the forests resources and that the existing provenance is of sufficient quality for the site.</td>
</tr>
<tr>
<td>b. For reforestation and afforestation, origins of native species and local provenances that are well adapted to site conditions should be preferred, where appropriate. Only those introduced species, provenances or varieties should be used whose impacts on the ecosystem and on the genetic integrity of native species and local provenances have been evaluated, and if negaive impacts can be avoided or minimised.</td>
</tr>
<tr>
<td>c. Forest management practices should, where appropriate, promote a diversity of both horizontal and vertical structures such as uneven-aged stands and the diversity of species such as mixed stands. Where appropriate, the practices should also aim to maintain and restore landscape diversity.</td>
</tr>
<tr>
<td>d. Traditional management systems that have created valuable ecosystems, such as coppice, on appropriate sites should be supported, when economically feasible.</td>
</tr>
<tr>
<td>e. Tending and harvesting operations should be conducted in a way that do not cause lasting damage to ecosystems. Wherever possible, practical measures should be taken to improve or maintain biological diversity.</td>
</tr>
<tr>
<td>f. Infrastructure should be planned and constructed in a way that minimises damage to ecosystems, especially to rare, sensitive or representative ecosystems and genetic reserves, and that takes threatened or other key species - in particular their migration patterns - into consideration.</td>
</tr>
<tr>
<td>g. With due regard to management objectives, measures should be taken to balance the pressure of animal populations and grazing on forest regeneration and growth as well as on biodiversity.</td>
</tr>
<tr>
<td>h. Standing and fallen dead wood, hollow trees, old groves and special rare tree species should be left in quantities and distribution necessary to safeguard biological diversity, taking into account the potential effect on health and stability of forests and on surrounding ecosystems.</td>
</tr>
<tr>
<td>i. Special key biotopes in the forest such as water sources, wetlands, rocky outcrops and ravines should be protected or, where appropriate, restored when damaged by forest practices.</td>
</tr>
</tbody>
</table>
CRITERION 5. Maintenance and appropriate enhancement of protective functions in forest management (notably soil and water)

<table>
<thead>
<tr>
<th>5.1 Guidelines for Forest Management Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Forest management planning should aim to maintain and enhance protective functions of forests for society, such as protection of infrastructure, protection from soil erosion, protection of water resources and from adverse impacts of water such as floods or avalanches.</td>
</tr>
<tr>
<td>b. Areas that fulfil specific and recognised protective functions for society should be registered and mapped, and forest management plans or their equivalents should take full account of these areas.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5.2 Guidelines for Forest Management Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Special care should be given to silvicultural operations on sensitive soils and erosion-prone areas as well as on areas where operations might lead to excessive erosion of soil into watercourses. Inappropriate techniques such as deep soil tillage and use of unsuitable machinery should be avoided on such areas. Special measures to minimise the pressure of animal population on forests should be taken.</td>
</tr>
<tr>
<td>b. Special care should be given to forest management practices on forest areas with water protection function to avoid adverse effects on the quality and quantity of water resources. Inappropriate use of chemicals or other harmful substances or inappropriate silvicultural practices influencing water quality in a harmful way should be avoided.</td>
</tr>
<tr>
<td>c. Construction of roads, bridges and other infrastructure should be carried out in a manner that minimises bare soil exposure, avoids the introduction of soil into watercourses and that preserve the natural level and function of water courses and river beds. Proper road drainage facilities should be installed and maintained.</td>
</tr>
</tbody>
</table>
CRITERION 6. Maintenance of other socio-economic functions and conditions

6.1 Guidelines for Forest Management Planning

a. Forest management planning should aim to respect the multiple functions of forests to society, have due regard to the role of forestry in rural development, and especially consider new opportunities for employment in connection with the socio-economic functions of forests.

b. Property rights and land tenure arrangements should be clearly defined, documented and established for the relevant forest area. Likewise, legal, customary and traditional rights related to the forest land should be clarified, recognised and respected.

c. Adequate public access to forests for the purpose of recreation should be provided taking into account the respect for ownership rights and the rights of others, the effects on forest resources and ecosystems, as well as the compatibility with other functions of the forest.

d. Sites with recognised specific historical, cultural or spiritual significance should be protected or managed in a way that takes due regard of the significance of the site.

e. Forest managers, contractors, employees and forest owners should be provided with sufficient information and encouraged to keep up to date through continuous training in relation to sustainable forest management.

6.2 Guidelines for Forest Management Practices

a. Forest management practices should make the best use of local forest related experience and knowledge, such as of local communities, forest owners, NGOs and local people.

b. Working conditions should be safe, and guidance and training in safe working practice should be provided.

c. Forest management operations should take into account all socio-economic functions, especially the recreational function and aesthetic values of forests by maintaining for example varied forest structures, and by encouraging attractive trees, groves and other features such as colours, flowers and fruits. This should be done, however, in a way and to an extent that does not lead to serious negative effects on forest resources, and forest land.
Helsinki 1993
GENERAL DECLARATION

The Signatory States and the European Community,

A. Recalling the First Ministerial Conference on the Protection of Forests in Europe, held in Strasbourg in 1990, where ministers agreed that close cooperation between the Signatory States for the protection and sustainable management of forests was necessary, that common objectives and principles, including that of conservation, should be progressively implemented at the scientific and technical level, and that the efforts of international organisations with similar objectives should be stimulated,

B. Appreciating the importance of the follow-up work carried out since the Conference in 1990 and taking note of the need to continue to develop further the cooperation between European states,

C. Considering that the countries of Europe are responsible for the stewardship of approximately one quarter of the world’s forests, the production of wood from which is and will remain an essential function, and that the increasing demands for non-wood goods and services that are made on the European forests should be met in a manner that is consistent with their sustainable management and conservation and appropriate enhancement of their biodiversity,

D. Appreciating the role of the Helsinki Conference and its Resolutions for the long-term prospects for forestry, so that it may better contribute to national and regional objectives with respect to the rural sector, to the environment and to economic growth, trade and sustainable development in all European countries,

E. Taking into account the difficult economic situation faced by the forestry sector, including some forest industries, of certain European countries,

F. Concerned with the threat to the health of European forests from air pollution, fires, pests, diseases, game, storms and receding of ground water tables, which stresses the need for further control or protection,
G. Aware of the limited resources currently available to combat the decline of forests and forest lands and to implement sustainable forest management in European countries with economies in transition,

H. Aware of the further contribution that the forestry sector could make to the mitigation of climate change and also that the process of such change might require a degree of adaptation through forest management so that forests can be maintained on a sustainable basis,

I. Recalling the 1979 Convention on Long-Range Transboundary Air Pollution, and reaffirming the need to have regard to the commitments contained in the Helsinki and Sofia protocols linked to this convention,

J. Recalling that the Signatory States and the European Community participated in the United Nations Conference on Environment and Development in June 1992 in Rio de Janeiro and that they signed the Convention on Biological Diversity and the United Nations Framework Convention on Climate Change, and that by their adoption of Agenda 21 and the non-legally binding authoritative statement\(^1\) of principles for a global consensus on the management, conservation and sustainable development of all types of forests at that Conference, and by their support for the establishment of the United Nations Commission on Sustainable Development, the Signatory States and the European Community demonstrate their will to promote the incorporation of the Statement of Forest Principles in the implementation of Agenda 21, in particular, in the context of the review of the implementation of Chapter 11 (Combating deforestation),

K. Affirming their intention to keep the Statement of Forest Principles under assessment for its adequacy with regard to further international cooperation on forest issues,

L. Stressing that the conservation and appropriate enhancement of biological diversity is an essential element of sustainable management of all kinds of forests and forest ecosystems, and that therefore Resolutions H1 and H2 should be implemented in an integrated manner that is reflected in national guidelines and local technical solutions,

M. Recognising the valuable work already carried out by international organisations and institutions on the implementation of the Strasbourg Resolutions thereby putting special emphasis on European forests,

N. Acknowledging the desirability of enabling participation by local communities, forest owners and Non-Governmental Organisations in the formulation and implementation of forest policies and programmes, and

---

\(^1\) Hereafter referred to as the Statement of Forest Principles
O. Considering that each nation, while its separate identity must be respected, should assume its share of the responsibility to all European countries as regards the future of forests, and recognising the need for follow-up action to be coordinated in order better to ensure that progress is made towards fulfilling the commitments entered into by the Parties concerned;

declare their intention to:

1. Collaborate in the collection of data and the production of periodic reports on progress towards achieving the protection and sustainable management of forests in Europe,

2. Stimulate and promote cooperation and, if necessary, coordination of actions facilitating the adjustment of the forestry sectors in those European countries with economies in transition,

3. Take action through research to prepare the European forestry sector for a long-term process of mitigation of, and to explore, where appropriate, possibilities for adaptation to, climate change,

4. Stimulate and promote, without delay, the implementation of the Rio Declaration, Agenda 21, the Convention on Biological Diversity and the United Nations Framework Convention on Climate Change as they apply to the forestry sector, and of the Statement of Forest Principles in the European context and conditions,

5. Participate in, and promote, international activities towards a global convention on the management, conservation and sustainable development of all types of forests, and

6. Implement the Resolutions of this Conference, by continuing, enhancing and improving the coordinated follow-up initiated in Strasbourg in 1990, building on the experience gained from this process and making use of existing institutions and mechanisms where this is appropriate and feasible, in accordance with the following principles:

   6.1. In the same spirit as that which presided over the conference proposal first made jointly by the French and Finnish and then shared by the Finnish and Portuguese Ministers of Agriculture and Forestry, further Ministerial Conferences could be convened as and when these are considered necessary by a sufficient number of Signatory States in the light of progress made towards fulfilment of the commitments entered into by them and of work carried out within the international bodies mentioned below. The chairmanship will be assumed by two participants, one of whom will have been co-chairman of the preceding Conference, during which the other will have declared candidacy for chairmanship. The host country or organisations will be in charge of the secretariat,
6.2. The follow-up of the Resolutions adopted at the preceding Conference will be guided by the two participants which assumed the co-chairmanship of the Conference.

6.3. The follow-up will also be included in the agenda of each Conference, as well as new proposals for joint action that may interest several of the participating countries put forward on the initiative of one or several ministers. Each proposal examined would be open for signature by those countries interested in joint action in the field in question, and

6.4. The proposals examined should be supported by expert research and consideration carried out in a spirit of openness, in diverse international bodies such as the United Nations Economic Commission for Europe, the Food and Agriculture Organization of the United Nations, and in particular its Regional Forestry Commissions, the United Nations Environment Programme, the Council of Europe, the working groups of the European Community, and, *inter alia*, such non-governmental organisations as the International Union of the Forestry Research Organizations, the European Environment Agency, Greenpeace International, the World Conservation Union and the World Wide Fund for Nature.
RESOLUTION H1

General Guidelines for the Sustainable Management of Forests in Europe

The Signatory States and the European Community,

A. Recalling that the Signatory States and the European Community have endorsed the Rio Declaration and Agenda 21 and signed the Convention on Biological Diversity and the United Nations Framework Convention on Climate Change at the United Nations Conference on Environment and Development in June 1992 and considering that they therefore recognise the need to reconcile the legitimate and sustainable use of wood and other forest products with all other functions of forests in the ecological and social conditions prevailing in Europe, and that the conservation and appropriate enhancement of biological diversity in all types of forests is an essential element in their sustainable management,

B. Recognising the non-legally binding authoritative statement of principles for a global consensus on the management, conservation and sustainable development of all types of forests, as adopted by the 1992 United Nations Conference on Environment and Development, hereafter referred to as the Statement of Forest Principles,

C. Considering the objectives of sustainable management as stated in the Statement of Forest Principles: viz. “Forest resources and forest lands should be sustainably managed to meet the social, economic, ecological, cultural and spiritual human needs of present and future generations”,

D. Agreeing that, for the purposes of this resolution, “sustainable management” means the stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfil, now and in the future, relevant ecological, economic and social functions, at local, national, and global levels, and that does not cause damage to other ecosystems,

E. Acknowledging the need when implementing policies for sustainable management to take account of potential impacts of climate change on forest ecosystems,
F. Acknowledging the need to carry out sustainable forest management in accordance with national development policies and priorities and on the basis of environmentally sound national guidelines, and recognising that in the formulation of such guidelines account should be taken of internationally agreed principles relevant to the various conditions in Europe,

G. Recognising that forests provide wood as an essential product that can also, to a large extent, substitute for products from non-renewable resources, as well as provide energy and a multitude of other goods, services and functions, which will be necessary for the welfare of society and the environment for the foreseeable future,

H. Recognising that forests in Europe grow in a widely varying environment (boreal to Mediterranean, continental to maritime, alpine to lowlands), have a long history and have been influenced by human settlements and actions over centuries, leading, inter alia, to knowledge, skills and experience in forestry practices, to the development and implementation of management policies and regulations based on long-term planning, and to a fragmented ownership structure increasing in some areas, all of which factors have a bearing on the protection and sustainable management of forests in Europe,

I. Noting that the report ‘The Forest Resources of the Temperate Zones’ (the UN-ECE/FAO: 1990 Forest Resource Assessment) shows that the European forest resource is continuing to expand in terms of area, standing volume and increment, and that the demand for non-wood products and services is increasing in absolute and relative importance,

J. Noting with concern that on average more than one fifth of the trees in Europe have in recent years shown damaged foliage, as stated in the 1992 report ‘Forest Condition in Europe’ by the UN/ECE International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests and the Commission of the European Communities, and that a continuation of the present pollution load for extended periods of time or an increase in pollution levels will threaten the vitality of forests over large areas of Europe,

K. Considering the adverse effects on forests in some parts of Europe of storms, inadequate management, pests, diseases, game, overgrazing and unregulated browsing, and of inadequately planned large industrial and infrastructure development, and being concerned over the destruction of large areas of forest by fires,

L. Considering the responsibility of Europe to contribute to the sustainable management of the global forest;

---

1 UN-ECE/FAO: United Nations Economic Commission for Europe/Food and Agriculture Organization
commit themselves to promote:

1. The implementation of the General Guidelines set out in Part I of this resolution, these being regarded as particularly relevant to the achievement of sustainable forest management in Europe;

2. Cooperation in carrying out the Future Action set out in Part II.

PART I: GENERAL GUIDELINES

1. Human actions must be avoided which lead, directly or indirectly, to irreversible degradation of forest soils and sites, the flora and fauna they support and the services they provide. Efforts should be increased to keep the emissions of air pollutants and greenhouse gases below the expected tolerance level of forest ecosystems, taking into account the long-term cumulative and/or synergistic effects of pollutants. Forest fires and the pollution of soils must be strictly controlled and could dictate overall policy and management objectives and practices in particularly sensitive parts of Europe.

2. Forestry policies, as adapted to local laws within the framework of national traditions and constitutional processes, should recognise the long-term nature of forestry by having an appropriate level of continuity in legal, institutional and operational matters and should strongly encourage practices in state and private forests which facilitate multiple functions and sustainable management, including the conservation and appropriate enhancement of biodiversity. Forest owners who provide multiple-use benefits to the community should be encouraged and supported by society or other beneficiaries, as appropriate, when such provision involves them in excessive costs.

3. Forest management should be based on stable and long-term land-use policies and regulations, which, inter alia, are aimed at conserving functional forest ecosystems and take account of the ownership structure in Europe, and which are based on the general presumption that forest land, particularly land considered natural or semi-natural, will remain dedicated to that use.

4. Forest management should be based on periodically updated plans or programmes at local, regional or national levels, as well as for ownership units, when appropriate and on forest surveys, assessments of ecological impact and on scientific knowledge and practical experience.

5. Forest management should provide, to the extent that it is economically and environmentally sound to do so optimal combinations of goods and services to nations and to local populations. Multiple-use forestry should be promoted to achieve an appropriate balance between the various needs of society.

6. Forest management practices should have due regard to the protection of areas of ecological fragility, to the conservation of primary and climax forests, areas with cultural
heritage, and the landscape, to safeguarding the quality and quantity of water, and to maintaining and developing other protective functions of forests such as the protection of aquatic and agricultural ecosystems and protection against floods, erosion and avalanches.

7. Forest management practices should aim at maintaining and, if possible, improving the stability, vitality, regenerative capacity, resistance and adaptive capacity of forest ecosystems towards stresses, including their protection against fire, pests, diseases, game and other agents of damage such as overgrazing and unregulated browsing. The prevention and control of large-scale biotic and abiotic damage should be supported. Special attention should be paid to maintaining and, if needed, to improving the quality of forest soils. Silvicultural practices emulating nature should be encouraged. Practices contrary to sustainable management should be actively discouraged.

8. In the management of existing forests and the development of new forests, the chosen tree species should be well suited to local conditions and be capable of tolerating climatic and other stresses, such as insects and diseases, and potential climate changes, throughout the growing period. Genetic selection, which is commonly practised in Europe, should not favour performance traits at the expense of adaptive ones, except in particular cultures where intensive care may protect them against damage. Afforestation should be conducted in a manner that does not negatively affect ecologically interesting or noteworthy sites and landscapes.

9. Native species and local provenances should be preferred where appropriate. The use of species, provenances, varieties or ecotypes outside their natural range should be discouraged where their introduction would endanger important/valuable indigenous ecosystems, flora and fauna. Introduced species may be used when their potential negative impacts have been assessed and evaluated over sufficient time, and where they provide more benefits than do indigenous ones in terms of wood production and other functions. Whenever introduced species are used to replace local ecosystems, sufficient action should be taken at the same time to conserve native flora and fauna.

10. Due to the high levels of human consumption and waste common in many areas of Europe, recycling and use for energy of forest products should be encouraged both to alleviate the problem of waste disposal and to increase the potential of forest products to substitute for products from non-renewable sources.

11. Because of the expanding European forest resource, the use of wood and non-wood forest products should be encouraged on a basis compatible with the sustainable management of forests, thereby providing and increasing the potential for traditional and new forest products, sales of which can provide, for both the owner and society, a ready means of financing forest management.

12. As knowledge, skills and public opinion will affect forestry policies in Europe, public awareness and understanding of sustainable management should be promoted, and the provision, through appropriate research, of information and training to forestry
practitioners and forest owners on the concept and on methods of implementing it should be intensified. To ensure the sustainable management of forests, a sufficient number of adequately trained and competent staff is essential.

PART II: FUTURE ACTION

13. The Signatory States and the European Community commit themselves to preparing, without delay, specific national or regional guidelines and to incorporating them into their forestry plans and programmes for the implementation of the above General Guidelines, in a manner consistent with the Statement of Forest Principles, and will collaborate in the further development of these General Guidelines for the sustainable management of forests in Europe.

14. The Signatory States and the European Community will collaborate in efforts to increase reforestation, afforestation and forest conservation in Europe, in ways consistent with the above General Guidelines and the chapter in Agenda 21 on combating deforestation.

15. The Signatory States and the European Community will collaborate in order to develop common measures consistent with these guidelines that would favour the production, use and marketing of products from forests under sustainable management.

16. The Signatory States and the European Community will participate, under the aegis of the United Nations Commission on Sustainable Development, in international activities towards the preparation of a global convention on the management, conservation and sustainable development of all types of forests.
RESOLUTION H2
General Guidelines for the Conservation of the Biodiversity of European Forests

The Signatory States and the European Community,

A. Having regard to the fact that the conservation and appropriate enhancement of biological diversity in all types of forests is an essential element for their sustainable management,

B. Recalling the definition of biological diversity agreed upon in the Convention on Biological Diversity: viz. “Biological diversity means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.”,

C. Recalling the concept of conservation defined in the World Conservation Strategy (1980) as the management of human use of the biosphere so that it may yield the greatest sustainable benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations,

D. Considering the urgent need to show respect for the evolutionary heritage of species and forest ecosystems, in order to enable the adequate genetic adaptive capacity to be safeguarded in the interest of present and future generations,

E. Considering that the combination of the direct and indirect actions of man on forests can contribute to a decrease in intraspecific variability, species diversity and ecosystem variety,

F. Considering the objectives and measures set out in the Convention on Biological Diversity that was signed at the United Nations Conference on Environment and Development in June 1992 in Rio de Janeiro, and considering in particular the precautionary principle in the preamble to the Convention, which notes that “where there is a threat of significant reduction or loss of biological diversity, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimise such a threat”,

1
G. Recalling that biological diversity is also the basis of genetic improvement of species and varieties of technical and economic interest,

H. Considering the general objectives and specific measures stated in the Convention concerning the Protection of the World Cultural and Natural Heritage (1972), the Convention on the Conservation of European Wildlife and Natural Habitat (1979), the Convention of Barcelona and its Protocol Concerning Mediterranean Specially Protected Areas (1982), the EC Directives concerning the Conservation of Wild Birds (1979) and the Conservation of Natural Habitats and Wild Fauna and Flora (1992), the Council of Europe’s European Network of Biogenetic Reserves (1976), and the Council of Europe's Decision on Preservation of Natural Forests (1977);

commit themselves to promote:

The implementation of the following General Guidelines at the level (local, regional or national) appropriate to the exercise of their individual competencies in matters of forestry policy, and their further development.

PART I: GENERAL GUIDELINES

1. The conservation and appropriate enhancement of biodiversity should be an essential operational element in sustainable forest management and should be adequately addressed, together with other objectives set for forests, in forestry policies and legislation.

2. The conservation and appropriate enhancement of biodiversity in forests should be based both on specific, practical, cost-effective and efficient biodiversity appraisal systems, and on methods for evaluating the impact on biodiversity of chosen forest development and management techniques.

3. Where possible, the size and degree of utilisation of forest compartments and other basic management units should take account of the scale of variation of the site, in order to better conserve and manage the diversity of habitats. Management should aim at increasing the diversity of forest habitats.

4. Where possible the establishment of taxa which are naturally associated with those that occur most frequently in the forest should be encouraged, and a variety of structure within stands should be favoured, where the natural dynamics of such associations permit.

---

1 Any taxonomic group
PART II: FUTURE ACTION

5. The Signatory States and the European Community will recognise the conservation and appropriate enhancement of biodiversity as an essential element of sustainable forest management. This would mean, *inter alia*:

5.1. The conservation of genetic resources of forest taxa, both those currently exploited for economic purposes and those considered secondary or rare as detailed in Resolution 2 of the Strasbourg Conference, and

5.2. Taking account of the protection of threatened forest species and ecosystems, as listed nationally or locally, in the formulation of national forest policies.

6. The Signatory States and the European Community will establish at national or regional levels a coherent ecological network of climax, primary and other special forests aimed at maintaining or re-establishing ecosystems that are representative or threatened.

7. The Signatory States and the European Community will establish educational and public awareness programmes on the conservation of biodiversity emphasising, *inter alia*, the positive aspects of sustainable management of forests on the conservation of biodiversity. These programmes should be aimed, *inter alia*, at enabling effective participation by local communities, forest owners and Non-Governmental Organisations in the conservation and appropriate enhancement of biological diversity.

8. The Signatory States and the European Community will promote technical cooperation including exchange of experts, courses and seminars, and transfer of technology.

9. The Signatory States and the European Community will develop a coherent and responsible approach to the conservation and appropriate enhancement of biodiversity in forests through the development of national or regional guidelines with the aim, *inter alia*, of:

9.1. Obtaining sufficient knowledge about the ecosystem functions and services derived from European forests,

9.2. Obtaining sufficient knowledge of the status and requirements for management of the endangered, rare or representative biotic elements of the forests, and

9.3. Achieving adequate forecasting, monitoring and evaluation of the consequences for biodiversity of different silvicultural techniques.

10. In order to attain aims 9.1., 9.2. and 9.3. the Signatory States and the European Community will implement surveys and research programmes which are specially adapted to their economic, social and environmental conditions and which are, where
appropriate, coordinated and integrated with similar work resulting from the implementation of the relevant resolutions of the Strasbourg and Helsinki Conferences.

11. The Signatory States and the European Community will continue to improve methods for assessing biodiversity in forests and for evaluating the impact on biodiversity of forest management methods.
RESOLUTION H3
Forestry Cooperation with Countries with Economies in Transition

The Signatory States and the European Community,

A. Recognising the importance of the forestry sector to Countries with Economies in Transition, in relation to the development of their political, economic and social conditions as they adjust their former centrally-planned economies to market economies,

B. Being aware of the possible consequences of the economic transformation process in the Countries with Economies in Transition for the sustainable management of forests and for forest conservation,

C. Emphasising the increasing need for broadly-based bilateral and multilateral cooperation in the forestry sector, and noting with appreciation the existing cooperation and the activities, at national, regional and interregional levels, of programmes and organisations\(^1\), including the Commission of the European Community, which are involved in cooperation with Countries with Economies in Transition,

D. Emphasising the need for initiative and priority-setting by the Countries with Economies in Transition to promote European cooperation which benefits the forestry sector in general,

\(^1\) Reference list, not exclusive:

ICP Forests: International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests
ECE: Economic Commission for Europe
FAO: Food and Agriculture Organization
UNDP: United Nations Development Programme
UNEP: United Nations Environment Programme
GEF: Global Environment Facility
IUFRO: International Union of Forestry Research Organizations
EBRD: European Bank of Reconstruction and Development
E. Recalling the results of the Dobris (Czechoslovakia, 1991) as well as of the Luzern (Switzerland, 1993) conferences of European environment ministers, and in particular the Environmental Action Programme for Central and Eastern Europe,

F. Being aware of the generally adverse impact on the management, conservation and sustainable development of forests in Countries with Economies in Transition arising from air pollution, loss of biodiversity and genetic resources, fires and lowered ground water tables and, in certain areas, nuclear radiation,

G. Noting that requests have been made for assistance in the monitoring of forest resources, especially in relation to their state of health over large areas,

H. Recognising the particular importance of programmes to support Countries with Economies in Transition in their endeavour to protect their forest resources and biodiversity and the need to enhance sustainable development of their forest and forest products sector,

I. Recognising the human and natural potentials within the Countries with Economies in Transition and the importance of the existing cooperation between them;

commit themselves to promote and support cooperation for mutual benefits, within the framework of the following General Guidelines, in order to provide relevant expertise and advice, and to invite appropriate organisations and institutions to do likewise.

PART I: GENERAL GUIDELINES

1. Countries with Economies in Transition should be encouraged to promote actions for the sustainable management of forest resources, in conformity with the General Guidelines developed in the resolutions of the Helsinki Ministerial Conference.

2. The Signatory States and the European Community should support and complement these actions, based on the principle of partnership and taking into account the needs, priorities and commitments of the Countries with Economies in Transition themselves.

3. Cooperation may take the form of transfer of knowledge, and of bilateral and multilateral projects, and should focus on technical, scientific, institutional and legal matters.

4. Within bilateral contacts, twinning arrangements should be promoted between institutions such as universities, vocational schools and research institutes as well as between individuals.

5. Cooperation should be further developed in particular in the following areas: strengthening of institutions, development of the legal and policy framework for the sustainable development of forestry and the forest products sector; and, in this context, activities to support the development of market oriented and ecologically sound enterprises.
6. Adequate assessments of forest resources and of environmental impacts should take place before initiating cooperation projects which are likely to have major consequences for the transboundary environment, in accordance with the ECE Convention on Environmental Impact Assessment in a Transboundary Context (1991).

7. Countries should develop, by mutual cooperation, information exchange and monitoring systems related to transboundary factors causing forest damage and forest decline, such as air pollution, fires, nuclear radiation, game and others; and should cooperate in preventing and combatting damage from such harmful agents.

8. Where coordination of multilateral cooperation initiatives is necessary, this should be done by existing institutions.

PART II: FUTURE ACTION

9. The member countries of the ECE, FAO, UNEP, UNDP, World Bank and EBRD, as well as the European Community, and the international Non-Governmental Organisations should consider activities aiming at promoting progress in the topics mentioned in the General Guidelines.

10. The Signatory States and the European Community will promote the transfer of knowledge, bilateral and/or multilateral contacts, mutually beneficial joint research projects and the preparation of national forest programmes.

11. The Signatory States and the European Community will promote professional contacts, the transfer and publication of information, documentation and professional literature, exchanges of experts and students, educational workshops, seminars, conferences, training courses and other forms of education, with the participation of groups of specialists from Countries with Economies in Transition and from European countries with market economies.

12. The Signatory States and the European Community agree to support existing efforts aimed at promoting the development of the national forestry databases of Countries with Economies in Transition and their linkage to existing European databases.
RESOLUTION H4
Strategies for a Process of Long-term Adaptation of Forests in Europe to Climate Change

The Signatory States and the European Community,

A. Recognising that human activities are substantially increasing the atmospheric concentrations of greenhouse gases, and thus altering the composition of the atmosphere,

B. Recognising that the increase in concentrations of greenhouse gases in the atmosphere enhances the natural greenhouse effect, which in turn will result, on average, in an additional warming of the Earth’s surface and lower atmosphere, and that the emissions of chlorofluorocarbons (CFCs) and other ozone depleting compounds in the atmosphere are causing a considerable decrease in the concentration of ozone in the stratosphere, and also tropospheric ozone is inducing phytotoxic effects,

C. Appreciating that natural forest ecosystems of Europe have adapted, during long periods of evolutionary development, to the climatic conditions now prevailing,

D. Appreciating that rotations of forest stands in Europe can be considerably longer than the likely time in which anthropogenic climate change will have an effect on forest ecosystems,

E. Whereas these changes in the composition of the Earth’s atmosphere and consequent changes in climate are likely to have, within the time span of one rotation of a forest stand, both favourable and adverse effects on forest ecosystems in Europe, which may include:

   E.1. Reduced vitality, stability and regeneration of trees and forests, more favourable conditions for harmful insects and pathogens, and increased risks of forest fires and storms,
E.2. Increased mineralisation of organic matter, which will release carbon dioxide, increase soil leaching, affect soil processes, and lead to eutrophication of waters,

E.3. Altered ground water tables and soil moisture regimes, due to shifts in the balance of precipitation and evapotranspiration or due to sea level rise, which may cause stress and reduced vitality and pest and disease resistance in trees, and

E.4. Increased growth of forest vegetation which is likely to occur, for a certain time and provided no soil changes adversely affect this, as a result of increases in CO$_2$ in the atmosphere leading to sequestration of carbon,

F. Recognising the complexity of interactions between climate and ecosystems, including feedback processes, and the present limited understanding of the ranges, flexibility of adaptation and acclimatisation mechanisms of these ecosystems,

G. Recognising the present limited ability to predict and assess the net outcome of favourable and adverse effects,

H. Recognising that changes in the atmosphere may also affect human activities, such as the management of watersheds and coastal zones, agriculture, etc., and that any large-scale change in these activities will also affect the forestry sector,

I. Recognising that altered water use caused by changing and adapting forest ecosystems in hydrological catchments may have an impact on water resource planning,

J. Recognising that measures taken within the forestry sector can contribute to the mitigation of climate change only if the existence and health of forest ecosystems is assisted of by a sufficient reduction in emissions of harmful substances such as acidifying compounds, nitrogen compounds, and release of greenhouse gases,

K. Considering it necessary to initiate a process of long-term adaptation and adjustment of forests and the forestry sector in Europe to climate change by means of research and other actions that are compatible with the aims and objectives of the United Nations Framework Convention on Climate Change and the Convention on Biological Diversity, as well as other relevant international legal instruments,

L. Noting the activities of large international programmes such as IGBP$^1$ and WCP, and recognising the task of IPCC within WMO and UNEP and other relevant international and regional/sub-regional organisations to assess the impact of climate change;

---

$^1$ IGBP: International Geosphere-Biosphere Programme
WCP: World Climate Programme
IPCC: Intergovernmental Panel on Climate Change
WMO: World Meteorological Organization
UNEP: United Nations Environment Programme
commit themselves to support appropriate measures for the mitigation of climate change and the limitation of greenhouse gas emissions, as provided for in the United Nations Framework Convention on Climate Change, and further

to support national and international research into, and to enhance international cooperation on, the following subjects:

- the impact of possible climate change on forest ecosystems and forestry
- the possible adaptation of forest ecosystems and forestry to climate change
- the mitigation of the adverse effects of climate change by forest ecosystems and forestry in Europe,

and for that purpose identify the following specific areas for research and future action.

**PART I: AREAS FOR RESEARCH**

1. Greater understanding through research of the linkages between climate change and forest ecosystems, including feedbacks from the ecosystem to the climate system.

2. Studies on the role of forests, forest soils, and peatlands in Europe as reservoirs, sinks and sources of carbon, in order to understand the role of European forests in global fluxes, especially in the global carbon cycle. Research in this field may include the development of common methodologies for research and for national and regional inventories and the development and maintenance of databases on a European scale on reservoirs, sinks and sources of carbon in terrestrial ecosystems.

3. Studies on genetic variability of regionally important tree species in response to changes in climate and increased concentration of carbon dioxide, and on the degree and rate of evolutionary processes and adaptation, by means of genetic changes.

4. Studies on the dynamic equilibrium of host-parasite relationships in new climatic environments.

5. Studies on soil formation processes, including the mineralisation of organic matter and leaching, in response to climate change.

6. Development of process-based predictive ecosystem models applicable to the European scale, and which may be used in comprehensive ways to integrate anticipated changes in the climate and their interaction with air pollution, with their effects on forest ecosystems and the fluxes of greenhouse gases and with their effects on different forest management systems.

7. Studies on the adjustment of European forest management systems in order to optimise adaptation to climate change, to ensure the health and multiple functions of existing forests, and to optimise the sequestration and storage of carbon.
PART II: FUTURE ACTION

8. The Signatory States and the European Community will intensify research and international cooperation carried out by existing organisations and working groups dealing with the research areas mentioned above.

9. The Signatory States and the European Community will review, develop and coordinate the present monitoring schemes to assess more effectively those large-scale patterns and dynamics of alterations that may be due to climate change in European forest ecosystems. These tasks should be carried out in coordination with existing European networks of permanent sample plots.

10. The Signatory States and the European Community will promote the utilisation, with low emission technology, of wood as a renewable energy source, and, in so doing, contribute to the sustainable development of forests by protecting the environment and mitigating the greenhouse effect.
Strasbourg 1990
GENERAL DECLARATION

The Signatory States and International Institution,

recognizing the right of future generation to benefit from a quality environment that is healthy and unpolluted, which, for forests, must be expressed in ecological, economic and social terms in a way which is reflected in a sustainable and multi-purpose management of the forest,

conscious of the role of the forest in developing the living environment, notably in relation to soil protection, water saving, harmony of landscapes - for example in peri-urban areas - and sustainable production of goods and services,

conscious that phenomena such as, notably, atmospheric pollution, forest fires, global warming, major climatic events or industrial accidents, erosion, damage caused by insects or other pests, or pathogenic organisms, as well as damage caused in certain regions by game, over-exploitation or even under-exploitation, as well as interactions between all these phenomena, are threatening Europe's forests,

considering that a growing number of problems concerning the protection of forests in Europe and the maintenance of their biological diversity have a transboundary character and that, because of this, the entire European continent must be the framework in which they are to be defined, both specifically and in their diversity, and resolved in an efficient manner,

convinced that the protection and preservation of the biological diversity of European forests involves all the societies concerned and reaches beyond national boundaries,

conscious that the identification and the resolution of these problems involves an increasing number of participants whose everyday or incidental behaviour has a serious effect on the future of forest areas, as is borne out by the die-back of forests attributed to air pollution,

conscious that forestry operations are long term, and that because of this a central place must therefore be allotted, within the framework of an ecologically-coherent national
forestry policy, to continuity over time and to the consideration of dangers that are difficult to foresee, with the goal of maintaining the potentials of forests,

considering that, even if many of the adverse factors are difficult to control, significant results in forest protection can be obtained by recourse to appropriate silvicultural techniques, both traditional and innovative,

reaffirming the sovereign right of States to manage their own resources within the framework of their environment policies, in conformity with the United Nations Charter and to the principles governing international law, notably by taking into account existing international agreements and supranational legal prescriptions,

reaffirming also their obligation to ensure that activities carried out under their jurisdiction or within their area of competence have no harmful repercussions on the environments of other States,

recalling the 1979 Convention on Long-Range Transboundary Air Pollution, and reaffirming the need to have regard to the commitments contained in the HELSINKI and SOFIA protocols linked to this Convention,

insisting on the importance of cooperation with international organizations already working in the field of forest protection or, more generally, protection of the environment,

recalling the recommendations set out in “The Environmental Perspective to the Year 2000 and Beyond” (UNEP) and “The Regional Strategy for Environmental Protection and Rational Use of Natural Resources in the Member Countries of the United Nations Economic Commission for Europe, Covering the Period up to the Year 2000 and Beyond”,

taking into account the recommendations of the “World Conservation Strategy”, the “World Charter for Nature” and the report by the World Commission on Environment and Development,

recalling that the SILVA international conference held in Paris in 1986 culminated in the “Paris Appeal for Trees and Forests”, which insists on the pressing need to act in unison beyond national borders for the conservation and promotion of trees and forests in the interests of present and future generations, thus indicating the direction in which the signatories of the present declaration wish to take joint action,

recalling that, whereas the SILVA conference gave equal attention to the protection of tropical forests, and the present ministerial conference concerns only European forests, nevertheless the problems relative to tropical forests deserve an initiative of the same type,

identify two types of operational approach, the first aiming at better observation and understanding of the functionings and malfunctionings of forest ecosystems in all their
diversity, the second at taking action in thematic areas of concern, such as the
conservation of forest genetic resources, or in areas of special fragility, such as
mountain forests and forests susceptible to fire;

declare their intention to:

1. promote and reinforce cooperation between European states in the field of forest
protection and sustainable management, by developing exchanges of information and
experience, and by supporting the efforts of the international organizations concerned,
2. improve exchanges of information between forestry research workers, managers and
policy makers, both within and between the signatory countries, in order that the most
recent advances can be integrated into the implementation of forest policies,
3. encourage operations for restoring damaged forests,
4. demonstrate, by way of an agreement on common objectives and principles, their will to
implement, progressively, the conditions and the means necessary for the long-term
management and conservation of the European forest heritage,
5. examine the follow-up of decisions taken during the present conference and pursue the
actions that will have been initiated, in the course of any subsequent meetings of
government ministers or officials, and of international institutions, responsible for seeing
that forests fully assume their ecological, economic and social functions.
RESOLUTION S1
European Network of Permanent Sample Plots for Monitoring of Forest Ecosystems

The Signatory States and International Institution,

considering that forests in Europe make up an ecological, cultural and economic heritage that is essential to our civilization,

considering that studies of the health problems of forests in the last decade:

• have shown that some forest ecosystems are in a precarious state due to various factors, notably air pollution and certain meteorological events,

• have made clear the need for and the great scarcity of reliable data on these ecosystems, particularly for the period preceding the reported incidents,

• have, notably under the auspices of the United Nations Economic Commission for Europe (Convention on Long-Range Transboundary Air Pollution, Geneva, 1979), given rise to important and fruitful work, which has led to the finalizing of jointly-agreed methods for assessing pollution and the state of forests,

considering that, apart from the continuing impact of air pollution, it is to be feared that further pressures are likely, such as climatic changes arising from the greenhouse effect, or others as yet totally unforeseen,

considering that it is important to draw the right conclusions from the experience and knowledge acquired in the field of forest management methods that encourage the vitality of forest ecosystems,

considering that it is necessary to detect as soon as possible every significant change in the functioning of forest ecosystems, and to be able to define their characteristics and analyse their causes swiftly,
considering that it is necessary to determine whether the changes observed to date can be interpreted as falling within the fluctuations around a stable average observed in the recent past,

considering that it is necessary to know the critical levels and critical loads of pollution liable to bring about the destabilization of different forest ecosystems,

considering that the significant effort already made to better understand the evolution of forest ecosystems, often characterized by their fragile nature, should lead to an advance in the resolution of serious problems identified by monitoring,

will endeavour to put in their respective countries the recommendations concerning assessment and monitoring put forward by the International Cooperative Programme on Assessment and Monitoring of Air Pollution Effects on Forests.

THE PRINCIPLES

1. The efforts already made to monitor the state of forest ecosystems, within the framework of the various regional, national or international programmes, must be reinforced. Most of these programmes were originally set up to gather the information required for an ecologically responsible management of timber production. At the beginning of the eighties, the concern felt at the damage caused to forests by air pollution led to important international actions, notably in the context of the various study groups set up under the auspices of the Convention on Long-Range Transboundary Air Pollution. With the opening of the nineties, general awareness of the fragility of many European forest ecosystems justifies the continuation and strengthening of initiatives already undertaken.

2. The strengthening of present efforts in monitoring forest ecosystems aims at improving the ways of managing timber production in an ecologically-responsible fashion, and also at adopting the means needed for an effective environmental protection policy. These aims require:

   2.1. the availability of a permanent mechanism for the gathering of objective and, wherever possible, comparable data, that will allow a better diagnosis and analysis of existing and future problems in all their geographical and temporal variability,

   2.2. an evaluation of the quantitative development of factors that affect the functioning of forest ecosystems and timber production, as well as the reactions of these ecosystems to air pollution, stress, climatic fluctuations, storms, fires, human interventions, etc...
2.3. the adoption of permanent arrangements by which progress may be made in determining relations between cause and effect, for example, by characterizing for a given ecosystem the local pollution level and the critical threshold of pollutants responsible for the ecosystem's destabilization.

3. The monitoring of forest ecosystems should rely simultaneously on two levels of permanent sample plots:

- sample plots for elementary systematic monitoring
- sample plots for intensive monitoring

3.1. The sample plots for elementary systematic monitoring are positioned on the intersection points of systematic inventory grids, with a density at least equal to that recommended by the International Cooperative Programme on Assessment and Monitoring of Air Pollution Effects on Forests. This type of systematic network allows regional assessments and statistical research to be carried out, thus providing the data needed for forestry and environmental policy. It also permits the orientation of observations and measurements on to the intensive monitoring sample plots.

3.2. The intensive monitoring sample plots are installed in order to obtain detailed data on the evolution of a number of forest ecosystems in Europe. This type of approach allows correlations to be established between the variation of environmental factors and the reactions of ecosystems, or, for example, allows us to determine the critical level of pollutants likely to destabilize one type of ecosystem. The data it provides allows a better interpretation of the findings derived from the systematic network.

4. The need for a better grasp of the geographical and temporal variability of the parameters measured and the problems studied, in order to be able to give more precision to a responsible policy for the forest and the environment, justifies a reinforcement of the effort to harmonize the monitoring methods for forest ecosystems and to analyse the data obtained. The comparability of data on the European scale must be developed.

5. The necessity of taking into account the historical dimension of the evolution and variation in forest health, site conditions and climatic events justifies a larger and coordinated effort to describe such fluctuations in the past.

6. Priority must be given to the coherent long-term tracking of the data already gathered within the existing systems, as well as to complementing this data with new measurements, which can contribute as rapidly as possible to the thinking and decisions of national and international authorities.

7. The HAMBURG and PRAGUE coordination centres, set up within the framework of the technical programmes linked to the Convention on Long-Range Transboundary Air Pollution, should intensify the international coordination of these networks, as well as the
work of synthesis and interpretation of the data on the scale of large ecological regions or large types of forest ecosystems in Europe, thanks to the funding guaranteed by all the member countries. To this end, minimum batches of data, gathered in a standardized form to be determined later, are transmitted to the centres.

THE JOINT PROJECT

1. The network of elementary systematic monitoring takes into account the estimation or measurements of some simple parameters concerning ecological site conditions and tree vitality. The inventories currently carried out will have to be progressively completed along these lines, following the recommendations of the International Cooperative Programme on Assessment and Monitoring of Air Pollution Effects on Forests.

2. The intensive monitoring sample plots are designed for more numerous and finer estimations and measurements, describing the stand and its history, the trees and their foliage, the vegetation, the soil, the climate, and, in a certain number of cases, the chemical composition of open-space rain, intercepted rain, and drainage water. As far as it is possible, some of these sample plots should be installed on-site or in the immediate vicinity of stations for measuring atmospheric pollution.

3. The special team of the International Cooperative Programme on Assessment and Monitoring of Air Pollution Effects on Forests must draw up the minimum list of the parameters pertaining to the sample plots of the elementary systematic monitoring and the intensive monitoring, as well as the recommended methods of analysis.

NATIONAL AND INTERNATIONAL COORDINATION BODIES

1. All the countries taking part in the International Cooperative Programme on Assessment and Monitoring of Air Pollution Effects on Forests are invited to participate in this project and to gather data which will be forwarded to the HAMBURG and PRAGUE coordination centres.

2. All the European countries concerned by the danger of the destabilization of forest ecosystems feel the need for reinforced international action, to make the permanent monitoring of these ecosystems even more effective and, in a more coordinated manner, to make better use of the experience already gained by many countries or through international programmes that are already set up, such as the International Cooperative Programme on Assessment and Monitoring of Air Pollution Effects on Forests and the other relevant programmes of the Economic Commission for Europe of the United Nations within the framework of the Convention on Long-Range Transboundary Air Pollution (Geneva, 1979), the FAO/ECE 1990 inventory of forestry resources, the EEC’s action for the protection of forests against air pollution and in particular its inventory of damage to forests, and the joint research programmes of the Nordic Council of
Ministers. The exchanging of information and the coordination of projects must be encouraged and reinforced.

3. The HAMBURG and PRAGUE coordination centres, set up within the framework of the Convention on Long-Range Transboundary Air Pollution (Geneva, 1979) should have the responsibility of collecting a certain amount of data produced by the elementary systematic network as well as the intensive monitoring network, and for presiding over the management, utilization, synthesis and interpretation of the data provided. The list of data to be transmitted to the coordination centres will be set out in the proposals made by the special teams of the International Cooperative Programme on Assessment and Monitoring of Air Pollution Effects on Forests. Each member state of the network contributes to the cost of these centres.
RESOLUTION S2
Conservation of Forest Genetic Resources

The Signatory States and International Institution,

considering that, above and beyond the conservation of forest species, the essential objective is the conservation of the genetic diversity of these species, which are an essential part of mankind's heritage,

considering the seriousness of the risk of the impoverishment or modification of this great diversity,

noting, furthermore, that the priceless wealth represented by the intra-specific variability of species currently present in Europe is often largely due to their very wide natural distribution, which covers a wide range of ecological conditions,

recognizing, also that the use of genetically-improved materials is of great importance for afforestation and restocking, in particular where this is for the purpose of the production of timber,

commit themselves to implement in their own countries, using whatever methods seem most appropriate, a policy for the conservation of forest genetic resources.

THE PRINCIPLES

1. Our responsibility vis-à-vis future generations and the urgency of the problems lead us to undertake, without waiting for oil the scientific answers, immediate actions within the framework of available resources.

2. The strategy chosen should take into account the present state of knowledge and of the concerns expressed, and give preference to simple, stable and long-lasting methods capable of taking into account developments in knowledge and demand.

3. The variability to be conserved is the total genotypic variability (between species, races and individuals) and not just the variability of individual genes.
4. In view of the objectives and constraints set out above, *in situ* conservation should be emphasized and integrated in the field of forest management. *Ex situ* conservation in the form of collections of genotypes as well as the conservation of seeds or of in vitro cultures, are other complementary possibilities that should not be neglected.

5. The conservation of the genetic diversity of forest species that are currently of secondary importance should, initially, and as a general rule, be assured by preserving forest ecosystems and rare forest species.

6. The specific means for conserving forest genetic resources whose principles are set out above should be backed up by recommendations drawn up by each country on the silvicultural techniques practised, at least in public forests.

   Note: these recommendations may cover, for example, protection against contamination or dilution of genetic resources within zones identified as being of special interest, the maintenance of sufficient diversity in the choice of afforestation and restocking species, the keeping - at least for public forests - of records covering the exact identity of the reproduction materials used for planting and regeneration, etc.

7. The bodies dealing with the coordination and technical organization of national and methodologically-specific programmes to conserve forest genetic resources should be adequately supported.

**AN INSTRUMENT FOR COOPERATION ON CONSERVATION OF GENETIC DIVERSITY OF EUROPEAN FORESTS**

1. To facilitate and extend the efforts undertaken at national and international levels, a functional but voluntary instrument of international cooperation should be found without delay from among the existing relevant organizations to promote and coordinate:

   1.1. *in situ* and *ex situ* methods to conserve the genetic diversity of European forests;

   1.2. exchanges of reproductive materials;

   1.3. the monitoring of progress in these fields.
RESOLUTION S3
Decentralized European Data Bank on Forest Fires

The Signatory States and International Institution,

considering that forest fires constitute a major problem from the ecological, social and economic points of view of many European countries, particularly in Southern Europe, and that this problem may in the long term have an impact on climatic changes,

considering that the States hit hardest by forest fires have in the course of the last decade increased the financial means devoted to the protection of forests, to infrastructures on the ground and to the purchase of fire-fighting equipment, thus enabling them to increase the effectiveness of the systems set into place,

considering that it is difficult to control these disasters which have attained important dimensions, and that consequently, preventative actions must be developed capable of resolving this problem in a lasting way, by reducing the number of fires that break out, by diminishing the amount of combustible material available, and by watching for fire outbreaks and intervening as quickly as possible,

observing that each State has installed, often at the cost of considerable difficulties, its own system for gathering information on fires in different vegetation types, notably in forests and on heathland, and that in this matter those countries generally considered to be the most exposed to fire risk often hold more information or have a more advanced system corresponding to specific needs,

considering that the pooling and exchange of such data between the countries concerned has already been recommended by many international organizations, such as the Food and Agriculture Organization of the United Nations (FAO), the United Nations Economic Commission for Europe (UN-ECE), the European Economic Community and Silva Mediterranea,

considering that an information system is of much more value than the mere mass of data that it contains, insofar as it reflects choices of objectives and modes of organization,
taking formal note of the actions already carried out and the efforts already accomplished under the aegis of the joint FAO/ECE Working Party on Forest Economics and Statistics with regard to collecting and distributing statistics on forest fires in Europe, but considering that a further effort on the part of European countries is needed to gather together precise and comparable data on outbreak and first moments of fires, in order to better accompany the prevention policy,

considering that the establishment of a European data bank on forest fires would by its nature permit dialogue between the different countries concerned,

considering that the comparison of different indices of fire-risk prevailing in the States would enable the determination of a single index for Europe, and thus ensure better forecasting on this scale,

considering that in order to inform and alert the European public, it is necessary to know the precise causes of forest fires, their socio-economic context, and even the motives or psychology of fire-raisers, in order to better ensure the necessary prevention,

commit themselves to study the feasibility of a decentralized European data bank on forest fires.

THE PRINCIPLES

1. The aim of such a project would be to facilitate and to promote, within a decentralized European data bank constituted by a network of national data banks, the exchange of a certain amount of information on forest fires, of practical use in implementing a prevention policy.

2. This system, which does not aim at replacing the different national systems by a standardized universal system, would limit itself to synthesizing the mass of common data made available to the network's participants.

3. A common language will be aimed at in analysing the diverse situations and their practical consequences in order to facilitate cooperation between countries. To this end, it would be preferable to give precedence to a modest objective to increase the system's performance. Having a reliable and systematic inventory, comparable over a large part of Europe, would already be a considerable benefit.

4. It is not so much a question of holding radically new data than of procuring the means of improving the reliability and precision of data already in hand. A project of this kind could not serve as an instrument for the development of national policies, but it might well contribute to better evaluating the techniques used by each country. For example, it would be valuable to be able to exchange results on the systems used for the rapid detection of forest fires, considering that the diversity of existing solutions is considerable.
5. With this in mind, a project of this kind should enable States to set up or maintain in service a more comprehensive data bank, containing information more specific to their particular needs, and whose access would be reserved exclusively to them.

6. The different systems used should be compatible with each other, notably in view of the possibility of long-distance consultation.

7. The system set into place should be capable of evolving in phase with changes in techniques and situations, as well as developments deriving from experience. It should be designed as a communication system: the quality of exchanges between the national and international partners would indeed be the determining factor for the pertinence of data gathered, and would be obtained by using good communication techniques and by efficiently guiding the networks feeding each national data base.
RESOLUTION S4
Adapting the Management of Mountain Forests to New Environmental Conditions

The Signatory States and International Institution,

considering that the ecological richness of mountain environments (animals, plants and ecosystems of special interest) depends notably on the presence of large areas of highly diversified forests; that are considered and appreciated at large as a natural environment, as an element contributing to the quality of landscapes, as an area for recreation and as a buffer against natural hazards,

considering that the fragility of mountains ecosystems, which are subject to strong pressures and whose ability to react to disturbances is low, justifies their being paid a great deal of attention, in particular as to the state of their health,

considering that mountain forests, in their diversity, are of crucial value to people because of the various roles that they play, in particular in the protection of natural environments, the fight against natural hazards, and the regulation of the hydrological cycle,

considering the place mountain forests occupy in regional management and development,

considering that, among the dangers created by industrial civilization and weighing on these fragile ecosystems are to be numbered long-range air pollution, the risk of climatic changes due to the greenhouse effect, as well as forest fires,

observing that, in most mountain areas, timber production is often becoming less profitable due to the difficulty of harvesting and precarious economic conditions, and

considering in consequence the difficulty of carrying out the silvicultural works necessary to ensure the survival and the balance of these forest ecosystems, which have been modified by human intervention,
considering that forecasts relative to the place and role of mountain forests must take into account the economic, social and cultural context of the region in question,

noting that the economic development of mountain areas can give rise to conflicts over land use and lead to environmental pressures due in particular to large-scale tourism, especially as, by their nature, mountain ecosystems are particularly fragile,

observing that in regions of agricultural and forestry decline where man is abandoning forest stands and large grazing areas, which are sometimes spontaneously reclaimed by trees, uncontrolled and often harmful changes are taking place,

considering that the pressure by game or domestic animals must be controlled so that the protection of existing stands and their regeneration can be ensured,

considering that public authorities must take charge of the prevention of natural dangers and the protection of the irreplaceable ecological heritage of mountain forest areas,

considering that it is opportune to equip ourselves with efficient instruments of analysis, notably of statistical nature, to ensure, in concert with local representatives, a genuine heritage-oriented management of mountain forest areas,

conscious that in order to better adapt the interventions of the forester to the local context, it is necessary to improve our knowledge of mountain forests in all their diversity and richness, as well as in their own dynamics,

conscious that considerable progress has to be made so as to better understand the functioning of mechanisms of protection against natural hazards in order to put public investments to the best use and to regulate the management of these fragile environments in concert with all the local partners,

commit themselves to strive to mobilize their resources in common so as to advance together in a few concrete projects which are the basis of their forestry policy for mountain ecosystems.

THE PRINCIPLES

1. The improving of mountain forests should be based on a deeper knowledge of all that constitutes the environment (forest stands, soil, flora and fauna, climate ... ), whereby all the local ecological factors would be taken into account in determining the geographic management units and in selecting actions to be implemented therein. This would suppose that we gather data on flora and fauna, rare environments and landscapes of quality not by limiting ourselves to wooded areas alone, but by an overall study by valley or watershed.
Note: the presence of an animal or plant species of special interest in an area that includes woodland must be taken into account in the elaboration of the various possible silvicultural scenarios and the proposals concerning objectives assigned to stands.
When the conservation of a biotope vital to the survival of a species is subject to strong constraints, it is incumbent on all the interested parties in the region in question to find a common solution.

2. To be able to understand the problems as a whole, by theme, and by following projections of change, a truly ecological cartography should be established with a view to translating, on the scale of the valley or watershed, all observations relating to the environment, notably maps of stands, of the flora and fauna, along with data on natural hazards.

Note: digital cartography and recent developments in the field of geographical information systems should offer considerable possibilities in this regard.

3. These operations should lead to the setting up of data banks for mountain forests on the national level, which could be interconnected to enable international consultation.

4. It will be vital that we acquire a better understanding of interactions between the vegetation cover, torrential floods and erosion, and more generally what are the relations between the hydrological cycle and the flora, the soil and bedrock, in order to better assess the dangers generated by changes in land use and to elaborate in response to them appropriate strategies, which take into account local constraints.

5. Considerations economic as well as ecological lead us to be aware of the dangers of an uncontrolled artificialization of mountain forest environments and urge us to limit heavy investments wherever a stable ecosystem can be obtained by natural means, which should always accompany civil engineering, and take precedence over the latter when they offer the same guarantees of effectiveness.

6. Where revenue from a mountain forest is insufficient to ensure the carrying out of silvicultural works indispensable to the continuity and stability of stands, which are often mixed end irregular, complementary financing schemes should be set up, which involves joint responsibility by the users of the mountain for conserving the heritage of these fragile ecosystems.

7. The experience gained in the management of mountain forest environments by the different European countries is rich and diverse. They are now confronted with the need to change their practices to avoid destabilizing these fragile ecosystems and provide long term sustainable resource management. It is necessary to propose efficient methods of analysis and a range of socio-technical options.
JOINT PROJECTS

1. An international working party, for example that of the European Forestry Commission on the Management of Mountain Watersheds in liaison with the Commission of the European Communities, could pool the expertise gained by the experiences of the different European countries and propose methods of defining and taking into account indices of stability, which assess the ability of forest stands to resist internal and external pressures, and which are useful to planning and management in mountain forestry.

2. Given the number of forests regarded as natural or little transformed in Europe, and, because of their ecological diversity, liable to become a “field” of study for the perfection of our analytical methods and our knowledge of the specific dynamics of mountain forest ecosystems, we shall encourage studies that aim at defining what is the minimum level of forest operations to be practised to ensure lasting stability of the ecosystem.

3. The drawing up of a coordinated research programme on mountain forests, bringing together teams working in different countries, could be requested from the specialized section of the International Union of Forestry Research Organizations (IUFRO) in liaison with the European Forestry Commission’s Working Party on the Management of Mountain Watersheds and the management committees for the research and development of the programme dealing with forests of the European Communities Commission.

4. To facilitate the exchange of information and experience, certain posts in research-development teams or with forest unit managers could be proposed in a list to be circulated yearly in all the interested countries. These posts would accommodate foresters who have gained experience concerning mountain forests in their own country for a duration of one to three years, according to the administrative arrangements of each host country or the agreements made between the country of origin and the host country.
RESOLUTION S5
Expansion of the EUROSILVA Network of Research on Tree Physiology

The Signatory States and International Institution,

considering that because of the development in silvicultural techniques, trees are sometimes subject to nutritional deficiencies, to competition or reaction to climatic and other conditions, whose consequences have not always been foreseen and which may lead to serious difficulties, in particular to phenomena of decline in health,

considering that the impact of long-range air pollution or the consequences of global climate changes that may ensue on the greenhouse effect may substantially aggravate these difficulties,

considering that, to conserve the stability and vitality of forest ecosystems, it is important that we better understand the adaptation capacities of woody plants, and the limits of these capacities, so as to be able to react by elaborating appropriate strategies,

observing that, in order to make progress in basic scientific disciplines, such as genetics, pathology or entomology, a better knowledge of the functioning of the tree is required, to understand and master its relationship with its environment,

considering that this desired improvement of knowledge should also cover the physiology of healthy trees as much as the malfunctionings that affect trees subject to attacks by living organisms or by stressful situations,

bearing in mind that the Oak n°3 resolution of the SILVA International Conference on Trees and Forests, held in Paris in December 1986, recommended the setting up of EUROSILVA, an advanced research network on the physiology of trees,

considering that with the experience gained over the last two years by Franco-German cooperation this EUROSILVA network can now take on the truly European dimension desired by the SILVA conference, and that certain research and development projects co-financed by the European Communities contribute to the promotion of a successful international cooperation,
recognizing the specificity of tree physiology and of the quality of the teams already engaged in various research programmes covering tree physiology,

conscious of the need to reinforce and to structure bilateral and multilateral relations between the research institutes, as well as between the research workers,

conscious of the necessity to support these research programmes and this cooperation with appropriate resources, which notably may be national in origin, in such a way as to enable current researches to be reorganized and research teams to be directed towards fundamental themes hitherto neglected,

commit themselves to set up a joint European research programme on tree physiology within the expanded EUROSILVA network, in accordance with the Oak n°3 resolution of the SILVA conference.

THE PRINCIPLES

1. The EUROSILVA network has as its goal the development of cooperation between research institutes and researchers in the following four fields:

   1.1. influence of stress and diseases on trees
   1.2. tree physiology, biochemistry, biotechnology
   1.3. molecular biology of trees
   1.4. methods of studying tree physiology

2. After the establishment of an inventory of scientific resources in each country, the possible complementary features between programmes thus revealed should lead to exchanges of researchers for periods of a few weeks to a year and to continuing collaboration.

3. The EUROSILVA network is intended to encourage and sponsor scientific meetings at different levels, as for example:

   3.1. joint seminars with two or more teams
   3.2. colloquia or workshops on very precise subjects, bringing young researchers in contact with recognized specialists
   3.3. workshops centred on specific techniques
   3.4. series of lectures given by top-level researchers in different countries
4. Existing coordination mechanisms, flexible but official, could guide the network in each country and internationally.

THE JOINT PROJECT

1. The European network of advanced research on tree physiology, known as EUROSILVA, working in the manner described above, is to be extended to all of the signatory countries, after the identification of top-level laboratories is complete.

2. The priority topics needing particular attention and which will be the object of programmes and doctoral theses are enumerated in the Annex.

3. In view of the complex problems posed by woody material, each country is invited to promote appropriate procedures for the awarding of doctoral thesis grants and financial support that is sufficiently motivating and durable to allow new well-qualified laboratories to make a long term contribution to the work of the EUROSILVA network.

4. This dialogue would allow several laboratories of the EUROSILVA network to respond jointly to international tenders. Furthermore, it would facilitate coordination in the choice of projects financed by each country within the framework of an overall project.

NATIONAL AND INTERNATIONAL COORDINATION BODIES

1. Each country is invited to organize its national network on the basis of the principles set out in chapter 2, and to participate jointly with other countries in the international activity of the EUROSILVA network.

2. A chairman is chosen by the participating countries to lead the EUROSILVA network as a group and to represent the network when dealing with other bodies. Appropriate mechanisms for coordination of international proposals of tree physiology research, especially in the European Communities, should be used.

3. Each country is responsible for the financing of its contribution to the EUROSILVA network.
ANNEX:

EUROSILVA – MAIN CURRENT TOPICS

1. Methodology

1.1. Plant physiological and biochemical methods are as yet little developed in the case of forest trees. Therefore appropriate methods must be newly developed or methods in use for the study of agricultural plants should be adapted for studies of tree species.

1.2. Some examples are:

   1.2.1. organogenesis and regeneration “in vitro”

   1.2.2. isolation and characterization of organelles, enzymes, nucleic acids and metabolites from cell cultures as well as needles, leaves, woody parts and roots of intact trees

2. Tree molecular biology

2.1. Considerable advances have been made in recent years concerning the molecular biology of agricultural plants. Such studies are also essential for forest trees in order to understand processes of developmental regulation, of tree growth and of stress effects and for gene transfer (e.g. for insect, disease or frost resistance). Two major areas concerned are cellular membranes and differential gene expression.

2.2. Some examples are:

   2.2.1. study of gene expression at the levels of transcription and translation

   2.2.2. identification and mode of formation of secondary metabolites that are related to specific developmental or stress effects (e.g. phytoalexins, terpenes)

3. Tree physiology, ecophysiology and biochemistry

3.1. There is again a wide discrepancy in knowledge on agricultural plants and forest trees. A variety of key physiological processes will have to be studied in close cooperation with neighbouring disciplines (forest ecology, forest pathology, tree propagation).
3.2. Some examples are:

3.2.1. study of dormancy and germination of tree seeds

3.2.2. study of aging and of normal and premature senescence processes

3.2.3. study of the light and dark reactions of photosynthesis as well as carbon transport and allocation

3.2.4. study of stomatal processes, gas exchange and ecophysiology

3.2.5. biosynthesis, turnover and mode of action of phytohormones

3.2.6. uptake, distribution and effects of mineral ions

4. Stress and disease factors

4.1 In principle, each of the above mentioned physiological processes may be growth-determining and be involved in stress and disease phenomena. It is therefore mandatory to coordinate studies on “normal” trees with studies on stressed or diseased trees.

4.2. Some examples are:

4.2.1. effects of air pollutants such as ozone, nitrogen oxides, sulfur dioxide, etc...

4.2.2. pathogenic organisms (e.g. viroids, viruses, bacteria, fungi), insects

4.2.3. environmental factors (e.g. soil parameters, mineral nutrition, salt stress, wounding, allelochemicals)
RESOLUTION S6
European Network for Research into Forest Ecosystems

The Signatory States and International Institution,

deeming that the increase in knowledge and the changes in attitudes over the last two decades have permitted a clearer perception of the need to establish, on a scientific basis, an overall protection strategy for forests, which is not limited to the conservation of a small fraction of forest land,

noting that difficulties in forestry management have been encountered in certain cases, due to insufficient knowledge and understanding of the complexity of ecosystems,

considering that scientific works carried out in the framework of international collaboration, notably those under the aegis of the European Economic Community, have confirmed the fact that recently recorded damage to European forests is the result of complex interaction between natural causes and the actions of man,

conscious that a coherent ecosystem-based approach implies close collaboration between specialists from various disciplines in joint programmes, often bringing about the development of original methods for ecological analysis, in the field of forestry,

considering that it is necessary to limit ourselves to the study of a few themes of major interest, such as, for example, the hydrological cycle, the nutrition cycle and the energy cycle,

conscious that such research demands substantial financing, and that it is unlikely that each European country will be able to face a scientific challenge of this magnitude alone,

commit themselves to better combine their research efforts at the international level, on the management of forestry ecosystems and, to this end, to set up a European network for research into forestry ecosystems.
THE PRINCIPLES

1. In the framework of this cooperation, well-qualified teams will coordinate on themes defined in common, thus enabling the development of a real European competence, capable of elaborating concepts and works methods that will allow us to analyse problems concerning European forests, and to take into account ecosystems in all their diversity.

2. Each signatory country is invited to organize a mechanism for national cooperation, in the framework of its own appropriate structures, and then, to participate in the international activity of this network, together with the other countries.

3. The definition of a few priority research subjects particularly important for the protection of forests, and object of coordination within this network, is entrusted to a working group in which each signatory is represented, in liaison with the international organizations concerned, notably the International Union of Forestry Research Organizations.

4. A chairman will be chosen by the participating countries to lead the entire network and represent it before other bodies. Appropriate procedures will be set up to ensure collaboration and coordination with those in charge of international calls for tender in the field of research on the functioning and malfunctioning of forestry ecosystems, especially those of the European Communities.

5. Each country will finance its own contribution to this network.