

Forestry in the Expanded European Union: principles and practice

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Summary

The paper, which sets the scene for the international conference on the future of poplar culture with particular reference to Europe, considers first recent developments in the principles, strategies, policies, programmes and processes underlying sustainable forest management within the existing European Union. It then considers the characteristics of the forestry sector within the EU, the ten “candidate” countries, the three further candidate countries and other MCPFE countries, especially the Russian Federation and the Ukraine, which have very significant areas of forest. Finally, it identifies particular constraints which the principles and policies of the EU will have on the practice of forestry in the candidate countries, and necessary actions to meet those challenges.

There are a number of conclusions:

Accession to the European Union by the ten candidate countries will increase the forest area of Europe by 21%. Most of this new area, as in the existing EU, will be semi-natural woodland (95% as against the existing 87%), which will not be available for forest plantations. It is also possible that there is less experience in plantation management in the candidate countries than in the countries of the existing EU..

The number of private owners will increase by 25%. Many of these, as in the present EU, own small areas of woodland but the major difference is that in the candidate countries they own land recently restored, after some decades, to them or their families. Experience will be lacking in forest management, and the Governments’ lack of information to develop facilitating policies for the private sector.

There will be a significant effect on forest management and on the forest sectors of the expanded EU not only from the consequences of the accession of the candidate countries but, possibly even more, from the effect of the forest sectors of the Russian Federation and the Ukraine. Their extensive forest resources will impact the forest sectors of Europe, not only from the marketing of forest products, but also from forest management and protection.

Adjustment to the market economy and to consultative processes will affect all concerned – decision-makers, planners, managers, owners and all those with a stake in the forests. The preparation of national forest programmes according to the principles of wide participation, cross-sectoral approaches and iterative revisions, may offer the best way for candidate countries to adjust the planning and management of national forest sectors to the new dimensions of sustainable forest management and the market processes.

There is an urgent need for agreement on definitions, and for improved data. There is also the need for greater collaboration within the European region. An enhanced role and expanded membership of the International Poplar Commission could make a significant contribution to this latter goal.

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1.0 Introduction

Principles, strategies, policies and programmes have been developed by the EU, particularly since the early 1990s to address the challenges in forestry and forest based industries over a wide range of aims and objectives. They range from commitments in the 15 current Member States of the EU, candidate countries, the wider pan-European region and globally. The Member States of the EU and the wider European region encompass a wide range of political, social, cultural, environmental, economic and forest resource conditions.

At the global level the EU's priorities are the promotion of sustainable and equitable forest management as means of reducing poverty, increasing the use of sustainably-produced wood and other forest products, and meeting international obligations to help improve the environment and preserve biodiversity and natural resources. Beyond Europe the EU plays a leading role in helping developing countries through project funding (EC, 2003)

Within Europe challenges remain in defining the role of forestry and forest based industries within the wider landscape and rural development, maintaining forest health, sustaining the competitiveness of the industries that depend on forests and forest products, preventing and combating forest fires, pollution of forests and other environmental concerns, research and development and the collection of data and monitoring of achievements.

To facilitate the aim of developing multi-functional and multi-tiered forestry and forest industries sectors, the EC manages and supports several networks at the EU, national and regional levels to ensure not only consistency in the legal and regulatory environment and the definition of policies, but to also support application through management practices in the field.

2.0 Principles and Strategies

The Member States of the EU translated their commitments to international processes and the region into a Forestry Strategy for the EU in 1998 in which the overall objectives for sustainable forest management through multi-functional forests were detailed (EC, 2003).

- i) Promote sustainable and equitable forest management as a means of reducing poverty and contribute to development policies;
- ii) Promote the sustainable development of the forestry sector as a contribution to rural development and the creation and preservation of jobs in rural areas;
- iii) Enhance the role of forests and forestry in protection of the natural environment including soil protection, erosion control, water regulation, improvement of air quality, carbon sequestration, mitigation of, and adaptation to climate change effects, conservation of biodiversity and the restoration of damaged forests;

- iv) Improve the ecological, economic and social dimensions in sustainable forest management;
- v) Assure competitiveness of the forest based industries;
- vi) Improve forest monitoring, data collection and reporting; and
- vii) Increase the use of sustainably-produced wood and other forest products as environmentally-friendly and climate neutral sources of materials and energy through encouraging certification and labeling of related products.

The guiding principles detailed by the MCPFE Vienna resolutions (MCPFE, 2003c) to achieve these objectives are:

- i) Participation;
- ii) Holistic and inter-sectoral approaches;
- iii) Iterative process with long term commitment;
- iv) Capacity building;
- v) Consistency with national legislation and policies;
- vi) Integration with national sustainable development strategies;
- vii) Consistency with international commitments recognizing synergies between international forest related initiatives and conventions;
- viii) Institutional and policy reform;
- ix) Ecosystem approach;
- x) Partnership for implementation; and
- xi) Raising awareness

3.0 Policies and Programmes

3.1 Background

The guiding principles form the basis of EU policies affecting forestry, including the forestry provisions of the Common Agricultural Policy (1992 and 1999), Forest Protection (1986/92), Environment (various), Forest Reproductive Material and Plant Health 1999/2000), Forest Based Industries (1999), Forest Statistics (1997), Development Cooperation (2000), Forest Law Enforcement, Governance and Trade (2003), Research (2002), Rural Development (1999). These provide the policy, legal and regulatory framework and support the derivation of forest policies and national forest programmes by individual Member States. Additionally, the EU Action Plan for Forest Law Enforcement, Governance and Trade (2003) sets out the process and measures to address problems of illegal logging and associated trade in illegally harvested forest products within and beyond the EU (EC, 2003).

3.2 Common Agricultural Policy (CAP)

The latest provisions concerning forestry of the CAP were introduced in June 1992 to support changes under market reforms, increase forest resources, diversify the landscape and provide an environmental balance by expanding carbon sinks to combat greenhouse gases. Between 1994 and 1999 about 1 million hectares were afforested on marginal

agricultural land, which diversified the agricultural economy, created income through an estimated 150,000 full time jobs, and improved socio-economic conditions. About 57% of the species were broadleaves, particularly cork oak and evergreen oak stands, and 32 percent coniferous. Increasingly mixtures to diversify species were planted. Particularly in Germany, Finland and Austria afforestation contributed to greater species diversity and in Spain and Portugal assisted in fire protection(EC, 2003).

3.3 Special Accession Programme for Agriculture and Rural Development (Sapard)

The Special Accession Programme for Agriculture and Rural Development (Sapard) aims to assist the ten candidate countries of Central and Eastern Europe in making structural improvements to their agricultural and rural environment. Measure 14 of the Sapard Regulation concerns forestry, including afforestation of agricultural areas, investment in forest holdings owned by private forest owners and in processing and marketing of forest products, and support for forest infrastructure. The last provision is of particular importance in adjusting the policies, laws and institutions of the candidate countries towards a market economy (EC, 2003).

3.4 Forest Data, Monitoring and Reporting

Reliable and timely data is needed to formulate strategies and develop specific policies and monitor priority actions. Eurostat provides this within the forestry context and contributes EU information to wider European and global bodies.

The main source of data on European forestry is the UNECE/FAO Temperate and Boreal Forest Resources Assessment (TBFRA). TBFRA also represents the main international source of information on the implementation of the MCPFE indicators on the sustainable management of forests in Europe (UN-ECE, FAO, 2000).

Collection of information is done in cooperation with the Inter-secretariat Working Group (IWG) on Forest Sector Statistics, which brings together FAO, UNECE, ITTO and Eurostat, through the annual Joint Forest Sector Questionnaire (JQ). The JQ collects forest products data worldwide, using harmonised product aggregations, coding and definitions (MCPFE, UNECE and FAO, 2003).

The data on status and change of national forest resources assessments has not always been reliable, comprehensive or timely. This has been partially related to the different concepts, definitions and methodologies used in forest resources assessment. It was not always possible to distinguish natural forests, semi-natural forests and plantation forests in those countries where natural species were grown in long-rotation, mixed-species, mixed-age plantings. There is a recognized need to harmonize forest related definitions and methodologies for forest resources assessment (Carle and Holmgren, 2003). For example, Germany, Austria, Finland and Luxembourg report only natural and semi-natural forests and no plantation forests.

3.5 Forest Research

Forestry-related research in the EU is carried out through the Research Directorate-General and the Joint Research Centre. The 5th Framework Programme for Research (1998-2002) aimed to improve the sustainable production and rational utilization of goods and services of natural resources. Research priorities were established to contribute to:

- i) Pan-European forest policy processes and strategies;
- ii) Development of instruments for SFM and its contribution to rural development;
- iii) Prevention and control of forest fires and quarantine of harmful organisms;
- iv) Exploration of forest ecosystem restoration and reclamation, including afforestation and rehabilitation;
- v) Better understanding of the role of forests in water management, erosion control, desertification and prevention of avalanches and landslides;
- vi) Assessment of the impact of climate change on forests and their potential as carbon sinks;
- vii) Development of further systems for agro-forestry, cork and energy production as well as urban forestry;
- viii) Serving industrial needs for high quality and uniform raw material through the assessment and management of genetic resources;
- ix) Development of recycling technologies and improved value-added products;
- x) Understanding wood properties for improved products and end use properties;
- xi) Exploration of market requirements and final product characteristics; and
- xii) Assessing the forest-based industry's contribution to rural development.

Forest research does not always receive priority in the allocation of resources. Some candidate countries and those with economies in transition may find it difficult to address all these priorities with their limited resources. Research programmes have thus been tailored to prevailing economic, social, environmental and political condition.

3.6 Forest Reproductive Material and Plant Health

The provisions of the Council Directive (1999/105) on the marketing of forest reproductive material are of importance in connection with poplar growing stock. A further Council Directive (2000/29) covers the introduction into the Community of organisms harmful to plants or plant products. The first requires records of the basic material from which the reproductive material is harvested, while the second requires the issuing of phyto-sanitary certificates and the maintenance of lists of harmful organisms of quarantine concern.

4.0 Ministerial Conferences on the Protection of Forests in Europe (MCPFE)

4.1 Background

The MCPFE, a regional policy process established in 1990, facilitates open dialogue with a wide range of stakeholders to derive joint responses and political commitment to the protection and sustainable management of European forests. In addition to the 44 European Member Countries and the European Community, 13 non-European countries and 28 International organizations participate as observers in the MCPFE. The resolutions of each MCPFE detail the key criteria and related indicators by which performance is monitored between stated policies and actual practices or activities. Resolutions were adopted in Strasbourg (1990), Helsinki (1993), Lisbon (1998), and Vienna (2003). At each Ministerial conference the National and Pan-European Activities are monitored and reported against the criteria and indicators, evaluation of lessons learned and resolutions made for future programme periods.

4.2 4th Ministerial Conference on the Protection of Forests in Europe

The resolutions of the 4th MCPFE, 28-30 April, 2003, Vienna, Austria (MCPFE, 2003c) committed European countries to implement a detailed list of activities under the following criteria:

- i) Strengthening synergies for sustainable forest management in Europe through cross sectoral cooperation and national forest programmes;
- ii) Enhancing economic viability of sustainable forest management in Europe;
- iii) Preserving and enhancing the social and cultural dimensions of sustainable forest management in Europe;
- iv) Conserving and enhancing forest biological diversity in Europe;
- v) Addressing climate change and sustainable forest management in Europe; and
- vi) Improving Pan-European Indicators for sustainable forest management

The EU and MCPFE priorities are mutually compatible, however, the capacity to carry out comprehensive programmes to achieve these resolutions varies markedly throughout Europe. Member States of the EU generally have the capacity and capability to achieve these. Acceding candidate countries and those with economies in transition, need assistance in capacity building to do so.

4.3 Highlighted Stakeholder Needs

Government representatives, forest owners, forest industry representatives, social and environmental NGOs and the scientific community jointly recognized at the 4th MCPFE (MCPFE, 2003b) the critical need to:

- i) Encourage strong participation of stakeholders in forest policy deliberations and implementation;

- ii) Explore appropriate valuation of all benefits, including environmental services provided by forests;
- iii) Clarify the integration of protected forest areas within the concept of sustainable forest management; ecosystem approach, landscape restoration; and compatibility between various certification schemes;
- iv) Enhance a viable network of representative protected area forest areas;
- v) *Assist colleagues in Central and Eastern European countries as well as in countries with economies in transition in their efforts towards implementation of sustainable forest management; and*
- vi) Strengthening implementation and monitoring progress of the past and current MCPFE commitments.

It was highlighted that Central and Eastern European countries and those with economies in transition required technical and institutional support from existing Member States of the EU to strengthen capacity and build upon institutional capability.

4.4 Forests in Europe at Glance³

4.1 Forest Resources

Forests and other wooded land cover about 1,000 million hectares in Europe and are an integral part of the landscape. The weighted average forest and wooded area cover in Europe is 46 percent, ranging from 1 percent in Malta to 68 percent in both Finland and Sweden. The forest area is increasing by about 0.1 percent/year.

4.2 Forest Health and Vitality

Nitrogen and sulphur depositions continue to have serious pollution impacts in Europe's forests. About 20 percent of Europe's forests are classed as "damaged" by defoliation. The damage varies between climatic regions, soils, species and the stress factors. Other important factors affecting Europe's forests include storms, insects, diseases and fire calamities, often in combination.

4.3 Productive Functions

Europe's forests are generally managed well within their sustainable capacity (there is greater increment than harvest). Of the annual increment from international data, about 25 percent is harvested annually. Excluding the Russian Federation however, would increase the annual harvest to 50 percent of annual increment.

Non-wood forest products are economically important in many European countries. Game has the highest value, but Christmas trees, mushrooms, berries and cork are also important sources of income in some countries. Marketed services such as licences for hunting and other recreational pursuits constitute an important income for forest owners.

³ Related to the 44 countries of the MCPFE, including 15 Member States of the EU, 13 acceding candidate countries and 16 non-EU countries

4.4 Forest Biodiversity

More than 66 percent of Europe's forests are semi-natural and more than 25 percent undisturbed by human, mainly in Eastern and Northern Europe, whereas plantation forests (as reported) plays only a minor role (3 percent overall). Almost half of total forest area is covered by mixed forests. Increasingly protected forests are managed for conservation of biological diversity.

4.5 Protective Forests

About 12 percent of forest area is designated for protective forest functions. About 80 percent is managed for protection of soil, water and other ecosystem functions whilst the remainder is managed mainly for protection of infrastructure.

4.6 Socio-Economic Functions

Ownership of European forests is predominantly public in Eastern Europe, whilst in other European countries private ownership ranges up to 92 percent. In Europe there are more than 90,000 forest holdings in public ownership and 9 million in private ownership. Most forests in Europe are open for recreational activities.

Employment in European forestry has declined by 22 percent in the past decade, however 1.36 million people still work in the sector.

5.0 An Enlarged EU

Of countries planning to join the 15 Member States of the EU, 10 candidate countries (Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, the Slovak Republic and Slovenia) aim to join by 1 May 2004, Bulgaria and Romania by 2007, whilst Turkey's application for accession is under consideration. Forestry highlights and characteristics of EU, EU plus ten, and EU plus thirteen countries are detailed in Tables 1 and 2 in Annexes 1 and 2 (MCPFE, 2003a).

5.1 Current EU

Within the 15 Member States of the EU the area of forest and other wooded land is 137.2 million hectares, of which forests account for 114.2 million hectares. An estimated 84 percent of the forests are managed for wood supply. Only 5 percent is not disturbed by humans, 87 percent is semi-natural and 8 percent forest plantations. Regeneration of forests is primarily by planting or seeding however natural regeneration is prevalent in Austria (76 percent), Germany (40 percent) and Italy (46 percent). Coppice sprouting is most common in Portugal (53 percent), Italy (44 percent) and the Netherlands (29 percent). Supplementary planting in natural forests is not commonly practiced, except to some extent in Austria (10 percent) and Denmark (7 percent).

The average Gross Domestic Product (GDP) per head in 2001 was €22,434, this ranged from €15,706 in Greece, €16,441 in Portugal and €18,625 in Spain, up to €42,758 in Luxembourg. The per capita GDP is one measure of economic strength and standard of living. Member States of the EU generally indicate a sound standard of living, strong economic capacity and political commitment to support sustainable forest management.

About 70 percent of forests and wooded land, and 65 percent of forests, are owned by the private sector, however, this can vary considerably between countries. Ownership is primarily public in Greece and Ireland, by local communities in Belgium, France, Germany, Italy, Luxembourg and Spain, but predominantly private holdings in Nordic countries. Privately owned forests can be highly fragmented, with most holdings smaller than 5 hectares. As a result, in several, but not all, EU countries, large numbers of small holdings are unmanaged (MCPFE, 2003a).

5.2 EU + 10

When the 10 countries, with population of 75 million people accede to the EU, the area of forest and wooded land will be enlarged by 24.5 million hectares, of which the forest area will increase by 23.8 million hectares. An estimated 91 percent of the forest area is managed for wood supply. Only 1 percent is not disturbed by humans, 95 percent is semi-natural and 4 percent forest plantations. Overall, regeneration of forests is primarily by planting or seeding however natural regeneration is prevalent in Cyprus (100 percent) and Slovenia (82 percent). Supplementary planting in natural forests is commonly practiced in the Slovak Republic (37 percent), Lithuania (27 percent) and Estonia (11 percent) and to a minor extent in Poland, Czech Republic and Slovenia. Coppice sprouting is used in Hungary (36 percent), Slovenia (11 percent) and the Slovak Republic (5 percent).

The average GDP per head in 2001 was €9,873 per year, but this ranges from €6,861 in Latvia, € 7,034 in Lithuania and € 8,849 in Estonia, up to € 15,657 in Slovenia. Generally the standard of living and economic capacity to support sustainable forest management is considerably less than the current Member States of the EU.

The accession of ten of the “candidate” countries to the European Union will increase the forest area of Europe from over 114 million hectares by 21 percent to 138 million hectares. It is noteworthy that, as a result of the programmes of returning private property formerly nationalised by the state to its original owners (or their heirs), the forests and other wooded lands for these candidate countries are now 30 percent privately owned and 70 percent public. This average figure conceals great variations, however, from Slovenia, where 70 percent of the forests are now privately owned, through the Slovak Republic and Latvia, with 44 percent privately owned, to Estonia, with 8 percent. The programmes of restitution are now believed to have been completed. The EU currently has about 12 million private forest owners, and this figure is expected to increase by 25 percent. Given that rural areas cover 80 percent of European territory (although considerably less of the European population) that rural areas will constitute no less proportion of the acceding countries territories (MCPFE, 2003a).

Storms have caused the most damage to forests, particularly in Central Europe. Over 7 million hectares were reported damaged by Cyclone “Lothar” in 1999 in Europe to the 4th MCPFE, although not all countries had reported damage. Insects and diseases were the second largest cause of damage, which is partially related to the abiotic, but also to the biotic conditions prevailing in the forested areas. Fire is a serious damaging agent around the Mediterranean countries. Data quality is weak from some countries due to different levels of assessment and reporting procedures (MCPFE, 2003a).

5.3 EU + 10 +3

If Bulgaria, Romania and Turkey were to join the EU, they would add 98 million to the population and a further 31 million hectares of forests and other wooded land, of which 19.9 million hectares would be forests and 11.1 million hectares of other wooded land. An estimated 88 percent of the forest area is managed for wood supply. Only 3 percent is not disturbed by humans, 82 percent is semi-natural and 15 percent forest plantations. Overall, regeneration of forests is primarily by planting or seeding and natural regeneration. Supplementary planting in natural forests is practiced in Bulgaria (17 percent) and coppice sprouting is used in Turkey (24 percent) and Bulgaria (10 percent).

The average GDP per head in 2001 was € 5,595, with € 5,423 in Turkey, € 5,606 in Bulgaria and € 6,111 in Romania. The forests and wooded lands for these additional acceding countries are 99 percent publicly owned. Private sector participation and partnerships in these countries are at an emergent stage.

6.0 Other MCPFE Member Countries

There are another 16 non-EU Member Countries that participate in the MCPFE conferences and provide data and reporting in pan-European co-operation. Where available, the forestry highlights for these countries are detailed in Table 3, Annex 3. The highlights and characteristics of Norway, Switzerland, Iceland and Lichtenstein as post-industrialization non-EU countries are similar to those of the EU – GDP per head GDP € 26,608 to € 28,287 and on average the forest ownership, 70 percent privately owned (MCPFE, 2003a).

The non-EU countries with economies in transition in Central and Eastern Europe are different from Member States of the EU – they account for an additional population of 224 million, total land area of 1,814 million hectares, forest and other wooded land, 909, million hectares and forest area 836 million hectares. This Central and Eastern European region is dominated by the Russian Federation with 155 million people and forest resources of 810 million hectares and the Ukraine with 49 million people and 9.5 million hectares of forests. These non-EU countries with economies in transition have land area 6 times larger than the current EU and forests and other wooded lands more than 7 times larger. The forest area is 99.9 percent publicly owned, with limited emergence of private ownership. The average GDP per head is € 6,292 but varies from € 2,031 in Moldova and € 2,328 in Bosnia, up to € 7,476 in Russia and € 7,370 in Belarus.

The sustainable forest management of the forests in the wider European region, particularly in countries with economies in transition, has environmental, economic and social implications for the wider Europe. These countries have major influences on wood and non-wood forest products marketing and trade, biomass production, protection of the natural environment including soil protection, erosion control, water regulation, improvement of air quality, carbon sequestration, mitigation of, and adaptation to climate change effects, conservation of biodiversity and as major resources contributing to reduction of poverty and contributing to rural development and the creation and preservation of jobs in rural areas (MCPFE, 2003a).

The scale of defoliation, insects and diseases, and forest fires in these countries, particularly the Russian Federation and the Ukraine are of serious concern.

7.0 Recognition of Constraints with Particular Regard to Central and Eastern Europe

Governments of Member States of the EU and wider MCPFE Pan-European process, together with international agencies and international NGOs engaged in the Pan-European Process for Sustainable Forest Management have identified the major constraints to translation of the principles and policies into practices in Europe, particularly Central and Eastern Europe. Selected constraints include:

- i) The forestry sectors have often been marginalized at the national level, which are reflected in Government often underestimating the economic, environmental and social value of forests and the need for sustainable forest management;
- ii) Insufficient political commitment, enabling conditions and allocation of resources to encourage non-Government investment in forestry and forest industries sectors;
- iii) Inconsistent Government policies, legal, planning, regulatory and institutional frameworks, particularly with the agriculture sector;
- iv) Decentralized approaches and participatory involvement of the wider stakeholders requires different institutional frameworks, training and skills for forest investors, planners, managers, scientists and academic than in the past;
- v) Limited emergent role of the private sector due to insecure investment climate, insufficient trust between stakeholders, unclear land and tree tenure rights, and limited policy and market incentives;
- vi) Centrally planned, technical approaches adopted in Government forestry programmes have failed or been only partially successful;
- vii) Insufficient account taken of the critical environmental and social circumstances and the needs and aspirations of the people living and depending on forest areas;
- viii) Inconsistent definitions and lack of forest and tree resources data and information which can translate into inappropriate policy, programmes and performance; and
- ix) Limited application of known scientific and traditional knowledge and technology to improve forest management and productivity.

Constraints v) and vi), related to the change from non-EU centrally-planned, state-dominated economies, are particular to the candidate countries. The others, however, are shared, to a greater or lesser extent, with all the existing Member States of the EU.

8.0 What will it take to translate principles into practice in Europe?

8.1 Introduction

The Vienna Resolutions, 2003 arising from the 4th MCPFE, identified key initiatives necessary in Europe to achieve sustainable and equitable forest management and positive contribution of forests to alleviating poverty and enhancing landscape restoration and rural development. This is not the exhaustive list, but a selection of key initiatives necessary to translate principles into practices in Europe, with particular relevance for Central and Eastern Europe (MCPFE, 2003c).

8.2 Understanding the Dimensions of Sustainable Forest Management

Economic viability is the key pillar of sustainable forest management and of crucial importance for maintaining the health and productivity of forests and their multiple benefits for society and contributing to sustainable development and to human livelihoods, especially in rural areas. However, these need to be balanced with the social, cultural and environmental dimensions of sustainable forest management, including conservation of forest biological diversity. Governments may have to support private forest management, both financially and through extension services, if the new private sector is to be profitable. The new owners, for their part, will have to accept the broader social and environmental constraints to management.

8.3 National Forest Programmes

The preparation of national forest programmes have generally been carried out by Member States of the EU. The underlying principles of national forestry programmes – that they should be participatory, holistic, inter-sectoral and follow an iterative process of policy planning, implementation, monitoring and evaluation at the national and/or sub-national level, offer the necessary framework for translating principles into practice in the candidate countries.

8.3.1 Participation

Participation of the key stakeholders (Government, forest owners, forest industries, scientists, academics, civil society, NGOs, donors) in a fair and transparent manner is needed to recognize and share benefits and responsibilities in managing forests. Decentralization and development of human and institutional capacity are important aspects linked to participation. The methods of participation and the nature of the stakeholder groups will vary according to the unique cultural, social and economic conditions prevailing in each country.

8.3.2 Holistic and Inter-sectoral Approaches

The forest sector can not be considered in isolation of other sectors. The forest sector has impacts on other sectors and vice versa. It is necessary to raise awareness of the forest sector policies and goals to other sectors and to encourage participation and development of human and institutional capacity to encourage effective horizontal and vertical links within and beyond the forestry sector. Foresters need to become more proactive in promoting integration of national forest programmes with national sustainable development strategies.

8.3.3 Iterative Process and Long-term Commitment

National forestry programmes need to be based on a long term iterative process that is continuously adapted to reflect new knowledge and changes in the economic and socio-political environment. To ensure consistency and continuity, it is necessary to have long-term, high level political commitment and long-term engagement and confidence of stakeholders.

8.4 Consistency with National Legislation and Policies

There is a need to review the legal, policy and regulatory frameworks to ensure their consistency, harmonization and clarity with the principles, strategies and policies of the EU, MCPFE and for consistency with international and national commitments.

8.5 Institutional Reform and Partnerships

An integral part of reforms relating to decentralization, intersectoral and participatory processes with the wide range of stakeholders is likely to require institutional reform to promote greater cooperation and engagement between Governments, businesses and civil society. The use of partnerships for implementation and shared resources is an effective way to achieve this, including greater involvement of the private sector, both corporate and smallholder.

8.6 Capacity Building

To ensure adequate competencies and skills of key actors in the forest sector, it is critical to develop the intellectual, human and institutional capacity and an enabling environment for sustainable forest management, including national level criteria and indicators using (the pan-European criteria and indicators as a reference framework), application of the pan-European Operational Level Guidelines for Sustainable Forest Management. It is necessary to build new capacities by adapting training, education and research systems and programmes to contribute more effectively to the key criteria for sustainable forest management and development of the skills and knowledge and multi-disciplinary workforce (including women), to understand and apply new knowledge, skills and technology in planning, management and monitoring.

8.7 Definitions, Data Collection and Reporting

There is need to harmonize forest related definitions related to natural forests, semi-natural forests and plantation forests that have hindered policy and decision-makers, planners and foresters for decades. There is a need for national, regional and Global Forest Resources Assessment and methods for forest resource data collection and reporting to be more compatible, consistent and comparable with strong links at all levels, including national correspondents.

8.8 Public Awareness

Although forests contribute significantly to the well-being and livelihoods of both rural and urban populations, this is not always fully appreciated. There is a need to raise the visibility and awareness of the economic, social, cultural and environmental values and benefits of forests for society and to strengthen public confidence in forest policy and management.

9.0 Potential for Collaboration

Member States of the EU, being post-industrialized and economically and politically stable can assist the industrialized countries of Central, Eastern and Northern Europe which remain heavily dependant on primary production. Collaboration opportunities can be through technical assistance, market access or investment. Technical assistance to build capacity and strengthen institutional capability can be achieved through aid funded project or programme development; scientist, manager and academic exchanges of expertise; twinning of institutes; provision of educational fellowships; and training study tours. Additionally, marketing and trade in wood and non-wood forest products and other services can be facilitated in the European region by providing market access, quality standards and transfer of technology and knowledge. Alternatively, in non-EU countries, there are significant forest resources currently under-utilized, an educated work force that is skilled but relatively cheap, so opportunities exist for investment by EU countries into forest based industries in non-EU countries. There are also opportunities for trans-border policies to address economic, environmental and social dimensions relating to large, contiguous areas of forests between different countries of Europe.

The International Poplar Commission, through its network of members (policy makers, investors, managers, scientists, academics, civil society and others), national poplar commissions and working parties, offers a potentially effective route by which knowledge and experience may be exchanged among members, to their mutual benefit.

10.0 Conclusions

Accession to the European Union by the ten candidate countries will increase the forest area of Europe by 21 percent. Most of this new area, as in the existing EU, will be semi-natural woodland (95 percent as against the existing 87 percent), and with environmental concerns this will not be converted into plantations but will be managed in an

environmentally conscious manner. But the area and proportion of plantations (1 million hectares and 4 percent) is significantly less than in the existing EU (8.5 million hectares, and 8 percent). The other three candidate countries (Bulgaria, Romania and Turkey) will a plantation forest area of 3 million hectares and 15 percent), which may be of significance in terms of transfer of knowledge and experience in plantation management by Member States of the EU.

The number of private owners will increase by 25 percent. Many of these, as in the present EU, own small areas of woodland but the major difference is that in the candidate countries they own land recently restored, after some decades, to them or their families. Experience will be lacking in forest management, and the governments lack or information to develop facilitating policies for the private sector.

Adjustment to the market economy and to consultative processes will affect all concerned – decision-makers, planners, managers, owners and all those with a stake in the forests. The preparation of national forest programmes according to the principles of wide participation, cross-sectoral approaches and iterative revisions, may offer the best way for candidate countries to adjust the planning and management of national forest sectors to the new dimensions of sustainable forest management and the market processes.

There will be a significant effect on forest management and on the forest sectors of the expanded EU not only from the consequences of the accession of the candidate countries but, possibly even more, from the effect of the forest sectors of the Russian Federation and the Ukraine. Their extensive forest resources will impact the forest sectors of Europe not only from the marketing of forest products but also from forest management and protection.

Two other conclusions are to a certain extent related. Firstly, there is urgent need for agreement on certain key definitions among the countries of the EU and the candidates, and, secondly, of improved capacity in data collection and analysis, particularly in support of the development of national forest programmes for which reliable and timely information is essential.

There are various options for collaboration, including multi-lateral and bilateral technical assistance, access to markets and trade and opportunities for investment in forests and forest based industries. The International Poplar commission, through its network of members, offers an effective means by which knowledge and experience may be exchanged among members, to their mutual benefit.

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Annex 1

Table 1: Forestry Highlights in the Current and Potential European Union

Country	Population	Per Capita GDP (2001)	Total Area	Forest & Other Wooded Land (FOWL)			Other Wooded Land Area	Forest Area		
				FOWL Area	FOWL/ Tot. Area	FOWL /Capita		Total Forest	Wood Supply	No Wood Supply
	000's	€	000 ha	000 ha	%	ha	000 ha	000 ha	%	
Austria	8,075	24,654	8,387	3,924	47	0.49	84	3,840	87	13
Belgium	10,264	23,767	3,053	694	23	0.07	27	667	99	1
Denmark	5,333	26,456	4,309	579	13	0.11	93	486	99	1
Finland	5,178	23,035	33,814	22,882	68	4.42	850	22,032	95	5
France	59,453	22,727	54,919	16,989	31	0.29	1,833	15,156	96	4
Germany	82,007	23,570	35,702	10,740	30	0.13	0	10,740	92	8
Greece	10,623	15,706	13,196	6,513	49	0.61	3,154	3,359	92	8
Ireland	3,841	24,401	7,029	665	9	0.17	41	624	98	2
Italy	57,503	23,146	30,132	10,842	36	0.19	985	9,857	61	39
Luxembourg	442	42,758	259	89	34	0.20	3	86	100	0
Netherlands	15,930	25,603	3,735	361	10	0.02	0	361	93	7
Portugal	10,033	16,441	9,204	3,349	36	0.33	41	3,308	56	44
Spain	39,921	18,625	50,596	26,267	52	0.66	12,611	13,656	78	22
Sweden	8,833	22,729	45,218	30,559	68	3.46	3,266	27,293	78	22
UK	59,541	22,552	24,291	2,771	11	0.05	20	2,751	85	15
EU 15	376,977	22,434	323,844	137,224	42	0.36	23,008	114,216	84	16
Cyprus	790	10,164	925	386	42	0.49	214	172	37	63
Czech Rep.	10,224	13,287	7,887	2,630	33	0.26	0	2,630	97	3
Estonia	1,364	8,849	4,523	2,156	48	1.58	146	2,010	96	4
Hungary	10,188	11,210	9,303	1,873	20	0.18	0	1,873	94	6
Latvia	2,355	6,861	6,459	2,995	46	1.27	111	2,884	84	16
Lithuania	3,481	7,034	6,530	2,119	32	0.61	85	2,034	85	15
Malta	392	8,145	32	0.3	1.1	0.001	0	0	0	0
Poland	38,641	8,674	31,268	9,088	29	0.24	0	9,088	93	7
Slovak Rep.	5,390	10,822	4,903	2,038	42	0.38	0	2,038	85	15
Slovenia	1,992	15,657	2,027	1,194	59	0.60	51	1,143	94	6
+ 10	74,817	9,873	73,857	24,479	33	0.33	607	23,872	91	9
EU 25	451,794	20,353	397,701	161,703	41	0.36	23,615	138,088	85	15
Bulgaria	7,952	5,606	11,098	3,902	35	0.49	314	3,588	87	13
Romania	22,408	6,111	23,839	6,301	26	0.28	0	6,301	89	11
Turkey	67,632	5,423	77,945	20,762	27	0.31	10,735	10,027	87	13
+ 3	97,992	5,595	112,882	30,965	27	0.31	11,049	19,916	88	12
EU 28	549,786	17,723	510,583	192,668	38	0.35	34,664	158,004	86	14

Sources: Temperate and Boreal Forest Resources Assessment 2000 (UNECE/FAO)
 UNECE Statistical Database (2002), UNECE/FAO (2000) and updates
 State of Europe's Forests, 2003, Report to the 4th MCPFE (MCPFE, 2003a)

Table 2: Forest Characteristics in the Current and Potential European Union

Country	Forest Areas by Degree of Naturalness			Other Wooded Land		Method of Regeneration				FOWL Ownership	
	Undisturbed by human	Semi-Natural	Plantations	Undisturbed by human	Semi-natural	Natural	Natural + Supp. Plant	Coppice Sprouting	Planting or Seeding	Public	Private
	000 ha			000 ha		%				%	
Austria	34.0	3,806	0	84	0	76.0	10.0	0	14.0	18.1	81.9
Belgium	0	395	271	1	27	25.3	0	0	74.7	43.0	57.0
Denmark	0	126	360	10	83	6.0	7.0	0	87.0	28.4	57.0
Finland	1,202	20,830	0	75	775	30.2	0	0	69.8	29.7	70.3
France	30	13,465	1,661	0	1,833	35.0	0	12.1	52.9	24.9	75.1
Germany	0	10,740	0	0	0	40.0	0	0	60.0	53.6	46.4
Greece	0	3,239	120	0	3,154	-	-	-	-	81.9	19.1
Ireland	0	0	624	1	40	0	0	0	100.0	66.2	33.8
Italy	6	9,718	133	197	788	45.5	2.1	44.1	8.3	34.0	66.0
Luxembourg	0	86	0	0	3	-	-	-	-	46.7	53.3
Netherlands	0	261	100	0	0	28.6	0	28.6	42.8	51.0	49.0
Portugal	0	2,588	720	0	41	30.7	0	53.3	16.0	7.7	92.3
Spain	5	11,600	1,904	3	12,472	-	-	-	-	21.6	78.4
Sweden	4,531	22,152	610	3,180	86	28.6	1.1	1.0	69.3	20.3	79.7
UK	0	772	1,979	0	20	2.0	0	0.7	97.3	43.1	56.9
EU 15	5%	87%	8%	16%	84%					29.6	70.4
Cyprus	11	157	4	21	193	100.0	0	0	0	57.9	42.1
Czech Rep.	0	2,630	0	0	0	0	4.2	0	95.8	84.1	15.9
Estonia	2	1,709	305	0	146	21.3	11.5	0	67.2	91.5	8.5
Hungary	0	1,743	130	0	0	9.6	0	36.1	54.3	64.5	35.5
Latvia	4	2,737	143	0	111	24.6	0	0	75.4	56.0	44.0
Lithuania	12	1,738	284	0	85	20.4	27.3	0	52.3	82.1	17.9
Malta	0	0	0.3	0	0	-	-	-	-	100	0
Poland	144	8,905	39	0	0	1.8	7.2	0	91.0	83.3	16.7
Slovak Rep.	25	1,998	15	0	0	6.0	37.0	5.0	52.0	55.8	44.2
Slovenia	50	1,093	0	0	51	81.6	1.6	11.0	5.8	29.8	70.2
+ 10	1%	95%	4%	4%	96%					69.8	30.2
EU 25	4%	89%	7%	15%	85%					35.7	64.3
Bulgaria*	256	2,364	968	0	314	37.5	16.8	10.0	35.7	100	0
Romania	233	5,977	91	0	0	-	-	-	-	94.6	5.4
Turkey	188	7,845	1,994	150	10,585	29.0	0	24.0	47.0	99.9	0.1
+ 3	3%	82%	15%	1%	99%					98.7	1.3
EU 28	4%	88%	8%	11%	89%					44.0	56.0

Sources: Temperate and Boreal Forest Resources Assessment 2000 (UNECE/FAO)

UNECE Statistical Database (2002), UNECE/FAO (2000) and updates

State of Europe's Forests, 2003, Report to the 4th MCPFE (MCPFE, 2003a)

Table 3: Forestry Highlights in non-EU European Countries

Country	Population	Per Capita GDP (2001)	Total Area	Forest & Other Wooded Land (FOWL)			Other Wooded Land Area	Forest Area		
				FOWL Area	FOWL/ Tot. Area	FOWL /Capita		Total Forest	Public Ownership	Private Ownership
	000's	€	000 ha	000 ha	%	ha	000 ha	000 ha	%	
Non-EU Post-Industrialized Countries/States										
Andorra	-	-	-	-	-	-	-	-	-	-
Holy See	-	-	-	-	-	-	-	-	-	-
Iceland	281	26,608	10,295	130	1	0.46	100	30	30	70
Liechtenstein	33	-	16	7	44	0.21	0	7	93	7
Monaco	-	-	-	-	-	-	-	-	-	-
Norway	4,488	28,287	32,376	12,004	37	2.67	3,291	8,713	25	75
Switzerland	7,170	27,493	4,129	1,234	30	0.17	61	1,173	73	27
Sub-Total	11,972	27,694	46,816	13,375	29	1.1	3,452	9,923	30	70
Other Non-EU Countries with Economies in Transition										
Albania	3,435	3,277	2,875	1,052	37	0.31	22	1,030	99	1
Belarus	9,971	7,370	20,760	8,936	43	0.90	1,071	7,865	100	0
Bosnia/Herz	4,284	2,328	5,120	2,710	53	0.63	433	2,277	79	21
Croatia	4,437	7,149	5,654	2,105	37	0.47	330	1,775	78	22
Georgia	4,426	3,123	6,970	2,988	43	0.68	0	2,988	100	0
Moldova	3,631	2,031	3,385	353	10	0.10	31	322	100	0
Russian Fed.	144,870	7,476	1,709,800	881,974	52	6.09	71,607	810,367	100	0
Serbia/Mont.	-	-	-	-	-	-	-	-	-	-
Ukraine	49,092	3,661	60,355	9,496	16	0.19	36	9,460	100	0
Sub-Total	224,146	6,292	1,814,899	909,614	50	4.058	73,530	836,084	99.9	0.1

Sources: Temperate and Boreal Forest Resources Assessment 2000 (UNECE/FAO)
 UNECE Statistical Database (2002), UNECE/FAO (2000) and updates
 State of Europe's Forests, 2003, Report to the 4th MCPFE (MCPFE, 2003a)