SUSTAINABLE FORESTRY AND THE EUROPEAN UNION
Initiatives of the European Commission
Europe Direct is a service to help you find answers to your questions about the European Union.

New freephone number: 00 800 6 7 8 9 10 11

A great deal of additional information on the European Union is available on the internet. It can be accessed through the Europa server (http://europa.eu.int).

Cataloguing data can be found at the end of this publication.

Luxembourg: Office for Official Publications of the European Communities, 2003

ISBN 92-894-6092-X

© European Communities, 2003 Reproduction is authorised provided the source is acknowledged.

Printed in Belgium
In the European Union (EU), forest policies are implemented by Member States within a clearly defined framework of established ownership rights and with a long history of national and regional laws and regulations based on long-term planning. The forest based commercial activities fall within the open sector of the economy.

Though forests per se are not dealt with at EU level, there is an increasingly complex array of EU legislation and policy initiatives within different EU sectoral policies which considerably influences the forest policies of the Member States. An EU Forestry Strategy was therefore adopted in 1998, which puts forward as its overall principles the application of sustainable forest management and the multifunctional role of forests. In line with the principle of subsidiarity, meaning that every administrative decision should always been made at the most appropriate level taking into account the specific local circumstances, this Strategy seeks to establish a coherent framework of forest-related actions at EU level. It also aims to improve the linkages and co-ordination between different policy areas as well as the coherence with the forest policies of the Member States.

This brochure presents a general factual overview of current EU efforts aiming to contribute to sustainable development of forestry, both within Europe and also at global level through the EU development co-operation policy. The objective is to present in simple terms the main ongoing EU actions and activities related to the forest sector, which are complementing and reinforcing the forest policies of the Member States.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>General background</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Introduction</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Sustainably-managed forests provide vital services to nature and society</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Sustainable forestry within the EU</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>a) EU Forestry Strategy - guiding the EU’s efforts to convert principles into action</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>b) Socio-economic relevance of the forest sector in the EU</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>c) Environmental relevance of European forests</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>d) The enlargement of the EU</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Sustainable forestry: International processes and EU development co-operation</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>a) Forest-related international processes and the EU</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>b) Forests and development co-operation</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Co-ordination and mechanisms to facilitate stakeholder participation</td>
<td>14</td>
</tr>
<tr>
<td>2</td>
<td>Forestry in Rural Development and Sapard</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>The EU’s rural development policy</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>The conceptual framework of forestry measures within rural development policy</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Support for forestry measures in candidate countries by the Sapard programme</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Forest-related measures under the CAP during the period 1994-1999</td>
<td>18</td>
</tr>
<tr>
<td>3</td>
<td>Forest protection measures and the new “Forest Focus” Framework Regulation</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Protection of forests against atmospheric pollution</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Protection of forests against fire</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Outlook: the new “Forest Focus” Framework Regulation</td>
<td>22</td>
</tr>
<tr>
<td>4</td>
<td>Forests and conservation of nature</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Forests and conservation issues</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>The main principles for management of forest Natura 2000 sites</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Conclusion</td>
<td>25</td>
</tr>
<tr>
<td>5</td>
<td>Forests and climate change</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>Background</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Main findings of the working group on forest-related sinks</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Recommendations</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Outlook</td>
<td>29</td>
</tr>
<tr>
<td>6</td>
<td>Forest reproductive material and plant health</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Forest reproductive material</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Plant health</td>
<td>33</td>
</tr>
<tr>
<td>7</td>
<td>Forestry and Forest-Based Industries (F-BI)</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Socio-economic impact of the F-BI sectors in the EU</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>The F-BI unit in the European Commission</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>Co-ordination within the Committee on Community Policy regarding F-BI</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>The challenges of the EU F-BI</td>
<td>37</td>
</tr>
<tr>
<td>8</td>
<td>Forest sector statistics</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>Eurostat</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Forest resources</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Other statistics</td>
<td>41</td>
</tr>
<tr>
<td>9</td>
<td>Forests and development co-operation</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>Objectives</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>EU strategy for forest sector development co-operation</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>Implementing forest sector development co-operation</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>The major country and regional programmes</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>Outlook</td>
<td>46</td>
</tr>
<tr>
<td>10</td>
<td>Forests and EU research</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>The EU research framework programmes</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>a) Objective</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>b) Specific coverage and expected outputs</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>c) EU-supported forest research</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>d) Examples of activities</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>e) Outlook</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>The role of the joint Research Centre (JRC)</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>a) Forestry and forest-related research</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>b) Projects</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>c) Outlook</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Concluding remarks</td>
<td>55</td>
</tr>
<tr>
<td>11</td>
<td>Tables and figures</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>Table 1: Areas of forest and other wooded land in EU and candidate countries</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Table 2: Financial forecast of forestry measures in the framework of the rural development programmes 2000-2006: EU contribution under EAGGF</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Table 3: An estimated statistical picture of the forestry measures in the Sapard programmes 2000-2006</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Table 4: Summary of EU-supported forest research. 5th Framework Programme (1998-2002)</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>Figure 1: Importance of Natura 2000 in the forest sector: Forest areas designated according to the Habitats Directive as a percentage of the total forest area in the Member States and the EU-15, updated December 2002</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Figure 2: EU forest assistance by TFbl in 2000-2003</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Figure 3: Global Inventory of Areas Burned in the Year 2000</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>Figure 4: Forest Map of Europe</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>List of EU legislation and other relevant documents</td>
<td>56</td>
</tr>
</tbody>
</table>
**ACRONYMS AND ABBREVIATIONS**

| ACP: African, Caribbean and Pacific group of States | ERA: European Research Area |
| ALA: Asia-Latin America | ES: Spain |
| ARD: Afforestation-Reforestation-Deforestation | EU: European Union |
| AT: Austria | EUR: EURO |
| BE: Belgium | F-BI: Forest-Based Industries |
| CAP: common agricultural policy | FAO: United Nations Food and Agriculture Organisation |
| CO₂: Carbon dioxide | FI: Finland |
| CBD: Convention on Biological Diversity | FLEG: Forest Law Enforcement, Governance and Trade |
| CDM: Clean Development Mechanism | FR: France |
| CEEC: Central and Eastern European Countries | GHG: Greenhouse Gases |
| COP: Conference of the Parties | GR: Greece |
| CRAFT: Co-operative research projects for small and medium-sized enterprises | HS: Harmonised Commodity Description and Coding System |
| COST: Co-operation in the field of Scientific and Technical research | ICP Forests: International Co-operative Programme on the Assessment and Monitoring of Air Pollution Effects on Forests under the UNECE Convention on Long-Range Transboundary Air Pollution |
| DE: Germany | IE: Ireland |
| DG: Directorate General | IFF: Intergovernmental Forum on Forests |
| DK: Denmark | IPF: Intergovernmental Panel on Forests |
| EAGGF: European Agricultural Guidance and Guarantee Fund | IPPC: International Plant Protection Convention |
| EAP: Environment Action Programme | IT: Italy |
| ECCP: European Climate Change Programme | IWG: Inter-secretariat Working Group on Forest Sector Statistics |
| EFI: European Forestry Institute | ITTO: International Tropical Timber Organisation |
| EFICS: European Forest Information and Communication System | IUFRIO: International Union of Forestry Research Organisations |
| EFTA: European Free Trade Association | JFQ: Joint Forest Sector Questionnaire |
| EP: European Parliament | LU: Luxembourg |
| EEA: European Environment Agency | LAM: Latin America |
| MCPFE: Ministerial Conferences on the Protection of Forests in Europe | ME: Ministry for the Environment |
| NFP: National Forest Programme | NL: the Netherlands |
| OECD: Organisation for Economic Co-operation and Development | OWL: Other Wooded Land |
| OF: Other Forests | PFA: Proposals for Action |
| PT: Portugal | PFA: Proposals for Action |
| SAC: Special Areas of Conservation | Ralph: Ralph Institute for Forest Research and Education |
| Sapard: Special Accession Programmes for Agriculture and Rural Development | SE: Sweden |
| SMEs: Small and Medium-sized Enterprises | SFM: Sustainable Forest Management |
| TBFRA: Temperate and Boreal Forest Resources Assessment | TFbI: Tropical Forest budget line |
| TF: Tropical Forests | UK: United Kingdom |
| UNFF: United Nations Forum on Forests | WSSD: World Summit on Sustainable Development |
Nearly one third of the world’s land area is covered by forests. Forests provide many benefits, including wood, fuel, shelter, food and water security and employment. They play a vital economic role, often in areas of poverty or relative economic disadvantage. Furthermore, the maintenance of forests is essential for the environmental well-being of the world as forests have a crucial role in dealing with the challenges of climate change, and in sustaining species and biodiversity conservation.

These challenges are present in the 15 current EU Member States, in the acceding states and beyond in the wider Europe, though their significance varies according to the particular European region. The EU has for a long time supported the concept of sustainable forest management. EU citizens enjoy the forest environment for its ecological and amenity values. The EU is also home to many leading players within forestry and forest-based industries.

EU strategies and policies with regard to forestry and forest-based industries cover a wide range of aims and objectives from global to regional and even local level, as described in this brochure.

At the global level the EU’s priorities are the promotion of sustainable and equitable forest management as a 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. The EU also recently proposed an Action Plan to combat illegal harvesting of wood and related trade of forest products.

At the same time the EU faces many internal challenges. These range from the need to manage the role of forestry and forest-based industries within rural development measures, forest health, sustaining the competitiveness of the industries that depend on forests and forest products and combating forest fires, pollution of forests and other environmental concerns.

Furthermore the EU plays a leading role in helping developing countries. Forestry activities, and aid linked to these, are very important and the EU is a major world player in development aid via forest actions.

To back up these activities the EU sets aside considerable funds and the efforts of a wide range of officials and experts to pursue its forestry objectives. Apart from policy-making the EU is very active in research and development and project funding, and in the gathering of data and the monitoring of the forest economy and environment.

In order to establish and implement its strategies and policies the European Commission manages several networks of EU-level, national and regional players. Great care is taken to consult widely and with experts and officials. This helps to ensure not just that the right regulatory environment is created, but that policies are applied in practice.
This chapter explains, briefly, the many ways in which the European Commission is involved in forestry activities, both within Europe and globally.
Introduction

Forests cover around 3,870 million hectares (ha), or 29% of the Earth’s land area. About 47% of the world’s forests are located in the tropical zone, 9% in the sub-tropics, and 11% and 33% respectively in the temperate and boreal zones. The World Summit on Sustainable Development (WSSD), held in Johannesburg in 2002, addressed and emphasised the role of sustainable forest management in overall sustainable development and, more specifically, in poverty eradication, improvements in food security and access to safe drinking water and affordable energy. Forests play an often unrecognised role in the livelihoods of poor people. At global level, an estimated 1.6 billion poor people depend, at least partly, on forest resources for a living. Despite all the efforts to protect forests, the world’s forest area continues to decrease at an alarming rate. The net change in the forest area is estimated to be – 9.4 million ha per year, representing the difference between a deforestation rate of 14.6 million ha of natural forests and an expansion of 5.2 million ha per year of natural forests and forest plantations (FAO, Global Forest Resources Assessment 2000).

The European Union (EU) has a total area of forest and other wooded land area of 136 million ha accounting for about 36% of its surface area (see Table 1). Contrary to what is happening in other parts of the world, forest cover in the EU is slowly but steadily increasing at a rate of approx. 0.3% per year and forests are present in a huge variety of climatic, geographic, ecological as well as socio-economic conditions. Ecologically, EU forests belong to numerous vegetation zones, ranging from the coastal plains to the Alpine zone, while socio-economic management conditions vary from small family holdings to large estates belonging to vertically integrated companies.

Europe has a long-standing tradition of sustainable forest management, born from the wood energy crisis at the end of the Middle Ages, when growing cities over-exploited their surrounding forests. The EU continues to be committed to sustainable forest management principles, not only inside its own borders but also in its international co-operation with partner countries.

Sustainably-managed forests provide vital services to nature and society

Traditionally, the most important function of forests has been (and still is in many parts of the world) their use as a renewable source of timber and other products, such as resin, cork, mushrooms and berries: this is known as the raw material function of forests. Besides their economic role, forests offer many other benefits, which are increasingly being re-discovered as useful to society. In Europe, increasing leisure time, for instance, has made the recreational use of forests important socially. Environmental benefits of forests, such as biodiversity and landscape conservation, impact on global and regional climates, water and soil protection, are highly valued, even if not expressed in monetary terms. In mountain areas, avalanche control and protection against erosion are additional functions. Over the last decade, increasing attention has been paid to the role of the world’s forests in the carbon cycle. Forests are generally managed in order to fulfil several functions simultaneously. That means, for example, that in a forest essentially providing soil protection but which is also important for biodiversity and recreation, selective timber harvesting can be performed whilst maintaining the former forest functions.
The EU major objectives in relation to forestry are:

- promotion of the sustainable development of the EU forestry sector as a contribution to rural development and, in particular, to the creation and preservation of jobs in rural areas;
- protection of our natural environment and our forest heritage by ensuring the role of forests and forestry in 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. The protection of forests against biotic and abiotic factors;
- improvement of ecological, economic and socially sustainable forest management within the framework of the internal market, and in line with the Union’s international obligations;
- assuring the competitiveness of the EU forest-based industries;
- improvement of forest monitoring instruments in accordance with the requirements of existing environmental agreements;
- increasing the use of sustainably-produced wood and other forest products, as environmentally-friendly and climate neutral sources of materials and energy through encouraging certification of sustainable forest management and encouraging labelling of related products;
- promotion of sustainable and equitable forest management as a means of reducing poverty and thus contribute effectively to the EU’s development policy.

Key objectives

Sustainable forestry within the EU

a) EU Forestry Strategy – guiding the EU’s efforts to convert principles into action

On 15 December 1998 the European Council adopted a Resolution on a Forestry Strategy for the EU that fixed as overall principles for action the sustainable forest management and the multifunctional role of forests, as defined in the Ministerial Conferences on the Protection of Forests in Europe of Helsinki (1993) and Lisbon (1998).

The strategy is based on the commitments made by the EU and the Member States in international processes related to forests. Its substantial elements are inter-alia:

- responsibility for forest policy lies with the Member States, the EU can contribute to the implementation of sustainable forest management through EU policies (subsidiarity, shared responsibility);
- implementation of international commitments, principles and recommendations through national or sub-national forest programmes developed by the Member States;
- integration and support of these forest programmes developed by the Member States through specific measures and EU policies such as CAP and Rural Development, Environment, Research, Energy, Internal Market, Health and Consumer Protection.

EU action under existing responsibilities are based on the following:

- with their many functions, forests are essential to rural areas and constitute a major component of an integrated rural development policy, particularly because of their contribution to income and employment and their ecological and social value;
- forests and their structural and biological diversity are an important part of the European natural environment and their protection and conservation falls within the scope of a number of EU policies and is the subject in particular of specific environmental measures such as the EU Biodiversity Strategy and Action Plans and the Natura 2000 network of protected areas;
- forests play an important role in climate change mitigation and forest-related actions are foreseen in the context of the European Climate Change Programme;
• for forest products, and in particular wood (as well as cork and resins), the rules of the Internal Market apply, including the normal EU competition rules on state aids, mergers and cartels.

Thus, a number of important EU policies have a considerable impact on forests. The EU therefore has a key role to play in achieving the objectives laid down by the Member States and the EU in the framework of the Forestry Strategy.

b) Socio-economic relevance of the forest sector in the EU

About 65% of the forest land in the EU is owned by some 12 million private forest owners. Privately-owned forests tend to be highly fragmented and most holdings are smaller than five hectares. Ownership structure, however, varies widely within the EU. In Greece and Ireland, the State owns about two thirds of forest land; in Belgium, France, Germany, Italy, Luxembourg and Spain, local communities play an important role as forest owners, while in the Nordic countries, private holdings are predominant.

In comparison with the vast boreal and tropical forest areas of other regions of the world, the EU’s forest resources may seem relatively modest at first glance. However, in economic terms, following the accession of Austria, Finland and Sweden, the EU has become the world’s second largest paper and sawn wood producer and third largest exporter of forest products. The industry’s structure is very heterogeneous and is characterised by global, regional and local companies, including some large multinationals as well as hundreds of thousands of small and medium-sized enterprises.

Altogether, the EU forest-based industries’ production value amounts to close to EUR 300 billion, which represents 10% of the total for all manufacturing. According to official statistics these industries directly employ some 2.6 million people in the EU.

The EU is the biggest trader and second biggest consumer of forest products in the world, with a positive trade balance overall. The EU is a net importer of raw materials, mainly roundwood, mostly from central and eastern European countries and the Russian Federation, and wood pulps from North and South America and other regions having high forest growth rates and low costs in timber production. Within certain sectors (quality papers and wood-based panels), where there is a particularly high level of domestic supply, the EU is a prominent exporter, especially of the more highly value-added products.
c) Environmental relevance of European forests

Forests can still be considered as the most important component of European nature. One indicator of the vitality of forests is that the forest biotope remains home to the largest number of vertebrates (mammals, birds, reptiles and amphibians) on the continent. The changes that forests have undergone in the last few centuries have brought a great number of species to the verge of extinction. This is especially true for organisms at the top of the food chain such as large carnivores and birds of prey. As part of the UNECE/FAO assessment of the temperate and boreal forests of the world (TBFRA 2000), new data on forest dwelling species were gathered showing that the number of threatened taxa is alarmingly high. Among mammals, typically 20-50%, and among birds 15-40%, of the forest-dwelling species were categorised as threatened.

As well as the primary importance of conservation of the natural heritage, maintenance of forest cover is vital for the sustainability of other forms of land use and other forms of life. Protection against desertification and avalanches, safeguarding of upper catchments, windbreaks in the lowlands, mitigation of climatic extremes and of climate change, attractiveness to tourists and social amenity are only a limited number of the many environmental services that multifunctional forestry, practised in an ecologically sound framework, can offer to society.

<table>
<thead>
<tr>
<th>Country</th>
<th>Total area of forest and other wooded land</th>
<th>Forest area</th>
<th>Other wooded land</th>
<th>Ownership of total area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1000 ha</td>
<td>Available for wood supply</td>
<td>Not available for wood supply</td>
<td>Public</td>
</tr>
<tr>
<td>Austria</td>
<td>3,924</td>
<td>3,840</td>
<td>3,352</td>
<td>488</td>
</tr>
<tr>
<td>Belgium</td>
<td>672</td>
<td>646</td>
<td>639</td>
<td>7</td>
</tr>
<tr>
<td>Denmark</td>
<td>538</td>
<td>445</td>
<td>440</td>
<td>5</td>
</tr>
<tr>
<td>Finland</td>
<td>22,768</td>
<td>21,883</td>
<td>20,675</td>
<td>1,208</td>
</tr>
<tr>
<td>France</td>
<td>16,989</td>
<td>15,156</td>
<td>14,470</td>
<td>686</td>
</tr>
<tr>
<td>Germany</td>
<td>10,740</td>
<td>10,740</td>
<td>10,142</td>
<td>598</td>
</tr>
<tr>
<td>Greece</td>
<td>6,513</td>
<td>3,359</td>
<td>3,094</td>
<td>265</td>
</tr>
<tr>
<td>Ireland</td>
<td>591</td>
<td>591</td>
<td>580</td>
<td>11</td>
</tr>
<tr>
<td>Italy</td>
<td>10,842</td>
<td>9,857</td>
<td>6,013</td>
<td>3,844</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>89</td>
<td>86</td>
<td>86</td>
<td>0</td>
</tr>
<tr>
<td>the Netherlands</td>
<td>339</td>
<td>339</td>
<td>371</td>
<td>25</td>
</tr>
<tr>
<td>Portugal</td>
<td>3,467</td>
<td>3,383</td>
<td>1,897</td>
<td>1,486</td>
</tr>
<tr>
<td>Spain</td>
<td>25,984</td>
<td>13,509</td>
<td>10,479</td>
<td>3,030</td>
</tr>
<tr>
<td>Sweden</td>
<td>30,259</td>
<td>27,264</td>
<td>21,236</td>
<td>6,028</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>2,489</td>
<td>2,469</td>
<td>2,108</td>
<td>361</td>
</tr>
<tr>
<td>Total EU-15</td>
<td>136,204</td>
<td>113,567</td>
<td>95,525</td>
<td>18,042</td>
</tr>
<tr>
<td>Cyprus</td>
<td>280</td>
<td>117</td>
<td>43</td>
<td>74</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>2,630</td>
<td>2,630</td>
<td>2,559</td>
<td>71</td>
</tr>
<tr>
<td>Estonia</td>
<td>2,162</td>
<td>2,016</td>
<td>1,932</td>
<td>84</td>
</tr>
<tr>
<td>Hungary</td>
<td>1,811</td>
<td>1,811</td>
<td>1,702</td>
<td>109</td>
</tr>
<tr>
<td>Latvia</td>
<td>2,995</td>
<td>2,884</td>
<td>2,413</td>
<td>471</td>
</tr>
<tr>
<td>Lithuania</td>
<td>2,050</td>
<td>1,978</td>
<td>1,686</td>
<td>292</td>
</tr>
<tr>
<td>Malta</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Poland</td>
<td>8,942</td>
<td>8,942</td>
<td>8,300</td>
<td>642</td>
</tr>
<tr>
<td>Slov Republik</td>
<td>2,031</td>
<td>2,016</td>
<td>1,706</td>
<td>310</td>
</tr>
<tr>
<td>Slovenia</td>
<td>1,166</td>
<td>1,099</td>
<td>1,035</td>
<td>64</td>
</tr>
<tr>
<td>Total EU-25</td>
<td>160,271</td>
<td>137,060</td>
<td>116,901</td>
<td>20,159</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>3,903</td>
<td>3,590</td>
<td>3,124</td>
<td>466</td>
</tr>
<tr>
<td>Romania</td>
<td>6,680</td>
<td>6,301</td>
<td>5,617</td>
<td>684</td>
</tr>
<tr>
<td>Turkey</td>
<td>20,713</td>
<td>9,954</td>
<td>8,635</td>
<td>1,319</td>
</tr>
</tbody>
</table>

Source: TBFRA 2000 (UNECE/FAO)
In addition, the function of sustainably managed forests as a renewable source of materials and energy, is increasingly acknowledged and could play an important role on decoupling of resource use from economic growth, as proposed in the 6th Community Environment Action Programme that was adopted in July 2002.

d) The enlargement of the EU

After growing from 6 to 15 members, the EU is now preparing for its biggest enlargement ever in terms of scope and diversity. 13 “candidate” countries have applied to become new members: 10 of these countries – Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, the Slovak Republic and Slovenia are set to join on 1 May 2004. Bulgaria and Romania hope to do so by 2007, while Turkey is not currently negotiating its membership. The European Commission will report to the European Council in December 2004 on Turkey’s progress towards accession, and recommend whether it satisfies the Copenhagen political criteria. If the European Council considers that it has done so, it will announce the opening of accession negotiations early in 2005.

The enlargement process will lead to a substantial expansion of the EU forest sector. In the EU of 25 countries, the total forest area will grow by around 20% and the number of forest holdings by 25%. A large potential for employment in the forest sector, an increased self-reliance for forest products and a large increase in protected forest areas are among the most important consequences.

Sustainable forestry: International processes and EU development co-operation

a) Forest-related international processes and the EU

The UN Conference on Environment and Development (UNCED) held in Rio de Janeiro in 1992 has given forests an increasingly important role in the context of sustainable development and environmental conservation. The concept of sustainable forest management has been recognised as a fundamental guiding principle by all participant countries. The following statements made at UNCED still have particular importance in relation to forests:

- the “Forest Principles” for a global consensus on the management, conservation and sustainable development of all types of forests;
- Chapter 11 of Agenda 21, which outlines possible ways for combating deforestation at a global level;

The Rio Conference also produced several multilateral agreements containing global commitments, which are commonly known as “the Rio conventions”: the Convention on Biological Diversity (CBD), the Convention to Combat Desertification (CCD) and the Framework Convention on Climate Change (UNFCCC).
After 1992, the Intergovernmental Panel on Forests (IPF) and Intergovernmental Forum on Forests (IFF) developed more than 270 Proposals for Action (PIA) towards sustainable forest management. In 2000 the UN Forum on Forests was established. In addition to strengthening political commitment to sustainable forest management its main functions are to:

- facilitate implementation of forest-related agreements and foster a common understanding of sustainable forest management (SFM) and enhance co-operation as well as policy and programme development, dialogue and co-ordination on forest-related issues;
- foster international co-operation and monitor, assess and report on progress of the above functions and objectives.

These global processes on sustainable development were taken into account, in the EU forestry strategy and development co-operation policy in particular, by:

- implementing forest-related commitments at European level;
- contributing to the implementation of sustainable forest management through development co-operation – for which the 1999 Communication on Forest Sector Development Assistance provides the overall framework;
- the commitment to continue the policy dialogue on forests at international level.

The EU stands firm on the implementation of the forest-related commitments of the WSSD (Johannesburg, 2002).

In 2003, the European Commission launched its FLEGT Action Plan to prevent and combat illegal harvesting of wood and related trade of forest products.

The Ministerial Conferences on the Protection of Forests in Europe (MCPFE) constitute a major initiative in the process of co-operation amongst European countries to contribute to the protection and sustainable management of European forests. They represent a joint response and a political commitment by the European countries and the EU to the protection and sustainable management of forests, as suggested in Agenda 21 and in the non-legally binding “Forest Principles” adopted at UNCED, taking into account the specific conditions and needs of Europe’s forests.

The resolutions adopted by the countries of Europe and the EU at the conferences held in Strasbourg (1990), Helsinki (1993), Lisbon (1998) and Vienna (2003) cover the main points for the protection and sustainable management of Europe’s forests and lay down guidelines for achieving those objectives, including the implementation of objectives stemming from the CBD, UNFCCC and WSSD.

b) Forests and development co-operation

The EU aims at enhancing the role of forest-related activities in its development co-operation programmes and continues to provide annually approximately EUR 30 to 40 million for forest-related co-operation with developing countries.

Since the year 2000 the primary objective of EU development co-operation has been to reduce poverty by means of sustainable development. The sustainable management of natural resources, including forests, forms a central part of this process. This is reflected in the EU’s strategic objective in the forest sector, which is to promote sustainable and equitable forest management and poverty reduction.

The EU is participating in and supporting international co-operation to protect forests, in particular to avoid forest destruction in other parts of the world, which could have long-term implications for the sustainability of forests and the environment of the world. Through the above-mentioned FLEGT Action Plan the EU is taking active measures to prevent and combat trade in illegally harvested wood.
Co-ordination and mechanisms to facilitate stakeholder participation

The international forest dialogue emphasises the need to establish national forest programmes as a means to achieve sustainable forest management, emphasising the participation of relevant stakeholders and consideration of all sectors with an influence on forests. At EU level, forest-related measures are prepared with intensive co-ordination and participation. The legislative decision process requires the involvement of the European Council (representing the Member States) and the European Parliament in the elaboration of Community actions. Furthermore the European Economic and Social Committee, which represents a wide range of civil society groups, and the Committee of the Regions, which represents regional authorities and local communities, are formally consulted.

In addition, several specialised committees provide for collaboration between the Commission and the Member States and stakeholders:

- The **Standing Forestry Committee**, which brings together representatives of the Member States, with the Commission in the chair, and which has three roles:
  - an advisory, regulatory and management function for specific forest measures;
  - an ad hoc consultation forum providing expertise and monitoring for forestry measures in the framework of various Community policies such as those on rural development and environment;
  - a venue for the exchange of information among Member States and with the Commission.

- The **Advisory Committee on Forestry and Cork** includes representatives of forest owners organisations (public and private), forest industry, non-governmental environment organisations and forest trade unions;

- The **Advisory Committee on Community policy regarding Forestry and Forest-based Industries** involves representatives of different forest industry sectors, forest owners and trade unions;

- The **“Habitats” and “Ornis” Committee** which assists the Commission in the implementation of the Habitats¹ and Birds Directives²;

- The **Sectoral Social Dialogue Committee** established in the wood sector³, where the organisations at European level representing employers and workers of the wood sector develop the social dialogue. It is the proper level for discussion on many issues linked to employment, working conditions, vocational training, industrial change, enlargement, etc;

- The informal **European Tropical Forests Advisors Group** allows for consultation between Commission and Member States’ experts on forests and development co-operation.

---

The EU has introduced several pieces of legislation to assist the development of forestry and its related activities in rural areas. These are aimed at helping rural economies and the environment. This legislation will also apply to new Member States. In the meantime candidate countries for EU membership benefit from specific policies and funding that cover forests and forestry.
The EU’s rural development policy – the second pillar of the common agricultural policy (CAP) – seeks to establish a coherent and sustainable framework for the future of these rural areas based on the following main principles:

- **The multifunctionality of agriculture**, i.e. its varied role over and above the production of foodstuffs. This implies the recognition and encouragement of the range of services provided by farmers.
- **A multisectoral and integrated approach** to the rural economy in order to diversify activities, create new sources of income and employment and protect the rural heritage.
- **Subsidiarity** for Member States to draw up their Rural Development Programmes.

**Council Regulation (EC) No 1257/1999:**
The core instrument to achieve these objectives is Council Regulation No 1257/1999⁴ – the Rural Development Regulation. The measures contained in this regulation can be categorised according to three major objectives:

1. **Restructuring and competitiveness of agriculture**
   Under this category support is granted for:
   - Investments in agricultural holdings
   - Setting-up of young farmers
   - Vocational training
   - Early retirement
   - Investments to improve processing and marketing of agricultural products
   - Land improvement
   - Reparceling
   - Setting-up of farm relief and farm management services
   - Marketing of quality agricultural products
   - Agricultural water resources management
   - Development and improvement of infrastructure related to agriculture
   - Restoring agricultural and forestry production potential

2. **Environment/land management**
   Under this category support is granted for:
   - Less favoured areas and areas with environmental restrictions
   - Agri-environment
   - Afforestation of agricultural land
   - Various other forestry measures
   - Environmental protection in connection with agriculture and forestry

3. **Rural economy/rural communities**
   Under this category support is granted for:
   - Basic services for the rural economy and population
   - Renovation and development of villages and protection and conservation of the rural heritage
   - Diversification of agricultural activities
   - Encouragement for tourist and craft activities
   - Financial engineering

---

The conceptual framework of forestry measures within rural development policy

The overall principles of the EU’s Forestry Strategy, e.g. multifunctionality and sustainability are reflected in the rural development policy of the EU by bringing together economic, social and environmental objectives into a coherent package of voluntary measures and thus giving added value to the implementation of forest programmes of the Member States in their regions. The forestry measures of the rural development programmes are at the same time seeking to contribute to more global issues such as climate change and biodiversity.

The Rural Development Regulation thus emerges as an important vehicle for implementing the EU’s Forestry Strategy. In broad terms, the integration of forestry aspects in the Rural Development Policy follows three pathways, in particular for privately owned and municipality forests:

- afforestation of agricultural land (article 31);
- investments to improve the multifunctional role of forestry (article 30);
- improvement of the forest protection values (article 32).

The integrated rural development approach puts great emphasis on linkages with other policy areas and land uses, as well as on the consideration of specific socio-economic and ecological factors, in line with the following basic principles:

- interdependence of different sectoral and horizontal policy areas, – the need to combine different interests and to achieve economic, social and environmental objectives in a coherent way;
- regional diversity – an acknowledgement of locally distinctive characteristics and priorities, problems and opportunities;
- bottom up approach – an emphasis on the active involvement and participation of local communities, and self-help rather than reliance on external action.

Table 2 shows the financial forecast of forestry measures in the framework of the rural development programmes for 2000–2006 financed under the European Agricultural Guidance and Guarantee Fund (EAGGF).

<table>
<thead>
<tr>
<th>Country</th>
<th>Afforestation in EUR Million</th>
<th>%</th>
<th>Other forestry measures in EUR Million</th>
<th>%</th>
<th>Total in EUR Million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>8</td>
<td>10%</td>
<td>73</td>
<td>90%</td>
<td>81</td>
</tr>
<tr>
<td>Belgium</td>
<td>3.5</td>
<td>24%</td>
<td>11.3</td>
<td>76%</td>
<td>14.8</td>
</tr>
<tr>
<td>Germany</td>
<td>127</td>
<td>30%</td>
<td>303</td>
<td>70%</td>
<td>430</td>
</tr>
<tr>
<td>Denmark</td>
<td>55</td>
<td>84%</td>
<td>6.5</td>
<td>16%</td>
<td>41.5</td>
</tr>
<tr>
<td>Greece</td>
<td>58</td>
<td>31%</td>
<td>130</td>
<td>69%</td>
<td>188</td>
</tr>
<tr>
<td>Spain</td>
<td>640.5</td>
<td>43%</td>
<td>834.5</td>
<td>57%</td>
<td>1475</td>
</tr>
<tr>
<td>Finland</td>
<td>23</td>
<td>57%</td>
<td>41</td>
<td>43%</td>
<td>64</td>
</tr>
<tr>
<td>France</td>
<td>46</td>
<td>17%</td>
<td>227</td>
<td>83%</td>
<td>273</td>
</tr>
<tr>
<td>Ireland</td>
<td>351</td>
<td>92%</td>
<td>31.5</td>
<td>8%</td>
<td>38.25</td>
</tr>
<tr>
<td>Italy</td>
<td>567.5</td>
<td>60%</td>
<td>374.5</td>
<td>40%</td>
<td>942</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>0.014</td>
<td>1%</td>
<td>1.1</td>
<td>99%</td>
<td>1.1</td>
</tr>
<tr>
<td>the Netherlands</td>
<td>4.4</td>
<td>45%</td>
<td>5.5</td>
<td>55%</td>
<td>9.9</td>
</tr>
<tr>
<td>Portugal</td>
<td>347</td>
<td>55%</td>
<td>288</td>
<td>45%</td>
<td>635</td>
</tr>
<tr>
<td>Sweden</td>
<td>0.07</td>
<td>5%</td>
<td>1.6</td>
<td>95%</td>
<td>1.7</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>175</td>
<td>88%</td>
<td>23</td>
<td>12%</td>
<td>198</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2385.5</strong></td>
<td></td>
<td><strong>2352</strong></td>
<td></td>
<td><strong>4737.5</strong></td>
</tr>
</tbody>
</table>

Additional information: [http://europa.eu.int/comm/agriculture/rur/index_en.htm](http://europa.eu.int/comm/agriculture/rur/index_en.htm)
Support for forestry measures in candidate countries by the Sapard programme

The Special Accession Programme for Agriculture and Rural Development (Sapard) aims to assist the 10 candidate countries of Central and Eastern Europe in making structural improvements to their agricultural and rural environment. To achieve this objective, each candidate country has drawn up a development plan in accordance with the principles of the programming approach used by the Member States for rural development. The plan can include up to 15 measures set out in the Sapard Regulation. Measure 14 of the Sapard Regulation concerns forestry, including afforestation of agricultural areas, investment in forest holdings owned by private forest owners and processing and marketing of forest products and support for forest infrastructure.

Forestry is included in the Sapard programmes approved for seven countries: Bulgaria, Estonia, Latvia, Lithuania, Poland, Romania and the Slovak Republic. EUR 167 million, representing 5% of the EU contribution, has been set aside to support forestry activities under this measure. Its importance for each individual candidate country varies from 1% (Estonia) to 8% (Bulgaria and the Slovak Republic) and 10% (Romania) – see Table 3.

Table 3
An estimated statistical picture of the forestry measures in the Sapard programmes 2000–2006

<table>
<thead>
<tr>
<th>Country</th>
<th>Max. EU contribution 2000–2006 for forestry in EUR Million</th>
<th>as % of total Sapard-EU contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>30.0</td>
<td>8.3%</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Estonia</td>
<td>1.1</td>
<td>1.3%</td>
</tr>
<tr>
<td>Hungary</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Latvia</td>
<td>4.6</td>
<td>3%</td>
</tr>
<tr>
<td>Lithuania</td>
<td>7.7</td>
<td>3.7%</td>
</tr>
<tr>
<td>Poland</td>
<td>6.2</td>
<td>1%</td>
</tr>
<tr>
<td>Romania</td>
<td>108.0</td>
<td>10%</td>
</tr>
<tr>
<td>Slovak Republic</td>
<td>9.7</td>
<td>7.6%</td>
</tr>
<tr>
<td>Slovenia</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>167.3</td>
<td>5%</td>
</tr>
</tbody>
</table>

Additional information:
http://europa.eu.int/comm/agriculture/external/enlarge/index_en.htm

Forest-related measures under the CAP during the period 1994–1999

Council Regulation No 2080/92 of 30 June 1992 had introduced a system of EU aid for forestry measures in the context of the CAP, with 4 main objectives:

- to accompany the changes to be introduced under market organisation rules;
- to contribute towards an eventual improvement in forest resources;
- to contribute towards forms of countryside management more compatible with environmental balance;
- to combat the greenhouse effect and absorb carbon dioxide.

Some key figures: About one million hectares of agricultural land were afforested between 1994 and 1999. The impact of Regulation 2080/92 on the maintenance or creation of income and employment was particularly prominent in the countries of southern Europe. However, all the Member States benefited from the favourable effects of diversification of agricultural activities and the development of socio-economic activities connected with afforestation. It is estimated that 150,000 full-time equivalent jobs were temporarily created owing to afforestation operations.

Afforestation has also made it possible to occupy marginal agricultural land with lesser potential, thereby preventing this land from being abandoned.

In qualitative terms, the broad-leaved species represented 56.8% of the planted areas, particularly cork oak and evergreen oak stands, which is the reverse of the planting trends compared with previous decades. Conifers represented 32.1% of the trees, while 4% of the area was planted with fast-growing species. The frequent planting of mixtures in certain countries and regions also considerably enhanced the resource created.

These plantings contributed, for example in Germany, Finland and Austria in particular, to a greater diversity; and in Spain and Portugal they enabled the specific interventions connected with fire-protection to be developed as well as the improvement of cork oak stands.

Forests can be affected severely by pollution, fires and other damages. EU forest protection policies are aimed at dealing with these concerns. The EU participates actively in data collection, forest-protection measures and education of all those involved in forestry, and the general public, about better forest practices. Through the Forest Focus Regulation the Commission has proposed to extend its existing monitoring activities to addressing global environmental concerns.
Protection of forests against atmospheric pollution

In the late 1970s an increased level of previously unknown forest damage was first observed in central European countries and later also in other parts of Europe. This forest damage was not only found in highly polluted areas near industry, but also in rural areas far away from polluting sources. In response to growing concern that the reason for this decline could be air pollution, the European Council adopted a specific regulation (Council Regulation No 3528/86) establishing a Community Scheme on the Protection of Forests against Atmospheric Pollution. The scheme was developed in close collaboration with the International Co-operative Programme on the Assessment and Monitoring of Air Pollution Effects on Forests (ICP Forests), established in 1985 under the UNECE Convention on Long Range Transboundary Air Pollution. Since then, the continued collaboration with the ICP Forests resulted in a Pan-European Monitoring Programme across 37 European countries.

The Programme’s objectives are:
- establishing, on the basis of an appropriate observation network, a uniform periodic inventory of the damage caused to forests;
- providing a periodic overview on the spatial and temporal variation in forest condition in relation to anthropogenic and natural stress factors in the European Union, and to contribute to a better understanding of the relationship between the condition of forest ecosystems and stress factors, in particular air pollution;
- compiling information on forest ecosystem process and to provide policy makers and the public with relevant information.

To follow these main objectives, a systematic large scale monitoring network (Level I) and an intensive forest monitoring programme (Level II) were set up. The strength of the level I network is its representativeness and the vast extent of its some 6 000 plots, arranged in a 16 km x 16 km grid, throughout Europe, out of which some 3 600 plots are located in the EU. Annual crown condition assessments are carried out at Level I, as well as soil and foliage surveys in some of the plots. For intensive monitoring, more than 860 Level II plots (514 situated in the EU) have been selected in the most important forest ecosystems. A large number of key factors are measured on these plots; the data collected enable case studies to be conducted for the most common combination of tree species and sites.

During the period 1987–2002 the EU financial contribution to the forest monitoring programmes of the Member States amounted to EUR 79 million.

Main results
Crown condition is used as a fast reacting indicator for numerous environmental factors affecting tree vitality. Annual assessments of crown condition over 17 years have revealed an overall deterioration, with a transient recuperation in the mid 1990s. In 2002 about one fifth of more than 130 000 sample trees in Europe were classified as moderately or severely defoliated.

Important results were achieved concerning sensitivity of forests to nitrogen deposition, atmospheric acidity and heavy metals.

The systematic monitoring carried out in the EU reveals decreasing sulphur deposition in forest soils. In some highly damaged forest areas of central Europe, recent recuperation of crown condition of trees has partly been attributed to the improvement of air quality.

However, nitrogen deposition in forests has hardly decreased at all.

During its 17 years of existence the collective monitoring of forest condition, and the inputs and effects of atmospheric pollution on forest ecosystems, has developed into one of the world's largest bio-monitoring systems. It provides data and scientific information that forms the basis for international measures aimed at reducing air pollution. It also constitutes a unique source of ecological reference data for multipurpose use in science and forestry. The programme has substantially contributed to increase public awareness of the environmental risks to forests.

The results are jointly published by UNECE and the European Commission on an annual basis.

Additional information is available at:
http://europa.eu.int/comm/agriculture/fore/index_en.htm
http://www.icp-forest.org (ICP Forest)
http://www.finci.nl (Forest Intensive Monitoring Co-ordinating Institute)

Fires are one of the biggest concerns for the protection of forests and safety of people and property, particularly in southern Europe. An average of 40,000 fires each year destroy around 400,000 hectares of forests and other wooded land in the EU Member States, causing huge economic, social and environmental damage. (Period: 1990–2002).

The EU has been co-financing forest fire prevention measures within the framework of the Rural Development Regulation (1257/99) and through the specific EU regulation to protect forests against fire (2158/92).

Regulation No 2158/92 was established in 1992 and ran until 2002. The objective was to underpin the efforts of the Member States to prevent forest fires, while ensuring at the same time that forestry measures with support from other sources, such as rural development in areas subject to fire risk, are linked with protection systems through the implementation of global forest fire protection plans. During the period 1992–2002 the EU financial contribution provided to Member States (France, Germany, Greece, Italy, Portugal and Spain) amounted to EUR 124 million and focused on the following measures:

- Measures to identify the causes of forest fires and means of combating them, in particular:
  - studies to identify the causes of fires and to devise proposals to eliminate such causes;
  - campaigns to inform and educate the public on the risks and consequences of forest fires.

---

8 Photo: Richard Fischer (Federal Research Centre for Forestry and Forest Products, Hamburg, Germany)
Measures to set up or improve systems of prevention, with particular emphasis on the launching of protective infrastructures such as forest paths, tracks, water supply points, firebreaks, and preventive forestry measures within the framework of a global strategy for the protection of forested land against fire;

- Measures to set up or improve forest monitoring systems;
- Training of highly specialised personnel and analytical studies and pilot projects on new methods, techniques and technologies to boost the effectiveness of the scheme.

Results
The scheme has contributed to improve, at EU level, the efficiency of forest fire prevention and control systems over the years. Co-operation between Member States and the establishment of an EU forest information system, increased public awareness of the risks and consequences of fires and the development of preventive silvicultural methods have been key factors in reducing the extent of forest fires over the years.

Additional information:
http://europa.eu.int/comm/agriculture/fore/index_en.htm

Outlook: the new “Forest Focus” Framework Regulation

The protection of forests against damage from atmospheric pollution and fire has been a major concern at EU Level for over 15 years. The EU and its Member States are now committed to give consideration to other threats against forest condition, such as loss of biodiversity and climate change by relevant pan-European and international processes (MCPFE, UNFF, CBD, UN FCCC). Therefore, the Sixth Community Environment Action Programme has identified the need to expand forest monitoring schemes in the EU to a more integrated system called “Forest Focus”.

Building on the knowledge earned during years of common activities carried out in the Member States, the European Commission, on 15 July 2002, proposed a Framework Regulation concerning monitoring of forests and environmental interactions in the Community, called “Forest Focus”. It builds on the results achieved so far on the two previous schemes related to forest protection measures against atmospheric pollution and fires, and it will continue the collection of forest-related information, thus guaranteeing the necessary continuity. But the scheme will also take into consideration the new environmental monitoring needs in relation to the objectives of the Sixth Environment Action Programme, notably concerning forest biological diversity, climate change, carbon sequestration and forest soils. In this way, the proposed monitoring activity will assist substantially the monitoring requirements deriving from the European Climate Change Programme, the EU Biodiversity Strategy, the Soil Strategy and the forthcoming scheduled work on the Soil Monitoring Directives.

The new regulation would run for a period of 6 years, from 2003 to 2008, with a budget of some EUR 13 million per year mainly to co-finance actions developed in close co-operation with Member States and it would be open to participation of candidate countries for EU membership too.

Additional information:
http://europa.eu.int/comm/environment/nature/forest-regulations.htm
The Natura 2000 network of nature conservation areas (based on the legal framework of the Birds and Habitats Directives) is a major means of addressing preservation of valuable habitats and threatened species. Forests play a major role in this network by preserving catchment areas, safeguarding against erosion and contributing to nature and biodiversity conservation.
Forests and conservation issues

Forestry, which is one of the major land use practices in Europe, has a key influence on environmental quality, not only through the well known functions of climate regulation, catchment protection and safeguard against erosion, but also by its contribution to nature protection and conservation of biodiversity.

Most European forests can be qualified as “semi-natural” but there are few undisturbed forest areas remaining in the EU. Even forests of nature conservation importance are either planted or have been managed over long periods of time and “virgin” or “old growth” forest areas are limited to small patches in cultivated landscapes or to less accessible locations in larger (managed) forests.

The EU Forestry Strategy and the 6th Community Environment Action Programme consider that the conservation and enhancement of biodiversity in forests are essential to their sustainable management. European public opinion has consistently demonstrated its interest in the long-term survival of Europe’s most valuable and threatened species and habitats. This led to the creation of an EU-wide network of Special Areas of Conservation (SACs) – Natura 2000 – with the adoption of the Habitats Directive in 1992 and the agreement to halt biodiversity decline that was made at the Göteborg summit in 2001.

While the implementation of the network in the forest sector has long been controversial, the overwhelming majority of the required site proposals have now been made and attention is turning towards the long-term operational management of the network. The very existence of Natura 2000 is no longer a subject of discussion because all parties have expressed agreement about the need for concerted action at the European level to protect nature and bio-diversity. It is expected that, ultimately, two thirds of the designated sites will be located in forests or will have forest elements. Nevertheless, only a minor part of the total EU forest area will belong to Natura 2000 (see Figure 1).

European forest habitats belong to six main categories: Western Taiga, Oak and Beech forests, Deciduous Mediterranean forests, Sclerophyllous Mediterranean forests, Temperate mountain conifer forests, Mediterranean and Macaronesian mountain conifer forests.

Figure 1
Importance of Natura 2000 in the forest sector: Forest areas designated according to the Habitats Directive as a percentage of the total forest area in the Member States and the EU-15, updated December 2002.
The main principles for management of forest Natura 2000 sites

The main principles for management of forest Natura 2000 sites are that:

• if forest management practices do not lead to a decline in the conservation status of habitats or species and are not contradictory to the Member State's own conservation guidelines, then this form of economic use can be continued;
• if forest management practices lead to a deterioration of the conservation status of the habitats or species, for which a given site was designated or is contradictory to the Member State's own conservation objectives, then forest management targets will have to be adapted.

This is best achieved within the framework of management planning, the success of which will frequently depend upon the full involvement and support of forest owners and users.

Conclusion

The Habitats Directive, and in particular its provision for the creation of the Natura 2000 network of special conservation areas, is the most important single instrument of Community Biodiversity Policy and has an important incidence on forests.

Additional information:
http://europa.eu.int/comm/environment/nature/natura.htm
Forests play a big role in the EU’s approach to climate change. The European Commission is closely involved in the many initiatives and bodies contributing to meeting the Kyoto targets and is preparing concrete actions to improve the contribution of forests to these global objectives.
The European Climate Change Programme (ECCP) was established in June 2000 to help identify the most environmentally-friendly and cost-effective measures enabling the EU to meet its Kyoto target of an 8% reduction in greenhouse gas emissions from 1990 levels by 2008-2012. The ECCP is an ambitious tool for implementation, complementing the individual efforts of the EU Member States.

The programme has sought to develop both strategies and tools to cut greenhouse gas (GHG) emissions and was therefore set up as a consultative process in which relevant players, such as the Commission, national experts, industry and the NGO community have worked together. 11 different working groups have operated under the co-ordination of a Steering Committee.

The ECCP working-group on forest-related sinks was the last of such groups to start its activities because it was only at the COP7 in November 2001 in Marrakech, that the definitions, limitations, rules and modalities for sinks were agreed between UN FCCC parties. These agreements covered the activities under Article 3.3 of the Kyoto Protocol (afforestation, reforestation and deforestation, “ARD”) as well as those under Article 3.4, such as forest management (“FM”).

Main findings of the working group on forest-related sinks

Afforestation and reforestation activities
Between 1990 and 2000, afforestation and reforestation activities have extended the total EU forest area of 113 million ha by 340 000 ha/year or 3%, resulting from nearly equal surfaces of planted forests and natural forest expansion. The working group estimates that, if this process continues at the same rate during the present decade, it may result in a sequestration potential of approximately 3.84 million tonnes carbon per year (C/year) during the first commitment period. In case of a sustained afforestation trend, and taking into account an extended EU of 25 Member States, a technical sequestration potential of 34 million tonnes C/year may be reached in the long term.

Deforestation
Deforestation is not a large-scale problem in the EU. Only small areas are affected, usually linked to urban and infrastructure development.
**Recommendations**

The main recommendations are:

- more research to improve the accuracy of the quantitative estimates of the GHG benefits of the proposed measures;
- more investigation on the economic aspects of climate-related measures in forestry, in which economic modelling may play an important role;
- measures to enhance carbon sequestration need to be based on principles of sustainable forest management and the multifunctional role of forests;
- existing EU instruments for incentives in the forestry sector should be screened for possible adaptations related to climate change mitigation objectives;
- preserving and enhancing the amount of carbon in the forests through sustainable forest management is a pre-condition for enhancing material and energy substitution;
- for the use of wood and the residues and by-products of its processing, there should be a level playing field for all economic operators, allowing the market to operate without distortions.

In terms of the role of sinks, it was emphasised that enhancing sinks can contribute to the achievement of the EU’s Kyoto targets but, in the longer-term, they should be regarded as a temporary supplement to emission reductions.

**Outlook**

Although primary responsibility for meeting the Kyoto targets lies with the Member States, the Commission is an important "client" for the recommendations produced by the working groups. Through its right of initiative it has a major role in converting and translating the ECCP results into EU action plans for specific measures to tackle climate change.

A full report, as well as the various contributions of stakeholders, is available on:
The Commission is involved in many actions to improve the quality of Europe’s forests. This extends from reproductive material to plant health and includes trade-related aspects of these.
Research has shown that the use in forestry of high quality reproductive material suited to the site in question is essential if the stability, disease resistance, adaptation, productivity and diversity of forests are to be increased.

In recognition of this, an EU scheme was set up in 1999 by Council Directive 1999/105 on the marketing of forest reproductive material, in light of the fact that forests cover a large area of the EU and have important social, environmental, economic and cultural roles. Specific measures foreseen by the Directive have been implemented by Commission Regulations and Decisions. The Directive ensures the plentiful supply of high quality forestry reproductive material of the species concerned within the EU by stipulating that forest reproductive material may not be marketed unless it is of one of four categories specified by the Directive, and that only approved basic material (the trees from which reproductive material is harvested) may be used for its production if the material is to be marketed. Basic material must be approved by an official body as fulfilling the minimum requirements laid down in the legislation. This approval is subject to regular re-inspection. The categories differ in the stringency of the quality criteria which must be fulfilled by material.

All information on units of approval of basic material approved on a Member State’s territory is held in a national register, including information about the area(s) in which the material is found or the exact geographic location (depending upon the category). This is crucial for determining whether any particular forest reproductive material is suitable for a site under consideration. A Community list is drawn up on the basis of the national lists, in order to ensure that the scheme operates smoothly across the whole of the EU.

Forest reproductive material coming from countries outside the EU may only be marketed within the EU if it provides the same assurances as EU material.

Additional information:
http://europa.eu.int/comm/food/fs/ph_ps/harm/index_en.htm

---

Plant health

In the field of plant health, forest reproductive material is covered by Council Directive No 2000/29 on protective measures against the introduction into the Community of organisms harmful to plants or plant products and against their spread within the Community.12

This Directive is the framework Directive of the EU Plant Health Regime, the general principles of which are based on provisions laid down in the FAO International Plant Protection Convention (IPPC), and which include:

- phytosanitary measures securing common and effective actions to prevent the introduction and spread of organisms harmful to plants and plant products;
- the acceptance by an importing country of Phytosanitary Certificates officially issued and conforming to the models set out in the IPPC, certifying that plants or plant products have been inspected and/or tested according to appropriate official procedures and are considered to be free from the harmful organisms specified by the importing country and to conform with the current phytosanitary requirements of the importing country;
- the prescription of phytosanitary measures concerning the import of plants and plant products, including, for example, inspection, prohibition on importation, and treatment, enabling the exporting country to make a certifying statement as figuring on the Phytosanitary Certificates referred to above;
- the establishment and updating of lists of harmful organisms of quarantine concern, i.e. organisms of potential economic importance to the area endangered thereby and not yet present there, or present but not widely distributed and being officially controlled;
- and, WTO/SPS principles such as transparency, technical justification, assessment of risk, adaptation to regional considerations including Pest Free Areas, etc.

Directives No 2000/29 lays down, amongst other matters, the technical phytosanitary provisions to be met by plants and plant products and the control checks to be carried out at the place of origin on plants and plant products destined to the EU, and moved within the EU.

In addition to those provisions, Directive No 2000/29 also contains provisions in respect of:

- the compulsory plant health checks to be carried out on arrival in the EU on certain plants originating in third countries. These checks consist of documentary, identity and physical phytosanitary checks with a view to verifying the compliance with the EU general and specific import requirements;
- the establishment of temporary measures, so-called emergency measures, if within the EU a harmful organism previously not known to occur there is detected. In recent years such measures were taken, for example, following the detection of the Pinewood Nematode in wood packing material originating in Canada, China, Japan and the USA.

Additional information:
http://europa.eu.int/comm/food/fs/ph_ps/seeds/forestry_en.htm

13New revised text of 1997, updating the Convention and reflecting the role of the IPPC in relation to the WTO's sanitary and Phytosanitary (SPS) Agreement.
The Commission pays great attention to forestry and forest-based industries, in recognition of their major contribution to the EU’s economy and society more widely. Regular and frequent liaison takes place among the industry players. Maintaining the competitiveness of the industry is a major aim.
The EU forest-based industries constitute one of Europe's largest industrial sectors, accounting for around 10% of European manufacturing industry's total value of production, value-added and employment. They provide employment and income for some 2.6 million people directly all over the EU, in particular in remote areas, and are clients to the EU's 12 million private forest owners.

Forestry and the industries based on it cover four main sectors: woodworking, pulp and paper manufacturing, paper and board converting and printing.

Following the adhesion of Austria, Finland and Sweden to the EU, the importance of the EU forestry and forest-based industries grew considerably. As a consequence a unit for Forest-based Industries was created in the European Commission's Enterprise Directorate-General.

Communication on competitiveness
In order to have a structured approach to the multitude of challenges these industries are facing, the F-BI unit has prepared a communication entitled “The state of the competitiveness of the EU forest-based and related industries”\(^{14}\), which was welcomed by the Council of Ministers\(^{15}\) and the European Parliament.

For this purpose several analytical studies on the sectoral competitiveness were carried out in co-operation with the industry.

Other studies have aimed at evaluating the present and future supply and demand situation for roundwood, under different scenarios, both in the EU and in the rest of the world. The impact of the renewable energy sources policy on these streams is one example of such scenarios.

\(^{15}\) 2214° Council Meeting of 9.11.1999.
Co-ordination within the Committee on Community Policy regarding F-BI

Regular co-operation with professionals and industry experts, academic scientific and technical experts and representatives from other Commission services has been developed under the auspices of the “Advisory Committee on Community Policy regarding Forestry and the Forestry-based Industries”, established by a Commission Decision16, and its seven working groups. The Committee meets around fifteen times a year. The objective is to analyse and exchange opinions in order to ensure solid knowledge of impacts resulting from future policy proposals.

F-BI Forum
One of the proposals of the Communication on the competitiveness of forest-based and related industries was that a separate Forum of high level representatives should be set up. The Forum participants (around 200) represent the top management of the industry, public authorities and other stakeholders (research, education, unions, etc).

The objective is to raise the political profile of the sector and to highlight the main present and future political challenges these industries face from the sustainable competitiveness point of view.


The challenges of the EU F-BI

The EU F-BI challenges have been addressed through three aspects: input, process and product.

Input matters
The most important input matters are those related to raw material and energy supply. This covers energy, chemicals, virgin and recycled wood and paper, their efficient use, as well as the eventual threats related to their procurement at competitive prices.

Process
Process-related matters cover, for example, all kinds of emissions (air, water and solid waste), the implementation of cleaner process techniques and continuous innovations. Equally important are different environmental management systems as well as health and security systems.

Product-related matters
Product-related matters cover, for example, market access (http://mkacdb.eu.int/), trade (illegal logging, technical barriers, dumping), diverse business support programmes (mainly directed to EU enlargement countries) and carbon storage and substitution effect of wood-based products.

The EU F-BI, as a traditional but also a modern high-tech industry, is suffering from a relatively bad image, which has been confirmed by a recent EU-wide perception study. (“Perception of the Wood-based Industries, Qualitative Study”, Ref. ISBN 92-894-4125-9).

Due to the wide gap between the reality and the perceived stereotypes of this industry, it has been considered particularly important to address the situation with a strong, global communication and education strategy. The objective of this strategy is to convey factual information of the EU F-BI’s performance economically, ecologically and socially and it should be directed in particular towards the youth.

The conclusions of the Brussels F-BI Forum in 2003 was that the European Commission should give support to this by making use of its local EU and international networks, by endorsing locally-held events and by helping to forge partnerships between schools and industry.

In this context the F-BI unit launched a new web-site which offers an information point on the forest-based industries in Europe, relevant statistics, useful links and outlines the European Commission’s activities and initiatives affecting this important sector. The site can be found at the following address:

http://europa.eu.int/comm/enterprise/forest_based/index_en.html

Given the size of the sector, and the many challenges it faces, the Commission’s activities can only be properly targeted if essential data is available to inform strategy and specific policies and actions. Eurostat provides data and contributes EU information to wider European and global bodies. A variety of useful databases is maintained.
Eurostat

Eurostat, the Statistical Office of the European Union is responsible for the collection, management and publication of data concerning forest products and trade statistics as well as of other statistics regarding the forest sector as a whole. The available information is disseminated by means of the NewCronos database, which is available on the Internet site: http://europa.eu.int/newcronos/, as well as through publications such as Agricultural statistics – Quarterly bulletin, Statistics in Focus and the Eurostat yearbook.

Forest resources (Data available on NewCronos/theme 5/forest)

At present, the main collection of validated data on European forest structural data is the UNECE’s Temperate Boreal Forest Resources Assessment (TBFRA), which is part of the FAO’s world Forest Resources Assessment. This report is published every ten years and is mostly based on the results of national forest inventories. EU was a partner organisation of the latest TBFRA-2000 and it was represented in the ad-hoc Team of Specialists. Moreover, TBFRA represents the main international source of information for the implementation of the MCPFE indicators on the sustainable management of forests in Europe. Thus, the next TBFRA will be further adapted to fulfil MCPFE’s need of new data. Statistics on production and trade in wood and products derived from wood are available in NewCronos/theme 5/forest.

The collection of Eurostat statistics in this field is carried out in cooperation with the Intersecretariat Working Group (IWG) on Forest Sector Statistics, bringing together FAO, UNECE, ITTO (International Tropical Timber Organisation) and Eurostat in collecting forest statistics. The primary tool for the co-operation is the annual Joint Forest Sector Questionnaire (JQ) used by all organisations. The idea behind the JQ is that one common questionnaire is used for collecting forest product data world-wide using a set of harmonised product aggregations, coding and definitions. Each agency takes care of the collection of the data of a certain number of countries and Eurostat is responsible for EU and EFTA Member States. After validation the organisations share the collected data and use it in their publications, thus avoiding duplication of work and inconsistencies between international sources.

In Eurostat, information originating from the JQ related to production, imports, exports, extra-EU imports and extra-EU exports is available for EU, EFTA and candidate countries for EU membership. The product groups considered are:

- Roundwood (e.g. industrial roundwood, fuelwood);
- Sawnwood;
- Wood based panels (e.g. plywood, fibreboards);
- Pulp;
- Paper and paperboard (e.g. newsprint, graphic papers)
Other statistics

In the context of its complex activities, Eurostat also produces the following statistics, which are of interest for the forest sector as a whole:

- **External trade statistics** – COMEXT Database (Data available on NewCronos/theme 6/comext). Extra-EU statistics cover imports and exports of goods by the European Union. The collection of this data follows the Harmonised Commodity Description and Coding System (HS). Data are available on the following products: wood, charcoal and articles of wood, cork and articles of cork, pulp of wood or of other fibrous material, pulp of wood or of other fibrous cellulosic material; paper or paperboard for recycling (waste and scrap), paper and paperboard, articles of paper pulp, products of the printing industry, miscellaneous manufactured articles, furniture, furnishings, prefabricated buildings, etc;

- **LUCAS** – Community Area Frame Statistical Survey for an EU-level-harmonised assessment of land use and land cover. At present, the results of the first 2001 pilot survey are available. For the forest sector, the main results refer to the following classes: forest, other wooded land, plantations and shrubland. For the definition of the forest area LUCAS adopts the TBFRA nomenclature, also providing a break down for coniferous, broadleaved and mixed forests. For other wooded land cover classes the definitions will be better harmonised in the future with the UNECE/FAO ones. The pilot survey will be repeated in 2003, while the implementation of regular annual or bi-annual surveys is still under evaluation;

- **Employment** – Eurostat collects data, available on request, on employment (professional statuses, number of persons working in work unit, full/part-time, worked hours, secondary activities, previous job experience, education and training, etc) related to several branches of activity with possible break down by sex and age group. Some information is also available for the forest sector;

- **Wages and labour costs** (Data available on NewCronos/theme 3/"lacosts" or "earnings"). For the forest sector only data on manufacture of wood and wood products and on manufacture of paper and paper products are available.

- **National accounts** – Data available on NewCronos/theme 2/brkdowns or hist/sec2 or quart show Gross Domestic Product share of the forest sector for the following branches of activity:
  - Agriculture, hunting and forestry;
  - Manufacture of wood and wood products;
  - Manufacture of paper and paper products.

- **Forestry accounts** (Data available on NewCronos/Theme 5/cosa/eaf). Gross Domestic Product data is available for forestry, logging and related service activities for only seven Member States;

- **Energy** (Data available on NewCronos/theme 8/energy). Eurostat in co-operation with the OECD collects data on energy produced by biomass, which includes woody biomass and derived products such as fuelwood, residues and waste of wood, paper and charcoal industry.
The Commission is involved in forestry activities as part of its development cooperation measures with third countries, with the main aim of poverty reduction.
Objectives

Since the year 2000 the primary objective of EU development co-operation has been to reduce poverty by means of sustainable development. The sustainable management of natural resources, including forests, forms a central part of this process. This is reflected in the EU's strategic objective in the forest sector, which is to promote sustainable and equitable forest management as a means of reducing poverty.

Forests play an often unrecognised role in the livelihoods of poor people. An estimated 1.6 billion poor people depend at least partly on forest resources for a living. Of these, an estimated 350 million people depend almost entirely on forest resources for their subsistence needs and for supplementary income. Forests are also an important buffer resource that the poor and the near-poor fall back upon in times of need, when other means of earning a living fail.

Billions of people – many of them among the world’s poorest – depend upon fuel wood for their energy needs. Wood fuels (including charcoal) provide an estimated 15% of developing country primary energy consumption. Finally, forests provide a range of other services that are important for economic activity, and are an important source of employment and export revenues in forest-rich countries.

EU strategy for forest sector development co-operation

EU assistance to the forest sector in developing countries aims to ensure forest resources are used sustainably, to the greatest benefit of the world’s poorest people, and thus contribute effectively to EU development policy.

Implementing forest sector development co-operation

The European Union is a large donor to the forest sector, and provides assistance through both country and regional programmes, and a budget line allocated specifically to environment and forest issues in developing countries, which makes up to EUR 249 million available for forests over the period 2000–2006.

The major country and regional programmes

Asia

In Asia, the largest programme of support is the EC-Indonesia Forest Programme (ECIFP). This programme, which currently consists of four active projects with a further four in the pipeline, is supported with total grant commitments worth EUR 91 million. The programme is providing support on a range of issues relating to sustainable forest management, and is in the process of introducing a new focus that emphasises the link between good governance and the sustainable management of forests.

Other activities in Asia include projects in India, Sri Lanka, Thailand, Cambodia, Vietnam, Indonesia and the Philippines. A major project is the EUR 15 million EC-UNDP-GEF Small Grants Programme for Sustainable Forest Management in South and South East Asia. EU partners for these projects include governments, international organisations, research institutes and local and international NGOs. The Commission’s partners are working on a range of activities including protected area management, community-based management of natural resources, land rehabilitation, and applied policy research.

South America

In South America, the largest single programme is the Pilot Programme to Conserve the Brazilian
Rainforest (PPG7). The programme is a good example of governments and donors working in close partnership: one fifth of project funds is pooled in a joint trust fund under World Bank management. Countries and organisations participating in the programme include Brazil, Germany, the United Kingdom, the Netherlands, Italy, France, the United States, Canada, Japan, the World Bank, and the European Commission. The European Commission has provided funds worth just over EUR 60 million to support the first phase of the programme, and is now looking to provide support to a Phase II.

In addition other forest projects are being funded in Brazil Colombia, Chile, Argentina, Mexico, Honduras, Nicaragua, and Guatemala, with a relatively high proportion of project partners being NGOs from the region. A number of projects have been designed to support forest-dependent indigenous people.

Africa, Caribbean, Pacific

In Africa, the largest single programme is the Ecosystèmes Forestiers d’Afrique Centrale Programme (ECOFAC), which has operated with grants worth EUR 67 million since 1992. The programme supports the management of protected areas in six central African countries: Congo-Brazzaville, Gabon, Cameroon, Equatorial Guinea, the Central African Republic, and São Tomé e Príncipe. Work in a seventh country, the Democratic Republic of Congo, was suspended due to political instability but will resume as soon as possible.

Other forest projects in ACP regions are in Africa (Malawi, Mozambique, Kenya, Tanzania, Uganda, Mali, Ghana, Senegal, Mauritania, Nigeria, Ivory Coast), the Caribbean (Belize and Guyana), and in the Pacific (Vanuatu and Papua New Guinea).

The programme for forests in developing countries

The European Commission also manages a specific budget allocation for forests in developing countries, known as the tropical forest budget line. Since 2000 this budget line has been used to fund 64 forest-related projects worth EUR 88.2 million (see Figure 2).

This budget line can be used to finance innovative global and inter-regional projects, which complement the country-based programmes and projects described above. One such initiative is the National Forest Programme Facility (NFPF), hosted by the FAO and supported by a number of EU Member States and the Commission. The Facility aims to support and facilitate the development of national forest programmes in a participatory process led by the host countries. The resulting NFP processes provide a framework for all forest stakeholders to debate and formulate comprehensive forest policies, and to address key forest sector issues, such as land tenure reform, decentralisation, privatisation, industry restructuring, reforestation, the importance of forests to the informal economy, and illegal logging. NFP process also allow donors to co-ordinate their support to the sector and help to integrate forest issues into the overall development strategies of developing countries.

Figure 2

Information on all forest development projects funded by the Commission as well as of the policy documents governing these activities, can be found on the EuropAid web site: http://europa.eu.int/comm/europeaid/index_en.htm.
Outlook

Forests feature prominently in the EU’s follow-up to the World Summit on Sustainable Development (WSSD). As part of this commitment the Commission has recently published an EU Action Plan for Forest Law Enforcement, Governance and Trade (FLEGT), which sets out a process and measures to address the serious problem of illegal logging and the associated trade in illegally harvested timber. The EU is also supporting complementary initiatives for Forest Law Enforcement and Governance in Asia and Africa, which are designed to build strong local political commitment to address the underlying causes of illegal logging.

In addition the EU is playing an active role within two major initiatives presented at the WSSD: The Asia Forest Partnership, and the Congo Basin Forest Partnership. These initiatives, along with support to a second phase of the Pilot Programme to Conserve the Brazilian Rainforest, will ensure support to the three greatest remaining tracts of tropical forest in the world – regions where forests are a valuable source of income to rural people, and where the poverty-environment interface at the centre of the Johannesburg summit agenda is so strongly visible.

These efforts, along with continuing support to the EU’s ongoing forest programmes described above, will help to ensure that the conservation and sustainable management of forests continues to make an important contribution to the attainment of the major development goals.

Additional information:
Development: sector forestry
http://europa.eu.int/comm/development/development_old/sector/forestry_en.htm


Europe Aid Co-operation office:
The Commission is involved in forestry-related research through the Research Directorate-General and the Joint Research Centre. Sustainable production and improving the ways in which the forest environment can be enhanced are major themes. Several examples of forest-related research activities are described below.
THE EU RESEARCH FRAMEWORK PROGRAMMES

The 5th Framework Programme for Research (1998-2002) has a multi-theme structure, consisting of four Thematic and three Horizontal Programmes. Research related to forestry and forest-based industries at EU level has been carried out mainly by the Quality-of-Life programme (QoL) and over 60 projects, involving more than 500 participants, are being implemented (1998-2002). Further projects related to forests and wood fibres in the broadest sense have also been implemented under the Energy, Environment and Sustainable Development (EESD) programme, as well as the Competitive and Sustainable Growth (GROWTH) programme. In the horizontal programmes, the main contributor in terms of funding forestry research has been the dedicated international co-operation programme (INCO) which aims at strengthening partnership between research institutions from the northern and southern hemispheres, allowing for a true cross-sectoral approach towards sustainable utilisation of natural resources and ecosystem rehabilitation.

Co-operative research (CRAFT) projects promoting the participation of small and medium enterprises (SMEs), Training Fellowships and Accompanying Measures supplemented the above-mentioned research activities in the 5th Framework Programme. In addition, the intergovernmental framework for European Co-operation in the field of Scientific and Technical Research (COST) allows for the co-ordination of nationally funded research on a European level since its establishment in 1971. At present more than 30 member countries participate in COST Actions which cover basic and pre-competitive research as well as activities of public utility, and which allow for the participation of interested institutions from non-COST Member States without any geographical restriction.

a) Objective

The main objective of research in the sector of forestry and the F-BI has been to improve the sustainable production and rational utilisation of goods and services of natural resources within Europe and in developing countries, with a special emphasis on new technologies, including biotechnology and multidisciplinary, integrated approaches. Through this, competitiveness will be increased with its direct implications for:

- employment and conditions in rural and other relevant areas;
- reduction of the vulnerability of the relevant sectors through diversification;
- response to societal demands for sound environmental practices;
- sustainable production of renewable resources.

b) Specific coverage and expected outputs

Research will contribute to:

- pan-European forest policy processes, and strategies for the implementation of international commitments;
- development of instruments for the sustainable development of forestry and its contribution to rural development at European and at international level;
- prevention and control of forest fires, as well as on quarantine and harmful organisms posing a threat to the free movement of products;
- exploration of forest ecosystem restoration and reclamation techniques including afforestation and vegetation rehabilitation techniques;
- better understanding of the role of forests in water management, erosion control, desertification and prevention of avalanches and landslides;
- assessment of the impact of climate change on forests and their potential as carbon sinks;
- development of further systems for agro-forestry, cork and energy production, as well as urban forestry;
- serving the industrial need for the supply of high quality and uniform raw material through the assessment and management of genetic resources taking advantage of biotechnological methods;
- development of environmentally-friendly and efficient processes, recycling technologies and improved value-added products;
• understanding the impact of wood properties on processing and the material specifications of the fibre, its characterisation as well as fibrous networks with the aim of developing new or improved end products;
• exploration of market requirements and final product characteristics;
• assessing the forest-based industry’s contribution to rural development.

c) EU-supported forest research

The vast majority are Shared Cost Research projects (RS) with an EU contribution of up to 50 per cent of the total project cost, only a few projects are other types such as Concerted Actions, Thematic Networks or CRAFT projects. Participating institutions comprise universities, public and private research institutes, and commercial and end-user firms. In the COST programme, the EU contribution is small (up to about five per cent) compared with the overall value of the research cooperation since only the networking as the crucial part for promoting cooperation is funded. Training Fellowships and Accompanying Measures are not included in the table.

d) Examples of activities

DYGEN is an Accompanying Measure for a conference that aims at filling the gap between basic research conducted through RS research proposals in the area of population, evolutionary and ecological genetics and the implementation of their results in conservation actions (Reference QLK5-CT-2001-30274; homepage: http://www.pierroton.inra.fr/genetics/Dygen).

ETFRN is an Accompanying Measure in support of the European Tropical Forest Research Network (ETFRN). Established in 1991, it serves as a forum for communication between European organisations, researchers, EU institutions and others concerned with (sub-) tropical forest research. Knowing “who” is doing “what” and “where” will facilitate the co-ordination of research and development activities and minimise duplication, thus ensuring a more efficient use of resources (Reference ICA4-CT-1999-50018; homepage: http://www.etfrn.org/etfrn).

Table 4.
Summary of EU-supported forest research. 5th Framework Programme (1998–2002).

<table>
<thead>
<tr>
<th>Subject areas</th>
<th>Number of projects</th>
<th>Total cost (EUR million)</th>
<th>EU contribution (EUR million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forest management/biodiversity/carbon research</td>
<td>QoL</td>
<td>29</td>
<td>63.46</td>
</tr>
<tr>
<td></td>
<td>EESD</td>
<td>22</td>
<td>45.82</td>
</tr>
<tr>
<td></td>
<td>INCO</td>
<td>14</td>
<td>16.2</td>
</tr>
<tr>
<td></td>
<td>COST</td>
<td>11</td>
<td>75.50</td>
</tr>
<tr>
<td>Forest pathology and physiology</td>
<td>QoL</td>
<td>5</td>
<td>8.59</td>
</tr>
<tr>
<td></td>
<td>COST</td>
<td>3</td>
<td>54</td>
</tr>
<tr>
<td>Wood processing</td>
<td>QoL</td>
<td>15</td>
<td>25.03</td>
</tr>
<tr>
<td></td>
<td>GROWTH</td>
<td>16</td>
<td>15.93</td>
</tr>
<tr>
<td></td>
<td>COST</td>
<td>14</td>
<td>261.50</td>
</tr>
<tr>
<td>Pulp and Paper</td>
<td>QoL</td>
<td>12</td>
<td>31.42</td>
</tr>
<tr>
<td></td>
<td>EESD</td>
<td>1</td>
<td>6.43</td>
</tr>
<tr>
<td></td>
<td>GROWTH</td>
<td>5</td>
<td>8.00</td>
</tr>
<tr>
<td></td>
<td>COST</td>
<td>11</td>
<td>135.50</td>
</tr>
</tbody>
</table>
SAFODS is an RS project exploring smallholder agro-forestry options for degraded soils that balance short-term profitability and a medium-term escape from further soil degradation occurring under pure crop-based land use systems. Establishing timber, fruit or rubber trees in cropped fields provides such dual functions and is increasingly the system of choice in densely populated parts of south-east Asia. Profitability and risk (biophysical and economical) analysis for realistic farm situations and innovative ways to share this type of information with farmers and policy makers are examined (Reference ICA4-CT-2001-10092; homepage: http://www.wye.ic.ac.uk/sme/projects/soil/SAFODS.html).

PANELS is an RS project in support of EU policy relating to the Construction Products Directive and the Harmonised Standard for wood-based panel products. The project addresses 12 key issues relating to the structural use of wood-based panels as identified by the European Standardisation Committee CEN TC112. The principal objective of this project has been to enhance the efficiency and competitiveness of wood-based panels used in construction. The project produced new test methodologies, performance data and design factors for implementation by the relevant standardisation committees and industry (Reference QLK5-CT-1999-01640; homepage: http://projects.bre.co.uk/panels).

The INNOVAWOOD project is a Thematic Network type of project that aims at linking the leading European organisations supporting the Forest and Wood industries sector. The Network collates, assesses and organises all national and EU funded RTD pertaining to the sector and create a multi-lingual electronic mechanism whereby the results of this RTD is accessible to, and understood and used by the SMEs that predominate in the sector. The coalescing of the partners’ networks will create an established vehicle for the creation of an electronic RTD community, dynamically linked to the Forest-Wood sector’s industries (Reference QLKS-CT-2001-00608; homepage: http://www.Innovawood.com).

The COST Action E19 “National Forest Programmes in a European Context” has the main objective to provide policy makers in Europe with improved means for formulating and implementing national forest programmes (homepage http://www.metla.fi/eu/cost/e19). Another example is COST Action E12 “Urban Forests and Trees” which has the main objective of improving the knowledge base needed for better planning, design, establishment and management of urban forests and trees in Europe and, by doing this, of establishing urban forests and urban trees as a scientific domain in Europe (homepage: www.fsl.dk/cost_e12).
In the 6th Framework Programme for Research (2002–2006) there is no longer one specific budget line in this area. In line with the ERA (European Research Area) Communication (http://europa.eu.int/comm/research/era/pdf/era-newmomentum_en.pdf), the aim of the 6th Framework Programme is to achieve both greater focus on questions of European importance and better integration of research efforts. Topics related to the multifunctional management of forests and F-BI are now found in the work programmes of two different Thematic Priorities: Priority 6 “Sustainable development, global change and ecosystems” and Priority 3 “Nanotechnologies and nanosciences, knowledge-based multifunctional materials and new production processes and devices”, and also in Specific Activities covering a wider Field of Research (namely, research in support of Community policies). As in the past, research issues related to the forestry-wood sector can be addressed through Specific SME measures (Collective and Co-operative Research) and other horizontal activities such as networking of national or regional programmes (ERA-NET).

The International co-operation activities (INCO) in the FP6 will be expanded in scope by implementing them through the opening up of the thematic priorities to the rest of the world, through specific measures such as focusing on the “Rational use of natural resources/Managing humid and semi-humid ecosystems” (INCO FP6), and the international mobility for researchers. International co-operation is further promoted through the establishment of a bi-regional dialogue on forestry problems; this includes the dialogue with ASEM (Asia), ALCUE (Latin America) and FORNESSA (Africa). The COST programme will continue to further enhance the co-operation between and integration of scientists in the sector.

The various projects are summarised at the following web addresses:

**QoL projects:**
http://europa.eu.int/comm/research/agriculture/index_en.html
http://www.cordis.lu/life/src/proj_browse.htm

**INCO projects:**
http://www.cordis.lu/inco/src/projects.htm

**EESD projects:**
http://www.cordis.lu/eesd/src/projects.htm

**GROWTH projects:**
http://www.cordis.lu/growth/src/projects.htm

**Co-operative research (CRAFT) projects:**
http://www.cordis.lu/innovation-smes/src/projects.htm

**COST Actions:**
http://cost.cordis.lu/src/home.cfm
a) Forestry and forest-related research

All forestry and forest-related research projects were embedded in the activities of the JRC’s Institute for Environment and Sustainability (IES), Ispra, Italy, which has as its mission “to provide scientific and technical support to EU policies for the protection of the environment contributing to sustainable development in Europe.”

Forest research was targeted at providing scientific and technical support for the conception, implementation and monitoring of EU policies linked to forest fires, regional European and global issues of climate change, to the protection of Europe’s forests, the decline of forest habitats and deforestation, and to improving the access to and dissemination of forest information in response to the increasing awareness of the value and multi-functional role of forests, and the ever more diverse community interested in receiving reliable and up-to-date forest and forest-related information, of both a statistical and spatial nature. The objectives, key results, products and clients for each activity are highlighted below.

b) Projects

1) Forest Fire Prevention

**Goal**
Development of tools for the improvement of existing practices for fire prevention, fire-fighting preparedness, and post-fire effects in support of EU policies on civil protection and forest fires in Europe.
Results
Pre-operational system for the computation and distribution of forest fire risk forecast maps; module for mapping burnt areas and estimating fire damage from satellite imagery.

Products
Prototype of a future European Forest Fire Information System (EFFIS); production of the first cartography of fire effects in Europe for the years 2000 and 2001; mapping of all fires larger than 50 ha; estimates of fire damage; reports on the fire campaigns in 2000 and 2001. Fire risk forecasts delivered to operational services since 2000 – http://natural-hazards.jrc.it/fires/

Clients
DG Environment; Civil Protection authorities; forest fire services in Europe.

2) Global Inventory of Forest Fires (GBA2000)

Goal
To provide a global inventory of all fires (forest and other ecosystems) for the year 2000 – http://www.gvm.jrc.it/tem/ProductsArchive.htm. The baseline is essential for ecosystem and for forest biodiversity studies, (see figure 3).

Results
The results were applied in national park management schemes in west and central Africa, working closely with the EU’s Delegations, and in modelling of emissions of greenhouse gases and aerosols at a global level.

Products
Global datasets provided to the Millennium ecosystem Assessment, to the Global Observations of Forest and Land Cover Dynamics (GOFC-GOLD) science Panel of the UN’s Global Terrestrial Observing System, and to the UN’s Environment Programme.

3) European Forest Information System (EFIS)

Goal
To build an operational prototype European forest information system, with links to international initiatives in direct support to Council Regulation EFICS (European Forest Information and Communication System).

Results
A system that allows the retrieval, compilation, processing, analysis and dissemination of forestry information from heterogeneous data sources at international, national and regional levels.
**Products**
Internet-based version available from the JRC’s and at the European Forest Institute’s (EFI) websites. Stand alone version available on CD. http://www.ec-gis.org/efis/ and http://www.efi.fi/information_services/

**Clients**
Directorate-General for Agriculture, IUFRO (International Union of Forest Research Organisations), research institutes, academic institutes, forest and environmental departments, general public.

4) **Pan-European Forest database**

**Goal**
To develop and apply innovative methods to combine information from Earth observation data and inventory statistics to produce value-added forest maps of the pan-European area. The work was carried out to complement statistical forest data with spatial information – more appropriate in meeting the environment-orientated problems facing forestry today, (see figure 4).

**Results**
Pan-European forest (coniferous, deciduous) maps and database that correspond to official statistics reported at national and regional scales.

5) **TREES-II Research Programme**

**Goal**
To use the global imaging capabilities of satellites, including Europe’s SPOT 4 and ERS satellites to provide information on the state of the World's Humid Tropical Forests. (http://www.gvm.jrc.it/tem/ProductsArchive.htm)

**Results**
Maps, information on forest cover status and rates of change. Results are based on uniform, independent and repeatable methods. Analysis shows that in 1990 (the Kyoto Protocol baseline year) there were some 11 500 000 km² of humid tropical forest.
Products
Most complete, up-to-date set of maps available; most accurate consistent figures on rates of deforestation currently available. Results published in “Science” (August 2002).

Clients

6) Atmospheric Processes Related to Regional and Global Change

Goal
To study the role of biosphere/atmosphere interaction under the perspective of climate. This included greenhouse gas flux measurements from forests and forest soils and research on data and inventory methods for quantifying carbon stocks and stock changes in European forests.

Results and products
A “Kyoto Experiment” to survey the overall greenhouse gas balance in forest ecosystems and the effect of land use change; a web-based information data and product dissemination tool for the CarboEurope cluster of projects; forest tree species maps for 115 different species in 34 European countries- the maps are freely available.
http://carbodat.ei.jrc.it

Clients
European policy makers – to assist in fulfilling the commitments in the framework of the Kyoto Protocol.

c) Outlook

The main focus of the 6th Framework Programme (2002–2006) is the creation of a European Research Area as a vision for the future of research in Europe. Forestry and forest-related issues will be addressed at the JRC by continuing to provide scientific and technical support to client Directorate-Generals within the Commission on issues of climate change, biodiversity and habitat loss, sustainable development, carbon sequestration, forest condition and forest protection and sustainable forestry in particular in the context of the Forest Law Enforcement Governance and Trade (FLEGT) programme. Collaboration with research networks and scientists in the candidate countries will be strengthened as part of the JRC’s specific action on enlargement.

CONCLUDING REMARKS

As laid down in the EU Forestry Strategy, sustainable forest management is vital in order to maintain the environmental, social, cultural and economic functions of forests. EU forest-related activities aim at supporting and further developing the principles of sustainable forest management, addressing the conservation, protection and restoration of forests and the development of region-specific strategies on sustainable forest management. In addition, the activities also contribute to providing scientific evidence in support of informed policy decisions and the EU position in international negotiation fora.

The Commission plans to present to the Council and the European Parliament an implementation report of the EU Forestry Strategy by the end of 2003, which will describe the activities carried out and the results achieved during the period 1999–2003.

In addition to the actions within the EU, the European Commission and the Member States are actively pursuing the protection and sustainable management of forests at the global level through their contribution to the work of the international forest policy debates and through the EU development co-operation policy.

The European Commission fully subscribes to the principle of sustainability not only with regard to forests, but also in a broader socio-economic context. The importance of forests for the sustainable development of our society is increasingly understood, as demonstrated by the recently presented FLEGT action plan. This plan takes account of the multiple links of forests with the socio-economic systems and rightly aims to solve the forest problem of illegal logging by actions going beyond traditional forest policy measures. It is also increasingly acknowledged that forests are essential for the livelihood of people and that the future of both is mutually dependent.
List of EU legislation and other relevant documents

EU Forestry Strategy

CAP, Rural Development, Sapard

Forest protection measures, EFICS

Environment

Forest reproductive material and plant health

Forest-Based Industries (F-BI)

Forest statistics

Development co-operation

FLEGT

Research
List of relevant European Commission websites

Agriculture
http://europa.eu.int/comm/dgs/agriculture/

Environment
http://europa.eu.int/comm/dgs/environment/index_en.htm

Enterprise
http://europa.eu.int/comm/dgs/enterprise/

Eurostat
http://europa.eu.int/comm/dgs/eurostat/index_en.htm

Health and Consumer Protection
http://europa.eu.int/comm/dgs/health_consumer/index_en.htm

Development
http://europa.eu.int/comm/development/index_en.cfm

Europe Aid Cooperation Office
http://europa.eu.int/comm/dgs/europeaid/

Research
http://europa.eu.int/comm/dgs/research/

Joint Research Centre
http://www.jrc.cec.eu.int/

Editorial Committee

• J. Bazill (DG Environment)
• L. Colletti (DG Environment)
• R. Flies (DG Agriculture)
• B. Foletto (DG Health and Consumer Protection)
• S. Folving (DG Joint Research Centre)
• J-P Haber (DG Enterprise)
• P. Kennedy (DG Joint Research Centre)
• J. Kreyda (Europe Aid Cooperation Office)
• I. Maltby (DG Agriculture)
• A. Mariano (Eurostat)
• N. Scotland (DG Development)
• I. Seoane (DG Agriculture)
• J. Van de Velde (DG Environment)
• N. Winkler (DG Research)

European Commission

Sustainable forestry and the European Union — Initiatives of the European Commission

Luxembourg: Office for Official Publications of the European Communities

2003 — 56 pp. — 21 x 29.7 cm

ISBN 92-894-6092-X