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1. BACKGROUND

1.1. Context for the preparation of the implementation report

On 15 December 1998, the European Council adopted a Resolution on a Forestry Strategy for the European Union¹. This Strategy was the outcome of a process initiated in 1996 with a call from the European Parliament² requesting the Commission to put forward a legislative proposal on a European Forestry Strategy, in response to which the Commission presented a corresponding Communication to the Council and the European Parliament³. The growing concern about the coherence between the forest policies of the Member States and forest related activities at the EU level, as well as the rising profile of forests in international policy debates and initiatives in the area of sustainable development, were the main driving forces behind the adoption of the EU Forestry Strategy.

The Forestry Strategy provides a framework for forest-related actions in the EU, considering the existing EU legislation concerning the forest sector and the commitments made by the European Union and its Member States in all relevant international processes, in particular the UN Conference on Environment and Development in 1992 and its follow-up, as well as the Ministerial Conferences on the Protection of Forests in Europe. The Strategy emphasises the importance of the multifunctional role of forests and sustainable forest management (Article 1) and identifies a series of key elements (in Article 2), which include:

- Forest policy being a Member State competence, while the EU can contribute to the implementation of sustainable forest management through common policies, based on the principle of subsidiarity and the concept of shared responsibility;
- Implementation of international commitments, principles and recommendations through national or sub-national forest programmes developed by the Member States and active participation in all forest-related international processes;
- The need to improve co-ordination, communication and co-operation in all policy areas of relevance to the forest sector, both within the Commission and with the Member States, and also among the Member States.

These elements form the basis for the EU Forestry Strategy and its implementation process.

The Council Resolution on a Forestry Strategy asks the Commission to present to the Council an implementation report five years after its adoption. Consequently, the Commission has elaborated a Communication to the Council and the European Parliament containing an overview about the EU forest sector and the recent trends in forest policy, as well as a description of the Community actions and policies relevant to the Strategy during the period of 1999–2003. In order to provide a background to this Communication, the Commission has prepared this Commission Staff Working Document.

The implementation of the EU Forestry Strategy, as stated in the Council Resolution, is a dynamic process. The Strategy encourages a participatory and transparent approach involving

¹ OJ C56, 26.2.1999.

² A4-0414/96, OJ C55, 24.2.1997, p. 22.

³ COM(1998) 649 final, 18.11.1998, "Communication from the Commission on the Council and the European Parliament on a Forestry Strategy for the EU".

all stakeholders, recognising the wide variety of ownership regimes within the Community and the important role of forest owners. Today, this approach is becoming mainstream practice in national policy- and decision-making in the forest sector.

Therefore, in the above context, the Commission believes that it is in the spirit of the Strategy to conduct this exercise in association with the Member States, interest groups and other relevant stakeholders. An active exchange of information and communication is essential, so that the forest-related issues in the European Union can be addressed in an adaptive manner – learning from the achievements and making improvements where shortcomings or gaps exist.

1.2. The process of producing this report

In order to ensure a balanced representation of all important issues and to account for all relevant activities carried out throughout the EU during the five years of implementation of the Strategy, an extensive consultation process with the Member States and stakeholders was carried out in preparation of this document. Firstly, the Standing Forestry Committee has provided a very constructive input, and a questionnaire on the implementation of the EU Forestry Strategy was sent out to the members of the Standing Forestry Committee and observers from acceding countries in November 2003. The responses were analysed and are used in this report. Secondly, the member organisations of the Advisory Group on Forestry and Cork, which are representing both public and private forest owners, forest-based industries, environmental NGOs, forest trade unions, traders and consumer groups, made a substantial contribution. To complement the consultation process and in order to give all relevant stakeholders an opportunity to provide their input into this reporting exercise, an internet-based stakeholder consultation on the Draft Commission Staff Working Document was carried by the Commission. And last, but not least, an effective co-operation in this process between the services of the European Commission enabled an in-depth coverage of the issues addressed by the EU Forestry Strategy.

1.3. Structure and contents of this report

This implementation report is divided into eight main sections and structured along the main issues addressed in the Strategy. Following this introduction, Section 2 describes the EU forest sector including the peculiarities of forest management in the ten new Member States. Sections 3 and 4 deal respectively with the recent trends in EU forest policy and review the progress in the development of national forest programmes in the Member States.

The implementation of international commitments and active participation in relevant international processes was distinguished in the Strategy as an important element in promoting sustainable forest management in the European Union and beyond. Activities related to this issue are addressed in Section 5.

The Strategy adopted the concept of sustainable forest management as defined at the Helsinki Ministerial Conference on the Protection of Forests in Europe⁴ and the multifunctional role of forests as overall principles for action. In order to accomplish the above, the Strategy

⁴ 1993 Pan-European Ministerial Conference in Helsinki. Definition of SFM: “The stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfil, now and in the future, relevant ecological, economic and social functions, at local, national, and global levels, and that does not cause damage to other ecosystems”.

addressed a number of specific issues. The development and maintenance of rural areas and the contribution of forestry and forest-based industries to income, employment and other elements affecting the quality of life, was underlined. The inter-relation between forestry and the forest-based industries influences the competitiveness and economic viability of each sector. This was recognised, as well as the fact that the use of wood and other forest products is environmentally friendly. Among the environmental aspects, the Strategy highlighted, but was not limited to the conservation and enhancement of biological diversity, the maintenance of forest heritage and the role of forests in mitigating the effects of climate change. Forest protection measures constitute an integral element of sustainable forest management and the actions carried out at EU level were considered in the Strategy, together with the need to improve information and communication in forestry issues. The progress made in the implementation of Community actions in these and other specific areas related to the fulfilment of the three main functions of forests is reported in Section 6, the most technical part of this report.

Section 7 describes co-ordination, communication and co-operation in addressing forest-related issues in the EU. The Strategy calls for a better integration of forests and forest products in all sectoral common policies in order to take into account both the contribution of the sector to other policies and the impacts of other policies on forest-related issues. Also, as requested by the Strategy, the variety of European natural environments and socio-economic conditions needs to be considered. Similarly, the opinions of a broad range of stakeholders have to be sought in a participatory and transparent approach.

Finally, Section 8 is intended to summarise the accomplishments during the implementation period and to present some emerging issues in the forest sector of the European Union.

2. THE EU FOREST SECTOR

2.1. Main characteristics

There is a great diversity of natural forest types, forest cover, ownership structure and socio-economic conditions in the EU.

Forests are one of the most important renewable resources that Europe has and can still be considered as the most important component of European nature. EU-25 forests and other wooded land cover approximately 160 million ha (35% of the EU territory), of which 117 million ha are available for wood supply (Table 1). Additionally, both as a result of afforestation programmes and due to the natural succession on abandoned agricultural land, forest cover in the EU is still increasing. However, large differences in the share of forested areas in the landscapes of individual regions of the Community still remain.

The recent enlargement of the EU to 25 Member States has led to a substantial expansion of the EU forest sector, both in forest area and in terms of productive and ecological potential. The total area covered by forests and other wooded land grew by some 20%.

In addition, Bulgaria and Romania are candidate countries and hope to join the Union by 2007, adding another 11 million ha of forest area. Turkey is also a candidate country with 21 million ha of forest and other wooded land area, although it is not yet negotiating its membership.

Forests and forestry in the European Union are characterised by a wide variety of climatic, geographic, ecological as well as socio-economic conditions. EU forests are situated in very different ecological environments, ranging from boreal to the Mediterranean, and from alpine to lowlands.

About 35% of forests and other wooded land in the EU-15 were in public, and about 65% in private ownership (see Table 2). However, with the accession of the ten new Member States, the proportion between areas of publicly and privately owned forests has changed to approximately 40% public and 60% private forests.

Along with the change in distribution between individual types of forest ownership in the EU, the changes are also taking place in the occupation and life styles of private forest owners. In some regions, forest owners are increasingly becoming less dependent from forestry as a main source of income and practice urbanised lifestyles.

After enlargement, the number of private forest holdings has increased by 25% and it is estimated that the number of forest owners has risen by nearly three million. In the EU-15, private forest holdings were managed by an estimated number of 12 million forest owners, being in most cases small-scale private forest owners. Forest restitution processes, which took place in the new Member States, have introduced private forest ownership. The situation is characterised by variation in knowledge and understanding of forest management by private forest owners, size of individual forest holding, expectations from and interests in forest management.

Table 1. Areas of forest and other wooded land in EU and candidate countries

Country	Total area of forest and other wooded land	Forest area			Other wooded land
		Forest	Available for wood supply	Not available for wood supply	
'000 ha					
Austria	3 924	3 840	3 352	488	84
Belgium	672	646	639	7	26
Denmark	538	445	440	5	93
Finland	22 768	21 883	20 675	1 208	885
France	16 989	15 156	14 470	686	1 833
Germany	10 740	10 740	10 142	598	0
Greece	6 513	3 359	3 094	265	3 154
Ireland	591	591	580	11	0
Italy	10 842	9 857	6 013	3 844	985
Luxembourg	89	86	86	0	3
Netherlands	339	339	314	25	0
Portugal	3 467	3 383	1 897	1 486	84
Spain	25 984	13 509	10 479	3 030	12 475
Sweden	30 259	27 264	21 236	6 028	2 995
United Kingdom	2 489	2 469	2 108	361	20
Total EU-15	136 204	113 567	95 525	18 042	22 637
Cyprus	280	117	43	74	163
Czech Republic	2 630	2 630	2 559	71	0
Estonia	2 162	2 016	1 932	84	146
Hungary	1 811	1 811	1 702	109	0
Latvia	2 995	2 884	2 413	471	111
Lithuania	2 050	1 978	1 686	292	72
Malta	0	0	0	0	0
Poland	8 942	8 942	8 300	642	0
Slovak Republic	2 031	2 016	1 706	310	15
Slovenia	1 166	1 099	1 035	64	67
Total EU-25	160 271	137 060	116 901	20 159	23 211
Bulgaria	3 903	3 590	3 124	466	314
Romania	6 680	6 301	5 617	684	379
Turkey	20 713	9 954	8 635	1 319	10 759

Source: TBFRA 2000 (UNECE /FAO).

The average size of EU public forest holdings is more than 1 000 ha, while private forest holdings have an average size of 13 ha. However, there is considerable variation among countries in the average size of holdings. The vast majority of private owners have holdings of less than 3 ha. These characteristics of forest ownership make the EU a particular case among the large international forest producing countries, where public ownership is often the predominant, even exclusive, situation.

Table 2. Growing stock, annual net increment and fellings in EU and candidate countries

Country	Growing stock overbark volume (million m ³)			Annual net increment (ANI)	Fellings	Fellings/ ANI	Ownership of total area	
	Coniferous	Non-coniferous	Total				Public	Private
				'000 m ³ overbark volume	'000 m ³ overbark volume	%	%	%
Austria	909	188	1 097	28 137	20 041	71	18.1	81.9
Belgium	65	77	141	5 176	4 400	85	43.0	57.0
Denmark	31	24	55	3 450	2 444	71	28.4	71.6
Finland	1 589	351	1 940	74 516	54 300	73	29.7	70.3
France	1 035	1 856	2 892	93 330	60 174	64	24.9	75.1
Germany	1 970	910	2 880	92 462	48 584	53	53.6	46.4
Greece	85	67	152	3 882	1 748	45	81.9	19.1
Ireland	40	4	44	3 500	2 330	67	66.2	33.8
Italy	469	960	1 429	32 211	10 101	31	34.0	66.0
Luxembourg	:	:	20	667	340	51	46.7	53.3
Netherlands	30	25	54	2 917	2 150	74	51.0	49.0
Portugal	148	128	276	15 195	11 500	76	7.7	92.3
Spain	363	231	594	30 108	15 863	53	21.6	78.4
Sweden	2 466	462	2 928	95 822	67 766	71	20.3	79.7
United Kingdom	190	127	317	15 270	9 500	62	43.1	56.9
Total EU-15	9 391	5 408	14 819	496 643	311 241	63		
Cyprus	5	0	5	100	60	60	57.9	42.1
Czech Republic	574	110	684	20 856	16 355	78	84.1	15.9
Estonia	199	115	315	7 677	4 028	52	91.5	8.5
Hungary	47	268	315	10 884	6 449	59	64.5	35.5
Latvia	304	198	502	14 410	8 150	57	56	44
Lithuania	220	142	363	10 263	5 750	56	82.1	17.9
Malta	:	:	:	:	:	:	100	0
Poland	1 512	396	1 908	44 976	32 212	72	83.3	16.7
Slovakia	241	270	511	13 858	7 400	53	55.8	44.2
Slovenia	155	156	311	6 395	2 300	36	29.8	70.2
Total EU-25	12 646	7 066	19 731	626 062	393 945	63		
Bulgaria	194	274	467	11 973	4 852	41	100	0
Romania	526	816	1 341	31 878	13 600	43	94.6	5.4
Turkey	891	459	1 350	45 002	22 150	49	99.9	0.1

Source: TBFRA 2000 (UNECE /FAO).

The forest sector is one of the most important economic sectors within the EU

Forestry and forest-based and related industries comprise the following industrial sectors: woodworking, cork and other forest-based materials; pulp, paper and paper-board manufacturing; paper and paper-board converting, and printing industries. They employ about 2.7 million people in the EU-15, producing an annual production value of about

EUR 335 billion (2001). Forestry and forest-based and related industries in the ten new Member States are estimated to provide employment for about 650 000 individuals, with an annual production value of EUR 20.6 billion (2001).

The social and economic importance of forestry in rural areas is difficult to assess and tend to be underestimated as forestry is characterised by small enterprises or even individuals working under certain conditions and activities are commonly coupled with those of other economic sectors.

Besides wood, forests produce many other products, such as cork, resins, medicinal plants, mushrooms and berries. Cork is one of the most important non-wood forest products in the European Union, with approximately 1.7 million ha of cork oak forests accounting for 80% of the worldwide production of cork. In addition, almost 100% of the manufactured output of cork originates in the EU.

The EU is one of the biggest traders and consumers of forest products in the world, with a positive trade balance overall. Conversely, supplies of wood-based raw materials of adequate quality can be imported at competitive prices and the EU is a net importer of these. The two main types of such imports comprise: roundwood, mostly from the Russian Federation (in roughly equal quantities of coniferous and non-coniferous) and Eastern European countries (both non-coniferous and coniferous), as well as wood pulps coming from North and South America and other regions that have high forest growth rates and low costs for timber production and processing. In contrast, for certain categories of processed wood products, some EU sub-sectors exhibit a particularly high level of domestic supply, especially of the more highly value-added products (e.g. quality papers and wood-based panels). Consequently, the EU is a prominent exporter of these. Table 3 shows this situation in figures for the EU-15 and the new Member States. These positions are strengthened even more with the accession of new member states, where forestry plays an important role in some of the national economies (e.g. the Baltic States, Slovakia and Poland).

Table 3. Roundwood and processed wood products flows in EU-15 and the new Member States

EU-15 + 10, year 2002											
Category		Production		Imports		Exports		Apparent consumption		Domestic supply ratio	
		EU-15	EU-10	EU-15	EU-10	EU-15	EU-10	EU-15	EU-10	EU-15	EU-10
Roundwood*	'000 m ³	264 386	85 877	34 503	:	3 200	:	295 689	73 909	89%	116%
Sawnwood	'000 m ³	79 662	15 746	18 519	:	10 727	:	87 454	10 106	91%	156%
Wood-based panels	'000 m ³	44 861	8 913	6 344	:	6 282	:	44 923	7 856	100%	113%
Wood pulp	'000 mt	34 731	2 382	8 774	:	1 884	:	41 621	2 857	83%	83%
Paper and paperboard	'000 mt	84 624	5 288	7 885	:	14 385	:	78 124	6 634	108%	80%

Source: Eurostat (* roundwood volumes are "under bark").

Next to their production function, EU forests provide environmental and social functions

Forests offer many goods and benefits in addition to forest products, because they provide important environmental functions, such as the conservation of the natural heritage and the protection of water and soil. In addition, forests are very important in supplying social and recreational services, because people have traditionally close links to them. Forestry provides also for the stewardship of scenic and cultural values, as well as other functions, such as traditional collection of mushrooms and berries, hunting and tourism.

Forest biotope in Europe remains home to the largest number of species on the continent (e.g. the Mediterranean biogeographical region alone has 30 000 vascular plants, of which over 10 000 are exclusively regional). This indicates the biological importance and vitality of forests. Less than 1% of EU forests are undisturbed by man, over 2/3 of all forests in Europe are classified as semi-natural, with half of the forest area covered by mixed-species forests. About 12% of the forest area is designated as protected forests. Their management is mainly directed to soil, water or biodiversity conservation and to protect infrastructure.

Forest protection is a constant concern

The Temperate & Boreal Forest Resources Assessment 2000 (UNECE/FAO) identified biotic factors and grazing as main causes of forest damage within the EU. Other major factors affecting forests are air pollution, storms and forest fires. While EU legislation has led to considerable improvement of air quality in Western Europe over the past 20 years, deposition of air pollutants is still a concern for European forests and most sites with the highest acid inputs (which comprise nitrogen as well as sulphate deposition) are now situated in Central European forests. Several heavy storms within a relatively short period, the latest at the end of 1999 in France and South Germany, caused severe damage to more than 1 million ha of forests (three times the normal annual cut of timber uprooted). Forest fires are the most important damaging factor in the Mediterranean countries where between 300 000 to 500 000 ha of forests and other wooded land are burnt per year. Forest fires were particularly virulent during the summer of 2003 when the forests were exposed to very hot and dry climatic conditions, and when, for instance, only in Portugal, around 400 000 ha were destroyed by fire.

2.2. Forest management in the new Member States

The above-mentioned increase both in forest area and in terms of productive and ecological potential in the EU-25 deserves special attention. During the period 1999–2002, several studies assessed the impact of enlargement on the forest sector and the specific forest management issues in those countries⁵. Some of the particular aspects of the forest sectors of new Member States are reviewed below, emphasising the restitution and/or privatisation of forest land, institutional reforms, timber processing and the conservation of biodiversity.

One of the most important issues in the eight continental new Member States, which has triggered a whole sequence of market and governance changes, is the restitution and/or privatisation of forest land and other forest-related assets. Most of these new Member States (with the notable exception of Poland), started far-reaching programmes to re-privatise forests that had been mostly managed by public forest services until 1989. In many cases, this has led

⁵ Conservation and sustainable management of Forests in CEEC, EC Phare Programme, 1999. INDUFOR report, "Forestry in accession countries", 2002. Opinion of the SEC on the Eastward Enlargement of the EU and the Forest Sector, Brussels, 2002.

to a large number of small forest properties, the owners of which often lack the skills or the investment capacity to develop their forests. This has resulted in a lack of economy of scale for forestry operations, which also afflicts the private forest sector in the EU-15. Absentee ownership in some locations is also a problem for efficient forest management. In most countries, the forest ownership distribution is still not conclusively settled and the approaches followed differ in many ways, including the type (e.g. private, church, municipal) and size of the areas allocated for restitution, the reference year (the conditions of which are to be restored) and the treatment of cases where restitution is not feasible or desirable (areas that ceased to be forest, nature reserves, etc.). The earlier fear that restitution would lead to excessive timber harvesting has generally not materialised, except in some limited areas in the early stages of restitution.

Another important development is the progress of institutional reforms, such as the trend towards separating the productive and the administrative functions of state forest administrations. Several new Member States and candidate countries have established commercial companies (mostly state-owned) for the management of state forests. Harvesting and silvicultural operations are mostly carried out by private contractors, and some services, like the preparation of forest management plans have also been shifted to the private domain in several countries. While these reforms have generally increased economic efficiency, jobs have been reduced in the state-owned sector and, in some cases, there is inadequate capacity for the enforcement of forestry regulations, and a low level of technical support for private forest owners. Additionally, the loss of employment in the public forest administrations caused by the restructuring of their commercial forest activities, can aggravate rural poverty in regions where no or only few alternative livelihoods are available.

From the wood-processing perspective, enlargement has maintained the EU's position as a net exporter of forest products. Confirming a process that has already started several years ago, forest products originating from the continental new Member States continue to gain market share in the EU. The reason for this has been the differentials in processing costs and product prices, respectively, between the EU-15 and the EU-10. The new Member States have offered attractive investment opportunities for the forest-based industries from the EU-15, North America and elsewhere. However, erosion of the differentials continues, with rising wage rates and social and environmental requirements in the EU-10. At the same time, the growing living standard of the new Member States will open new market possibilities for higher value-added products in those countries, particularly for printing and writing papers on the one hand and for quality wooden construction elements and furnishings on the other. As in the EU-15, demand for the use of wood and its residues for energy generation will also continue to increase. As elsewhere in the EU, that process needs to be conducted in a coherent manner so as to optimise material and value flows as well as to ensure an efficient use of the raw material.

The importance of EU-10 forests for the conservation of biodiversity has raised high hopes, not only in the framework of Natura 2000, but also outside of protected areas at the landscape level. Some new Member States have extensive and relatively undisturbed forest areas with a high conservation value. This is especially obvious as regards the existence of relatively large and stable populations of large carnivores and birds of prey.

Hence, one of the most important challenges for the new Member States is how to combine the conservation of their rich natural heritage with investments in a dynamic forest industry.

3. RECENT TRENDS IN EU FOREST POLICY

The EU Forestry Strategy identified the principle of subsidiarity as one of its substantial elements, and acknowledged the fact that “...the Treaty establishing the European Community makes no provision for a specific common forestry policy and that responsibility for forestry policy lies with the Member States, nevertheless taking into account that, pursuant to the principle of subsidiarity and the concept of shared responsibility, the Community can contribute positively to the implementation of sustainable forest management and the multifunctional role of forests.” (Article 2-b).

3.1. Overview of actions

Forest policies in the European Union are designed and implemented by Member States within clearly established framework of ownership rights and with a long history of national and regional laws and regulations. Forest policies are increasingly influenced by a number of broader societal and policy issues outside the forest sector, such as the protection of our natural and cultural heritage, climate change mitigation and the use of renewable energies.

The last five years have been marked by changes in forest policy, legal frameworks and institutional settings in the forest sectors of EU countries⁶. In general, EU Member States are bringing national forest policy in line with broad EU objectives, as stated in the EU Forestry Strategy and relevant directives, regulations and programmes. In this respect, the rural development policy of the EU, the Habitats and Birds directives, the directives on the use and marketing of forest reproductive material, as well as the energy-related directives and the 6th Community Environment Action Programme have been of particular relevance. Some countries indicate that their national policies are linked to the results of the IPF/IFF and/or the Ministerial Conferences on the Protection of Forests in Europe, with national legal frameworks having been modified and updated accordingly.

Changes have also taken place in the structure of the forest administrations. Although very diverse between countries, the trend has been towards decentralisation with more emphasis given to sub-national or regional administrations, or, in other cases, towards the privatisation of public forest services. In addition, there have been profound changes in the institutional structures in the ten new Member States.

The economic environment is marked by increased economic liberalisation and the perspective of the forest-based industries is less domestic than a decade ago

As a result of major technological developments in manufacturing, communications and transport at global level, trends towards liberalisation of international trade have been supported by increasing regional integration and by the lowering of tariff and non-tariff barriers. This has led to a set of global markets for many forest materials and products in which the market price is defined by the lowest-cost producers. In this context, not only industry but also EU forest owners are facing increasing difficulty to compete because their production costs, for wood and wood-based products are higher than those of low-cost competitors outwith the EU. Moreover, the value of the environmental and social functions

⁶ The study “Forest policies and institutions in Europe 1998-2000” by the UN Economic Commission for Europe (UN/ECE) provides a detailed overview of changes in forest policy on the basis of national reports from 24 European countries.

(for forests: protection of soils, biodiversity and watersheds, climate regulation, recreation, etc.; for wood processing: low energy use and low emissions) is not covered by wood product revenues.

At the same time, pressure to control illegal logging and to introduce market-based instruments that promote sustainable forest management, such as forest certification, has arisen from the concern about the alarming rate of loss and degradation of forests at a global level. Whilst new EU measures are emerging to tackle these issues directly (see section 5.4), forest certification has been one of the tools to encourage the sustainability of forest management and, thereby, raise awareness about these trends. This may also be extended to include the certification of wood products and wood-processing industries along the chain-of-custody from the forest to the ultimate customer of products.

Growing emphasis is put on nature conservation and the promotion of biological diversity of forest ecosystems

On one hand, European Environment Agency (EEA) reports on general environmental conditions in Europe have indicated a tendency towards more uniform forest structures, reduction of variety in tree species and loss of biodiversity. And the UNECE/FAO assessment of the temperate and boreal forests (TBFRA 2000) gathered new data on forest dwelling species showing that the number of threatened taxa is alarmingly high. On the other hand, the finalisation of the NATURA 2000 designation process has revealed that forests are among the most important groups of habitats in this network of protected sites. Forest policy-makers are therefore confronted with growing expectations to increase the rate of protected areas for nature conservation, and increase the diversification of species composition, for example by favouring an uneven-aged structure of forest stands, eliminating or at least reducing clear cuttings and extending selective harvesting systems, as well as diminishing the use of chemicals in forests, enhancing natural regeneration, planting indigenous species and managing forest fires.

The EU has taken up a leading role in the implementation of the Kyoto Protocol

The implementation of the Kyoto Protocol, and more general considerations about climate change, are expected to have a significant impact on forest policies and the competitiveness of this sector in the future. Presently, there is a lot of research being conducted to better understand how climate change will affect European forests, including how to adapt forest management to the potential changes. The EU has consistently defended the position that the contribution of the forest sector to the Kyoto objectives through the use of sinks projects has to be based on environmental integrity and social equity. In order to implement climate change mitigation objectives through substitution of fossil fuel, the EU has set up an array of legislation to increase the use of renewable energy sources in electricity generation, heating and transport for which biomass of various types may play an important role.

Policy problems become increasingly interdependent and the impact and linkages between forest policies and other policy domains is steadily growing

The globalisation and the promotion through the media of the debates on biodiversity conservation and climate change, have favoured public interest in initiatives where nature protection, economic aspects as well as the social expectations of citizens are increasingly taken into account. A framework of coherent public policies with co-ordinated objectives, strategies and instruments is considered more and more essential to overcome complex land use challenges.

3.2. Concluding remarks

Recent trends in EU forest policy suggest that policy issues are becoming increasingly interdependent and that the impact and linkages between forest policies and other policy domains are steadily growing.

Economically, the period of 1999–2003 was marked by a further liberalisation of world trade and the resulting globalisation of markets for forest-based materials and products. Thus, EU forest owners are facing increasing difficulty to maintain competitiveness because they have to compete with low-cost wood-producers outside the EU, whilst the value of their forests' environmental and social services is not met by timber revenues.

Additionally, the EU has taken up a leading role in the implementation of the Kyoto Protocol, which is expected to have a significant impact on forest policies in the future.

4. DEVELOPMENT OF NATIONAL FOREST PROGRAMMES

The EU Forestry Strategy identifies, as one of the substantial elements, that international commitments, principles and recommendations, should be implemented through national and sub-national forest programmes or appropriate instruments developed by the Member States (Article 2-d).

The concept of national forest programme has evolved under a variety of names and intergovernmental processes for nearly 20 years. Today, the term has become an important concept with a broad scope for achieving sustainable forest management, in a manner that respects national sovereignty and is consonant with specific country conditions. At their best, such programmes should close the gap between forest-related international agreements and operational forest management. The overall objective of developing national forest programmes is to establish a workable social and political framework for sustainable forest management.

At international level, there is an agreement on the general principles and dimensions of national forest programmes. However, a commonly agreed definition is lacking. In response to this need, the European countries have developed a common approach to national forest programmes in the context of the MCPFE. This common approach has been included in the Vienna Conference under Resolution n° 1⁷.

According to this approach, a national forest programme constitutes a participatory, holistic, inter-sectoral and iterative process of policy planning, implementation, monitoring and evaluation at the national or sub-national level in order to proceed towards the further improvement of sustainable forest management and to contribute to sustainable development.

4.1. Progress in individual Member States

Overall, substantial progress has been achieved over the last five years in the preparation and implementation of national forest programmes in the EU. However, the status of the activities varies among the Member States. The responses to the questionnaire sent to the Member States provide the following information:

In **Austria**, a national forest programme is presently being prepared. The process was launched in April 2003 and the first action programme is envisaged in 2005. Some 50 institutions and interest groups are actively involved in several structural elements of the process.

In **Belgium**, although no specific process towards a national forest programme is currently underway, in the Walloon Region the forest law is under revision. The Flanders Region has adopted the Long Term Forestry Plan, which is effectively a NFP. The plan provides for integration and consultation mechanisms for the areas of direct importance to forestry (e.g. environment, nature conservation, land-use management, recreation and tourism).

The national forest programme of **Denmark** was approved by the Government in June 2002, following a wide-range consultation process. The programme is now entering in its implementation phase. Another important initiative is the new Forest Act, which is expected to enter into force in 2004.

⁷ 2003 Pan-European Ministerial Conference in Vienna.

In **Finland**, the National Forest Programme 2010, which was adopted in 1999, is being implemented. In 2002 the Government appointed a new Forest Council which brings together a wide range of organisations and stakeholders of the Finnish forest sector. In addition, seven follow-up groups for the implementation of the national forest programme have been established, as well as 13 Regional Forest Councils to follow-up and support the implementation of the regional forest programmes.

France has started the preparation of the national forest programme, following the adoption of the new Forest Law approved by the Parliament in 2003. The programme will be elaborated in the framework of the Forest and Forest Products Advisory Council, which is composed of members of the National Parliament, relevant public institutions, local and regional organisations, professional organisations, and other stakeholders.

In **Germany**, following a two-phase preparation process, the national forest programme was adopted in 2003. More than 80 actors comprising all forest-relevant stakeholders as well as governmental bodies and scientific institutions, were involved in the dialogue process in the preparation of the programme.

Greece adopted a new forest law in December 2003 and the national forest programme is currently being formulated. The first step was the establishment of a forest policy working group by the National Council for Agricultural Policy, which is a broad consulting body bringing together stakeholders and interest groups from the agricultural sector. In Greece, the principles of sustainable forest management are traditionally applied by the regional forest services.

Ireland adopted a Forestry Strategy in 1996, which was developed through an open, consultative process involving stakeholders and interest groups. It was recognised from the outset that forestry has many linkages with agriculture, rural development, social and industrial policy, leisure and tourism, trade and the protection of the environment. Consultations took place with all of these sectors.

In **Italy**, according to the Constitution, forestry lies within the competence of the regions. The National Forest Plan of 1985 has been the reference framework for the development of the regional forest plans. In 2004, an agreement between National and Regional Administrations on the guidelines for a new National Forest Programme has been signed. Thanks to it, all the bodies involved commit themselves to implement sustainable forest management according to European, national, regional/local legislation and to international conventions and agreements aiming to protect forest ecosystems.

Luxembourg has finished the preparation of the national forest programme. The programme was set up by several working groups representing the different sectors and interests related to forestry. The working groups were assisted by an organising and management body, which was formed by forestry experts and experienced facilitators.

In the **Netherlands**, the national forest programme is included in the broader policy programme for nature management “Nature for people, people for nature 2000”. The main objective of this programme is to make an essential contribution to a liveable and sustainable society through the conservation, restoration, development and sustainable use of nature and landscape.

In **Portugal**, the national forest programme consists of the Forest Policy Act (1996), the Sustainable Development Plan of the Portuguese Forest (1999), the Programme of Action for the Forest Sector (2002) and several other regulations and programmes. All these instruments cover the elements considered part of a national forest programme.

Spain adopted the National Forestry Strategy in 2000 following a two year consultation process. The Strategy is the basis of the new Forest Law and the National Forest Plan approved in 2002.

Sweden has interpreted national forest programmes as a forest policy process. It is considered that the main principles and elements of a national forest programme can be met without a formalised process, and incorporated, or found present, in the existing Swedish forest policy development and implementation framework.

In the **UK**, the national forest programme consists of the Forestry Strategies for England, Wales, Scotland and Northern Ireland, and the UK Forest Standard, which were developed through wide ranging consultative processes involving a broad spectrum of groups, including forest owners, the forest-based industry, environmental NGOs, and various Government Departments and Agencies. Mechanisms to maintain participation in the implementation of these programmes have also been established. These mechanisms vary between countries to reflect their individual circumstances.

Progress has also been achieved in the ten new Member States.

Cyprus has already developed a national forest programme, which was approved by the government in 2002. The preparation took 18 months and the programme provides a new strategy for the development of the forest sector for the period 2002–2011.

In the **Czech Republic**, the preparation of the national forest programme was jointly co-ordinated by the Minister of Agriculture and the Minister of Environment. The national forest programme for the period 2003–2006 was adopted by the Government in January 2003.

In **Estonia**, the Parliament approved in 2002 the Estonian Forestry Development Programme 2010, following a preparatory process initiated in 1999 which involved extensive consultations with stakeholders and interest groups.

Hungary has completed the preparation of the national forest programme, which was adopted in 2004. The preparation of the programme was carried out between 2000 and 2003. The consultation process included regional, thematic and cross-sectoral discussions organised by the programme bureau.

In **Latvia**, the preparation of the national programme for the forest sector and related sectors (forest cluster) was launched in 2003.

In **Lithuania**, the national forest programme has been specifically designed for the implementation of the strategic forest development objectives set up for the period until 2015.

Malta indicates that all of the important natural woodlands and characteristic shrublands have been protected under the Trees and Woodlands Protection Regulations of 2001 and the Environment Protection Act of 2003.

In **Poland**, the preparation of the national forest programme started in 2002 by the development of regional operative programmes of the State forest policy, and the process is planned to finish in 2004. Seventeen consultative groups were established for the preparation of the regional operative programmes.

In **Slovakia**, the national forest programme is currently being formulated. Different interest groups are involved in the preparation of the programme.

In **Slovenia**, forest policy and strategy are defined in the Forest Development Programme, which was adopted by the Parliament in 1996. The implementation of the programme is carried out through the yearly programme of work of the Slovenian Forest Service. Different stakeholders are involved in the process of establishing the yearly programme of work.

4.2. Development process and structure of national forest programmes

During the process of preparation of national forest programmes, almost all EU Member States have developed some form of institutionalised mechanisms for the participation of stakeholders in the preparation of forest policies and policy implementation. However, there are differences across countries in terms of the status, timing and breadth of involvement of stakeholders in the policy process.

Some countries complement the formal participation of organised stakeholders with some form of consultation with the general public. This consists of the organisation of public hearings, thematic workshops, national stakeholder conferences, and consultations by the means of internet to allow comments on the draft versions of the national forest programmes. This form of consultation fulfils the double aim of providing information to citizens on the government's intentions, and of involving them in determining political priorities and implementing set objectives.

In general, all programmes attempt to provide a holistic approach to sustainable forest management, integrating economic, social and environmental objectives, in line with international forest-related commitments. Issues such as the productive function of forests and the economic viability of sustainable forest management, the contribution of forestry to rural development, the protection and enhancement of biodiversity in forests, climate change mitigation, the protective functions of forests, and social, recreational and cultural aspects, are addressed in the national forest programmes. The programmes increasingly respond to growing societal demands concerning the protection of the environment and the provision of social functions of forests. Although the programmes contain similar aims, they vary by focus, reflecting the socio-economic and ecological diversity of the European forests.

At the same time, in their national forest programmes countries stress the growing relevance of cross-sectoral issues in forestry and the need to improve cross-sectoral co-operation with regard to subjects of common interest, such as biodiversity conservation, climate change, energy, rural development, trade, competitiveness, research and innovation, etc.

Countries have generally included an international dimension in their national forest programmes. International forest-related commitments form the basis for choosing specific priorities. Other themes commonly treated are foreign aid, trade and the outcome of the World Summit on Sustainable Development (WSSD).

Several countries also focus on education and communication as key areas for action, with a view to facilitating a sound understanding of sustainable forest management over time and the benefits that forests and sustainable forestry provide to society.

4.3. Concluding remarks

The need for comprehensive and inter-sectoral approaches as a prerequisite for proceeding towards improved forest resource management and sustainable development has been clearly formulated by the UNFF as well as by the 4th MCPFE (Vienna, 2003). An important means to strengthen coherence and synergies within the forest sector and between the forest sector and other sectors, are the national forest programmes. They provide a planning framework to address inter-sectoral impacts on forest policies, raise awareness, formalise involvement of different parts of government and interest groups, build capacity and create an opportunity to focus on issues that tend to fall between different political authorities.

The main challenge, thereby, is to establish sufficient political attention and support for the national forest programme processes. This political support can be triggered by ensuring broad participation of the stakeholders, which consequently establishes the legitimacy for the outcome of the process.

Overall, substantial progress has been achieved in the preparation and implementation of national forest programmes in the Member States. Although there are differences, almost all countries have developed or are developing mechanisms and approaches to the forest policy-making process that are consistent with the overall principles of national forest programmes as agreed at the 4th MCPFE.

In general, the majority of the Member States are at an early stage in the process of implementation of national forest programmes. There are emerging opportunities for joint action between countries, notably for identifying good practice, pooling knowledge, and exchanging experience on issues such as:

- key success factors in the preparation and implementation of national forest programmes;
- institutionalised mechanisms to involve stakeholders in the process of developing and implementing national forest programmes, and to help policy-makers to identify policy priorities, look for synergies and make trade-offs between conflicting objectives;
- mechanisms for effective communication and selection of objectives;
- institutions and instruments enabling to measure and evaluate progress on sustainable forest management;
- effective measures to increase cross-sectoral co-operation and increase policy coherence across sectors;
- integration of national forest programmes into national sustainable development strategies and processes.

5. EU AND THE “INTERNATIONAL FOREST REGIME”

Article 2-e of the EU Forestry Strategy identifies the “active participation in all international processes related to forest sector” as one of its substantial elements. Article 4, “agrees that the Community take part actively” in the implementation of the resolutions of the MCPFE and “participate pro-actively” in international discussions and negotiations of forestry-related issues, in particular in the United Nations Intergovernmental Forum on Forests.

The debate on the conservation and sustainable management of forests worldwide takes place in various processes and initiatives which are jointly called “the international forest regime”. This includes global processes such as the UN Forum on Forests (UNFF), and regional processes such as the Ministerial Conference on the Protection of Forests in Europe (MCPFE). Other relevant elements of the international forest regime are conventions and processes, such as the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), the UN Framework Convention on Climate Change (UN FCCC) with its Kyoto Protocol, and the UN Convention to Combat Desertification (UNCCD). Forests are also dealt with under the UN Commission on Sustainable Development, which prepared the World Summit on Sustainable Development (WSSD).

The Community participated together with Member States in these processes, as well as in regular meetings of the FAO’s Committee on Forests (COFO), the UNECE’s Timber Committee and the International Tropical Timber Organisation (ITTO). Preparations for the meetings and joint statements are discussed in relevant Council Groups, where the Commission assists the Presidency in its co-ordinating role, as well as ensuring that Resolutions and commitments are in line with Community legislation and policies.

5.1. From the “Rio Forest Principles” to the UN Forum on Forests

At the UN Conference on Environment and Development (UNCED) in Rio de Janeiro, 1992, multilateral environmental agreements⁸ (MEAs) on climate change, biological diversity and desertification were adopted, but no consensus could be reached on adopting a global, legally binding Forest Convention. Instead, a set of Forest Principles called “Non-legally binding authoritative statement of principles for a global consensus on the management, conservation and sustainable development of all types of forests” was adopted. In addition, chapter 11 of Agenda 21 addressed means and ways of combating deforestation.

After the Rio Conference, the UN Commission on Sustainable Development (CSD) continued the global forest dialogue by establishing the Intergovernmental Panel on Forests 1995–1997 (IPF), followed by an Intergovernmental Forum on Forests 1997–2000 (IFF). IPF and IFF agreed on around 280 Proposals for Action to implement the Rio Forest Principles. At the same time divisions of opinions over a Global Forest Convention and a Global Forest Fund to finance sustainable forest management (SFM) remained and even deepened, with no global agreement being reached.

In 2000, the international community created a new international arrangement for the forest dialogue, comprising UNFF and the Collaborative Partnership on Forests (CPF). The UNFF provides a high-level policy forum on forests. Established as a subsidiary body of the

⁸ These MEAs are called “the Rio Conventions”: UN Framework Convention on Climate Change (UN FCCC), Convention on Biological Diversity (CBD) and Convention to Combat Desertification (CCD).

UN Ecosoc, it is composed of all Members of the United Nations (including all EU Member States) and the specialised agencies and their Member Countries with full and equal participation, including voting rights. The Community is not a member with voting rights of UNFF, but a full participant. To complement the intergovernmental UNFF, heads of relevant multilateral organisations formed a Collaborative Partnership on Forests (CPF), which consists of all major forest related international governmental organisations, and aims to support the work of the UNFF and enhance co-operation and co-ordination among its members⁹. UNFF has adopted a Plan of Action to facilitate the implementation of the IPF/IFF Proposals for Action and, in 2005, is expected to produce recommendations for “parameters of a mandate for developing a legal framework on all types of forests”.

Since Rio '92, one of the key political goals for the EU was to achieve international consensus on a global forest convention. However, the unwillingness of many countries to accept binding commitments which they feared could constrain their options for economic development, and reluctance of many developed countries to establish a specific forest fund outside GEF¹⁰ to support SFM are amongst the main reasons why little progress has been made towards such a legally binding instrument. The debate on a forest convention was put aside after IFF, but will be revived as part of the review of the UNFF in 2005. Because it remains an open question whether there will ever be consensus for a legally binding instrument on forests – which in any case would take many years to negotiate – the EU involvement in the international forest regime has concentrated on the strengthening and implementation of existing political commitments.

In 2002, the UN World Summit on Sustainable Development (WSSD – “Rio +10”) in Johannesburg evaluated the implementation of the “Rio commitments” of 1992. Many of the issues on the WSSD agenda were relevant to forests and the conservation and SFM can play a key role in achieving the wider objectives, targets and principles agreed in Johannesburg, such as the Plan of Implementation, the Political Declaration and the many Partnerships. As a result, it is expected that forest policy formulation will take into account the outcomes of WSSD in areas such as poverty, sustainable consumption and production, renewable energy, water resource management, desertification, climate change, biodiversity, economic globalisation, trade and governance.

Two forest-related partnerships were launched at WSSD: the Congo Basin Forest Initiative and the Asia Forest Partnership. These aim at promoting sustainable forest management, conservation, combating illegal logging through a regional approach, and involving local and donor governments, international governmental and non-governmental organisations and other stakeholders. Several EU Member States and the European Community participate in these Partnerships.

5.2. Other elements of the international forest regime

Further to the above mentioned UNFF and WSSD processes, the European Community and the EU Member States also committed themselves to implement provisions of other agreements, conventions and international processes, such as:

⁹ The CPF, chaired by the Food and Agriculture Organisation of the UN (FAO), consists of international organisations, institutions and instruments.

¹⁰ GEF: Global Environmental Facility.

The UN Framework Convention on Climate Change and its Kyoto Protocol (UN FCCC)

Since forests play an important role in the carbon cycle and have the largest carbon sequestration level among land-based ecosystems, their existence is critical for climate change mitigation. This is further commented in the section “Forests and Climate Change”.

The Convention on Biological Diversity (CBD)

Since forests harbour the majority of global biodiversity, objectives of the CBD are of direct relevance for sustainable forest management (SFM). This is further commented in the section “Forests and Biodiversity”.

The Convention to Combat Desertification (UNCCD)

Trees and forests play a key role in the UNCCD’s role of combating desertification and soil degradation, as well as the UNCCD’s objectives related to poverty reduction. UNCCD provides a framework in which forests can be addressed holistically along with other forms of land use such as grazing and agriculture.

The International Tropical Timber Organisation (ITTO)

The ITTO is a forum for policy dialogue among producer and consumer member countries (around 50) on sustainable management of tropical forests and trade in tropical timber. The Community is a party to the International Tropical Timber Agreement (ITTA) and, as the ITTA is a trade-related agreement, the Commission negotiates on behalf of the Community and its Member States.

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

CITES is an international agreement to ensure that international trade in specimens of wild animals and plants does not threaten their survival. The Community is not a party to CITES (Member States are) but implements it through its wildlife trade Regulations and prepares Common Positions. Twenty-seven tree species are currently listed by CITES. Some of these are important elements of the habitats of other highly endangered species whose trade is regulated by CITES. For example, ramin (*Gonystylus* spp.) is an important tree in forests where the remaining orang-utans are found. Trade in these species may be prohibited and regulated allowing to control global trade in endangered or threatened species.

5.3. The Ministerial Conferences on the Protection of Forests in Europe

The MCPFE involves more than 40 European countries, including all 25 EU Member States, and the European Community, as well as observers from other countries, stakeholders and international organisations, in order to address common threats and opportunities related to forests and forestry.

The main aim of all participants working together in this process is to further develop a common understanding regarding the protection and the sustainable management of forests in Europe. This process is based on Ministerial Conferences (Strasbourg 1990, Helsinki 1993, Lisbon 1998 and Vienna 2003), at which resolutions are adopted that are prepared by *ad-hoc* working groups and expert level meetings. The discussion and work between the conferences, which is called the “Pan-European Process”, has focussed on monitoring and on national level implementation.

The European Community has signed all MCPFE Resolutions, and they are fully reflected in the EU Forestry Strategy. As a signatory to the MCPFE Resolutions, the European Community is directly involved in the follow-up and implementation of the Resolutions. In October 2002, the Commission submitted to the MCPFE Liaison Unit a report concerning progress on the implementation at Community level of the “MCPFE Resolutions” during the period 1999–2002. The report highlights the contribution of several Community policies and measures, notably rural development, environment and research, to the implementation of the Ministerial Resolutions at Community level.

At the 4th Ministerial Conference on the Protection of Forests in Europe, held in Vienna in 2003, forty European countries (including all EU-25 Member States) and the European Community adopted the “Vienna Living Forest Summit Declaration: European Forests – Common Benefits, Shared Responsibilities” and five Resolutions¹¹. Building on the Resolutions adopted in previous Ministerial Conferences, as well as on forest-related global commitments, the Vienna Declaration and the five Resolutions stress the balance between the economic, ecological and social roles of forests, while aiming to further work towards the protection and sustainable management of forests.

Taking into account the enlargement of the EU to 25 Member States, the Ministerial Declarations and Resolutions offer a good basis for a discussion on common approaches to forest policy. In fact, through the Ministerial Resolutions adopted in the series of conferences, the European countries have set themselves fairly detailed guidelines in forest policy, laying down common objectives and strengthening co-ordination and co-operation in the area.

5.4. Forest Law Enforcement, Governance and Trade (FLEGT)

At meetings of major timber producing and consuming countries from Asia (Bali, 2001) and Africa (Yaoundé, 2003), high level declarations on Forest Law Enforcement and Governance were adopted, recognising the problem of illegal logging and the shared responsibility of both producing and consuming countries to address the issue.

Responding to increasing public interest in actions against the imports of illegally harvested timber and related products, the Commission adopted an “Action Plan on Forest Law Enforcement, Governance and Trade” (FLEGT), in May 2003,¹² having consulted several times with a wide range of relevant stakeholders. The Action Plan has a number of elements related to development co-operation, procurement policies, private sector voluntary measures, international co-operation and potential use of existing legislative measures. A further element of the action plan is a proposal for the establishment of bilateral agreements with producer countries allowing the exclusion from the EU of timber not accompanied by a legality certificate. This initiative immediately attracted considerable international attention and its practical implementation will have a high priority during the coming years.

¹¹ Resolution 1. Strengthen Synergies for Sustainable Forest Management in Europe through Cross-sectoral Co-operation and National Forest Programmes;
Resolution 2. Enhancing Economic Viability of Sustainable Forest Management in Europe;
Resolution 3. Preserving and Enhancing the Social and Cultural Dimensions of Sustainable Forest Management in Europe;
Resolution 4. Conserving and Enhancing Forest Biological Diversity in Europe;
Resolution 5. Climate Change and Sustainable Forest Management.

¹² COM(2003) 251.

The Council adopted conclusions on the EU Action Plan on FLEGT in October 2003¹³, providing the Commission with a mandate to start its implementation.

5.5. Concluding remarks

During the preparations for the IFF discussions, the Council adopted conclusions in favour of a legally binding agreement on forests. Although positions do not seem to have changed substantially since the start of UNFF, the debate appears to have shifted somewhat from one of “pro or con” a convention, towards one about the effective outputs that should be achieved by either a voluntary or a legally binding agreement.

The Commission has been present in all major international discussions concerning forests. There has been some progress at the level of international forest policy in that previously controversial topics such as certification and forest law enforcement are now discussed openly, but the possibility of a legally binding global agreement on the conservation and management of forests has not come within reach.

Global commitments need to be translated and implemented at the regional level. In this respect, the MCPFE has played an important role over the years. The Pan-European Process has continuously extended the field of forestry related issues, and has influenced forest policy in Europe. The Pan-European Process can also contribute to the development of forest-related commitments at a global level.

Through the Ministerial Resolutions adopted in the successive conferences, the European countries have set themselves detailed guidelines in forest policy, laying down common objectives, and strengthening co-ordination and co-operation in the area. In this respect, Community policies have contributed to the implementation of the MCPFE Resolutions.

The concept of national forest programmes as inclusive and dynamically evolving frameworks for incorporating international forest-related policy principles into forest management is well established. However, at global level, progress on the ground remains disappointing. It is recognised that many factors causing deforestation lie outside the forest sector; the establishment of mechanisms at international level to facilitate effective interaction between the different sectors remains a challenge.

The FLEGT Action Plan is widely seen as a far-reaching EU initiative, bringing together many diverse tools and policies to improve forest law enforcement and governance.

¹³ OJ C 268, 7.11.2003, p. 1.

6. COMMUNITY ACTIONS RELATED TO THE EU FORESTRY STRATEGY

6.1. Forestry in the context of rural development

The EU Forestry Strategy emphasises the contribution that forests have on the promotion of employment, well-being and the environment (Article 3), and it stresses the role of forestry in the context of rural development, in particular the added value that the Community's actions can provide through the forestry measures inside rural development measures (Article 11).

The Strategy also "recognises that the existing forestry measures as well as a chapter specially dedicated to forestry inside the Agenda 2000 could provide a basis to implement the guidelines of this Resolution" (Article 16).

In 1999, the European Council in Berlin adopted the Agenda 2000 reform of the Common Agricultural Policy (CAP), a new and important step in the development of the CAP. Agenda 2000 represented a deepening and an extension of the 1992 reform for market policy and the consolidation of rural development as the second pillar of the CAP.

The EU's rural development policy under Agenda 2000 seeks to establish a coherent and sustainable framework for the future of the rural areas based on the following main principles:

- The multifunctionality of agriculture and forestry, i.e. its varied role over and above the production of foodstuffs and raw materials. This implies the recognition and encouragement of the range of services provided by farmers and foresters;
- 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.

The core instrument to achieve these objectives is Council Regulation (EC) No 1257/1999¹⁴ – the Rural Development Regulation.

6.1.1. The conceptual framework for forestry measures within the rural development policy

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

This Regulation, thus, emerges as an important vehicle for implementing the EU 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:

- investments to improve the multifunctional role of forests (Article 30),
- afforestation of agricultural land (Article 31),
- improvement of forest protection values (Article 32).

¹⁴ Council Regulation (EC) No 1257/1999 of 17 May 1999 (OJ L 160, 26.6.1999, p. 80).

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 accommodate 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.

6.1.2. Implementation of 2000–2006 programmes in the EU-15 Member States

Despite the improvements in relation to previous programming periods, the implementation of the rural development policy under Agenda 2000 is still rather complex. For the current period, 2000–2006, two funding sources are available for Rural Development (RD) measures: EAGGF Guarantee and EAGGF Guidance.

Table 4. Financial forecast of the rural development programmes 2000–2006 and forestry measures within the programmes: EU contribution under EAGGF (Leader+ excluded)

Country	EAGGF budget for rural development (EUR)	EAGGF budget for forestry measures (EUR)			% of total RD budget
		Afforestation	Other forestry measures	Total	
Austria	3 249 445 471	8 080 000	78 619 783	86 699 783	2.6%
Belgium	401 767 048	6 153 000	18 068 182	24 221 182	6.0%
Denmark	336 420 000	35 330 000	6 600 000	41 930 000	12.4%
Finland	2 393 294 000	23 330 000	40 731 000	64 061 000	2.6%
France	5 762 531 788	37 605 789	238 268 240	275 874 029	4.7%
Germany	8 661 786 733	110 012 000	299 378 594	409 390 594	4.7%
Greece	3 253 700 000	57 800 000	129 966 503	187 766 503	5.7%
Ireland	2 558 291 000	350 800 000	31 500 000	382 300 000	14.9%
Italy	7 493 685 000	560 123 000	341 189 000	901 312 000	12.0%
Luxembourg	91 000 000	14 000	1 101 250	1 115 250	1.2%
Netherlands	427 000 000	12 210 000	5 450 000	17 660 000	4.1%
Portugal	3 552 483 178	345 864 791	341 115 503	686 980 294	19.3%
Spain	8 515 946 848	663 539 423	832 792 843	1 496 332 266	17.5%
Sweden	1 232 268 999		3 620 999	3 620 999	0.3%
United Kingdom	1 555 509 000	175 910 000	51 452 000	227 362 000	14.6%
Total	49 485 129 064	2 386 772 003	2 419 853 896	4 806 625 899	9.7%

A total amount of EUR 4.8 billion has been allocated to forestry measures in the EU-15 Member States under the EAGGF budget for the period 2000–2006. This amount represents approximately 10% of the total budget allocated to rural development over that period (Leader+ excluded). Table 4 provides the breakdown between countries. Portugal (19.3%), Spain (17.5%), Ireland (14.9%), UK (14.6%), Denmark (12.4%) and Italy (12%) are the countries with the highest proportion of the budget allocated to forestry measures within their rural development programmes.

6.1.3. Overview of individual forestry measures

This section provides information on individual forestry measures based on the responses to the questionnaire sent to the EU-15 Member States.

Article 30 – Investments to improve the multifunctional role of forests

Article 30 of the Rural Development Regulation encompasses a number of measures aimed at enhancing the multifunctional role of forests and their sustainable management. This article includes six main types of measures:

- afforestation of land non eligible under Article 31;
- investments in forests aimed at improving their economic, ecological or social value;
- investments to improve and rationalise the harvesting, processing and marketing of forestry products; investments to the use of wood as a raw material is limited to working operations prior to industrial processing;
- promotion of new outlets for the use and marketing of forest products;
- the establishment of associations of forest holders in order to help their members to improve the sustainable and efficient management of their forests;
- restoring forestry production potential damaged by natural disasters and fire, and introducing appropriate prevention instruments.

Concerning afforestation of land not eligible under Article 31, only Austria, Belgium, France, Greece, Portugal and UK have reported activities in relation to this measure, although the level of implementation is rather moderate also in those countries. Austria indicates that about 1 500 hectares per year were afforested during the period 2000–2003; Belgium reports that in the first half of 2004 some 80 ha were afforested; France estimates that around 600 hectares are annually afforested; Greece indicates that a budget of EUR 600 000 was allocated to this measure for the period 2000–2003; and UK has reported that about 900 hectares per year were planted during the period 2000–2002.

The bulk of the actions in the Member States have concentrated on the other measures included in Article 30 (Table 5). Silvicultural measures to enhance the overall quality of forest stands, forest protection measures such as liming, investments to improve the ecological value of forests, investments to improve forestry operations, setting-up of associations of forest holders, protection against fire, and restoring the forestry production potential damaged by natural disasters and fire, are examples of the measures implemented in the different countries.

Table 5. Article 30 (indents 2 – 6), overview of measures

Country	Investments in forests	Investments in harvesting, processing, marketing	Promotion of new market outlets	Setting-up of associations	Restoring forestry production potential – protection
Austria	Tending of young stands	Forest access, logistics	Marketing of products	Promotion of associations	Damages due to windfall and biotic factors
Belgium	Set of actions aimed at the growth of the economic, ecological and social value of forests. Regeneration, thinnings, pruning (private owners), forest roads, recreation (municipalities)	Promotion of the forestry-wood chain certification	Valorisation of thinnings, promotion of wood in construction	Promotion and co-ordination of forest groupings	Protection against biotic factors
Denmark	Promotion of indigenous broadleaf tree species		Product development to enhance use and value of wood and wooden products		Restoration measures after 1999 windfall. Scheme designed to favour use of indigenous tree species
Finland		Investments related to bioenergy generation			
France	Broad range of measures (concerning economic, social and ecological aspects)	Investments in harvesting operations (environmentally friendly methods)	Promotion of the use of wood in construction and bioenergy		Restoring forestry potential after 1999 storm. Forest fire prevention measures (tracks, fire breaks, water points)
Germany	Transformation of pure into mixed stands, measures in young stands, soil protection (liming)	Important in the context of the promotion of forest holders associations	Measure of growing importance. Promotion of wood fuels for energy purposes	Measure of growing importance	Important measure after 1999 storm (wood storage, road maintenance, reforestation). Fire protection measures important in one region
Greece	Not applied	Part of the operational programme of the Ministry of Agriculture for Rural Development			Forest fire prevention (forest tracks, water points, observatories, fire breaks, fuel control). Restoration (fires, floods) pilot-projects
Ireland	Broad range of measures aimed at enhancing quality of stands, amenity, restoration of woodlands	Investments in harvesting machinery (including environmentally friendly machinery)			Restoration after fire or natural catastrophes
Italy	Enhancement of economic and ecological aspects	Forest infrastructure	Promotion of new market outlets and diversification		Forest protection measures. Fire prevention
Luxembourg	Conversion of stands, first thinnings, protection measures	Management plans. Aid for traditional harvesting methods			

Country	Investments in forests	Investments in harvesting, processing, marketing	Promotion of new market outlets	Setting-up of associations	Restoring forestry production potential – protection
Netherlands	Several enhancement measures (transformation into mixed forest, improvement of forest structure, stimulating natural regeneration)	Advising and stimulating forest owners to harvest more timber			
Portugal	Enhancement measures (young stands, productivity, soil protection, infrastructures)	Investments in cork and wood products (cork: debarking equipment, stocking; wood: harvesting)		Promotion of associations	Preventive silvicultural measures. Maintenance of infrastructures
Spain	Silvicultural treatments, protection measures against biotic factors. Forestation. Improvement of grassland	Improvement of harvesting infrastructures, improvement of equipment for harvesting and storing, pre-processing		Promotion of associations	Preventive silvicultural measures. Safety equipment
Sweden	Environmental measures in forest land				
UK	Enhancement of forests (broad range of measures)				

Source: Information based on the responses provided by the members of Standing Forestry Committee.

Article 31 – Afforestation of agricultural land

This measure follows the scheme established in 1992 by Council Regulation (EEC) No 2080/1992 as an accompanying measure of the CAP reform. This Regulation introduced a system of EU aid for forestry measures in the context of the CAP, with four 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.

In the context of Regulation (EC) No 2080/92, about one million hectares of agricultural land were afforested in the EU Member States during the period 1994–1999. In qualitative terms, the broadleaf species represented 56.8% of the planted area, particularly cork oak and evergreen oak stands. Conifers represented 32.1% of the area, while about 4% of the total area was planted with fast growing tree species. More specifically, the situation concerning afforestation of agricultural land in the Member States (EU-15) is presented in Table 6.

Table 6. Article 31, afforestation of agricultural land

Country	Area	Species	National/Regional afforestation strategy	Approval procedure
Austria	1 000 ha/year	Broadleaf tree species	Main objectives: afforestation of under-arborous areas, soil protection	Applications approved on the basis of a national strategy and adequacy of individual projects
Belgium	216 ha (2003–2004)	Broadleaf tree species: 44% oak, 23% poplar	Regional strategy	There must be a permission to plant, issued by the municipalities – field control by Forest service
Denmark	1 500 ha/year	96% indigenous broadleaf tree species	Included in the national forest programme. To increase forest area so that forest landscapes cover 20-25% of Denmark after one tree generation. Based on the concept of multiple use forest management. Greater co-operation with local actors	Detailed guidelines and strategies for afforestation have been developed
Finland	Measure not used			
France	3 000 ha/year	70% broadleaf tree species and 30% conifers	At national level, only in relation to climate change mitigation. Priorities established at regional level	Established at regional level to guarantee coherence and consistency with environmental requirements
Germany	2 000–3 000 ha/year	96% of all afforestations are mixed broadleaf stands	Afforestation strategies established at the level of the single German Länder	National framework regulation for the promotion of afforestation, which is shaped in detail in the development programmes of the Länder
Greece	Target: 5 000 ha/year. Average: 2 200 ha/year	There is a variety of tree species included in the action both in pure and mixed stands. 98% are broadleaf tree species	Landscape restoration, maintenance of protective role of forests, soil protection, watershed management, enhancement of forest resources, tolerance and resistance to forest fires, increase in wood production, rural development	Approval on the basis of recommendations prepared by the Ministry of Agriculture. Inspection and control carried out by the Regional Forest services
Ireland	15 000 ha/year	Target of 30% broadleaf tree species	Set out in the Irish National Forest Strategy: Growing for the future – A strategic plan for the development of the forestry sector in Ireland – 1996	Statutory consent system for initial afforestation according to statutory instrument n° 538 of 2001
Italy			Established at regional level. Contribution to wood production, enhancement of the landscape and diversification of revenues and activities are common objectives to the majority of regions	Established at regional level
Luxembourg	2 ha/year	According to species-specific environmental conditions	No national strategy for afforestation	Subject to adequacy of species
Netherlands	200 ha/year		National policy. Compatibility with the environment and local conditions ensured by the Physical Planning Act	Provincial and local authorities are responsible for the designation of areas to be afforested
Portugal	10 000–12 000 ha/year	Priority given to autochthonous tree species	National Strategy: Priority given to the promotion of autochthonous species and the rehabilitation of degraded soils	Subject to technical assessment. In addition, guidelines for best silvicultural practices based on the MCPFE operational guidelines are mandatory for these projects

Country	Area	Species	National/Regional afforestation strategy	Approval procedure
Spain	25 000 ha/year	Priority given to autochthonous tree species	Established by National Regulation (RD 6/2001). Objectives: diversification of activities, employment and income in rural areas, protection against erosion and desertification, as well as soil protection and improvement, conservation of biodiversity, water regulation and development of forest ecosystems	Applications approved at regional level in accordance with the national regulation adopted annually
Sweden	Measure not used			
UK	16 000 ha/year	77% broadleaf tree species and 23% conifers	Objectives set up in the Country Forestry Strategies	Applications are assessed against the national scheme rules, the UK Forestry Standard and its guidelines

Source: Information based on the responses provided by the members of the Standing Forestry Committee.

The Commission presented an evaluation report of this Regulation in 2001 (AGRI/2001/33002-00-00-EN). The report analyses the economic, social and environmental impacts of the measures in the EU. In terms of economic and social aspects, the report indicates that all countries benefited from the favourable effects of diversification of agricultural activities and the development of activities connected with afforestation. It is estimated that 150 000 full-time equivalent jobs were temporarily created owing to afforestation operations. The frequent planting of mixed stands in certain countries and autochthonous tree species 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.

Under the current Rural Development Regulation, the measure is being implemented in 13 of the EU-15 Member States (all except Finland and Sweden). The information provided by the EU-15 Member States shows that countries are placing greater emphasis on the use of native broadleaf tree species. For instance, Denmark indicates that afforestation with indigenous broadleaf tree species represents 94% of the total area planted. In Germany, 96% of planted forests are mixed broadleaf stands; France indicates a rate of 70% and UK of about 77% of broadleaf tree species in the new plantations. Concerning afforestation strategies, seven countries indicate that they are established at national level, while in the rest specific strategies are established at regional level.

Article 32 – Improvement of forest protection values

The measures under Article 32 are aimed at maintaining and improving the ecological stability of forests where the protective and ecological role of the forests are of public interest and where the costs of maintenance and improvement measures for the forests exceed the income from forestry. Support is granted to the beneficiaries provided that the protective and ecological values of these forests are ensured in a sustainable manner, and the measures to be carried out are laid down by contract, and their cost specified therein.

The responses to the questionnaire indicate that this measure is being applied in a limited number of countries. Austria, Belgium, Germany, Ireland, Italy, the Netherlands and Spain reported activities within this measure. For instance, in Austria the measure has been mainly applied for the conservation of special forest types. In some German Länder, the measure is used mainly in protective forests (avalanche control) or for contract-based ecological forest management in ecologically sensitive regions (e.g. Natura 2000 areas). Ireland indicates that

the new Native Woodland Scheme provides financial support for land owners to protect and enhance native woodlands. Belgium (Flemish Region) indicates that the measure is being applied since 2004, where a grant is given to make up a forest management plan according to the criteria of sustainable forestry.

According to responses of the Member States, aspects related to the lack of tradition in establishing contracts between forest owners and administrations, the heavy administrative procedures and some lack of clarity concerning eligible measures, as well as limited financial resources within the RD programmes are the main reasons for the low level of implementation of the measure. As an indication, Table 7 provides the data for the year 2001 concerning the implementation of this measure under rural development programmes of the Member States' (EAGGF-Guarantee funded, 87 programmes).

Table 7. Article 32, EAGGF-Guarantee (87 programmes) – 2001

Country	Number of applications approved	Area supported, '000 ha	Total eligible cost, EUR '000	Total public expenditure, EUR '000	Of which EAGGF, EUR '000	Total costs borne by the beneficiaries, EUR '000	Average area supported per application, ha
Austria	92	333	142	133	67	142	3 633
Belgium	0	0	0	0	0	0	:
Denmark	0	0	0	0	0	0	:
Finland	0	0	0	0	0	0	:
France	0	0	0	0	0	0	:
Germany	4 821	156	7 313	5 812	2 906	1 502	32
Greece	NP	NP	NP	NP	NP	NP	:
Ireland	NP	NP	NP	NP	NP	NP	:
Italy	21	4	570	570	238	0	213
Luxembourg	0	0	0	0	0	0	:
Netherlands	NI	NI	NI	NI	NI	NI	:
Portugal	NP	NP	NP	NP	NP	NP	:
Spain	41	8	245	245	98	0	190
Sweden	NI	NI	NI	NI	NI	NI	:
UK	0	0	0	0	0	0	:
Total	4 975	501	8 269	6 759	3 309	1 643	101

NI – not implemented in 2001; NP – no programme under EAGGF-Guarantee.

Source: European Commission.

Article 9 – Training of forest holders

Education and training of farmers and forest holders are crucial for the development and application of sustainable management methods and practices. Responding to this need, the Rural Development Regulation provides for support for vocational training aimed at improving the occupational skills and competences of forest holders and other persons involved in forestry activities, notably on the application of forest management practices for improving the economic, ecological or social functions of forests. This measure is horizontal in nature, coexisting with and complementing the objectives of other RD measures.

Austria, Denmark, Finland, France, Ireland, Portugal and Sweden have indicated that several activities are being implemented in the context of this measure, although in some cases the

actions are carried out within schemes which cover both agriculture and forestry, and it is therefore difficult to provide quantitative data on the application of this measure.

6.1.4. Recent policy developments

As the CAP's second pillar, the rural development policy follows the overall orientations for a sustainable agriculture in line with the conclusions of the Lisbon (March 2000) and Gothenburg (June 2001) European Councils. At Lisbon, EU leaders stated their objective of making the EU "the most competitive and knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion" by 2010. The Gothenburg conclusions added a new emphasis on protecting the environment and achieving a more sustainable pattern of development, and highlighted the fact that in the context of Agenda 2000, European agriculture had "become oriented towards satisfying the general public's growing demands regarding food safety and quality, product differentiation, environmental quality and the conservation of nature and the countryside". The reform of the CAP in 2003 gave a further impulse to this objective through the introduction of a series of new measures in the Rural Development Regulation, including additional resources to be generated by modulation. With regard to forestry, the 2003 CAP reform introduced the possibility to provide support to State-owned forests for investments aimed at enhancing the ecological and social values¹⁵.

6.1.5. Rural development policy post-2006

In July 2004, the Commission adopted a proposal to reinforce the EU's rural development policy for the period 2007–2013, and to greatly simplify its implementation¹⁶. Reflecting citizens' demands, the Commission wants the EU's rural development policy to play a more important role in the new, reformed CAP. The proposal will increase EU funding to EUR 13.7 billion per year for 2007–2013. By introducing a single funding and programming instrument, the new policy will be much simpler to manage and control. Coherence, transparency and visibility will be increased. Member States and regions will have more freedom as to how to implement the programmes.

To achieve a more strategic approach to rural development, a first step in the programming phase would be the preparation by the Commission of a strategy document setting out the EU priorities around the three major objectives for RD policy set-out in the Communication on the Financial Perspectives for the period 2007–2013, namely:

- improving the competitiveness of the agricultural and the forestry sector;
- enhancing the environment and countryside through support to land management;
- enhancing the quality of life in rural areas and promoting diversification of economic activities through measures targeting the farm sector and other rural actors.

The EU rural development strategy would then be adopted by the Council and form the basis for the national rural development strategies of the Member States. The latter strategy would translate the EU priorities to the national level after stakeholder consultation, set core result indicators and demonstrate the complementarity of rural development programming with other EU policies, in particular the cohesion policy.

¹⁵ Council Regulation (EC) No 1783/2003 of 29.9.2003 (OJ L 270, 21.10.2003, p. 70).

¹⁶ Commission proposal for a Council Regulation on support for rural development by the European Agricultural Fund for Rural Development (EAFRD); COM(2004) 490 final.

The proposal acknowledges the important role of forestry in rural development and includes a number of measures across the three priority axes aiming at enhancing the protection and sustainable forest management and promoting the multifunctional role of forests in the EU, as well as a better integration of forestry in rural development programmes.

6.1.6. Concluding remarks

The analysis of the responses of the Member States to the questionnaire distributed in November 2003 invites the following remarks on the content and scope of the Rural Development Regulation:

- the Rural Development Regulation is considered as an innovative tool with a broad menu of measures providing considerable potential to support sustainable rural development throughout the EU;
- the majority of the countries consider that the scope of the forestry measures is satisfactory with regard to their needs. However, it is also felt that forestry should be better integrated in rural development programmes. It should be treated on an equal level with agriculture and the range of measures available should be used more effectively with respect to forestry;
- the framework of Article 32 measures should be better explained;
- aspects related to the economic viability of sustainable forest management are of a growing importance;
- the integration of environmental objectives in forestry measures in the context of rural development should be improved;
- participation of all rural actors in the preparation and implementation of programmes should be enhanced;
- there is a potential to learn from best practices and innovative approaches and actions carried out in individual countries;
- countries also indicate the importance of increasing training activities and capacity building in the future;
- the large number of programmes, programming systems and different financial management and control rules impose a heavy administrative burden on the Member States and the Commission, and decrease the transparency and visibility of the rural development policy. A main objective for the next programming period is to simplify the implementation of the policy.

6.2. Support for forestry measures in accession countries – the Sapard programme

The EU Forestry Strategy points out that “measures in the framework of co-operation with Central and Eastern Europe ... should promote sustainable management and sustainable development of forests” (Article 8). As well, it is considered in the Strategy that Community support for pre-accession measures for agriculture and rural development “may contribute to management, conservation and sustainable development of forests in Central and Eastern Europe” (Article 8).

6.2.1. Overview of actions

Community support for pre-accession measures for agriculture and rural development was provided under the umbrella of the Special Accession Programme for Agriculture and Rural Development (Sapard)¹⁷. This programme has assisted the 8 new continental Member States, as well as Bulgaria and Romania in making structural improvements to their agricultural and rural environments. To achieve this general goal, encompassing the above objectives of the EU Forestry Strategy, each country has drawn up a development plan in accordance with the principles of the programming approach used by the Member States for rural development. Measure 14 of the Sapard Regulation concerns forestry, including afforestation of agricultural areas, investment in forest holdings owned by private forest owners, processing and marketing of forest products, and support for forest infrastructure.

Forestry measures have been included in the Sapard programmes of six countries – Bulgaria, Estonia, Latvia, Lithuania, Romania and the Slovak Republic – for a total amount of EUR 167.5 million (Table 8), representing about 5% of the EU contribution to Sapard. Its importance for each individual candidate country varied from 1% (Estonia) to 8% (Bulgaria and the Slovak Republic) and 10% (Romania).

The principal activities supported by Sapard were production-oriented, including investment in forest infrastructure, afforestation and the development of forest nurseries. It must be stressed that the support for forestry measures was not unilateral in a sense that it attempted to improve and enhance multiple functions served by forests. Afforestation can be mentioned as a good example. Due to this measure, mainly abandoned agricultural land was converted to forests. This provided a potential for future economic gain (once planted forests reach the maturity age), as well as improvement of biodiversity (new habitats were created typically using mixed tree species), captured greenhouse gas emissions and in many cases prevented soil degradation (afforestation taken place on marginal agricultural land).

The Sapard programme was targeted at the private forest sector. Unfortunately, in most of the Central and Eastern European countries, where the private sector emerged slightly more than a decade ago, many private forest owners, or even their associations, do not have the necessary experience or capacity to apply for projects under Sapard.

At the Copenhagen Summit in December 2002 it was agreed that the new Member States would receive a rural development package specifically adapted to their requirements and the amount available for the ten countries was fixed at EUR 5.1 billion for the period 2004–2006. The preparation phase of the rural development programmes shows that forestry measures can be expected to represent at least as high a proportion of funding in the programmes of the new Member States as in the ongoing rural development programmes of the EU-15.

¹⁷ Council Regulation No 1268/1999 of 21 June 1999 (OJ L 161, 26.6.1999, p. 87).

Table 8. Forestry measures in the Sapard programmes 2000–2006

Country	Sapard funding for forestry-related activities		Main activities
	EUR million	% of planned total funding	
Bulgaria	30.0	8	Forest plantations, non-commercial thinnings, afforestation
Czech Republic	0		Not applicable
Estonia	1.1–3.3	1–3	Diversification of activities
Hungary	0		Not applicable
Latvia	4.6	3	Development of forest tree nurseries, afforestation
Lithuania	7.7	4	Afforestation, improvement of forest infrastructure
Poland	0		Not applicable
Romania	108.3	10	Forest roads, afforestation, nurseries
Slovak	9.7	8	Forest nurseries, equipment for forest work
Slovenia	0		Not applicable
Total	167.5	5	

Source: European Commission.

6.2.2. Concluding remarks

One lesson to be drawn from the implementation of Sapard forestry measures is that shortcomings are often related to inadequate institutional capacity and a shortage of financial means. In this respect, institution building, training and the development of information systems for forest owners are important, especially for improving the co-operation among forest owners.

On the other hand, despite the small failures and difficulties during the process, the overall result of Sapard in the forest sector was positive. One type of benefits is the intended direct support for rural development channelled through the Sapard measures, which have helped facilitate sustainable forest development. Another not less significant benefit was the experience gained in the learning process of preparing required documents, understanding the mechanism of support in general and accumulating human and financial resources to utilise support from structural funds to achieve an even larger positive effect on sustainable forest development.

6.3. The European forestry information and communication system (EFICS)

In the Article 7, the Strategy emphasises the importance of continued development of the European Forestry Information and Communication System (EFICS) established and extended by several regulations¹⁸, by improving the quality and reliability of data on forests, and underlines the value of co-operation with the relevant national and international institutions.

¹⁸ Council Regulation (EEC) No 1615/89; Council Regulation (EC) No 400/94; Council Regulation (EC) No 1100/98.

6.3.1. Overview of actions

The system was conceived to collect, co-ordinate, standardise, process and disseminate information concerning the forest sector and its development. So far, there has only been a small amount of co-ordination activities between Commission services and a modest amount of financial means devoted to this action.

The co-ordination activities within the framework of the EFICS regulation have led to the setting up of an informal Inter-secretariat Working Group (IWG), bringing together relevant Commission services, Eurostat, EEA, together with the main international organisations collecting data on the forest sector (FAO, UNECE, OECD, and ITTO). 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, with the help of one common questionnaire, forest product data are collected 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. This form of co-operation with relevant international institutions has resulted in improving data quality and avoiding duplication of work.

The implementation of research activities by the Joint Research Centre in the field of remote sensing applied to the forest sector and the development of a prototype of a communication platform for forest information (European Forest Information System – EFIS) constitute an important contribution to the objectives of the EFICS Regulation. The aim of EFIS was to demonstrate on a limited number of datasets the capabilities of an information system able to retrieve and display data collected from different national and international sources.

The development of the new EFICS initiative takes place in the context of a continuing need from administrations, industry, commerce, and societal groups for statistical and other information on the EU forest sector at Community, national and regional levels. A major issue in this context is to identify and prioritise the concrete needs of the various potential users. Another issue concerns limiting factors which persist, such as the completeness, quality and comparability of available data. These aspects need to be addressed in parallel with those on data retrieval and presentation.

6.3.2. Concluding remarks

The EFICS regulation expired on 31 December 2002. As a future action, the Commission has proposed a two-year preparatory action aiming to further develop the internet-based forestry information platform.

At the same time, there is a need to examine the concrete needs of potential data users, as well as the limitations related to data completeness, quality and comparability. Presently, for instance, many data on the positive functions and services that the forest sector provides are not collected.

6.4. EU forest monitoring measures

The EU Forestry Strategy calls on the Commission to undertake a review of the measures in Council Regulation (EEC) No 3528/86 on the protection of forests against atmospheric pollution in order to evaluate and improve continuously the effectiveness of the European monitoring system of forest health, taking into account all the potential impacts on forest ecosystems (Article 5). Also the continuation and evaluation of, and consideration of a possible improvement to the Community's scheme for the protection of the forests against fire (Council Regulation (EEC) No 2158/92) is advocated (Article 6). The Strategy invites the Commission to pay special attention to the development of the Community forest-fire information system (Article 6).

6.4.1. Council Regulation (EEC) No 3528/86 on the protection of forests against atmospheric pollution

Responding to forest damage from air pollution, the International Co-operative Programme on the Assessment and Monitoring of Air Pollution Effects on Forests (ICP Forests) was established in 1985 under the UN/ECE Convention on Long Range Transboundary Air Pollution (CLRTAP). In 1986, the Council of the European Communities adopted Regulation (EEC) No 3528/86, providing for Community co-financing of a common periodic inventory of forest damage (“the EU forest monitoring scheme”) and for experiments to improve the understanding of atmospheric pollution. Since then, EU Member States and 16 other European countries, all parties to CLRTAP, have participated continuously in a Pan-European Monitoring Programme based on co-operation between the EU and ICP forests. The general objectives of EU monitoring are to: establish a uniform periodic inventory of the damage caused to forests; provide information on the spatial and temporal variation in forest condition in relation to anthropogenic (in particular air pollution) as well as natural stress factors affecting forests; carry out field experiments and demonstration projects in relation to forest monitoring.

A systematic monitoring is designed in a large-scale network (“Level I”) and an intensive monitoring programme (“Level II”), with harmonised methods. The Level I network comprises approximately 5 700 permanent plots throughout Europe (4 900 in EU-25), systematically arranged in a 16 x 16 km grid. Surveys conducted at this level include measurements of crown condition, foliar condition, soil chemistry, and soil solution chemistry. A Level II network of more than 860 plots (670 in EU-25) was established to carry out in-depth studies. These plots are located in forests that represent the more important forest-ecosystems and common growing conditions in the respective country. Surveys conducted at this level include: foliar condition, soil chemistry, soil solution chemistry, tree growth, ground vegetation, atmospheric deposition, ambient air quality, meteorological condition and – optional – phenology and remote sensing.

The collective monitoring of forest condition and effects of atmospheric pollution on forest ecosystems in Europe is one of the largest biomonitoring systems. It provides, as main outputs:

- detailed statistical analysis showing that climate, soil condition, atmospheric pollution and forest pathogens such as insects and fungi all have an effect on forest condition;
- identification of geographical areas under threat from heavy metal deposition by using information on soil, climate and pollutant inputs;

- better understanding of the sensitivity of forest ecosystems to external influences, such as the sensitivity to nitrogen deposition in Scandinavia, Poland and central Spain, and the high sensitivity of forests in Scandinavia to atmospheric acidity.

The EU monitoring scheme was further developed in line with objectives formulated in MCPFE process and UNCED (Rio 1992).

Achievements

From 1987 to 1999, 625 projects were submitted to and approved by the European Commission for co-financing. Since 2000, the measures provided for in Articles 2 and 4 of Regulation (EEC) No 3528/86 have been implemented under a programme approach, in which Member States obtain a maximum co-financing by the Community of 50%. The allocated budget (1987–2002) was roughly EUR 10 million for projects related to the Level I grid, EUR 35 million for activities on Level II plots, and EUR 27 million for studies and demonstration projects (Figure 1; Figure 2).

The results of monitoring forest condition show that European forests deteriorated considerably during the first decade of monitoring¹⁹. Then recovery followed in mid-1990. However, deterioration resumed in recent years with more than 20% of trees now classified as damaged. While the systematic monitoring carried out reveals that sulphur deposition in forest soils have decreased in recent years, a matter of concern is that nitrogen deposition in forests has hardly decreased at all.

¹⁹ “Europe’s Environment: the Third Assessment”, EEA 2003.

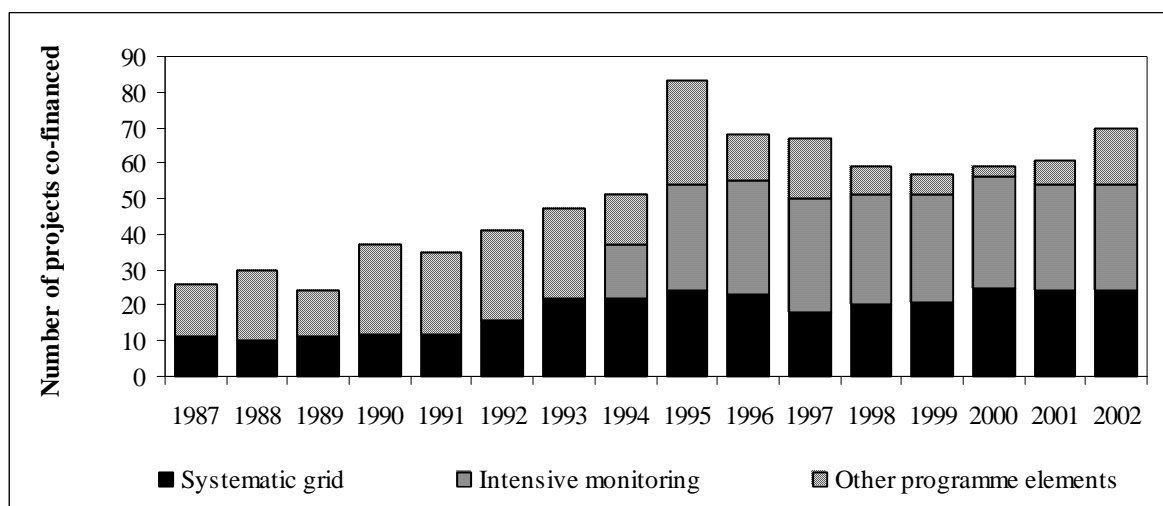


Figure 1. Number of projects and programmes co-financed annually (Regulation (EEC) No 3528/86)
Source: European Commission.

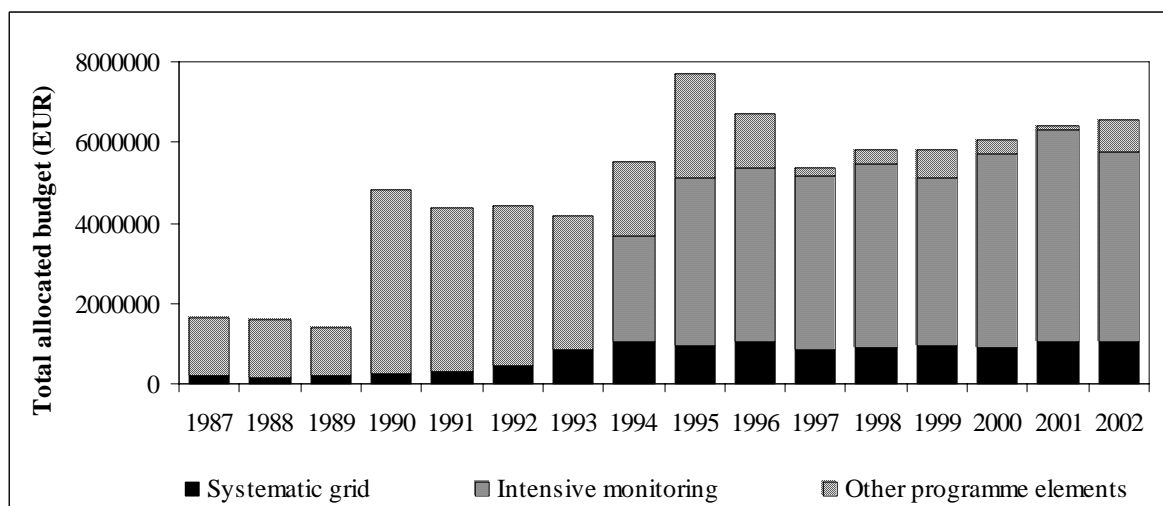


Figure 2. Total budget allocated annually (Regulation (EEC) No 3528/86)
Source: European Commission.

6.4.2. Council Regulation (EEC) No 2158/92 on the protection of the Community’s forests against fire

Forest fires are among the most important threats to forests in the EU: every year on average 40 000 fires sweep through 500 000 ha of EU forests, most notably in the southern Member States.

Design and methodology

A common scheme to monitor forest fires and protect EU forests from fire was established by Council Regulation (EEC) No 2158/92, contributing to safeguard the various functions which forests fulfil for the benefit of rural areas. To reduce the number of forest fire outbreaks and the extent of areas burnt, the scheme allowed for co-financing data collection about forest fires and the implementation of protective measures in the field. As for Regulation (EEC) No 3528/86, the scheme first co-financed single projects from Member States (1992–1999)

and later switched to supporting national programmes (2000–2002) to achieve a more coherent approach.

Making use of Community funding under this regulation required a classification by Member States of their territory according to high, medium and low forest fire risk areas, as well as the establishment of national and regional forest fire protection plans for the areas classified as being of medium and high risk. The entire territory of Spain, Portugal and Greece has been classified as high risk area, whereas France, Italy and Germany have set up a classification of high and medium risk areas per region. In total, some 60 million ha of forests and other wooded land have been classified as high or medium forest fire risk zones within the EU-15.

Achievements

Under this Regulation, the Community has supported forest fire prevention actions of 6 Member States with a yearly EU funding of about EUR 10 million. The scheme set up by Council Regulation (EEC) No 2158/92 provided significant co-financing (EUR 123.7 million for the period 1992–2002) for monitoring and preventive measures implemented by Member States. The scheme expired on 31 of December 2002. About 50% of these funds were used for creating or improving prevention infrastructures (water points, forest roads, firebreaks, and silvicultural measures), 30% for surveillance equipment, 16% for awareness and information campaigns as well as specialised training, and about 4% for analytical studies and geographical information systems. In addition, forest fire prevention actions were also supported within the Structural Funds (Objective-1 and 5b regions), the Cohesion Fund (1994–1999) and under the Rural Development Regulation (EC) No 1257/1999 starting from the year 2000 (Figure 3; Figure 4).

A common core forest fire database²⁰ was established in 1994 by Commission Regulation (EC) No 804/94 to collect information on forest fire occurrence, causes of forest fires and to improve the understanding of forest fires and their prevention. This allowed identifying all forest fires occurring in the Mediterranean countries.

The Community Action Programme on Civil Protection has resulted in the development of the European Forest Fire Information System²¹ (EFFIS), aiming to give to Member States participating in the project daily and updated information of forest fire risk forecast and on fire damages.

²⁰ http://www.europa.eu.int/comm/agriculture/fore/fires/scif/index_en.htm.

²¹ See the same as footnote #20.

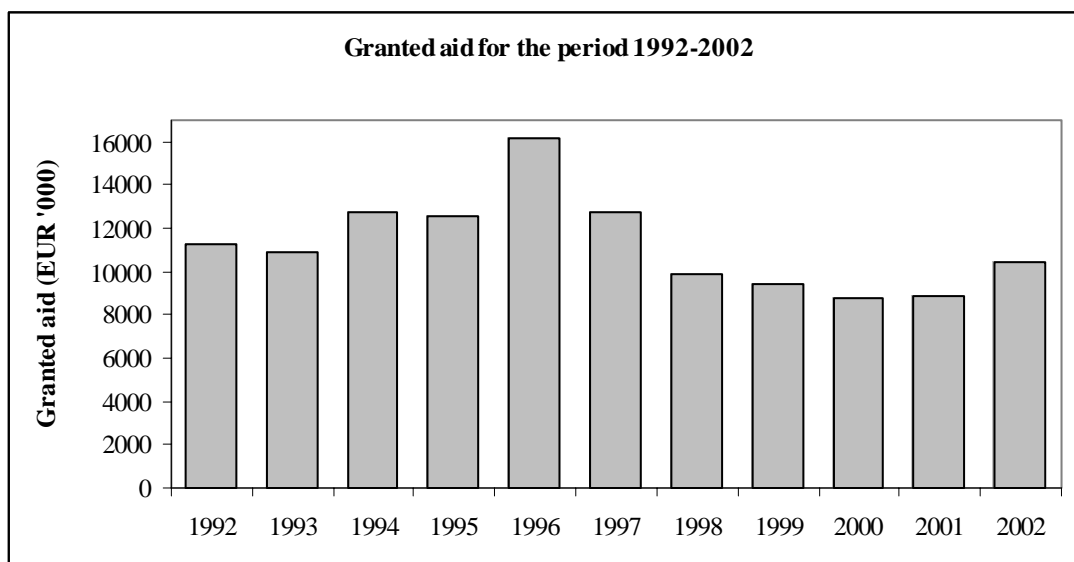


Figure 3. Council Regulation (EEC) No 2158/92 expenditure per year

Source: European Commission.

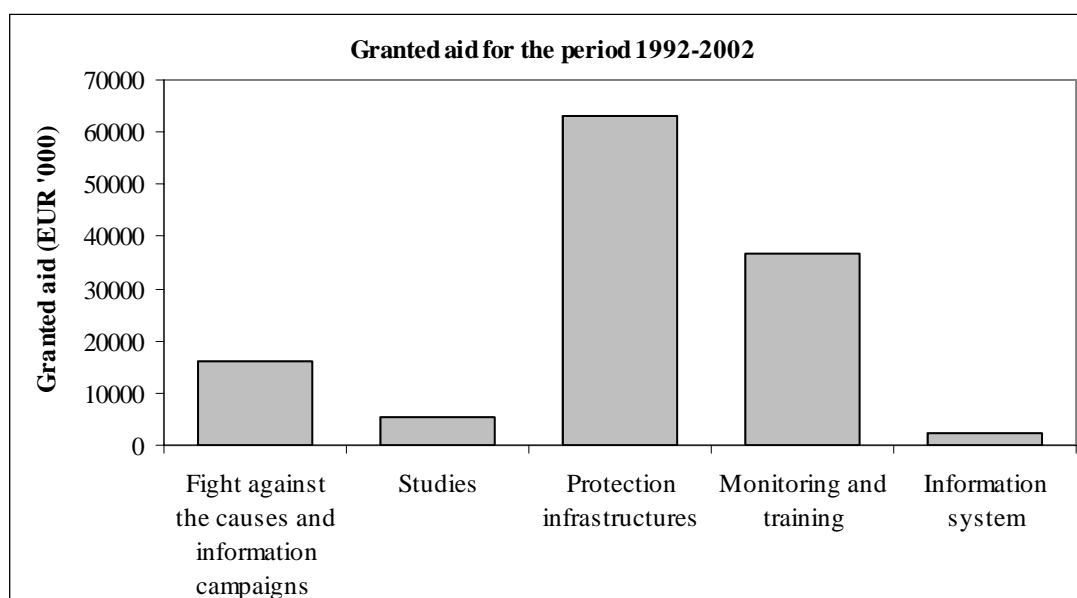


Figure 4. Council Regulation (EEC) No 2158/92 expenditure per activity

Source: European Commission.

6.4.3. A new approach to forest monitoring

Following a complaint by the European Parliament, the European Court of Justice ruled on 25 December 1999 that the environment article of the Treaty (now Article 175) is to be considered as the appropriate legal basis for the above-mentioned forest protection measures, and annulled Council Regulations (EEC) No 3528/86 and No 2158/92, which were based on the agricultural articles of the Treaty, while asking the Council to adopt new regulations having the same subject matter with the environment article as a legal basis. On 20 June

2001²² the Council adopted an amendment to both monitoring and protection regulations in order to extend their duration until 31 December 2001, and another amendment on 15 April 2002²³ to extend them until 31 December 2002. The Commission decided on 12 December 2001 to transfer the responsibility for the forest monitoring and forest protection measures from DG Agriculture to DG Environment from 2003 onwards.

On 15 July 2002, the Commission submitted to the Council and to the European Parliament a proposal for a Regulation concerning monitoring of forests and environmental interactions in the Community (Forest Focus)²⁴ with the following main elements:

- to combine the existing monitoring and information gathering under Regulations (EEC) No 3528/86 (atmospheric pollution) and (EEC) No 2158/92 (forest fires) in one scheme;
- to develop under the same scheme a series of new monitoring activities to accompany the implementation of biodiversity conservation, climate change mitigation and soil protection.

The Commission justified this approach on the following grounds:

- Monitoring of atmospheric pollution effects in forests and data collection on forest fires have provided better scientific understanding of these problems and have been critical in shaping EU policies to address these issues. Their continuation under a new programme will allow the EU and its Member States to measure the effectiveness of its strategy to reduce acid rain and measures to prevent and combat forest fires;
- In recent years, it has become clear that the importance of forests for the environment extends beyond pollution impact and forest fires. Indeed, forests are the home of much of the EU's valuable biodiversity, they are essential for the protection of soils and water, preventing desertification and erosion. By their role in the carbon cycle they play a potentially important part in mitigating climate change effects.

In 2003, Regulation (EC) No 2152/2003 of European Parliament and Council concerning monitoring of forests and environmental interactions in the Community (Forest Focus) was adopted in second reading²⁵. This framework regulation establishes a Community scheme for forest monitoring, which builds on achievements of the two previous Council Regulations (EEC) No 3528/86 and (EEC) No 2158/92²⁶ on the protection of Community's forests against air pollution and against fire. Forest Focus aims at continuing the existing monitoring and protection measures and provides a basis to further develop forest monitoring by considering environmental parameters such as biodiversity, soil, carbon sequestration and climate change. Forest Focus is built on four main pillars:

- monitoring of air pollution effects on forests (existing Level I and II networks);
- forest fire monitoring;
- forest fire prevention (complementary to measures under Rural Development);

²² Council Regulations (EC) No 1484/2001 (atmospheric pollution) and No 1485/2001 (forest fires).

²³ Council Regulations (EC) No 804/2002 (atmospheric pollution) and No 805/2002 (forest fires).

²⁴ COM(2002) 404 final.

²⁵ OJ L 324, 11.12.2003, p. 1.

²⁶ Of the measures from this Regulation, the common core database and the European Forest Fire Information System, studies and analyses on forest fires, awareness-raising campaigns, training have been included in the new Forest Focus Regulation. Some infrastructure investments for forest fire prevention, whereas not included in the Forest Focus Regulation, will continue to be ensured within the rural development programmes.

- studies to develop the scheme in relation to other environmental parameters such as biodiversity, soil condition and carbon sequestration.

The scheme will run from 2003 to 2006, with a total budget of EUR 61 million. During 2004, the Commission will adopt the necessary implementing regulations with the assistance of the Standing Forestry Committee. At the same time, preparations will start to integrate future forest monitoring activities in the framework for Community actions in the field of environment that was laid out in the Communication “Building our Common Future, Policy Challenges and Budgetary Means of the Enlarged Union 2007–2013”²⁷.

6.4.4. Concluding remarks

The Community Programme to support the monitoring of atmospheric pollution has provided a considerable amount of scientific information that has yielded new insights in forest ecology. It has improved the collaboration between scientists and policy-makers. In addition, the EU forest monitoring scheme provided scientific data that led the Third MCPFE, in Lisbon, to adopt the six voluntary Pan-European criteria for Sustainable Forest management (SFM).

The Community Programme for monitoring of and protection against forest fires has contributed to identify causes of and problems related to forest fires, and has helped to reduce the average size of the fires and the average duration of individual fires in the Mediterranean region. It has been instrumental in the establishment of operational systems for the EU-wide collection, processing and exchange of forest fire information, which have proven their utility for civil protection and fire prevention.

The adoption of the Forest Focus Regulation in 2003 marks an important step in the direction of the integration of forest monitoring in the wider perspective of the global environmental monitoring standards that are under development.

6.5. Forests and biodiversity

The importance of SFM for the conservation and enhancement of biological diversity is identified under Article 2-g of the Strategy. Article 11 assigns an essential role to forest biodiversity in SFM and considers that appropriate measures should be integrated in the forest programmes or equivalent instruments of the Member States in line with the Pan-European “Work Programme on the Conservation and Enhancement of Biological and Landscape Diversity in Forest Ecosystems 1997–2000”. Article 12 recognises the importance for biodiversity of protected forest areas, notably through the establishment of Natura 2000.

Of all ecosystems, forests contain the greatest diversity in terms of species, genetic material and ecological processes. It is therefore important to ensure the conservation and appropriate enhancement of biodiversity in forests as a contribution to the maintenance of forest health and the global ecological balance, the sustainable production of raw material for forest-based industries as well as the provision of other goods and services sought by society.

²⁷ COM(2004) 101 final.

Globally, UNEP²⁸ has reported that biodiversity is decreasing at a faster rate now than at any other time in the past. In 1992, the UNCED at Rio adopted the Convention on Biological Diversity (CBD)²⁹, which has been ratified by the Community and all Member States, leading to the development of biodiversity strategies and action plans, and to the integration of biodiversity conservation into other policies.

Regarding forests, the CBD has adopted the “Ecosystem Approach” (EA) as a codex for the management of land, water and living resources in a sustainable and equitable way at its COP5 in 2000 and an “Expanded Programme of Work on Forest Biological Diversity” at its COP6 in 2002. This programme complements very well the IPF/IFF Proposals for Action.

At Pan-European level, the Community is a signatory party to the resolutions adopted at the MCPFE (see section 5.3). In this context general guidelines for the conservation of the biodiversity of European forests have been defined in Resolution H2 of the Helsinki Conference. Reference to conservation and appropriate enhancement of biodiversity is also made in Resolution H1, in which general guidelines for the sustainable management of forests in Europe are set out. In addition, the Pan-European criteria for SFM adopted at the MCPFE in Lisbon (1998, Resolution L2) and the associated indicators include clear references to biodiversity. The Vienna MCPFE in 2003 adopted a specific resolution (V4) on forest biological diversity and endorsed an improved set of indicators.

6.5.1. EU situation, initiatives and actions

EU forests remain exceptional at global level by being one of the largest single biodiversity reservoirs and continuing to function as a sustainable source of raw material for important economic activities.

Nevertheless, several EEA³⁰ assessments of the environmental situation in Europe under the “Environment for Europe” pan-European process during the 1990s have pointed out a gradual loss of forest biodiversity, mentioning for Western Europe:

- changes in forest habitats through intensification of management, increase in uniformity, fragmentation, use of exotic tree species, introduction or maintenance of animal species for hunting, drainage and air pollution;
- rareness of undisturbed natural forest, continuing loss of old natural and semi-natural³¹ deciduous and coniferous woodlands resulting in less than one third of the total forest area of Western Europe being semi-natural;
- creation of new forest types, such as habitats associated with short rotation forestry, Christmas trees, energy woodlands and exotic species, generally with a low biodiversity.

According to other reports³², the changes that forests underwent over the last few centuries have brought a great number of species to the verge of extinction in several European

²⁸ See “State of the Environment and Policy Perspective 1972-2002“ at <http://www.unep.org/geo/geo3/pdfs/Chapter2Biodiversity.pdf>.

²⁹ <http://www.biodiv.org/default.aspx>.

³⁰ European Environment Agency: “Europe’s Environment: the Dóbris Assessment”, 1995; “Europe’s Environment: the Second Assessment”, 1998.

³¹ Forest which is neither “forest undisturbed by man” nor “plantation” as defined separately (TBFRA 2000 - also used by MCPFE and EEA).

³² See UN/ECE/FAO website at <http://www.unece.org/trade/timber/fra/welcome.htm> for the “TBFRA 2000” main report and “Geneva Timber and Forest discussion paper” ECE/TIM/DP/22.

countries, with 20–50% of mammals and 15–40% of birds among the forest-dwelling species being categorised as threatened.

However, more recent reports³³ show some positive changes. Currently, there is an overall trend, especially in Western and Central Europe, to let broadleaf re-occupy some of the areas that had been converted to conifer stands in the past. Thereby, the use of natural regeneration has gained considerable importance as a planned regeneration technique, resulting, especially in public forests, in an increase of the amount of mixed forest stands.

The Commission presented in 1998 to the EP and the Council a European Community Biodiversity Strategy³⁴ and adopted Communications on Biodiversity Action Plans (BAPs)³⁵ for agriculture, fisheries, natural resources and development co-operation. Forest related aspects were integrated in the natural resources and agriculture BAPs in 2001. At the Gothenburg Council in June 2001, EU Heads of State and Government made a commitment to halt the loss of biodiversity by 2010, and this objective figures as one of the priorities in the 6th Community Environment Action Programme³⁶ (2002).

The Council Resolution on a Forestry Strategy of 1998 proposed both an integrative and a focussed approach to realising forest biodiversity objectives.

Landscape level or integrative approach

There have been no initiatives at Community level in the “Environment for Europe”³⁷ process and its Pan-European Biological and Landscape Diversity Strategy (PEBLDS), but elements of the 1997–2000 “Work Programme on the Conservation and Enhancement of Biological and Landscape Diversity in Forest Ecosystems”³⁸ have found their way into the work of the MCPFE leading up to the Vienna Conference in 2003.

In the Rural Development Regulation (EC) No 1257/1999 (RDR), the Community’s commitments at international level in relation to the conservation and sustainable use of forest biodiversity have been incorporated in the forestry chapter. While recognising the importance of afforestation programmes in the context of changes in land use brought about by the evolution of the CAP, the RDR has taken care to avoid endangering ecosystems that are important for their biodiversity (e.g. wetlands, steppes, heathlands), and the use of inappropriate tree species, while specifically supporting ecological forest functions.

The Community has supported important research efforts concerning the structural composition of forest biodiversity and the development of indicators in managed forests under the 5th Framework Programme (“FAIR” and “COST” programmes, see further in section 6.9).

Focussed or protected area approach

The establishment of the Natura 2000 network has provoked a substantial increase in the attention given to forest biodiversity, both at Community and at Member States level. The

³³ “Europe’s Environment: the Third Assessment”, 2003.

³⁴ COM(1998) 45 final.

³⁵ COM(2001) 163 final.

³⁶ http://europa.eu.int/eur-lex/pri/en/oj/dat/2002/l_242/l_24220020910en00010015.pdf.

³⁷ Unlike its position in the CBD and the MCPFE, the Community is not a full party in this process.

³⁸ The “Dóbris Assessment” (see. footnote 30) is explicitly mentioned in this work programme.

elaboration of lists of proposed Sites of Community Importance (pSCIs)³⁹ has generated a lot of discussion between the forest sector and conservation circles.

During 2002 and 2003, major progress on the designation of sites was achieved through a discussion process in biogeographical seminars at which Member States, scientists, stakeholders and the Commission evaluate the proposals. Today, all Member States have nearly completed their lists of Special Areas of Conservation (SACs) for final adoption. Almost 30% of all designated sites (including aquatic habitats) concern forest habitats and another 30% partly contain woodland elements and related species (Table 9).

Table 9. Distribution of Natura 2000 designations (pSCIs) by categories of habitats in EU-15, 2003

Categories of habitats	Percentage of total	Designated area in ha
Marine	12.5%	5 301 803
Wetlands	3.9%	1 671 275
Inland waters – Marshes	12.9%	5 459 885
Pastures – Scrubs	26.3%	11 170 888
Agriculture	5.6%	2 373 722
Forests	28.9%	12 296 965
Orchards – Dehesas	1.8%	778 019
Snow – Rocks	3.8%	1 596 317
Other	4.3%	1 825 335
Total	100%	42 474 208

Source: COM(2004) 431 final, 15 July 2004, Commission Staff Working Paper, Annex to the Communication from the Commission to the Council and the Parliament on Financing Natura 2000.

DG Environment has produced a guidance document in which the main challenges and opportunities for nature conservation in forests are laid out. The guide “Forests and Natura 2000”⁴⁰ was developed with extensive stakeholder consultation to give a better understanding of nature conservation in forests. It makes it very clear that Natura 2000 is not opposed to economic activity in the forest sector and contains numerous examples of creative approaches to implementing Natura 2000 by combining forestry with nature conservation objectives.

Since 1992, LIFE Nature has funded over 200 projects about forest biodiversity, with a total Community support of more than EUR 60 million. Although not directly related to Natura 2000, LIFE Environment has supported forestry projects with important biodiversity elements.

6.5.2. Important developments regarding forest biodiversity conservation

The 4th MCPFE in Vienna (2003)

Resolution 4 “Conserving and enhancing forest biological diversity in Europe”, builds on

³⁹ pSCIs: “proposed Sites of Community Importance”, according to the designation procedure laid out in Annex III of the “Habitats” directive 92/43/EEC.

⁴⁰ http://europa.eu.int/comm/environment/nature/nature_conservation/useful_info/documents_publications/pdf/n2kforest_en.pdf.

international commitments of Environment for Europe, the CBD, UNFF and WSSD and previous MCPFE commitments. It proposes to conserve forest biological diversity by combating illegal harvesting and related trade, further developing protected forest area networks, restoring biological diversity in degraded forests, promoting native tree species, preventing negative impacts of invasive alien species and monitoring the development of forest biological diversity. The “MCPFE Assessment Guidelines for Protected and Protective Forest and Other Wooded Land in Europe” as well as the “Framework for Co-operation between the MCPFE and Environment for Europe/PEBLDS⁴¹” on key issues of forest biodiversity were adopted as annexes to this resolution. In addition, the Vienna Conference endorsed nine indicators of forest biological diversity.

Financial Resources for Natura 2000

In 2004, the Commission has adopted a Communication “Financing Natura 2000”⁴². This text lays out how biodiversity funding could be coupled with the EU financial perspectives⁴³ for the period 2007–2013. It contains estimates of the total financing needs in the long term and proposes to integrate support for Natura 2000 in major existing Community instruments such as Rural Development funding and the Cohesion fund.

Revision of the Community Biodiversity Action Plans 2003–2004

The Commission has recently launched a broad consultative review of the EU biodiversity policy, to assess progress in implementing the EU Biodiversity Strategy and BAPs and to gauge the effectiveness of actions taken in terms of impact on the rate of biodiversity loss. A stakeholder conference organised by the Commission and the Presidency in Ireland in May 2004 has proposed a set of priorities and targets⁴⁴ to effectively halt biodiversity decline by 2010. Responding to a call from the June 2004 Environment Council the Commission will prepare for 2005 a Communication outlining how to reach the Gothenburg objectives.

The Kiev “Environment for Europe” Ministerial Conference (2003)

The third assessment of Europe’s environment⁴⁵ that was prepared for this conference gives indications regarding the evolution of forest biodiversity in Europe. It highlights general trends common to the EU-25, such as an increase in the share of mixed forests by conversion of monospecific stands, a rising area of forest not available for wood supply, a more common use of natural regeneration, a widening gap between output and increment, and a remarkable expansion of protected forest areas. Avoiding fragmentation and assuring conservation of forests ‘undisturbed’ by human activities, however small these may be, are listed as important to maintain forests as major reserves for biodiversity. The Kiev Conference also confirmed the achievements of the MCPFE, which established biodiversity as an integral part of SFM.

The PEBLDS Council meeting in Madrid (2004) has adopted a proposal for a Forest Action Plan with the following themes: ‘Ecosystem approach’, ‘Protected forest areas’, ‘Forest law enforcement with regard to biodiversity conservation’, ‘Recommendations for site selection for afforestation’. The implementation of this plan by governments is to be monitored jointly by the MCPFE Liaison Unit in Warsaw and the PEBLDS secretariat.

⁴¹ Pan-European Biological and Landscape Diversity Strategy.

⁴² COM(2004) 431 final.

⁴³ COM(2004) 101 final.

⁴⁴ See “Message from Malahide” on www.eu2004.ie.

⁴⁵ “Europe’s Environment: the Third Assessment”, EEA 2003.

The CBD COP7 at Kuala Lumpur (2004) has adopted a number of decisions which are relevant for forest biological diversity (e.g. on protected areas and sustainable use). These recommend, *inter alia*, incorporating the development of progress indicators and outcome-oriented targets into the Expanded Programme of Work on Forest Biological Diversity.

6.5.3. Concluding remarks

An important achievement regarding biodiversity protection in forests in the EU is the effective establishment of the Natura 2000 network. The execution of this legally binding commitment, and the fact that financing of its operation will be secured through major Community instruments, including the rural development and social cohesion funds, has made the EU one of the world leaders in the protection of the natural heritage.

At landscape level, the progress made to halt the loss of biodiversity in forests, through the rural development measures, has not yet been comprehensively evaluated. The transposition of policy into delivery in the field of biodiversity conservation remains an important task. However, given the distinct silvicultural traditions, the different policy frameworks, the variety of instruments applied in the Member States, the multiple functions that forests are required to fulfil and the sometimes long rotation periods, changes are generally slow, complex and interdependent.

Meeting the Gothenburg objective of halting the gradual loss of biodiversity by 2010 can be expected to remain a demanding task for some time in the forest sector.

6.6. Forests and climate change

The Strategy identifies that the role of forests as carbon sinks and reservoirs can be “best ensured through sustainable forest management” (Article 13). The document also states that EU and Member States’ contribution to the climate change strategies can be best achieved “through the protection and enhancement of existing carbon stocks, the establishment of new carbon stocks and encouragement of the use of biomass and wood-based products” (Article 13).

The EU and its Member States are leaders in the implementation of the United Nations Framework Convention on Climate Change (UN FCCC, 1992)⁴⁶ and its Kyoto Protocol (KP, 1997). Under the KP, industrialised countries (“Annex I Parties”) have agreed to reduce their greenhouse gas (GHG) emissions below 1990 levels during the period 2008–2012⁴⁷. The commitment of the EU-15 Member States to this target is a joint GHG emission reduction objective of 8%⁴⁸. Articles 3.3 and 3.4 of the KP allow Annex I parties to account for carbon sequestration by land-based sinks⁴⁹ as part of their activities to reduce emissions⁵⁰.

⁴⁶ See www.unfccc.org for all basic documents and decisions related to the UN FCCC and the KP.

⁴⁷ “1st Commitment Period” of the KP.

⁴⁸ This objective was distributed among Member States by Council Decision 2002/358/EC (“EU burden sharing agreement”), under which quota range from –27% to +23% (extra allowance) according to economic criteria. Quota of new Member States are different and remain unchanged (except Cyprus and Malta, which do not have obligations).

⁴⁹ Definition: “Any process or mechanism which removes a greenhouse gas, an aerosol, or a precursor of a greenhouse gas from the atmosphere” (Intergovernmental Panel on Climate Change).

On the international scene, the EU is heavily engaged in the quest for the ratification of the Kyoto Protocol and strives for high standards of environmental and social integrity during its implementation both by domestic action and through project mechanisms⁵¹, such as the Clean Development Mechanism (CDM – Art. 12 KP) and Joint Implementation (JI – Art. 6 KP).

Most of the efforts so far have concentrated on “mitigation measures” that aim to reduce GHG emissions, including the removal of GHGs from the atmosphere by “sinks”. These measures can be seen as investments to reduce the magnitude and rate of climate change in the long run and to achieve the stabilisation of the Earth’s climate at a level that is still tolerable⁵². At the same time, the impacts of climate change on the functioning of ecosystems, the vulnerability of these systems to climate change and their adaptation to such changes are becoming serious concerns in all land use sectors. Generally, increased monitoring (of plant diseases, biodiversity, etc.) and contingency planning (for sudden events, like the droughts and fires of 2003) may be needed.

The EU Forestry Strategy does not explicitly address the issue of the impacts of climate change on forests or adaptation needs, but focuses on general mitigation aspects by stressing the importance of forests as carbon sinks and biomass sources.

6.6.1. Activities at international level

The EU and its Member States have been instrumental in setting the milestones for the forest related parts of the international regime to implement the KP: the Marrakesh Accords and the Milan agreements concerning the operation of the CDM.

- The seventh Conference of the Parties (COP7, Marrakesh, 2001) of the UN FCCC resulted in the adoption of the key implementation rules for the KP, including those governing LULUCF⁵³ measures for the period 2008–2012. They include an agreement on the part of their emissions that developed countries can “offset” through afforestation and reforestation (A/R) projects carried out in the framework of the CDM.
- With the adoption of “operational procedures and modalities for inclusion of afforestation and reforestation projects in the CDM” at COP9 of the UN FCCC (Milan, 2003), the EU reached its objective to realise an operational framework that is equitable, environmentally sound and socially responsible. These rules for A/R projects safeguard the environmental integrity of CDM LULUCF projects by cautious treatment of the non-permanent character of sinks, maintaining 1990 as the base reference year and mandatory consideration of environmental impacts during the approval procedure.

Resolution 5 of the 4th MCPFE, held in Vienna in 2003, addressed “Climate Change and Sustainable Forest Management”. The resolution recognises the need to further promote the concept of sustainable forest management in the context of the continued debate on climate change and forests to ensure the multiple benefits of forests in the long run.

⁵⁰ This is done by reporting changes in forest cover under the obligations of Art. 3.3 (Afforestation, Reforestation and Deforestation / “ARD”) and by optional reporting on “additional” C-sequestration under Art. 3.4 (forest, cropland and grazing management).

⁵¹ Also called “flexible mechanisms” because parties freely decide to which extent they are being used.

⁵² The EU defends that the release of GHG into the atmosphere should be limited to such an extent that a mean annual temperature increase of more than 2° C above pre-industrial levels is avoided in the long term.

⁵³ LULUCF: Land Use, Land Use Change and Forestry.

6.6.2. Activities at EU Level

In 2001, the Commission launched the European Climate Change Programme (ECCP), a multi-issue and multi-stakeholder consultation process to identify promising opportunities that can help the EU meet its GHG emission reduction targets under the KP.

An ECCP Working Group on Forest-Related Sinks, set up in 2002, produced a report containing the following main elements⁵⁴:

1. Identification of “candidate technical measures” in forestry (CTMs) and their carbon sequestration potential. These measures are: afforestation programmes, managing the natural expansion of forests, short rotation tree plantations on former agricultural land, preventing deforestation, establishment of forest reserve areas, restoration of forest wetlands, continuous cover forest management, prevention of forest fires, and improved management of fast growing plantations in Southern Europe. For 2008–2012, the combined potentially accountable carbon credits for the EU from ARD measures and Forest management were estimated by the working group to be at approximately 10% of the EU emission reduction target.

2. General policy recommendations:

- increased research on issues like permanence of sinks and levels of soil carbon;
- investigation of the economic aspects of climate related measures in forestry;
- CTMs should take into account the principles of sustainable forest management and the multifunctional role of forests;
- effective measures should aim for win-win situations that benefit rural development, the environment and economic activity;
- existing Community instruments for incentives in the forestry sector should be screened for possible adaptations related to climate change mitigation objectives;
- geographical and other differences across the EU are to be considered, no generally applicable solutions, nor a comprehensive list of measures can be proposed;
- integration of “upstream” activities to enhance carbon storage in living forests and at the same time “downstream” actions to enhance the use of forest products for long life applications.

Besides forests acting as a living carbon sink or serving as a renewable energy source, the carbon stock in harvested wood products (HWP) can also contribute to climate change mitigation. Harvested wood products constitute a carbon stock resulting from “human-induced activities”. In accordance with the timetable agreed in Marrakesh, the UN FCCC SBSTA⁵⁵ will discuss issues related to HWP at its twentieth and twenty-first sessions. This timetable would allow careful consideration for the treatment of HWP for the second commitment period under the Kyoto protocol. Carbon pools to be accounted for the first commitment period have already been agreed and do not include HWP.

A higher level of use of HWP can increase carbon removals from the atmosphere because of their specific properties, such as carbon storage capacity, recyclability, and the fact that their

⁵⁴ The full report and the various contributions of stakeholders are available on the ECCP website: <http://www.europa.eu.int/comm/environment/climat/forestrelatedsinks.htm>.

⁵⁵ SBSTA: “Subsidiary Body on Scientific and Technological Advice” of the UN FCCC.

processing is less demanding of fossil fuels and less energy-intensive overall than that of other materials. Moreover, in their maintenance and use HWP often demonstrate lower environmental impact and better environmental performances than their counterparts from other materials. In close co-operation with the Advisory Committee on Forestry and the Forest-based Industries⁵⁶, the Commission has investigated the role of forest products for the mitigation of climate change and has produced a comprehensive report, available on the Commission web site⁵⁷ as of 10 June 2004.

The enhanced use of wood as a substitute for raw materials (such as metal, concrete, plastics), which have energy-intensive processes associated with them, can contribute to a significant reduction of emissions. The emissions' reduction potential of wood over a wood-based product's life-cycle is illustrated by the IEA 2003⁵⁸.

Renewable energy sources (RES), which include forest biomass, have become a central element of EU energy policy, which aims to secure energy supply while reducing CO₂ emissions. Following the 1997 White Paper "Energy for the Future: renewable sources of energy"⁵⁹ the Commission has produced several policy documents and legislative measures that have implications for the forest sector:

- Directive 2001/77/EC on the promotion of electricity produced from renewable energy sources in the internal electricity market, expected to result in raising the consumption of electricity from renewable sources in the EU from 14% to 22% by 2010;
- The programme "Intelligent Energy for Europe 2003–2006"⁶⁰, which supports non-technological actions in the field of energy efficiency and renewable energy sources. It includes sub-programmes for policy studies and awareness raising;
- Directive 2003/30/EC of the European Parliament and of the Council of 8 May 2003 on the promotion of the use of biofuels or other renewable fuels for transport, establishing the target level of biofuel at 5.75% of all transport fuels sold in 2010;
- Directive 2004/8/EC of the European Parliament and of the Council of 11 February 2004 on the promotion of cogeneration based on a useful heat demand in the internal energy market provides a regulatory framework for raising energy efficiency by simultaneous generation of heat and electrical and/or mechanical power;
- The Communication from the Commission to the Council and the European Parliament – the share of renewable energy in the EU⁶¹ proposes concrete actions to reach the 2010 objectives, among which a heat ("RES-H") initiative and a biomass action plan for 2005 are of direct relevance to the forest sector.

Several studies⁶² have indicated that among the different renewable energy sources currently available, biomass and wind power have the largest growth potential in the near future, but

⁵⁶ Commission Decision 83/247/EEC of 11 May 1983 setting up a Committee on Community Policy regarding Forestry and Forest-based Industries (OJ L 137, 26.5.1983, p. 31).

⁵⁷ http://europa.eu.int/comm/enterprise/forest_based/index_en.html.

⁵⁸ International Energy Agency, 2003. Answers to ten frequently asked questions about bioenergy, carbon sinks and their role in global climate change. Available at <http://www.joanneum.at/iea-bioenergy-task38>.

⁵⁹ COM(1997) 599 final, proposing to raise the share of renewable energy sources (RES) from 6% (in 1995) to 12% of total primary energy production in 2010.

⁶⁰ COM(2002) 162 final.

⁶¹ COM(2004) 366 final.

⁶² E.g.: "Production Capacity of Renewable Energies in the EU", working paper No 115 of the STOA series of the Research DG of the European Parliament.

that the use of biomass has fallen behind expectations, mainly because of the absence of: clear objectives, cohesive policy, co-ordinated instruments and means for implementation.

The effects of the inter-actions between the requirements of RES policy on wood supply and the needs of the EU wood-processing industries have become the subject of some concern by the latter. Given this, the Commission has set up a working group together with the above industries and others to study and report on these inter-actions.

6.6.3. Activities at the national level

Because both the composition of GHG emissions and the emission reduction targets of EU Member States are very diverse, a variety of strategies and policies to meet the Kyoto targets have emerged over the past years, in which forests and forestry often play a part. The Commission conducted a questionnaire-based survey about this in which all of the 25 Member States⁶³ participated.

From this survey, it appears that there has been a very uneven level of efforts to prepare the contribution of the forest sector to Kyoto compliance. Many of the national Kyoto strategies include A/R and/or forest management measures but the planned role of LULUCF measures is highly variable among countries, and in many cases only mentioned as being prepared.

This can largely be explained by two major factors: (1) some countries have relatively limited physical potential for certain measures (e.g.: heavily forested or densely populated countries have little opportunity to make use of additional afforestation on their territory); (2) some countries (especially the new Member States) are not strongly constrained by their Kyoto obligations because they experienced large effective GHG emission reductions after 1990 and are therefore less likely to need land-use LULUCF credits to achieve compliance.

Replies to the questionnaire can be summarised as follows:

- Accounting for afforestation, reforestation and deforestation (ARD-mandatory under KP): most countries foresee a limited role for ARD activities;
- Accounting for forest management (optional under KP): only one country reported firmly that it will not use this option; four countries have already decided to claim forest management credits, while the remainder are undecided or did not report; some countries mentioned that the complications and costs of reporting and inventorying may outweigh potential benefits;
- Almost all countries have plans and/or policies to raise the use of renewable energy, as required by the EU, often with specific targets for using biomass. Use of biomass for energy appears to be the most important contribution of the European forest sector to the achievement of the KP targets for the first commitment period (2008–2012). No country reported concerns about competition for the raw material base from increased biomass demand. However, segments of the forest-based industries are known to have such concerns (see section 6.7);
- There are different perspectives about project-based activities under JI and CDM. Most new Member States are hosting or plan to host JI projects but no specific plans were reported for LULUCF projects. All but two of the EU-15 are financing, or consider financing, JI/CDM

⁶³ It should be noted that Cyprus and Malta are not mentioned in Annex I to the UN FCCC and therefore do not have emission reduction objectives.

projects abroad. A few countries have set aside budgets and drawn up rules for their CDM sinks project operators;

- About half of the countries did not report on their reduction commitment that is expected to be achieved through LULUCF activities. Those who did, estimated it to be between 0% and over 30% with the highest figures reported by new Member States;
- Finally, little or no information was received concerning the implications of the use of domestic forest sink credits (for compliance) for the private sector. This may seem surprising, as there has been observed a certain degree of expectation, voiced by forest owners in various EU fora, to be remunerated or compensated for their carbon sequestration services. Although, as individual UN FCCC parties, they can provide incentives for forestry operators to contribute to Kyoto compliance, no Member State has taken an initiative in this respect.

6.6.4. Concluding remarks

Since the adoption of the Kyoto Protocol in 1997, the EU and its Member States have been among the most influential actors in the international negotiations to implement the UN FCCC, and many European objectives regarding equity, environmental integrity and flexibility of the international climate regime have been realised.

The work carried out has set the switches for a more climate-conscious approach to forestry in the future. There is now a lot of information available on the kind of technical measures by which the land-based components of the forest sector can contribute to mitigating climate change. The ECCP proposals remain valid since the EU has confirmed its political commitment to the UN FCCC.

Biomass for energy purposes has not been developed as initially previewed, according to its important potential. Thereafter, biomass, if developed appropriately, could offer a clear bridge between the Gothenburg and Lisbon processes by providing competitive opportunities for wealth generation and economic growth, thus contributing to employment and a diversification of forest uses. The Commission's communication on renewable energy sources adopted in May 2004, outlined the slow development of biomass and the need of pro-active measures in this sector. Accordingly, the Commission is preparing a Community biomass action plan that will consider these sources of renewable energy in the context of the relevant EU policies, in particular agricultural, environmental, internal market and enterprise policies, in order to optimise their production and energy use.

Almost no measures were taken to promote the participation of forest owners and forestry operators in the Kyoto mechanism (Article 3.3 and 3.4).

Concerning adaptation to the effects of climate change on forests and forestry, the EU is only at the very beginning of what may become an even more challenging task than the mitigation measures that have been proposed hitherto.

6.7. Forest-based and related industries

The EU Forestry Strategy includes the following elements of particular relevance to the EU Forest-based & Related Industries:

2.h) “the promotion of the use of wood and ... as environmentally friendly products, in line with the rules of the open market;”

2.i) “the contribution of forestry and forest-based industries to income, employment and other elements affecting the quality of life...”

2.j) “the need for the better integration of forests and forest products from SFM in all sectorial common policies...”

14. “CONSIDERS that forestry and forest-based commercial activities fall within the open sector of the economy and that their commercial functions should be guided primarily by market forces; NOTES that the Community has established a number of instruments to ensure that competition functions effectively;”

17. 1st indent: “NOTES that the Commission intends to present a communication on the competitiveness of the forest-based industries.”

6.7.1. Background

The EU forest-based and related industries comprise the following industrial sectors:

- woodworking, cork and other forest-based materials,
- pulp, paper and board manufacturing,
- paper and board converting,
- printing.

Key economic information for the EU forest-based and related industries is shown in Table 10.

Table 10. Main socio-economic indicators of EU forestry and forest-based and related industries – in 2001 (including enterprises with 20 or more employees)

Sector	Production value (EUR million)		Added value (EUR million)		Number of persons employed		Number of enterprises	
	EU-15	EU-10	EU-15	EU-10	EU-15	EU-10	EU-15	EU-10
Forestry					248 000	139 000		
Woodworking	94 357	9 131	29 386	3 038	873 000	315 400	128 345	62 225
Manufacture of pulp, paper & paperboard	69 619	3 572	22 237	1 210	223 400	30 900	1 990	289
Converting	73 365	3 430	22 607	1 099	429 300	58 100	12 963	3 267
Printing	98 954	4 503	41 810	1 708	931 300	107 200	104 419	21 135
Forest-based industries	336 295	20 636	116 040	7 055	2 457 000	511 600	247 717	86 916
Total manufacturing	5 059 761	280 035	1 450 327	84 402	28 350 600	5 655 200	1 708 954	467 547
Forest-based industries share of total manufacturing	6.6%	7.4%	8.0%	8.4%	8.7%	9.0%	14.5%	18.6%

Source: Eurostat.

Wood supply

The forest-based industries have a common renewable resource, wood, as an important component of their raw materials and products, often the major one. The annual net increment (wood growth) in those forests of the EU which are available for wood supply, amounts to some 574 M m³ under bark (u.b.), (EU-15 = 459 M m³ u.b.; EU-10 = 115 M m³ u.b.), while the volume of wood removed for industrial use is only around 320 M m³ u.b. per year (EU-15 = 255 M m³ u.b.; EU-10 = 65 M m³ u.b.). Though this would indicate an overall sufficient forest growth in volume terms, wood is not necessarily available in the right size, species and price assortments when required by the market which is often regional. Thus, some wood imports are necessary and it also means that forests are, with significant regional variations, accumulating more and more woody biomass partly dominated by large-dimensional timber.

The structure of the forest-based and related industries

The woodworking industries, particularly first-stage processing plants, are typically small-scale and, scattered, often in rural areas, close to forest resources. Only a few sawmills and wood-based panel mills are medium-sized or large, many down-stream processing industries, such as for wooden building components, are most often small or very small, but more often located closer to population centres. Nevertheless these sub-sectors represent considerable economic weight and often they contain an underestimated wealth of skills and know-how.

In contrast, the pulp-producing and paper manufacturing industries are heavily concentrated, with a dominant presence of a few, large firms. There are some mill clusters in the Nordic countries, throughout central Europe and on the Iberian Peninsular. Conversely, paper production based on market (traded) pulp and paper and board converting mills are more widespread throughout the EU, with some concentration of those based on recovered fibre in the densely populated regions of central Europe. The structure of these industries is more diverse with paper manufacturing firms tending to be large and medium-sized, whilst most converting enterprises are small and medium-sized (SME). Most companies in the printing sector are also SMEs and similarly are widely distributed, but concentrated in or close to populated areas.

The competitive environment is marked by globalisation

Globalisation can be described as the self-reinforcing global spread of technology, knowledge and expertise as demonstrated in products and people. It affects not only trade, with which it inter-acts in a mutually facilitating manner, particularly by unifying previously separate markets for raw materials and products, but also other key policy areas, such as environment and competition. As a result of the Uruguay Round of the GATT, liberalisation of international trade, including forest products, has been advanced. However, increasing world-wide competition, sharpened by globalisation has led to some countries raising non-tariff barriers to protect markets or industries which have not adapted to operate in more intense competitive conditions.

In broad terms, globalisation presents the EU forest-based and related industries with the following challenges:

- Competition in supplying both raw materials and forest products from countries having higher forest growth rates, lower production costs (wood, energy, labour) and less stringent environmental and social requirements.

- In many other forest regions of the world, illegal logging and its related trade undermines sustainable forest management (SFM), both directly and indirectly, as well as encroaching on the legitimate business based upon SFM.
- Increasing global trade of roundwood and wood-based products increases the risk of spreading plant-based diseases from their zones of origin into or via the EU. Thus, plant health controls need to be put in place in an effective and consistent manner (see section 6.10.2), without compromising the competitiveness of the EU forest-based and related industries.
- Intellectual property rights (IPR), especially for the printing and related industries, whether patents for products, processes and designs, or the licensing rights that rightfully should accompany them, are not always respected outside the EU.

The Lisbon Strategy

The Lisbon Strategy aims at improving the Union's competitiveness, above all through increased investments in research and technological development and innovation and in harnessing information technology, so as to make the EU a leading knowledge-based economy by 2010. The pulp and paper manufacturing sector has long since applied information and communication technologies (ICT) in its processes and in distribution. Further potential exists both in this sector and others within the forest-based industries to apply ICT. In addition, there is probably substantial room for both process and product innovations in the pulp and paper sector as well as in the woodworking industries.

6.7.2. Activities at EU level

Specific activities by the Commission have included the following.

Competitiveness studies

Most of the major sub-sectors of the EU forest-based and related industries were the subject of competitiveness studies⁶⁴, usually carried out in collaboration with the European federation of the sub-sector concerned and in one case together with trade unions.

Policy shaping

Major inputs have been made to policy formulation, evolution and implementation, especially for the following policy areas: environment, energy, trade and competition.

Many diverse horizontal issues, having strong impacts on the forest-based and related industries have been dealt within the environment policy area including issues related to climate change, waste definition, packaging, eco-labelling, Best Available Practices (BATs) and Thematic Strategies under the 6th Community Environment Action Programme.

Trade policy applied for this sector has seen the fulfilment of the EU's commitments under the Uruguay Round, phasing out import tariffs on paper and board and reducing those which remained on wood products. A number of important anti-dumping cases have been pursued and levies engaged for imports of wooden pallets, fibreboard and plywood from outside the

⁶⁴ Competitiveness Study of the European Pulp, Paper and Board Manufacturing Industry, European Communities, 1999;
 Competitiveness of the European Woodworking Industries (OPOCE 2000, ISBN 92-828-9769-9);
 Competitiveness of the EU Publishing Industries (OPOCE 2000, ISBN 92-8945-165-3);
 Special features on publishing and printing (OPOCE 2001, ISBN 92-894-0436-1).

EU. Wood-based products have been involved in several previous bilateral negotiations and are also part of some on-going negotiations, for example with Mercosur.

Energy policy, as it affects the forest-based and related industries, has mainly been concerned with renewable energy sources (RES) and in particular biomass. The follow-up to the Commission's White Paper on RES in 1997 has seen the adoption of several key legislative acts, notably the Directive on electricity from renewable resources and the Directives on biofuels and energy efficiency in buildings. Whilst the implementation of the first Directive in several Member States has begun to have significant measurable effects on the market for wood, especially through so-called "feed-in" subsidies for supplying "green" electricity to the grid, the two latter will take more time to have effect.

Other initiatives such as the Commission's communication on the security of supply of energy in the future and that on intelligent uses of energy also have important implications for the EU's forest-based and related industries.

In the last years there has been a strong trend towards market concentration in the pulp and paper industries. Consequently, in accordance with Community competition legislation, the Commission had to make several important decisions concerning mergers in this field. Also, numerous state aid cases notified to the Commission have been dealt with. Modifications of the legislative framework, as well as sectorial studies on competition matters have also been carried out.

Preparation for enlargement

The Commission has investigated the economic and market features of the forest-based and related industries in the 10 new Member States. It has also launched projects under the Business Support Programme (BSP) together with the EU woodworking and furniture federations to help develop organisational structures in the new Member States.

Communication on Forest-based Industries

A Communication on the State of Competitiveness of the EU Forest-based and Related Industries⁶⁵ was adopted by the Commission in 1999. It analysed the key features and competitiveness factors of the industries, as well as their main challenges and delineated areas of action, in answer to those challenges. The Communication covered the following areas:

- the growing impact of globalisation,
- the enlargement of the EU,
- an increased sensitivity towards sustainable development, environment and energy,
- accelerated technological evolution and its implications for human resources,
- the evolving international and EU regulatory and economic framework,
- communicating a good image to society.

The Communication was welcomed by the Council of Ministers⁶⁶ as well as by the European Parliament⁶⁷. The Parliament stressed the important contribution of this sector to employment and to sustainable and regional development and endorsed the role of the Commission in

⁶⁵ COM(1999) 457 final.

⁶⁶ Council conclusions (2214th Council Meeting of 9.11.1999).

⁶⁷ European Parliament (A5-0384/2000 final).

securing the competitiveness of the forest-based industries and called for the Lisbon Strategy to be put in practice.

Advisory Committee

The Advisory Committee on Community Policy regarding Forestry and the Forestry-based Industries, was set up in 1983⁶⁸ to provide an effective channel for co-operation between the forest-based sectors and the Commission, as well as a platform for discussion between industry, the Commission and relevant expert organisations. The Committee was charged with preparing and co-ordinating, through its working groups, the inputs required to establish the actions outlined in the Communication on the State of Competitiveness. In this Communication was also proposed a Forum for the forest-based and related industries to be constituted of representatives of the forest-based and related industries, the services of the European Commission and other main stakeholders such as forest owners, trade unions, environmental NGOs, representatives of scientific and academic communities, Member States experts' and Members of the European Parliament. The forum should in particular:

- complete the analysis of the competitiveness factors and the challenges facing the forest-based industries;
- discuss and agree on concrete actions to be taken and/or pursued by different stakeholders;
- follow up the implementation of those actions and provide regular up-dates of the actions agreed upon.

Following a conference in 1999, the first Forum took place in Strasbourg in 2000, the second in Stockholm in 2001, and the third in Brussels in 2003.

Committee Working Groups

In accordance with the Communication and in preparation of the Forum 2001 a working group was set up to deal with possible measures to enhance the use of wood. One of its main achievements has been to identify and examine types of barriers to the use of wood in Europe and has since sought to address each group of barriers systematically to identify solution areas, including norms, standards and legislation; education, training and skills; research, development and innovation; and information tools. In this context, the outcomes of the working group have been of vital importance to the EU woodworking industries' initiative, launched in 2003, "Road Map 2010", to make wood one of the leading building and living materials in Europe by 2010.

Another working group was set up on Climate Change and forest products to explore and raise awareness of different approaches, methods and models for carbon accounting in wood products and investigate the role of forest products for Climate Change mitigation as well as review activities and initiatives in Member States to increase the role of wood products for Climate Change mitigation⁶⁹.

The increasing use of wood for energy, particularly as a result of the EU policies in support of renewable energy sources (RES) has been one of the main reasons for the formation of the RES Working Group.

⁶⁸ Commission Decision 83/247/EEC.

⁶⁹ DG Enterprise, Comprehensive report 2002-2003 regarding the role of forest products for climate change mitigation.

The Trade Working Group has dealt with spheres related to WTO-based trade disputes and the preparatory work on the so-called FLEGT (Forest Law Enforcement, Governance and Trade) proposal which deals with measures to hinder trade with illegally logged timber.

A Communication Working Group has been set up to examine appropriate measures as a response to the results of a study on the perception of the EU forest-based industries⁷⁰. The sector suffers from a relatively bad image as being a traditional industry with negative environmental attributes. This is particularly so for young people who do not regard the sector as attractive in terms of developing a career. Therefore, it has been considered as particularly important to address this situation with a communication strategy. The objective of this strategy is to convey factual information on the EU forest-based industries' performance in the economic, ecological and social areas, targeted in particular towards young people.

In addition, the Commission has launched a web-site for the forest-based and related industries⁷¹, outlining its initiatives affecting the sector. It offers a focal information point on the forest-based industries in Europe, as well as relevant statistics and useful links to other relevant sites. One of the key links is to the database on market access which was also set up by the Commission.⁷²

6.7.3. Concluding remarks

The Commission is currently preparing an evaluation of its 1999 Communication on the State of Competitiveness of the EU Forest-based and Related Industries. Without prejudice to that exercise, the following issues are likely to be of importance to the competitiveness of the EU's forest-based and related industries over the coming years:

- (i) Domestic supply of wood and other raw materials: the need remains to mobilise more wood and other biomass, both for industries producing wood-based products and those generating renewable energy. Non-EU supply of raw materials: implementation of the FLEGT initiative and other trade related issues.
- (ii) Co-operation in the EU woodworking industries concerning enhanced use of wood.
- (iii) Communication Strategy for the EU Forest-based and Related Industries.
- (iv) The EU Emissions' Trading System (ETS).
- (v) Thematic strategies on the sustainable use of natural resources and on waste and recycling and legislation affecting other inputs.
- (vi) The 7th Framework Programme for research and technological development and the establishment of Technology Platforms.

⁷⁰ Perception of the wood-based industries – Qualitative study of the image of wood-based industries amongst the public in the Member States of the European Union (OPOCE 2002, ISBN 92-894-4125-9).

⁷¹ http://europa.eu.int/comm/enterprise/forest_based/index_en.html.

⁷² <http://mkaccdb.eu.int/>.

6.8. Forest certification

Article 15 of the 1998 Council Resolution on a Forestry Strategy for the EU notes that forest certification schemes are market-based instruments which seek to improve consumer awareness of the environmental qualities of sustainable forest management and to promote the use of wood and forest products as environmentally friendly and renewable raw materials.

This article lays out a series of principles defining forest certification schemes as market-based instruments that are comparable, compatible with internationally agreed standards for SFM and subject to conditions regarding their voluntary nature, credibility, transparency, cost-efficiency, open access, non-discriminatory character and independent auditing. It concludes by inviting the Commission to consider the possibility for further action at EU level.

In response to increasing societal awareness of and concern about forests, market-based schemes have developed in Europe and elsewhere to certify sustainably managed forests. In Europe, most of the forests certified are under one or both of the two major independent certification schemes (FSC and PEFC), as demonstrated by Table 11.

Table 11. PEFC and FSC basic certification data in EU-25⁷³

Scheme	PEFC	PEFC	FSC	FSC
Country	Certified forests (ha)	No of Chain-of-Custody certificates	Certified forests (ha)	No of Chain of Custody certificates
Austria	3 924 000	272	4 044	23
Belgium	206 524	9	5 999	71
Denmark	9 827	:	372	51
Finland	22 298 165	80	93	1
France	3 266 589	523	15 325	51
Germany	6 892 983	401	501 593	254
Italy	:	6	11 411	76
Ireland	:	:	438 000	21
Luxemburg	:	:	:	4
Netherlands	:	2	127 056	188
Portugal	:	:	:	1
Spain	254 167	15	1 135	287
Sweden	3 756 624	46	10 331 660	101
United Kingdom	9 125	41	1 152 924	343
Total EU-15	40 618 004	1 395	12 589 612	1 472
Czech Republic	1 932 045	95	16 229	12
Estonia	:	:	1 063 555	10
Hungary	:	:	188 687	8
Latvia	27 698	13	1 685 932	73
Lithuania	:	:	458 898	14
Poland	:	:	6 192 498	253
Slovakia	:	:	43 659	10
Slovenia	:	:	:	12
Total EU-10	1 959 743	108	9 649 458	392
Total EU-25	42 577 747	1 503	22 239 070	1 864

The EU market for products designated as originating in certified forests is small. Demand is concentrated in a few member states and most supply is focused on high-quality and visible, market segments, such as some window frames, furniture and graphic papers. However, these make up a comparatively minor part of overall forest products' consumption, partly because some of these products are in the "DIY" ("Do-it-yourself") portion of the market.

In direct response to the Article 15 of the Council's Resolution on the Forestry Strategy, the Commission's services have continued to examine these issues in depth, and for the time being the Commission maintains its neutral role in this context. At the same time, it continues to

⁷³ Data are valid as the end of July 2004 for PEFC, 18th June 2004 for FSC, were supplied by PEFC / FSC central offices respectively and are included here for indicative purposes without any confirmation by the EC. Some holdings may be certified under both schemes. No data were submitted about Cyprus, Greece and Malta.

monitor developments and taking action in response to alleged contraventions of relevant Community rules. The Commission has also conducted a number of studies to examine possible approaches to forest certification and seminars to bring together the operators of certification schemes and others in a dialogue, thus contributing to greater transparency on the subject.

Furthermore, references to certification of SFM have appeared in several EU policy and legislative texts, such as: the Communication of the European Commission to the Council and to the Parliament on a European Community Biodiversity Strategy (1998)⁷⁴, “Forests and Development: the EC approach” (1999)⁷⁵, and Regulation (EC) No 2494/2000 of the European Parliament and of the Council on measures to promote the conservation and sustainable management of tropical forests and other forests in developing countries (2000)⁷⁶. The “Expanded Programme of work on Forest Biological Diversity”, of the Convention on Biological Diversity (2002)⁷⁷ takes up the development of credible certification systems as an objective while the 6th Community Environment Action Programme⁷⁸, proposes to encourage certification for sustainable forest management and encouraging labelling of related products (Article 6.2 h).

On the international scene, there have been some diplomatic approaches by third countries to the Commission to officially recognise their national or regional certification systems in order to further improve their access to the EU single market. For example, Malaysia’s Industry Minister has officially asked for EC recognition of the standards of the Malaysian Timber Certification Council (MTCC).

6.8.1. Recent developments

Certification may be seen as a private-sector, market-based tool to encourage SFM, which is expected to function in the same way as similar, existing mechanisms in other sectors, where several systems are functioning next to one another under a set of baseline criteria, in which regulatory intervention by public authorities is very limited. In this way, it is left up to the consumers and retailers themselves to choose whether they trust certification schemes or not, if so, which ones and what premium they are prepared to pay. The appropriate operation of forest certification schemes in the EU should allow consumers to discriminate positively in favour of products with environmental and social benefits, while at the same time complying with existing internal market and international trade rules and giving producers a marketing advantage. The voluntary nature of certification schemes means that neither Member States governments nor the EC can or should officially endorse or impose any particular certification scheme or standard. A questionnaire-based survey of recent legislative and regulatory developments in certification in EU-15 and EU-10 gave the following results:

- Of 25 countries, 20 have at least some areas certified. Apart from some minor and local schemes, virtually all the certification has been done under one (or both) of the major schemes, namely the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification schemes (PEFC).
- In countries with significant amounts of certified forest, one scheme typically dominates over the other, with the order of magnitude of the difference usually being several-fold. Ten

⁷⁴ COM(1998) 42.

⁷⁵ COM(1999) 554, Communication from the Commission to the Council and to the European Parliament.

⁷⁶ OJ L 288, 15.11.2000, p. 6.

⁷⁷ Decision VII/22 of COP6 of the CBD.

⁷⁸ Decision 1600/2002/EC of the European Parliament and the Council of 22.7.2002.

countries have more forest under the FSC standard, while seven are dominated by PEFC-related national schemes. Only a few countries reported sizable areas under both schemes and in some rare cases the same forest areas are certified under both schemes.

- Government attitude towards certification is also diverse. Some countries reported no involvement and no plans for any government action in this field. Some countries recognise the importance of labelling/certification in their national legislation, and encourage the implementation of such schemes. Sometimes governments support or facilitate the development of national forest certification standards, which can then be endorsed and used by any scheme. In a few countries the government was instrumental in setting up of a national PEFC scheme.
- Two countries reported that they had national public procurement rules favouring forest products, while several indicated that such rules exist at the local/regional level. Several countries are considering such policies. When procurement rules mention a particular system, it is one scheme which prevails. One country reported that its procurement rules require independent verification that wood products are legally harvested from a sustainably managed source, and that “credible” certification schemes are accepted as evidence.
- A great majority of responses did not see a need for an official endorsement/accreditation mechanism or found it outright undesirable. One country mentioned the need for state accreditation on the basis of the requirements of PEFC rules (and not as part of national policy). One country highlighted the need for mutual recognition between the schemes, indicating that EU-level co-ordination might be useful, especially with regard to chain-of-custody certification.
- Concerning the potential need for checks on market-based operations and transparency, most respondents did not see such a need, but some pointed out that a degree of control should be implemented, commensurate with the needs of public procurement policies. One pointed out that reports on irregularities should be monitored and followed up as necessary.

6.8.2. Concluding remarks

Forest certification remains a sensitive policy issue because of increasing societal concern about forests. The certification schemes competing in the marketplace have to respect relevant EU and Member State rules. The two main schemes have strong support or opposition among different stakeholders. As there are many different approaches in the various Member States, the general view is that there is no need for Community involvement in the operation of schemes. Accordingly, the Commission’s role remains limited to ensuring that schemes do not contravene relevant Community or other rules.

Governments are consumers (through public procurement) as well as regulators and an increasing number of Member States are adopting procurement policies favouring the purchase of forest products from sustainable sources. This may eventually cause problems about coherence between the different roles of EU governments and their various requirements.

Any eventual future Community involvement would have to be conditional to the outcome of intensive consultations, and any initiative should respond to expectations from the sector.

6.9. Forestry within the EU research policy

The EU Forestry Strategy acknowledges that activities on forestry in Community RTD programmes help to promote the sustainable management and multifunctional role of forests and the sustainable and multipurpose utilisation of forest resources as well as to improve research potential and to encourage innovation.

6.9.1. Research actions under the EU Framework Programmes

The 5th Framework Programme for Research (1998–2002)

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 the forest-based industries at EU level has been carried out mainly by the Quality-of-Life programme (QoL), and over 60 research projects involving more than 500 participants have been implemented over the period 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). Through the above-mentioned programmes, 122 projects have been funded with an EC-contribution of about EUR 142 million and a total cost of EUR 220 million (Table 12).

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 (FP5). 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.

In line with the EU Forestry Strategy, the main objective of research in the forest sector 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 approach the competitiveness will be increased, with its direct implications for:

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

Participating institutions comprise universities, public and private research institutes, and commercial and end-user firms.

Table 12. Number of projects in the forest sector under the 5th Research Framework Programme (1998–2002)

Subject areas	Number of projects	Total cost (EUR million)	EC-contribution (EUR million)
Forest management/biodiversity/carbon research			
QoL – KA 5.3	29	63.46	40.02
EESD	22	45.82	31.82
INCO	14	16.20	12.17
Forest pathology and physiology			
QoL – KA 5.3	5	8.59	6.45
Wood processing			
QoL – KA 5.3	15	25.03	16.03
GROWTH	16	15.93	9.04
Pulp and paper			
QoL – KA 5.3	12	31.42	17.82
EESD	4	6.43	3.54
GROWTH	5	8.00	4.97
Total	122	220.88	141.86

Several research projects on the issue of forest fires were undertaken under “the fight” against major natural and technological hazards’ area of the EESD programme. These projects covered improvements in fuel mapping; fire behaviour and propagation modelling; fire risk management and decision-support; fire suppression and retardant application; and damage assessment. In the period 1999-2002, a total of EUR 9 million was dedicated to this topic. The ongoing 6th Framework Programme (FP6) for RTD also provides funding opportunities to develop integrated forest fire management practices.

Review of ongoing Key Action 5.3 projects under the 5th Framework Programme’s Quality of Life programme

The results that have been obtained to date were collated by an expert review of ongoing Key Action 5.3 projects under the FP5’s Quality of Life programme (1998–2002), which took place in November 2003. The whole range of the forestry-wood chain from forest genetics, forest management (including forest pathology and physiology), wood quality and timber processing, to pulp and paper is covered by Key Action (KA) 5.3 projects. This forestry-wood chain approach is a distinct feature of KA 5.3 compared to action lines in other programmes under FP5 where only certain forestry or wood-related aspects have been addressed in a limited number of projects.

A total of 63 projects were funded under KA 5.3 and reviewed by external experts, covering sub-lines 5.3.1 “Multifunctional management of forests” and 5.3.2 “Strategies for the sustainable and multipurpose utilisation of forest resources; the forestry-wood chain”.

The experts’ remarks on the overall implementation can be summarised as follows:

- important topics have been successfully addressed;
- management has mainly been satisfactory, but delays, where they occurred, could have been avoided through improved communication and management in general;
- there is a need to put more emphasis on the dissemination of findings;

- more effort must be put on training – so far, this has been mostly limited to projects in pulp and paper;
- medium-term continuity of databases or websites is no longer guaranteed once the projects have ended, specific action may be needed to maintain access to project findings beyond the termination of the projects.

The 6th Framework programme for Research (2002–2006)

The 6th Framework Programme (2002–2006) responds to a requirement resulting from the development of modern research in a global environment by organising co-operation at different levels, co-ordinating national or European policies, networking teams and increasing the mobility of individuals. The European Commission, Member States and the European Parliament, the scientific community and industry are now committed to work jointly towards the creation of a "European Research Area" (ERA).

In line with the ERA Communication, the aim of FP6 is to achieve both, a greater focus on questions of European importance and a better integration of research efforts. There is no longer one specific budget line dedicated to the forest sector. Topics related to the multifunctional land use, multifunctional management of forests and forest-based industries 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 cross-cutting research activities, namely, research in support of Community policies, 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 were 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. The COST programme will continue to further enhance the co-operation between and integration of scientists in the sector.

With the new structure and instruments of FP6, a level of successful applications comparable to that in FP5 has not yet been achieved for various reasons. The main reasons might be the size of the new instruments and the fact that opportunities for forestry and wood research are scattered throughout the framework programme rather than being focussed in a single area. Nevertheless, opportunities under Priority areas 3 and 6, under Scientific Support to Policy and the horizontal activities are still available in future calls.

6.9.2. Forestry-related research at the Joint Research Centre (JRC)

JRC activities combine short-term technical projects with longer-term strategic research, in a work programme planned in close co-operation with its main customers/users. The JRC's 5th Framework Programme for Research (1998–2002) focused on research topics relevant to important policy drivers. All forestry and forest-related research projects were embedded in the activities of the JRC's Institute for Environment and Sustainability (IES), 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". The role of JRC in forest research and support to EC Services has been reinforced in the new FP6 as the JRC has become Scientific Co-ordination Body of the new regulation Forest Focus.

Forest research is targeted at providing scientific and technical support for the conception, implementation and monitoring of EU forest-related policies and to improving the access to and dissemination of forest information. JRC has contributed to the COP9 meeting (Milan, 2003) and has been instrumental in the adoption of the forum paper on the “Clean Development Mechanism”. Highlights of JRC activities in forestry are presented below.

Forest Fires

The research in this field concentrated in the development of tools for the improvement of forest fire information in order to improve existing practices for fire prevention, fire-fighting preparedness, and post-fire effects in support to EU policies on civil protection and forest fires in Europe. The main outcome of this research has been the development of a pre-operational European Forest Fire Information System (EFFIS). This system computes and distributes forest fire risk forecast maps daily during the fire campaign to all the EU countries concerned about fires and the relevant Commission services. It also contains a module for mapping burnt areas and estimating fire damage from satellite imagery that produces a comprehensive cartography of forest fire scars after the fire campaign and evaluates the cover types affected by fires. EFFIS has produced the first cartography of fire effects in Europe for the years 2000 to 2003.

An initiative, co-ordinated by the JRC, was the Global Inventory of Forest Fires in 2000 (GBA2000). It was a single exercise that aimed at providing a global inventory of all fires (forest and other ecosystems) for the year 2000. The mapping of burnt areas was performed by several research groups in different parts of the world using site-specific algorithms. The study showed that an area of 3.5 million km² burnt globally in 2000, of which 65% in Africa. Although not validated, this is the first global dataset of burnt areas.

Forest information and forest maps

In the area of forest information, a prototype information system referred to as European Forest Information System (EFIS) was produced by an international consortium in which research and forestry related organisations participated. The project was supervised by JRC in support to the Council regulation EFICS (see section 6.3).

A research project was performed by an international consortium under contract to the JRC for deriving a Pan-European forest database. This study resulted in Pan-European forest (coniferous, deciduous) maps that match the official statistics reported at national and regional scales, which were used in deriving the map.

The TREES-II research programme aimed at using the global imaging capabilities of satellites to provide information on the state of the World's Humid Tropical Forests. It resulted in maps, information on forest cover status and rates of change. The 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. It constitutes the most complete, up-to-date set of maps and the most accurate consistent figures on rates of deforestation currently available. The results were published in 'Science' (August 2002). JRC has also developed the PASTIS database: a spatial database of natural resource management projects supported by the European Community in Africa.

Other activities at JRC deal with the study of atmospheric processes related to regional and global change. The goal of these research activities is to study the role of biosphere/atmosphere interaction under the perspective of climate and includes inventory methods for quantifying carbon stocks and stock changes in European forests.

Activities under the 6th Framework Programme

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 on issues of forest fires, effect of atmospheric pollution on forests, biodiversity, soils, climate change and carbon sequestration and the overall forest monitoring.

In support to DG ENV, the JRC has undertaken the role of Scientific Co-ordination Body of the new regulation Forest Focus (Regulation (EC) No 2152/2003). In addition to providing scientific support to DG ENV and preparing proposals for European studies on the above mentioned topics, the JRC has the task of improving and further developing the European Forest Fire Information System incorporating the information previously collected through Regulation (EC) No 2158/92 on forest fire prevention. Additionally, the JRC will supervise the development of a European Data Platform that will store all the information collected through the new regulation Forest Focus and the precursor regulation on the protection of forests against atmospheric pollution (Regulation (EC) No 3528/86). This data system, managed by JRC, will permit the access to forest condition datasets to EC services, the EEA and other interested national and international organisations.

In support to DG AGRI, the JRC will supervise the establishment of a European Forest Information and Communication Platform (EFICP) that will be developed through a preparatory measure.

The JRC is also carrying out feasibility studies for detection, mapping and monitoring of logging operations based on remote sensing data.

6.9.3. Concluding remarks

Substantial research efforts under the Community RTD programmes have been devoted to support, further develop and implement the principles of sustainable forest management, addressing the conservation, protection and restoration of forests.

These activities have also contributed to providing scientific evidence and justification to support informed policy decisions, as well as to enhance the competitiveness of the EU forest sector.

At the Lisbon Summit, EU countries endorsed the ERA concept and acknowledged that research could be the major driving force behind the development of the knowledge-based economy. In line with this, in 2002 the EU set the goal of trying to raise the EU's research, development and innovation investment to 3% of the GDP by 2010.

Reflecting these objectives, since the FP6, EU research policy has aimed to provide a structuring effect in the research system across the Union. Its aim is to achieve greater focus on questions of European importance, and a better integration of research efforts on the basis of an improved partnership between various actors in the ERA.

The forest sector should pro-actively contribute to these objectives. In this context, sector-wide strategic thinking is necessary, developing a broad and long-term vision so as to determine the scope of and the priorities for forestry research in the EU well into the twenty first century. On the basis of such a strategic approach, EU forestry could realise its full potential in the construction of the ERA.

6.10. Complementary actions

The EU Forestry Strategy, notes that the Commission intends to present “a proposal revising Council Directive on the marketing of forest reproductive material” and a “specific communication” to the European Parliament and the Council on “forestry development co-operation” (Article 17).

As noted in the Strategy, during 1999 the Commission presented the communication relevant to the forest sector – “Forests and Development: The EC approach”, and, adopting Council Directive 2000/29/EC set up an EU scheme for forest reproductive material and plant health. Main elements and contents of the two above activities are shortly presented below, in this section of the implementation report.

6.10.1. Forest reproductive material and plant health

6.10.1.1. Overview of actions

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/EC⁷⁹ on the marketing of forest reproductive material.

The Directive ensures the 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. The specific measures foreseen by the Directive have been implemented by several Commission regulations and decisions⁸⁰. 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.

In the field of plant health, forest reproductive material is covered by Council Directive 2000/29/EC on protective measures against the introduction into the Community of

⁷⁹ Council Directive 1999/105/EC of 22 December 1999 on the marketing of forest reproductive material (OJ L 11, 15.1.2000, p. 17).

⁸⁰ Commission Regulation (EC) No 1597/2002 of 6 September 2002 laying down detailed rules for application of the Council Directive 1999/105/EC regarding the format of national lists of the basic materials for production of forest reproductive material. Commission Regulation (EC) No 1598/2002 of 6 September 2002, laying down detailed rules for application of the Council Directive 1999/105/EC as regards the provisions of mutual administrative assistance by official bodies. Commission Regulation (EC) No 1602/2002 of 9 September 2002, laying down detailed rules for application of the Council Directive 1999/105/EC as regards the authorisation of a Member State to prohibit the marketing of specified forest reproductive material to the end user. Commission Regulation (EC) No 2301/2002 of 20 December 2002 laying down detailed rules for application of the Council Directive 1999/105/EC as regards the definition of small quantities of seeds.

organisms harmful to plants or plant products and against their spread within the Community⁸¹. 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 (IPPC⁸²). Directive 2000/29/EC 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.

6.10.1.2. Concluding remarks

The achievement of the full consolidation of the internal market for forest reproductive material is a huge challenge which must be done by the Community. This aim must combine the harmonisation of the marketing rules and a high standard of the reproductive material whilst also respecting the environmental and biological diversity and plant health in this sensitive area.

Concerning the quality of the propagating material, the implementing measures adopted are monitored to permit the most appropriate fulfilment of the conditions laid down by the legislation and to adopt improvements where necessary.

An example is the “Community List of Approved Basic Material for the Production of Forest Reproductive Material” which is under construction.

Concerning plant health, specific plant species are submitted to a phytosanitary inspection before they can be imported into the EU. In addition, a number of plant species have to be accompanied by a plant passport when moving within the internal market, guaranteeing that they originate from nurseries supervised by the authorities competent for plant protection. The Commission organises surveys in nurseries at the place of origin (within the EU, but also in third countries) as well as supervision of the internal market to verify the correct implementation. The phytosanitary situation of the forests within the Community is closely followed as far as harmful organisms with a quarantine status are concerned.

Protective measures to prevent the introduction and spread of harmful organisms are taken whenever appropriate. Examples are Commission Decision 2001/218/EC⁸³ against the dissemination of *Bursaphelenchus xylophilus* and Commission Decision 2002/757/EC⁸⁴ against the dissemination of *Phytophthora ramorum*.

6.10.2. “Forests and Development: The EC approach”

6.10.2.1. Overview of actions

The Commission has a long-standing commitment to support the conservation and sustainable management of forests in developing countries. Over the past decade, the EC has provided

⁸¹ OJ L 169, 10.7.2000 (codification of Council Directive 77/93/EEC) as last amended by Council Directive 2002/89/EC (OJ L 355, 30.12.2002, p. 45).

⁸² New 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.

⁸³ OJ L 45, 15.2.2002, p. 56. Decision as last amended by Decision 2003/127/EC (OJ L 50, 25.2.2003, p. 27).

⁸⁴ OJ L 252, 20.9.2002, p. 37. Decision as last amended by Decision 2004/426/EC (OJ L 154, 30.4.2004, p. 1).

more than EUR 650 million to support forest conservation and sustainable management in Asia, Africa and Latin America. Funds are provided both through national and regional aid programmes, and a dedicated budget line to support the sustainable management of tropical forests in developing countries. Annual disbursements from this budget line alone are in the range of EUR 40 million.

In November 1999, the Commission adopted the Communication “Forests and Development: the EC Approach”⁸⁵. This provides an overall framework for EC development assistance in the forest sector, in particular by promoting sustainable and equitable forest management and poverty reduction. Poverty reduction remains at the heart of Community development policy, as mentioned in the joint Council and Commission Development Policy Statement adopted in November 2000.

In 2000, the Council and European Parliament adopted Regulation (EC) No 2494/2000 on “Measures to promote the conservation and sustainable management of tropical forests and other forests in developing countries”. This regulation provides the legal basis for the financing of forest-related activities under the Environment and Tropical Forests budget line for the period 2000–2006, with a maximum total amount of EUR 249 million. Most of the funding is provided through calls for proposals open to non-profit and international organisations.

Since 2000 this budget line has been used to fund 63 forest-related projects worth EUR 89.6 million. This budget line can be used to finance innovative global and inter-regional projects, which complement country-based programmes and projects. These projects are addressing a range of important issues, including forests and governance, community-based forest management, conservation and protected areas management, and policy reform.

6.10.2.2. Concluding remarks

The EU is one of the largest supporters of forest sector development co-operation, funding a range of activities including community-based forest management, protected area management, research, and policy reform. In recent years, the Commission and Member State donors have adapted policies and interventions to reflect the influence exerted by other sectors on forests, such as agricultural trends, trade policies, and infrastructure development. As a result, support to forests in development co-operation is increasingly being structured around national forest programme processes, which seek to involve all stakeholders and arrive at consensus between the many competing claims on how best to manage and sustain forests in the developing world.

⁸⁵ COM(1999) 554.

7. CO-ORDINATION, COMMUNICATION AND CO-OPERATION

In Article 2-f of the EU Forestry Strategy, the need is expressed “to improve co-ordination, communication and co-operation in all policy areas with relevance to the forest sector within the Commission, between the Commission and the Member States, as well as between the Member States”. Then, Article 10 emphasises “the benefits of effective co-ordination between different policy sectors which have an influence on forestry and of co-ordination at Community level”. The document also emphasises “the important role the Standing Forestry Committee, the Advisory Committee on Forestry and Cork and the Advisory Committee on Community policy regarding forestry and forest-based industries have in this context, making use of these committees as ad-hoc consultation for providing expertise for all forestry-related activities in the framework of Community policies”.

The EU Forestry Strategy underlines the need for adopting a long-term, holistic approach towards sustainable forest management based on the balanced integration of economic, social and environmental objectives. A fundamental element of this approach is the effective co-ordination of policy areas that affect the forest sector, as well as the active involvement and participation of the sector in the formulation and implementation of the cross-sectoral policies.

Given the fact that forest policy per se is a competence of the Member States, while many horizontal and issue-driven policy initiatives that have an impact also on the forest sector, are developed at the European level, the role of co-ordination between the various policy formation and implementation areas, their institutions and instruments, in the Member States, between the Member States and the Community level, and at the Community level itself, is particularly important for the forest sector.

During the first five years of implementing the EU Forestry Strategy, the Commission has sought the views of the Member States and of stakeholders on matters related to its implementation, as well as on forest-related initiatives under different Community policies. The co-ordination, communication and co-operation concerning forest-related issues in the EU took many forms. These included, but were not limited to: exchanges of information, facilitation of communication and co-operation within the Commission and between Member States, communication with civil society, and the representation of Member States in the international arena.

In general, in the context of reporting on the implementation of the Strategy, co-ordination, communication and co-operation can be perceived as an integral and complementary part of any of the forest-related activities targeting specific objectives of the strategy. From this perspective, these measures are horizontal in nature and the entire report may be considered as implicitly presenting the progress in fulfilling the call of the Strategy in these three areas.

However, seen from the same perspective, the progress achieved is very difficult to identify as it is often embedded in administrative procedures and adaptations thereof. Alternatively, co-ordination, communication and co-operation can be viewed in the context of institutionalised mechanisms specifically targeted at these activities. From this perspective, the presence and successful functioning of relevant institutions (administrative bodies, organisations, etc.) may be used as an indicator of success in reporting on co-ordination, communication and co-operation.

Throughout the implementation of the Strategy, co-ordination with the Member States and consultation with relevant interest groups and stakeholders in the forest sector has been channelled through the existing administrative structures and management and consultative committees, which advise the Commission, provide opinions and promote the exchange of information. The institutional mechanisms for these are presented below.

7.1. Co-ordination within the Commission

In order to improve the co-ordination between the Commission services, an important step was taken at the end of 2001, when the Commission formally established an Inter-Service Group on Forestry to strengthen the co-ordination of forest-related issues between the various services responsible for relevant Community policies. The main objective of the group is to improve internal coherence and hence better exploit the potential synergies between policy areas, by managing the information flow between the areas concerned and facilitating collaborative efforts. The experience with this Inter-Service Group has been very positive. There has been a considerable associative effect and an increase in the joint organisational capacity of the relevant Directorates-General of the Commission. The Inter-Service Group has brought together desk officers and managers from at least ten different Directorates-General to address a broad range of relevant issues. The establishment of this group has been beneficial in terms of fostering co-operation between different EU policy sectors. Its activities have been centred on the following areas:

- co-ordination of actions and initiatives relevant to forestry and implemented in the context of the different Community policies;
- communication and co-operation between and with the Member States and other relevant interest groups, including stakeholders, making use of the relevant committees;
- information and communication activities (such as the preparation of joint publications, participation in conferences, etc.) to increase the visibility and public awareness of EU forestry activities and actions.

7.2. Co-ordination with the Member States

The EU Member States and the Commission co-ordinate positions prior to major forest-related international meetings in the Council Working Party on Forestry. The Working Party also deals with forest-relevant Commission policy and legislative initiatives, such as FLEGT. This group had existed on an *ad-hoc* basis for a number of years, but in 2002 a decision was taken for it to become a permanent Working Party within the Council. Community positions with respect to the International Tropical Timber Organisation are dealt with in the Council's Commodities Working Group (known as PROBA).

The Standing Forestry Committee⁸⁶ (SFC), which brings together representatives of the Member States and which is chaired by the Commission, has a three-fold role:

- it acts as an advisory and management Committee for specific forestry measures;
- it is also an *ad-hoc* consultation forum that provides expertise in connection with the development of forest-related measures in the framework of various Community policies, such as those on rural development and the environment;

⁸⁶ Council Decision 89/367/EEC of 29 May 1989 (OJ L 165, 15.6.1989, p. 14).

- it provides a venue for exchange of information among Member States, and between Member States and the Commission.

During the period 1999–2003, the SFC has carried out its management function for the specific forestry regulations on the protection of Community's forests against atmospheric pollution and the protection against fire, as well as for the implementation of the EFICS Regulation. Since these regulations ended in 2002, the management function of the SFC is currently limited to the implementation of the new Forest Focus Regulation, adopted in 2003.

The SFC has also continued its role of an *ad-hoc* consultation forum on forest-related issues. Several subject matters, such as rural development, FLEGT, Natura 2000 and forests, research and forest certification have been discussed by the Committee over the last years. A total number of 30 meetings of the Standing Forestry Committee have been held during the period from January 1999 to June 2004.

Over the years, the third role of the SFC, the exchange of information between Member States and with the Commission, has become more important, which is reflected in the increasing number of presentations made by Commission staff from the different services, including information on forestry research, UNFF, FLEGT, etc. This development has met with a positive reaction from the Member States, as it responds to the growing need for timely information about ongoing and planned Community initiatives and activities.

The organisation of periodic and informal meetings of Forest Directors by successive presidencies of the EU has also contributed to improving the exchange of information on issues of common interest.

7.3. Communication and co-operation with stakeholders

Co-operation and communication with stakeholders have taken place in the context of the existing committees. There has been a regular information exchange, co-operation and co-ordination with forestry interest groups and stakeholders through the following committees:

The Advisory Committee on Forestry and Cork, which in May 2004 was replaced by the Advisory Group on Forestry and Cork⁸⁷, includes representatives of forest owner organisations (public and private), forest-based industries, environmental NGOs, forest trade unions, traders and consumer groups.

The Advisory Committee on Community Policy Regarding Forestry and Forest-based Industries involves representatives from the whole spectrum of EU forest-based industries, forest owners and other relevant experts.

In addition, a Sectoral Social Dialogue Committee was established for the woodworking industries⁸⁸ in 1998, in which the organisations representing employers and workers of the woodworking industries at European level develop their social dialogue. It provides an appropriate forum for the discussion of issues linked to employment, working conditions, vocational training, industrial change, enlargement, etc.

The Commission has used these committees as *ad-hoc* consultative forums in support of forest sector-related activities.

⁸⁷ Commission Decision 2004/391/EC of 23 April 2004 (OJ L 120, 24.4.2004, p. 50).

⁸⁸ Commission Decision 322/1998 of 20 May 1998 and Commission Communication COM(2002) 341 final of 26 June 2002.

The open internet-based stakeholder consultation in the context of the implementation report of the EU Forestry Strategy is another step towards increased transparency and communication in conducting forest-related activities at Community level.

7.4. Concluding remarks

An analysis of the activities and actions carried out over the last years, shows that, while co-ordination, communication and co-operation between the Commission, the Member States and interest groups and stakeholders have continued within the above-mentioned committees, certain activities have been increased and others adapted, the co-ordination structures in forestry have not substantially changed in relation to the situation in 1998.

During the period of implementation of the EU Forestry Strategy, a certain amount of progress in the field of co-ordination, communication and co-operation on forestry matters has been observed. This has largely been achieved by making better use of the existing institutional and administrative procedures and capacities. However, the basic set-up, where co-ordination, communication and co-operation are seen as being complementary to other activities targeting specific objectives of the Strategy, has not changed.

Over the last decade forest policies have been increasingly influenced by, on the one side, global environmental issues such as climate change or the protection of bio-diversity and, on the other side, specific social and economic needs and aspirations, which are mostly addressed at the local and regional level. The consensus-based approach in solving EU forest-related questions calls for the involvement and representation of multiple interests, as well as the consideration of other cross-sectoral issues in policy- and decision-making. This also means that the number of stakeholders participating in forest policy- and decision-making on various spatial scales has increased.

With a greater number of stakeholders involved in addressing forestry matters and in order to found policy- and decision-making processes on objective, best available and up-to-date information, there is a need to continue and reinforce efforts towards facilitating communication and information exchange.

Regarding the Community-Member State dimension, some dissatisfaction has been voiced by Member State forest policy officials, indicating insufficient involvement in the Community decision-making processes. In many cases this stems from the fact that at the policy implementation stage they are obliged to apply Community rules in the framework of their national or regional policies without having had the opportunity to provide their input or having been actively involved in the consultation process at an earlier stage.

The Strategy underlines the need to improve co-ordination on forestry matters between the Commission and the Member States. However, the Strategy provides a reference framework for forestry activities within the EU. The lack of both specific targets and appropriate monitoring mechanisms for its implementation, have made it difficult to establish an efficient co-ordination structure that is sufficiently flexible to adapt to the changing needs in this area. The current co-ordination system based on the existing institutional and administrative structures has shown its limits in this respect.

There appears to be an increasing need for a comprehensive review of the objectives of and the existing institutional means to facilitate co-ordination, communication and co-operation in EU forestry in light of the increasing complexity of forest policy- and decision-making process.

8. MAIN CONCLUSIONS AND EMERGING ISSUES

The current report shows that the EU has made progress in putting into place new and improved instruments to promote the protection and sustainable management of forests. It also confirms the multifunctional nature of forests and the broad range of cross-sectoral policies and initiatives that impact on the forest sector. Overall, however, the lack of specific targets, indicators and monitoring mechanisms makes a full assessment of the implementation of the Strategy difficult. It is also clear that it will take some time for many of the individual Community actions carried out in the context of the Strategy to yield the expected results. Even so, some conclusions can be drawn on the basis of this review.

After the adoption of the EU Forestry Strategy, its basic principles and elements identified in 1998 are still valid. Even more, these principles have in the meantime become an integral part of the guiding lines that shape the policies and actions of the Community and the Member States. In particular:

- sustainable forest management and the multifunctional role of forests remain the overarching common principles;
- national forest programmes are becoming the main instruments for implementing these principles;
- the importance of taking global and cross-sectoral issues into account in forest policy has increased.

8.1. Sustainable forest management and the multifunctional role of forests

The concept of sustainable forest management is based on three pillars: economic, social and environmental. These pillars are often treated as separate items. However, for a development to be sustainable, all three components must come together. An economically profitable activity will eventually fail if the resources it is based on are degraded. And environmental protection strategies will not be successful in the long run, unless they allow a profitable resource use.

To make the concept of sustainability operational in EU forestry, there is a need for knowledge on the shortcomings and on the needs in order to strike a balance between the economic, environmental and social functions of forests. There has been considerable progress in the environmental area in this respect, but more could be done to better identify the major economic and social issues in order to secure sustainable management of forests in the long term.

Concerns are increasingly being raised about the economic viability of sustainable forest management in the EU and the competitiveness of the sector. Many forest owners have difficulty in exploiting economies of scale, which results in low levels of profitability.

Forest owners are expected to provide a wide range of non-timber goods and services to society although they rely essentially on wood sales for revenue. However, the need to derive economic benefits from forests limits the ability of forest owners to assume the costs for the provision of social and ecological services. From the opposite perspective, policy instruments that result in increased operational costs reduce the competitiveness of forestry and the forest-based industries. But as the European forest sector is operating in a global market, any additional constraint should be evaluated with respect to its effect on the competitiveness of the sector.

In the context of globalisation and society's new expectations of benefits from forests, all functions of forests, whether economic, ecological or social are undergoing considerable change. These changes affect every level of forestry, from individual forest stands to global markets of forest products. However, to take advantage of this new dynamism, it is necessary to further develop an integrated approach to forest management, considering specific geographic circumstances and the diversity of forest types. Therefore, a major challenge is to determine how multifunctional forestry fits into the world economy. This is particularly relevant in the context of the changes at global level and the increase of dominant-use management systems, which involve the separation of forests intended solely for wood production from those where wood production is entirely or partially excluded to the benefit of other uses.

8.2. National forest programmes

National forest programmes provide a framework able to accommodate emerging issues in the sustainable management of forests, in a context of participatory and transparent governance. The majority of the Member States are at an early stage in the process of implementation of this instrument. The use of national and sub-national forest programmes is increasing and applications are further elaborated. However, efforts remain to be made to ensure that the national forest programme processes are fully embedded in overall national sustainable development strategies and other relevant contexts. The main challenge, thereby, is to establish sufficient political attention and support for the national forest programme processes.

There are emerging opportunities for joint action between Member States in developing and implementing national forest programmes, notably for identifying good practice, pooling knowledge, and exchanging experience. National forest programmes also serve as a means to strengthen synergies for sustainable forest management in Europe through cross-sectoral co-operation.

National forest programmes can also provide the reference framework in order to monitor progress at national level in adopting and implementing Community measures and initiatives relevant to forests and forestry, as well as in measuring and assessing the added value of specific Community actions in this area.

8.3. The international forest policy debate

The Commission has been present in all major international discussions concerning forests. There has been some progress at the level of international forest policy in that previously controversial topics, such as certification and forest law enforcement, are now widely discussed, but in general worrying rates of deforestation and forest degradation continue worldwide.

At the Pan-European level, an important role has been played by the Ministerial Conferences on the Protection of Forests in Europe (MCPFE). Through the Ministerial Resolutions adopted in the successive conferences, European countries and the European Community have set themselves detailed guidelines in forest policy, laying down common objectives, and strengthening co-ordination and co-operation in the area. Community policies have also contributed to the implementation of the MCPFE Resolutions.

The European Commission has taken up the challenge of tackling illegal logging through the adoption of the Action Plan on Forest Law Enforcement, Governance and Trade (FLEGT), and more recently through a legislative proposal on FLEGT.

The role of national forest programmes as inclusive and dynamically evolving frameworks for incorporating international forest-related policy principles into forest management is well established. However, at global level, progress on the ground remains disappointing. It is recognised that many factors causing deforestation lie outside the forest sector; hence the establishment of mechanisms at national and international level to facilitate effective interaction between the different sectors remains a challenge.

During the preparations for the Intergovernmental Forum on Forests (IFF) discussions in the 1990s, the Council adopted Conclusions in favour of a legally binding agreement on forests. As there was no international consensus on the need for such a legally binding agreement, the UN Forum on Forests was established in 2000, with a review clause in 2005. In general, positions in favour of or against such a Convention do not appear to have changed substantially since the start of UNFF. The decision that will be taken in 2005 by the international community as regards a possible legal framework for all types of forests will have obvious implications for work at the international level over the coming years.

8.4. Community actions concerning forests and forestry

The EU Forestry Strategy indicates a number of actions at Community level.

Forestry in the context of rural development

The rural development policy has been the main carrier for the implementation of the EU Forestry Strategy at Community level. The overall principles of the Strategy, e.g. multifunctionality and sustainability, are reflected in the rural development policy, which brings together economic, social and environmental objectives and transform them into a coherent package of voluntary measures, thus giving added value to the implementation of the forest programmes of the Member States. The forestry measures of the rural development programmes are, at the same time, seeking to contribute to global issues, such as climate change mitigation and biodiversity conservation. In total, the EC financial support for forestry measures in the context of rural development amounts to EUR 4.8 billion for the period 2000–2006 (~10% of the rural development budget).

In general, the Rural Development Regulation is considered as an innovative tool with a broad menu of measures providing considerable potential to support sustainable rural development throughout the EU. The rural development policy uses a territorial approach that recognises the economic and ecological interdependencies in rural areas. In the context of the forest sector this means the maintenance of the economic benefits from wood production and processing, safeguarding the environment, protecting flora and fauna, and preserving the cultural heritage that forests represent in our societies.

The proposal for the Rural Development Regulation 2007–2013 acknowledges the importance of forestry for rural development and includes a number of measures aimed at enhancing the protection and sustainable management of forests, as well as the better integration of forestry in rural development. The specific priorities will be established around three main objectives:

- improving the competitiveness of the forest sector;
- enhancing the environment and the countryside through support to forest management;
- enhancing the quality of life in rural area and promoting the diversification of activities.

In terms of possible improvements, the consistency between rural development programmes and NFPs could be further enhanced, allowing for the needs and challenges of forestry to be better reflected in the national implementation strategies of the rural development policy. The

monitoring and evaluation of the actual progress through forestry measures towards meeting the broader aims of the rural development policy should be given more attention in the future.

Forest monitoring

Community measures to support the protection of forests against atmospheric pollution have yielded a considerable amount of scientific information that has been conducive to new insights in forest ecology and in the establishment of criteria and indicators of sustainable forest management at Pan-European level.

Concerning the protection of forests against fire, the specific Community measures have contributed to identifying causes of and problems related to forest fires. These actions have also helped improve the efficiency of forest fire prevention and fire fighting systems, as well as the co-operation between EU countries in this area. Despite these efforts, forest fires continue to be a major concern, particularly in Southern countries. The Commission has recently set up an expert group to analyse forest fire prevention at EU level and make recommendations for future actions.

The adoption of the Forest Focus Regulation in 2003 marks an important step in the direction of the integration of forest monitoring in a wider perspective of global environmental monitoring standards that are under development. This initiative provides an opportunity for the EU to develop a comprehensive and integrated forest monitoring system. Such a system could eventually also address socio-economic aspects of the forest sector and lead to a better integration of national forest databases into an EU-wide monitoring and reporting system.

This development is in line with the progress achieved during the last years in defining criteria and indicators of sustainable forest management at Pan-European level. The criteria and the revised set of indicators, which has been endorsed by the Member States and the European Community at the Vienna MCPFE, provide a suitable instrument for monitoring, assessing and reporting on the state of sustainable forest management.

Comparable and reliable forest information will be of vital importance for proper decision making and for fulfilling monitoring and reporting obligations at EU and international level. Building on well established national services, on competences at EU level and on EU initiatives on the development of infrastructures for spatial information in Europe, a coherent approach to collection, harmonisation and exchange of forest information in the EU may be considered in the future.

In particular, there is an emerging need to assess and monitor the impacts of climate change on forests. Based on the findings of such monitoring, measures to adapt to these impacts could be developed.

The European Forest Information and Communication System (EFICS)

Building on the results of a pilot project, the Commission launched in 2004 a preparatory action aimed at developing an internet-based forest information and communication platform. This platform could become the basis for a European forest information and communication system. At the same time, there is a need to examine the specific needs of potential data users, and to assess the limitations related to the use of national data sources, in particular as regards data completeness, quality and comparability. Presently, for instance, data on the social and environmental benefits provided by forests are often not collected in the Member States.

Forest biodiversity

One of the most important EU achievements to date in this field is the effective implementation of the Natura 2000 network. Almost 30 % of the surface of this network will consist of forest sites, with another 30 % containing forest or woodland elements. In a Communication on financial resources to operate the network, the Commission announced its intention to reinforce the funding available under the LIFE-Nature instrument by making use of the Rural Development and Structural Funds.

Concerning the integration of biodiversity conservation in mainstream forest management practices, at landscape level, important progress has been made since the adoption of biological diversity as one of the criteria for SFM, at the Lisbon MCPFE. In many Member States, guidelines for the management of public forests have increasingly been adapted to favour biodiversity conservation, reducing the focus on timber production and promoting the provision of environmental services through forest management. In addition, national and Community support schemes for the private forest sector provide specific incentives for enhancing forest biodiversity.

However, the actual progress made to halt the loss of biodiversity in European forests remains to be evaluated. Given the distinct silvicultural traditions, the different policy frameworks, the variety of applied instruments, the multiple functions that forests are required to fulfil, changes are generally slow, complex and interdependent. The need to map, study and monitor forest biodiversity both inside and outside protected areas remains.

Over the coming decades climate change will require a dynamic approach to biodiversity conservation. Overall, conservation goals can be reached better through a combination of complementary measures, namely establishing an ecologically representative forest conservation network and simultaneously promoting biodiversity enhancement in commercial forest stands. Where excessive loss of forest biodiversity has been noted, and the provision of environmental services by forests is insufficiently secured, restoration, and under some circumstances recreation of important forest habitats may need to take place. Afforestation can be a powerful instrument in this respect. In this context, the landscape approach to forest management planning, taking into account watersheds and, among other aspects, considering cultural and historic elements of particular regions, could gain increasing importance in the future.

Climate Change

The EU Forestry Strategy has confirmed the role of the forest sector in the array of climate mitigation measures that were agreed under the Kyoto Protocol (KP). Since the adoption of the KP, the EU and its Member States have taken the lead of international efforts to turn the constraining emission reduction targets into a working system.

Wood can be expected to play an important role as a provider of biomass energy to offset fossil fuel emissions, in line with the EU renewable energy objectives. The Commission has also investigated the role of harvested wood products for the mitigation of climate change. In general, the use of biomass for energy purposes has not yet been developed to its full potential in the EU. Biomass energy, a clear bridge between Gothenburg and Lisbon objectives, offers substantial opportunities for employment and the diversification of forest uses. In line with this objective, the Commission has begun to examine the barriers to an increased use of biomass and has announced a Biomass Action Plan for 2005, in which the forest sector will play an important part.

There is an emerging need to evaluate the impacts of climate change on forest ecosystems and to develop measures to adapt to these impacts. In the future, a balance will need to be struck between mitigation measures (reduction of green-house gases) and adaptation measures (adaptation of forests to a changed climate). The mitigation measures would have to be socially and environmentally acceptable, while the adaptation strategies would need to be given a higher profile, from both a biodiversity and a socio-economic perspective. Awareness about the potential of forests to simultaneously sequester substantial amounts of carbon and help create renewable alternatives to the consumption of fossil fuels and non-renewable materials, should be raised.

Forest-based and related industries

A broad range of actions has been carried out in the context of the Communication on the State of Competitiveness of the EU Forest-based and Related Industries adopted in 1999. The Commission is finalising an evaluation of the above-mentioned Communication.

One of the results of this work shows that European consumers should be better informed about the advantages of wood from sustainably managed forest as a renewable and environmentally friendly resource, be it used in architecture, in the household, in furniture production or for other purposes. In addition, the technological developments of the last decades have created new outlets for wood as a renewable raw material. Wood is locally available, has multiple uses and lends itself perfectly well to the manufacturing of innovative products that can be used in many areas, and which are compatible with an environmentally friendly and sustainable way of life.

Wood as a raw material is increasingly coming into pressure to compete with alternative materials (e.g., plastics, steel, and concrete). In general, national and Community policies should facilitate the development of an enabling environment in the future, within which the forest-based industries can enhance their competitiveness.

The forest-based industry has been calling for measures to facilitate a greater role of timber use in Europe, as well as strengthening the “value chain” concept. In this respect, it must be considered that over the last fifty years there has been a substantial increase in growing stock in exploitable forests in Europe, with net annual increments consistently being higher than fellings. The question will have to be addressed, particularly in Central and Southern Europe, how far it is desirable from both an ecological and an economic point of view, to allow this trend to continue.

Forest certification

Certification schemes have existed for 10 years in the EU but they still have a rather small market share that is concentrated in highly visible market segments. The EU Forestry Strategy has laid down a series of principles to ensure that forest certification complies with the rules of the internal market, agreed standards for SFM, transparency, voluntary participation, and international trade agreements.

Over the years, a situation has developed in which the market for certified products in the EU is dominated by two major schemes, the Forest Stewardship Council (FSC) and the Programme for Endorsement of Forest Certification schemes (PEFC). Both schemes have engaged in a globalisation of their operations, by establishing centralised structures that recognise or endorse locally developed standards and allow commercial operators to carry their label.

On the whole, certification has developed as a private-sector, market-based tool to encourage SFM, in which regulatory intervention by public authorities is very limited. In this way, it is left up to the consumers and retailers to choose between certified and uncertified wood, to express their preference for a particular certification scheme and to decide on the premium they are prepared to pay. The appropriate operation of forest certification schemes in the EU should allow consumers to discriminate positively in favour of products with environmental and social benefits, while at the same time complying with existing internal market and international trade rules and giving producers of certified timber a marketing advantage. The certification schemes are voluntary in nature and neither the governments of the Member States nor the European Community has officially endorsed any particular certification scheme or standard.

Although originally, forest sector certification was largely aimed at preventing unsustainable forestry practices in developing countries, at present more forests are certified in developed countries than in the developing world.

The role of forest research

Substantial research efforts under the Community Research Framework Programmes have been devoted to support, further develop and implement the principles of sustainable forest management, addressing the conservation, protection and restoration of forests and the development of region-specific strategies of sustainable forest management.

At the Lisbon Summit, EU countries endorsed the European Research Area concept and acknowledged that research is the major driving force behind the development of the knowledge-based economy. The forest sector should pro-actively contribute to the Lisbon objectives. In this context, sector-wide strategic thinking is necessary, underpinned by a broad and long-term vision so as to determine the scope of and the priorities for forestry research well into the twenty first century.

Among the emerging issues that would need to be addressed by the forestry research are the broader trends linked to globalisation, trade and environment, the changing role of the state in the economy, the growing influence of non-governmental organisations in public decision making processes, and the increase and diversification of public demand for forest goods and services. One of the significant challenges to the research agenda is the need to explain the reciprocal links between environmental changes and different land use systems, and to analyse the implications of these interlinkages with respect to the appropriate choices and land management decisions in particular ecosystems and landscapes. Interdisciplinary research is essential in order to identify the critical factors within the reciprocal relationships and to evaluate in quantitative and qualitative terms the effects and dynamics of system interactions in the human-environment interface.

Forest reproductive material and plant health

The health and quality of forest reproductive material is of vital importance for the wood production capacity of forests in the Community. Over the last few years legislation has been adopted to ensure a more harmonised implementation of a number of key aspects of the EU *acquis* pertaining to the marketing of forest reproductive material.

Not only living plants and parts of plants but also wood imported from third countries into the Community, being either as consignments of wood or as packing material, constitute a serious risk of introduction of harmful pests and diseases. In 2004, new Community legislation has been adopted to address these risks by introducing new and more stringent provisions into the

already existing plant health *acquis*. With a view to mitigate the dissemination of forest plant pests and diseases, Member States have to implement surveys for the presence of relevant organisms and have to submit forest plant nurseries to registration and inspection obligations.

8.5. Co-ordination, communication and co-operation

The potential for political co-operation, the common efforts in addressing forestry issues, and creation of common research and teaching networks are important assets for the future development of the EU forest sector. However, to utilise these assets, there appears to be a need for a comprehensive review of the existing institutional means and practices to facilitate co-ordination, communication and co-operation in EU forestry in light of the increasing complexity of forest policy and decision-making process. In this context, the development of better systems of information management appears most relevant.

Since the adoption of the EU Forestry Strategy, there have been some important improvements in the field of co-ordination, communication and co-operation in forestry matters. However, the basic set-up, whereby co-ordination, communication and co-operation are seen as being complementary to other activities targeting specific policy objectives, has not changed.

With a greater number of stakeholders involved in addressing forestry matters, and in order to found policy and decision-making processes on objective, best available and updated information, there is a need to continue and reinforce the efforts towards facilitating communication and information exchange.

The Strategy underlined the need to improve co-ordination on forestry matters between the Commission and the Member States. However, the lack of both, specific targets and appropriate monitoring mechanisms for the implementation of the Strategy, have made it difficult to establish an efficient co-ordination structure that is sufficiently flexible to adapt to the changing need in this area. The current co-ordination system based on the existing institutional and administrative structures has shown its limits in this respect.

8.6. Concluding remarks

The different actions and measures implemented over the last years show progress in the sustainable management of forests. However, the viability of forest management practices in the EU – based on a multifunctional approach simultaneously serving economic, social and environmental objectives – is increasingly being challenged in the context of a competitive, open and global market. Reflecting changes in society, there is a growing public interest in the management of forests for their environmental and social benefits. This, in many cases, requires changes in management practices that may reduce the long-term economic viability of forestry. The degree to which society recognises and compensates the provision of such services varies between Member States, but is generally felt to be inadequate.

The forest sector has a potential to demonstrate that the Lisbon objectives of sustainable economic growth and becoming the most competitive and dynamic knowledge-based economy in the world, are compatible with the Gothenburg objectives of safeguarding the quantity and the quality of the natural resources base. The sector can substantially contribute to the sustainable development of our society and to the quality of life. The challenge is to improve competitiveness, while practicing sustainable forest management, diversification of outputs and valuation of the services provided by forests to society. At Community level, the political priorities foreseen in the financial perspectives of the EU for the period 2007–2013 constitute an appropriate framework to meet these goals.

While the EU Forestry Strategy is based on the principle of subsidiarity and the concept of shared responsibility, there are a growing number of EU policies and initiatives that affect forests and forestry. In this context, there is a need to strengthen coherence between EU policies, as well as co-ordination between the Commission and the Member States, and to establish adequate monitoring mechanisms for the implementation of the Strategy. The Commission, together with the Member States, should assess whether the current co-ordination mechanisms allow the effective achievement of the strategic objectives.

The global importance of forests in poverty alleviation and food security, and in the achievement of other internationally-agreed Millennium Development Goals elaborated in the Millennium Summit in 2000, is being increasingly acknowledged. The European Union should firmly continue to support the international commitments on the sustainable management of forests at global level.

All key stakeholders stress the importance of good governance for the protection and sustainable management of forests and the need to develop and apply participatory approaches in forest policy formulation and implementation. There is a need to review the consultation structures in forestry at Community and national/regional level, in order to facilitate transparency and structured dialogue with all relevant stakeholders concerning the further development and implementation of the Strategy.

The public debate on forests and forestry and the fundamental shift in public expectations highlight the need for responsible and coherent policies and initiatives. Sustainable forest management is about striking a balance between the economic, environmental and social functions of forests. The overall objective of policy measures and individual actions initiated at all levels should be to maintain this balance and to encourage adjustments, if deemed necessary.

The EU Forestry Strategy has provided a reference framework for forest-related initiatives and actions in Europe over the last five years. Building on this experience, the lessons learned and the achievements made, the Strategy should in the future be based on a shared vision of the long-term and global challenges, so as to develop clear objectives and implement them using a coherent and balanced approach to sustainable forest management.