5th MCPFE

FORESTS FOR QUALITY OF LIFE

5-7 November 2007, Warsaw Poland

IMPLEMENTATION OF MCPFE COMMITMENTS

National and Pan-European Activities 2003-2007

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National and Pan-European Activities
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Liaison Unit Warsaw
ul. Bitwy Warszawskiej 1920 r. nr 3
00-973 Warsaw, Poland
tel.: +48 22 331 70 31 tel./fax: +48 22 331 70 32
e-mail: liaison.unit@lu-warsaw.pl
www.mcpfe.org

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PREFACE

The Ministerial Conference on the Protection of Forests in Europe (MCPFE) is a high-level political initiative towards the protection and sustainable management of forests throughout Europe. It involves 46 European countries plus the European Community, and cooperates with a range of countries around the world and international organisations as observers. Seventeen years of collaboration at the MCPFE forum has resulted in the adoption of a wide range of high-level policy commitments on forests embraced in four Ministerial Declarations and seventeen Resolutions.

The putting of MCPFE commitments into action can be assessed, *inter alia*, by demonstrating their influence on forest policy at the national and sub-national levels. Therefore, representatives of the MCPFE signatories and observers agreed at the MCPFE Expert Level Meeting held in October 2001 in Vienna, Austria, that analysis of implementation of MCPFE commitments would be initiated. This has developed into a continuous process resulting in the elaboration of this Report on "Implementation of the MCPFE commitments 2003-2007". The Report is prepared for the Fifth Ministerial Conference on the Protection of Forests in Europe: "Forests for quality of life", as convened in Warsaw, Poland, in 2007. The information compiled in this publication is intended to serve as a reference point for decision-makers, as well as to be of use in the MCPFE parties' planning of further activities.

The Report is structured into two parts showing the analysis of implementation processes at the national and Pan-European levels. The chapter on national accomplishments is based on the analysis of questionnaire responses provided by countries. The chapter on implementation at the Pan-European level comprises a report on realisation of common activities scheduled in the MCPFE Work Programme adopted in 2003, and reviews the implementation of the commitments of the Ministerial Conferences convened in Vienna (2003), Lisbon (1998), Helsinki (1993), and Strasbourg (1990).

The preparation of this Report would have been impossible were it not for the remarkable assistance of the MCPFE National Correspondents, international organizations and institutions who provided indispensable information. I would like to express my sincere gratitude for their readiness to help out with the collection of necessary data, as well as for their time and extensive work dedicated to the preparation of questionnaire responses encompassed in this publication. I would also like to thank very much the international co-ordinators of the MCPFE Resolutions adopted in Lisbon, Helsinki and Strasbourg, who have continued to lead international networks and projects contributing to the implementation of the MCPFE commitments and reporting on their recent activities.

Piotr Borkowski

Head of the MCPFE
Liaison Unit Warsaw

NATIONAL IMPLEMENTATION

Executive Summary of National Implementation

The chapter on national implementation presents the activities engaged in by MCPFE signatory countries during the period 2003-2007, i.e. since the MCPFE Vienna Conference of 2003. The analysis is based on a questionnaire sent out to countries, to which the Liaison Unit Warsaw received 30 national replies (out of total of 46 MCPFE signatories). Besides the measures undertaken towards the implementation of Vienna commitments, the countries reported on further progress made in implementation of the Lisbon (1998), Helsinki (1993) and Strasbourg (1990) Resolutions.

A summary of country responses would indicate that all the countries providing their reports had initiated multiple actions to implement the MCPFE commitments, and that this had found reflection in national forest policies, legislation, forest programmes, research and other activities. Some of the measures are still in preparation, while many are already being implemented.

Analysis indicates that most countries have developed and are implementing National Forest Programmes (NFPs) or their equivalents, while some have started the review processes. The MCPFE approach to NFPs is being used as a background for NFP development in most of the countries. NFPs take into account many issues addressed by the MCPFE commitments, including inter-sectoral policy coordination, economic viability of the forestry sector, social and cultural dimensions, biodiversity, and the adaptability of forests to climate change.

NFPs and national forest legislature are also viewed by countries as an important instrument where enabling conditions for sustainable forest management (SFM) are to be put in place. Wood, as one of the essential forest products, is being promoted with a new accent on sustainability of forest management, on its importance as a renewable and reusable raw material, and on its status as a source of bio-energy. Besides timber products, European forests are expected to produce a wide range of non-wood goods and services. Although, there are no well-established markets for these goods, and especially for the services provided by forests, other than recreation, many countries have initiated research projects to develop this topic.

Another issue receiving greater attention in recent years is that of the social and cultural dimensions to forestry. Countries have reflected this in their NFPs, in rural development programmes and in educational and research projects. Many projects and events have been devoted to the preservation of traditional knowledge and practices in SFM, the protection of cultural and historical landscapes as well as objects and sites in forests.

Modifications to forest management activity have been made with a view to the protection and enhancement of forest biological diversity being assured. These have been supported by national legislation, NFPs, cross-sectoral cooperation among a wide range of agencies, and multiple research activities. All the countries indicated various measures introduced to improve the assessment and monitoring of forest biodiversity. Work is ongoing on the restoration of degraded forests, the prevention of fragmentation and improvements in ecological connectivity. Extension of existing protected forest networks is planned by majority of European countries, with the aim of representative coverage for all forest plant communities being achieved.

Climate-change issues continue to be an important topic influencing forest management activities. Various actions from the advertising of wood products and wood promotion campaigns through to governmental programmes and regulations for wood have been mobilised in different countries

with a view to these means contributing to the reduction of greenhouse gas emissions. Among the forest management activities undertaken by countries with regard to implementation of the Kyoto Protocol, afforestation was named by almost all countries. Numerous countries have special afforestation programmes, goals, or special financial incentives for afforestation projects.

Forest-related ministries and public forest agencies were indicated by countries as the most important actors responsible for securing and implementing measures on various aspects of SFM. Numerous issues are a shared responsibility with other ministries and agencies, where the essential role is played by research and educational institutions.

Many commitments made by MCPFE signatories during the Lisbon Conference gained reflection in the Vienna Resolutions, while Strasbourg commitments continue to be implemented through various European networks and projects in which many MCPFE signatories participate. The Helsinki guidelines on SFM and on conservation of biodiversity provide an essential background to the preparation and revision of many national forest-related documents and the development of protected forest networks.

Introduction to National Implementation

Part I of the Report presents the national implementation of MCPFE commitments by MCPFE signatory countries during the period 2003-2007.

To collect the data on national implementation of MCPFE commitments, we approached countries with a questionnaire this time constructed with both the qualitative indicators of the "State of Europe's Forests 2007" Report and implementation questions included. Although countries found the questionnaire very demanding, they provided a good input and information. Overall, 30 reports[1] were received from among the 46 MCPFE signatory countries (Annex 1).

The replies to the questionnaire were analysed by the MCPFE Liaison Unit Warsaw (LUW). Since structuring of the questionnaire had been in line with MCPFE Criteria and Indicators (C&I) on Sustainable Forest Management, rather than specific resolutions and commitments, replies on measures undertaken towards certain given commitments were often covered by several questions. Similarly, the information on actors was integrated from several criteria corresponding to specific resolutions.

This Report nevertheless follows the order of Resolutions adopted at the Vienna, Lisbon, Helsinki and Strasbourg Conferences. The situation with implementation of Vienna commitments comprises the greater part of the chapter. Only short versions of commitments are shown within the text of Part I, while the full text of the commitments is presented in Annex 2 to this Report. The information analysed reflects the replies of the 30 responding countries. Some of the commitments have more of an international character, and are therefore being implemented through the activities presented under the Pan-European part of this Report.

While the average rate of response to enquiry questions among the country reports received was above 80%, countries were often seen to have had a different understanding of the same enquiry questions and terms, with the result that replies to the same question could be diverse.

Vienna Resolution 1 (V1)

Among the 30 countries providing reports on implementation, the number of replies to V1 commitments varied from 26 to 28 (see Figure 1). The replies on implementation of commitments 8, 10, and 11 were embedded within broader questions of the questionnaire, and the rate at which these commitments had been referred to could not be estimated.

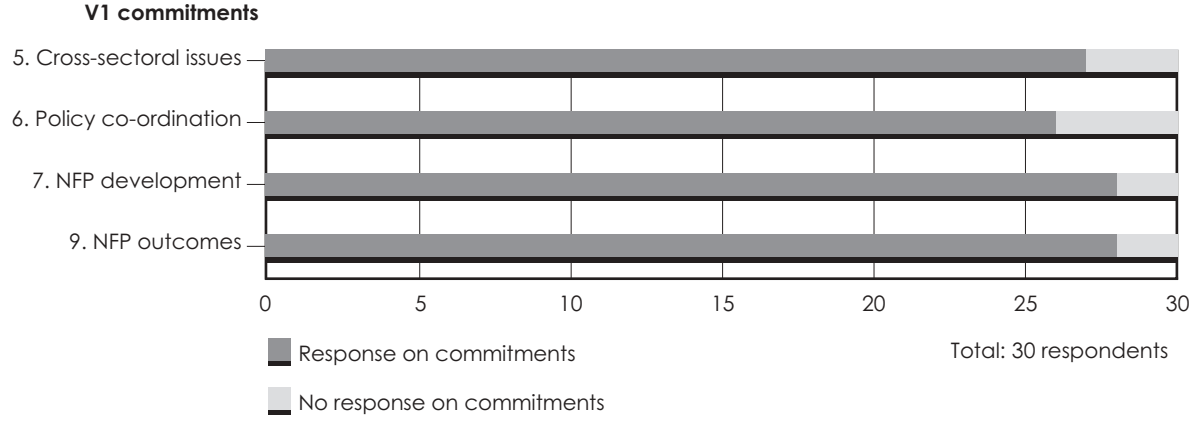

Figure 1. Replies on implementation of V1 commitments.

[1] Country reports sent to the Liaison Unit can be viewed at www.mcpfe.org

Vienna Resolution 2 (V2)

The response rate to the commitments of Resolution V2 among the 30 reports received is as represented in Fig. 2. Replies on commitments 15 and 17 were included under broader questions, and the response rate for them is not calculated. At the same time, 2 questions contributed to the reply on commitment 7, so the average from these was calculated.

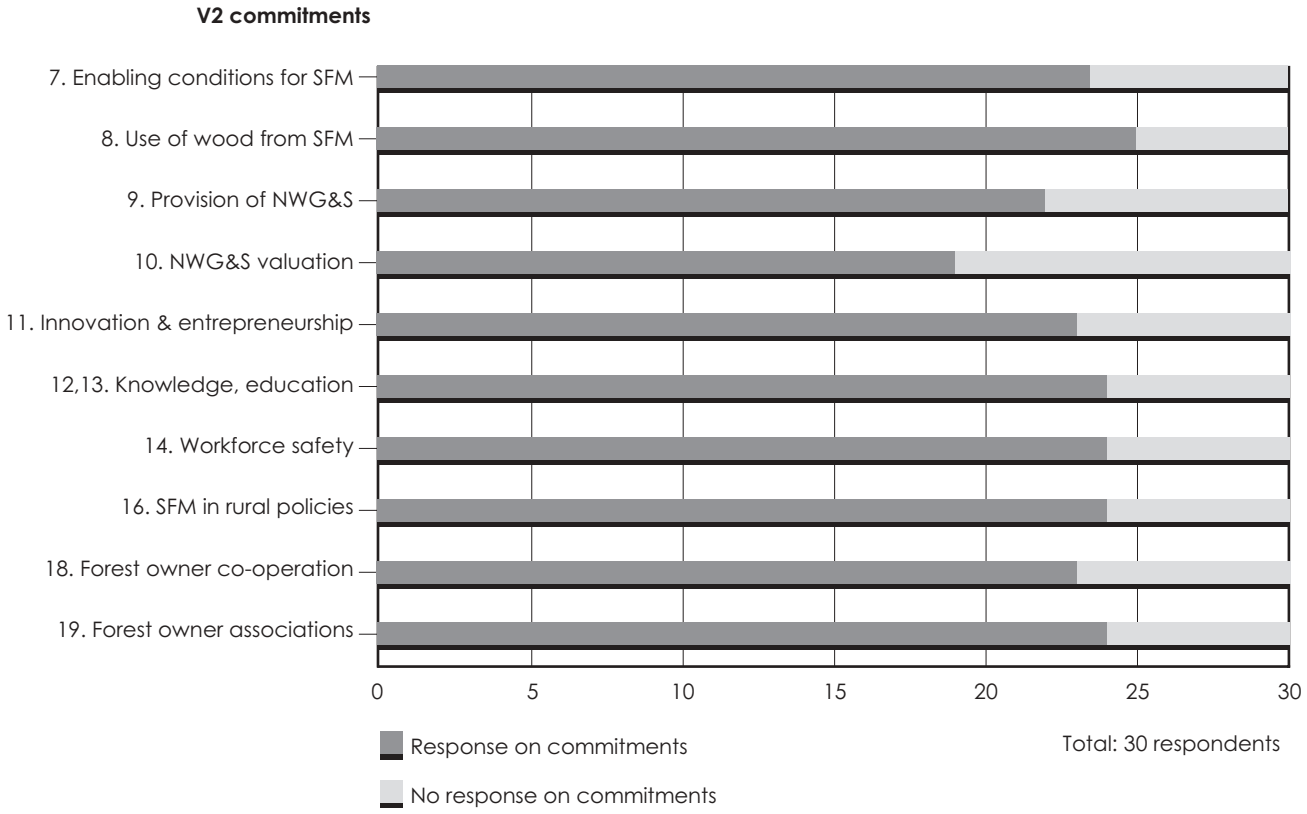

Figure 2. Replies on implementation of V2 commitments.

Vienna Resolution 3 (V3)

The reply rate in respect of commitments under Resolution V3 is as represented in Fig. 3. Commitments 5, 8, and 11 were covered by several questions, so estimation of the report rate for these was not attempted.

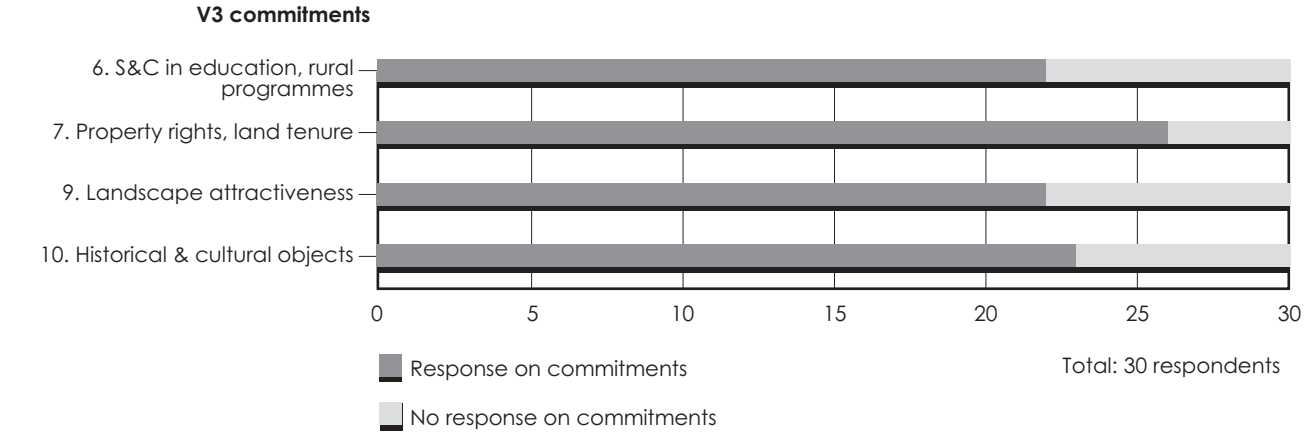

Figure 3. Replies on implementation of V3 commitments.

Vienna Resolution 4 (V4)

Commitments under Resolution V4 include several international activities, such as 'developing understanding of the linkages between ecosystem approach and sustainable forest management', 'collaboration with the ministerial process "Environment for Europe"/PEBLDS'. The implementation of these activities is presented in the second part of this Report on Pan-European implementation, and also in the part concerning the regular work of the MCPFE. The rate of response in regard to Resolution V4 commitments was similar to that noted for other resolutions, with more than 2/3 of replies received in the 30 reports on implementation sent to MCPFE (Fig. 4). Many of the replies on the implementation of V4 commitments were included within wider questions, for which the rate of response in relation to a single commitment was not calculated.

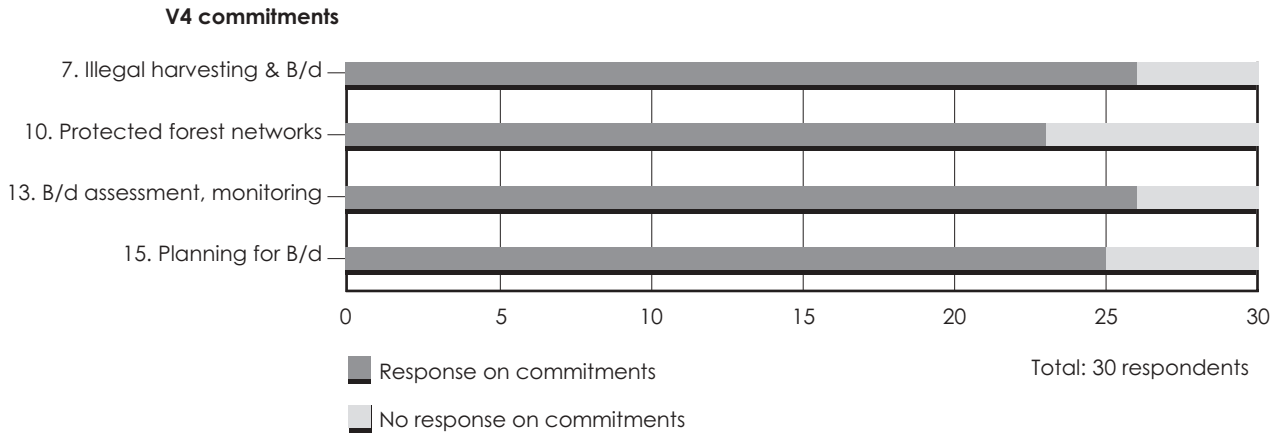

Figure 4. Replies on implementation of V4 commitments.

Vienna Resolution 5 (V5)

Replies on the implementation of different commitments under Vienna Resolution V5 were present in between 21 and 27 of the 30 reports received (Fig. 5). The presence in the questionnaire of a separate question on climate-related disasters allowed for the presentation of the reply rate to two parts of commitment 7.

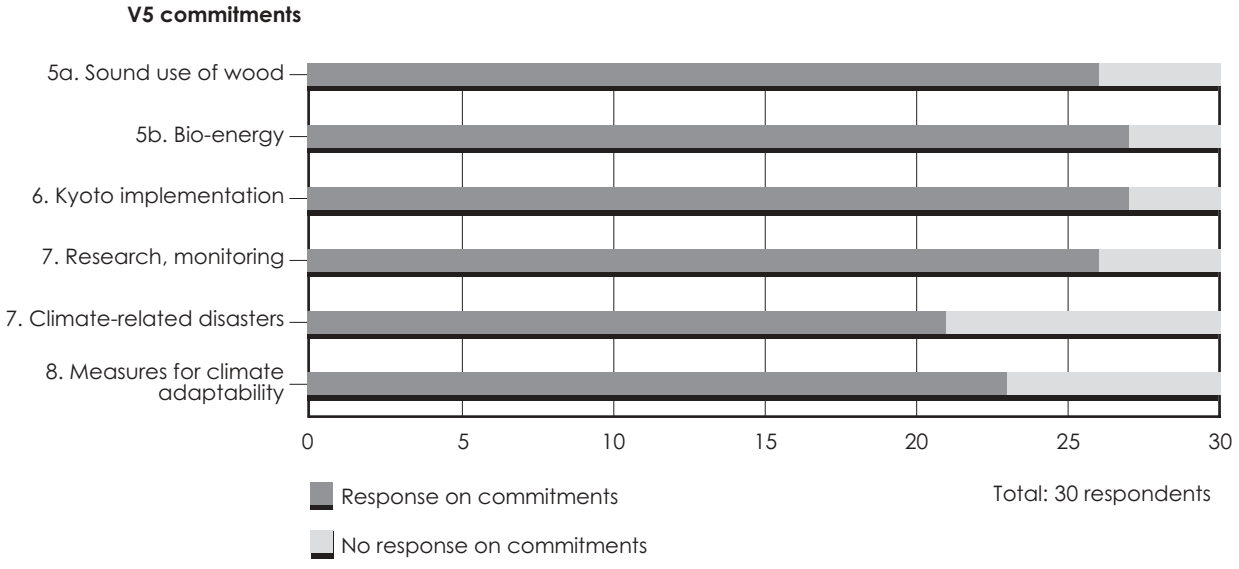

Figure 5. Replies on implementation of V5 commitments.

Lisbon, Helsinki, and Strasbourg Resolutions

The rate of response concerning implementation of the Lisbon, Helsinki, and Strasbourg Resolutions since the Vienna Conference of 2003 was lower than that regarding the Vienna Resolutions, with only about 2/3 of countries replying in respect of Lisbon Resolution questions, and about half where Helsinki and Strasbourg Resolution questions were concerned (see Fig. 6). Some of these responses did nothing more than indicate that no further measures were being taken and that the issue was being given consideration in the national forest policy.

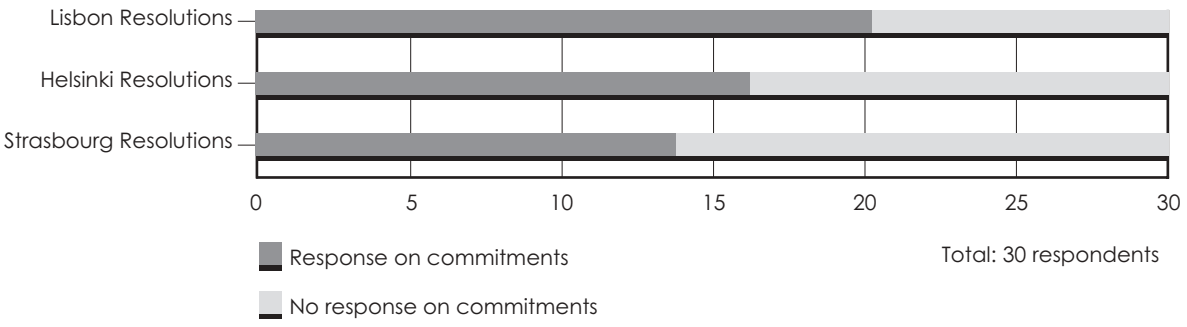

Figure 6. Replies on implementation of Lisbon, Helsinki, and Strasbourg Resolutions.

1. National Implementation of Vienna Resolution V1

Strengthen Synergies for Sustainable Forest Management in Europe through Cross-sectoral Co-operation and National Forest Programmes

At the Vienna Conference, the Ministers responsible for forests recognised the mutual inter-dependencies between forest-sector policies and other sectoral policies. They expressed their commitment to strengthening synergies for sustainable forest management in Europe by means of enhanced cross-sectoral co-operation and partnerships, and identified national forest programmes as an important tool.

V1/5: improved understanding of cross-sectoral issues, identifying key issues, enhancing co-operation and dialogue

This commitment of the Vienna Resolution 1 is being implemented by the MCPFE countries through participation at several joint meetings at which cross-sectoral issues were discussed, examples being the 2004 MCPFE Workshop on exchanging country experiences with the NFP processes or the 2005 Workshop on forest-relevant cross-sectoral issues at the Pan-European level and improved inter-sectoral policy coordination. These events are described in more detail in the second part of this Report.

V1/6: enhancing inter-sectoral policy coordination

- **regular communication between the forest and other relevant sectors**
- **strengthening collaboration, developing inter-sectoral agreements**

In replies to the questionnaire for this Report, most countries showed that measures were being taken to identify and consider cross-sectoral issues. NFPs in their various forms encompassed cross-sectoral activities. It was also foreseen that NFPs would be harmonised with other policies and programmes and coordinated with other strategies, such as on sustainable development, climate change, biodiversity, the development of rural areas, etc. At the same time, issues discussed in the NFPs are being reflected in other policies. The forms of communication relevant to this have included cross-sectoral meetings, working groups, workshops, round tables and fora. Such meetings have also relied on the participation of other stakeholders, governmental and non-governmental organizations.

The most important sectors related to forestry with which communication had been initialised or developed, were listed as:

- agriculture;
- industry;
- energy;
- transport;
- education.

The cross-sectoral issues most commonly considered included:

- rural and regional development;
- the environment, nature, landscape and biodiversity protection;

- water management;
- climate change;
- the control of natural hazards and weather events;
- tourism.

Communication is mostly ongoing at the ministerial level, though various other governmental and non-governmental organizations are also involved.

V1/7: developing national forest programmes applying the MCPFE approach

More than half of reporting MCPFE countries have developed and are working in accordance with their NFPs (see Table 1). 16 countries (out of 30 reporting) indicated that their NFPs are currently being implemented, with some having been developed as early as 1986 (in Greece), or in the 1990s in several other countries. The process of review of NFPs is ongoing in five countries, while three reported that their forest programmes are part of a continuous process. Six of the countries are still developing their NFPs. Some of them have their NFP documents prepared, though not formally approved by the national governments. In Hungary, although the NFP had been approved by the government, it was not yet being implemented because of national circumstances. In addition, three countries (Ireland, Slovenia, and the United Kingdom) reported that NFPs were being implemented, while at the same time being subject to review.

The MCPFE approach to NFPs has been used as a background for NFP development in most countries. Those countries having their programmes elaborated before the 2003 Vienna Conference based them around the principles of Agenda 21 and IPF/IFF, which are consistent with MCPFE principles. The ongoing reviews of NFPs also engage in deeper consideration of the MCPFE approach.

Table 1. Basic information on NFPs in MCPFE signatory countries (source: MCPFE Qualitative questionnaire 2007).

Country	NFP or equivalent	Year of adoption	NFP/equiv	MCPFE approach to NFPs	Status*	Comments
Austria	NFP	2006	NFP	Yes	I	Forest programme is a result of Austrian Forest Dialogue
Belarus	Concept of sustainable development of forestry in Belarus until 2015 (1996); Strategic development plan for forestry of Belarus until 2015 (1997)	1996; 1997	Equiv	Partly	I	According with the Rio forest principles (1992)
Belgium	Flemish Regional Environmental Policy Plan 2003-2007 (includes forestry)	2003	Equiv		R	Separate forest policy plan prepared, but not approved formally
Bulgaria	NFP Strategy	2003	NFP	Yes	I	
Cyprus	NFP 2000-2009	2000	NFP	Partly	I	IPF/IFF principles
Czech Republic	NFP	2003	NFP	Yes	R	New NFP 2007-2013 under preparation
Denmark	NFP	2002	NFP	Yes	I	
Estonia	Forestry Development programme (NFP) 2010	2002	NFP	Yes	R	
Finland	NFP 2010	1999	NFP	Yes	R	
France	NFP 2006-2015	2006	NFP	Yes	I	
Germany	NFP for Germany	1999	NFP	Partly	I	IPF/IFF principles

Country	NFP or equivalent	Year of adoption	NFP/equiv	MCPFE approach to NFPs	Status*	Comments
Greece	Forest Programme (1986-2006)	1986	Equiv	Partly	R	New plan under preparation in line with MCPFE principles
Hungary	NFP 2006-2015	2004	NFP	Yes	D	Strategic document, not implemented yet
Iceland	–	–	NFP		D	Under development
Ireland	Growing for the future (1996 Strategy)	1996	NFP	Yes	I, r	
Italy	–	–	NFP		D	NFP document approved (2006), NFP under development
Latvia	NFP of forest and related sectors	–	NFP	Yes	D	Policy baselines approved (2006), NFP under preparation
Liechtenstein	NFP 2002-2012	2002	NFP	Yes	I	
Lithuania	Lithuanian Forest Policy and Implementation Strategy	2002	NFP	Partly	I	In line with IPF principles, new plan includes other issues
Netherlands	Nature for People, People for Nature; Nature policy 2004	2000	Equiv	Partly	I	
Norway	Several related documents	n.a.	Equiv	Yes	C	
Poland	–	–	NFP	Yes	D	NFP project developed (2005), but not approved formally
Romania	NFP	2005	NFP	Yes	I	
Russian Federation	Federal Target Programme "Forests of Russia" 2007-2015	–	NFP	Yes	D	Draft of the programme, not implemented yet
Slovakia	NFP	2007	NFP	Yes	I	
Slovenia	Forest Development Programme of Slovenia	1996	NFP	Partly	I, r	Under revision in line with the MCPFE approach to NFPs
Sweden	Several related documents	n.a.	Equiv	Partly	C	
Switzerland	Swiss NFP	2001	NFP	Yes	I	
Ukraine	State Programme "Forests of Ukraine" 2002-2015	2002	NFP	Yes	I	
United Kingdom	UK NFP (forest strategies of England, Scotland, Wales, Northern Ireland)	2003	NFP	Yes	C, r	

*Status of implementation:
C – NFP is a continuous process;
D – NFP is under development;
I – NFP is being implemented;
R – NFP is currently under review

V1/8: using NFPs to
- **identify and address key cross-sectoral issues**
- **assess gaps and inconsistencies in forest-relevant policies and minimise them**

The role of NFPs in identifying and addressing key cross-sectoral issues is a very important one that is in part reflected under commitments discussed above. Having an influence on other sectors (i.a. agriculture, energy, industry and the environment), forestry is also affected by activities implemented within different programmes and strategies. In this respect, countries highlighted the need for harmonization of policies and legislation. Such processes are ongoing in many countries, but a continuous need for implementation of such activities still exists in several countries.

V1/9: consideration of NFP outcomes in national processes and strategies

In countries in which NFPs have been developed, these have offered a platform for integration and coordination with other policies. The NFPs were often considered as rural, environmental, agricultural and other policies and strategies were prepared. Countries also noted that the participation of governmental and non-governmental representatives at common round tables and on councils contributed to the consideration of forestry objectives in the national legislation and many official documents, while NFP elements are at the same time closely related to issues incorporated in related policy areas, such as agriculture, the environment, spatial planning, rural development, energy and industry, tourism, etc. Certain difficulties in policy coordination were also mentioned, such as the lack of an external relations concept in forestry and multiple changes in the forestry administration (Czech Republic) or else a lack of interest on the part of other sectors in coordinating with bodies responsible for forestry (Hungary).

V1/10: country experiences gained in NFP (MCPFE approach to NFPs, C&I)

V1/11: making best use of information on mechanisms for implementation and financing of NFPs, research and education, national and international programmes

These two commitments (V1/10 and V1/11) required a more international approach to implementation. One important contribution here was the Workshop to exchange country-level experiences from the NFP process, on practical application of the MCPFE Approach to NFPs in Europe, and on the use of C&I for SFM as a component of the NFP process. The European Commission and the FAO NFP Facility presented information on their work with NFPs, while all participants also had a chance to discuss the role of the NFPs in the integration of international commitments with national forest policies, mechanisms for cross-sectoral coordination and public participation developed by countries in the NFP processes, the assessment of existing capacities in the context of the NFPs, and experiences gained and lessons learned where the evaluation of the NFP process was concerned. The Workshop took place in Poland in 2004 and is described in more detail in the second (Pan-European implementation) part of this Report.

2. National Implementation of Vienna Resolution V2

Enhancing Economic Viability of Sustainable Forest Management in Europe

Enhancing the economic viability of SFM in Europe was a key topic at the Vienna Conference. The Ministers responsible for forests recognised the importance of conditions for SFM being improved, and the consequent economic challenges facing the forest sector in many regions in Europe. They noted that economic viability is of crucial importance to the maintenance of forests and their multiple benefits for society, contributing to sustainable development and to human livelihoods, in rural areas in particular.

2.1. Actors for Resolution V2

According to national reports received, forestry and environment-related ministries were joined by other ministries, such as those responsible for the economy, energy, labour, finance, defence, education, trade, housing or health in sharing responsibility for issues related to the economic viability of the forestry sector, the production and use of wood, and employment and safety in forestry. An important role is also played by other agencies, research and educational institutions, private forest organisations and forest owners (see Table 2).

Table 2. Economic viability, production and use of wood, employment – Most relevant institutions.

Organisations	No Countries	Countries
Ministries of forestry, nature, agriculture or the environment	21	Austria, Belarus, Belgium, Bulgaria, Cyprus, Czech Republic, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Norway, Romania, Russia, Slovakia, Slovenia
Other ministries (industry, transport, the economy, etc.)	17	Belarus, Bulgaria, Cyprus, Czech Republic, Estonia, Finland, France, Greece, Italy, Latvia, Netherlands, Norway, Romania, Russia, Slovakia, Slovenia, Ukraine
Public forest agencies	13	Czech Republic, Estonia, Finland, Hungary, Lithuania, Poland, Romania, Russia, Slovakia, Slovenia, Sweden, Ukraine, United Kingdom
Other agencies	14	Austria, Belgium, Czech Republic, Estonia, Finland, Hungary, Ireland, Latvia, Norway, Slovakia, Slovenia, Sweden, Ukraine, United Kingdom
Research and education institutions	10	Austria, Bulgaria, Finland, Germany, Lithuania, Norway, Romania, Slovakia, Ukraine, United Kingdom
Provinces, municipalities, communities	3	Finland, Italy, Norway
Private organisations and forest owners	8	Austria, Estonia, Finland, Hungary, Netherlands, Norway, Poland, United Kingdom
No reply on the topic		Denmark, Iceland, Liechtenstein

2.2. Implementation of Commitments of Resolution V2

V2/7: support enabling conditions for SFM, encourage investment and economic activity in the forest sector, forest law enforcement

NFPs and national forest legislation were viewed by countries as important instruments in the provision of enabling conditions for SFM. Special financing schemes (tax benefits, incentives, compensations, and others), often to assist private forest owners, were being developed by countries

to ensure forest management activities in line with SFM criteria and nature protection rules in forests, which are being enforced by the policy and legal framework. Other reported activities included SFM-oriented education and training of forestry personnel, consultations, and support in the development of forest management plans.

Forest law enforcement has been evaluated as effective in most of the Western European countries, while some difficulties are still being listed by Central European countries, which recently introduced changes into their forest law, as well as by Eastern European countries. The main measures taken to address forest law enforcement are reflected in Table 3. Countries also take measures to combat the illegal harvesting of forest products and related trade. These measures include: adjustment of forest law, adaptation of special regulatory acts or guidelines, voluntary certification, and others. In addition, many countries take part in the Europe and North Asia Forest Law Enforcement and Governance (ENA FLEG) process and the Forest Law Enforcement, Governance and Trade (FLEGT) process of the European Union.

Table 3. Measures addressing forest law enforcement.

Type of action/ current state	Countries implementing the action*
Strict law exists	Austria, Cyprus, Denmark, Greece, Netherlands, Switzerland
Changes to law introduced	Belarus, Bulgaria, Czech Republic, Denmark, France, Hungary, Latvia, Liechtenstein, Lithuania, Romania, Russian Federation, Slovak Republic, Slovenia, Ukraine
High-level agreements	Belgium, Bulgaria
Control improvement	Bulgaria, Latvia, Lithuania, Slovenia
International agreements (i.e. FLEG, FLEGT)	Cyprus, Denmark, Estonia, Finland, Hungary, Norway, Sweden, Switzerland, United Kingdom
No reply on the topic	Germany, Ireland, Italy, Poland

* Iceland reported no measures addressing forest law enforcement

V2/8: promoting use of wood from sustainably managed forests

Various forms of promotion of the sound use of wood were reported by countries. They included wood positive image campaigns, promoting the use of wood in construction, the development of biomass/energy action plans, forest management planning and extension services improvement, the issuing of recommendations for private forest owners, tax incentives, increased awareness of positive aspects of wood, and others (Table 4). Forest certification was noted as an essential tool to promote the use of wood from sustainable sources. It is present in most of the European countries, with the two main certification schemes in place being those of the PEFC and FSC.

Table 4. Measures promoting use of wood from sustainably-managed forests.

Country	Promotion campaigns	Extension services	Control	Research	Special recommendations, programmes	Certification	FM plans
Austria	x					x	
Belarus			x			x	x
Belgium	x			x	x	x	
Bulgaria			x			x	
Cyprus	mainly non-wood products						
Czech Republic	x					x	
Denmark					x		x
Estonia	x						x
Finland		x		x	x		x

Country	Promotion campaigns	Extension services	Control	Research	Special recommendations, programmes	Certification	FM plans
France					x	x	
Germany					x		
Greece	no reply on the topic						
Hungary	no current action						
Iceland	no measures						
Ireland				x	x		
Italy	no reply on the topic						
Latvia						x	
Liechtenstein					x		
Lithuania					x		
Netherlands	no measures						
Norway					x	x	
Poland					x	x	
Romania						x	
Russian Federation						x	
Slovakia					x	x	x
Slovenia	no measures						
Sweden					x		
Switzerland					x	x	
Ukraine						x	
United Kingdom					x	x	

V2/9: market-based provision of a diversified range of non-wood goods and services

Not many measures other than research were reported when it came to the issue of improving market-based provision of non-wood goods (NWG) and services. The trade in NWG is usually regulated by national forest legislature, often with special rules developed for these purposes (Table 5). In many countries forests are freely open to the public, such that the collection of non-wood forest products is guaranteed free of charge (often in accordance with provisions in domestic law). There are also other cases, such as in Belgium, in which the Flemish part forbids the harvest of non-wood products (including litter, mushrooms, flowers, etc.) unless an owner's position is obtained, whether or not this is for commercial use. In turn the Brussels area has a strict ban on any harvesting of non-wood products (including litter, mushrooms and flowers).

> Sweden: The Right of Public Access is crucial in this context. Through the right of public access you are allowed to walk freely in any forest. You are also free to pick berries and mushrooms and wild flowers, but you have to show respect for nature. The right of public access can be concisely expressed in the phrase, "Do not disturb, do not destroy".
> Lithuania: A main precondition for the use of non-wood goods is a provision in the Act on Forests which ensures free access to forests under all forms of ownership, and a free right to gather medical herbs, nuts, berries, mushrooms or any other non-wood products.

Ongoing or newly-initiated research projects have been directed at the assessment of the market value of non-wood forest goods and services, on examining potential markets for NWG, on the influence and possibility of using financial instruments to regulate provision of NWG and on improving conditions for NWG.

As with NWG, the provision of other forest services, including recreation, is mostly done free of charge in the state forests, while at the same time governments by various means encourage private forest owners to open their forests to free recreational access. Public and private forest owners also come together for decision-making in matters of recreation in forests.

Table 5. Measures to improve enabling conditions for market-based provision of non-wood goods and services, especially recreation.

Country	Campaigns	Legislative	Financial	Organisational	Certification	Research
Austria	x	x				x
Belarus		x				x
Belgium		x				x
Bulgaria				x	x	
Cyprus	strong tradition of free collection of NWG, free provision of recreation					
Czech Republic		x	x			x
Denmark						x
Estonia						
Finland		x		x		x
France		x				x
Germany	strong tradition of free collection of NWG, free provision of recreation					
Greece		x				
Hungary	no measures					
Iceland	no measures					
Ireland		x				x
Italy		x			x*	
Latvia		x		x		
Liechtenstein				x		
Lithuania	no measures					
Netherlands	x					x
Norway		x	x	x		
Poland			x	x		
Romania		x				
Russian Federation	no measures on NWG, however special tax benefits and rules for recreation provision					
Slovakia		x	x			x
Slovenia	no measures					
Sweden	no measures					
Switzerland		x				x
Ukraine	no measures					
United Kingdom		x				x

* Protected Geographical Indication (PGI) status given to the chestnut from Borgotaro

V2/10: **valuation of the full range of goods and services provided by forests**

The replying on measures to value forest goods and services was quite poor. Only some countries indicated that research is ongoing on assessment of NWG and services, or that analysis is being conducted for the purposes of NFP development (Belgium, Cyprus, Estonia, Hungary, Ireland, Lithuania, Netherlands, Russia, Slovakia, Sweden, Switzerland, United Kingdom).

V2/11: enhancing competitiveness of forest sector by promoting innovation and entrepreneurship

Less than half of the countries reported on measures promoting innovation and entrepreneurship, this being achieved through such means as financial support to entrepreneurs, special contracts in forestry, wood promotion and awareness-raising campaigns, training and development of the labour force, enhancement of cooperation between the public and private forest sectors, etc. Some countries also mentioned special programmes addressing the issue.

Several countries reported their involvement in related research, including in the activities of INNOFORCE (the Project Centre of the European Forest Institute (EFI)), which conducts research on innovation and entrepreneurship (I&E) in forestry in Europe, and is formed by 23 research organisations from 18 European countries. Additionally, relevant workshops on cooperation between forest entrepreneurs (Krakow, 2005) and innovativeness (Zvolen, 2006) were organised, both of these events being addressed in the second part of this Report.

V2/12: support research, mechanisms for dissemination of generated knowledge

In their replies, countries underlined the importance of forestry research in providing the knowledge base for problem-solving, policy and decision-making support, and the development of innovative technologies and new products. The planning of research activities has been achieved through national forest research programmes and strategies, as well as reflected in the national forest programmes. To support research activities in forestry, the countries reported allocating additional funding and turning to national and European research financing programmes. Many respondents indicated a trend towards interdisciplinary coordination and cooperation between research units and institutions at the national and international levels. Scientific networks have been created to work on various multi-disciplinary projects, which also support the linking of science with technology and practice. Research projects - often in support of international treaties and agreements, such as the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol, and the Convention on Biological Diversity (CBD), had been initiated. Several of the countries had merged their research centres and institutes to widen the scope of scientific activity and improve the cooperation and exchange of information between different research groups. It was noted that forestry research was essential in SFM practices were to be supported, and their ecological, economic and social aspects developed.

V2/13: enhance the quality of education, training, extension and skills; encourage stakeholders to improve working environment and safety conditions

The forestry education systems of most of the countries replying to the questionnaire have been undergoing change varying in character from the introduction of new disciplines (often as a reflection of advances in forest science) through to revisions of curricula with a view to international standards being met. Countries noted the emerging need for forestry specialists to be able to advise policy-makers and practitioners, to participate in international discussions, and to provide for competitiveness and dynamic development of the forest sector. To ensure that education and training in forestry is of high quality, countries have beeen introducing quality assurance systems, as well as developing extended education for forestry staff, training and advisory services, and qualification-raising programmes. Major importance is clearly being attached to continuous development of workforce skills and knowledge, as well as improvements in safety conditions. Training and advising programmes for private forest owners are also being established. Just as the

research sphere is characterised by mergers, so some forestry schools have also been merged to ensure better education and a wider variety of disciplines. Educational programmes are coming to be more coordinated nationally and internationally, with forestry universities and faculties participating in the international educational exchange networks and programmes (such as Leonardo da Vinci and Socrates/Erasmus).

V2/14: support of institutions concerned with workforce safety, education and related research

All countries reporting on this commitment point to various measures that promote and support the safety of the workforce. A major kind of measure here is the training programme for forestry personnel, often now an obligation set out in national legislation and subject to control via a licensing system and/or inspections. Improved technology in forestry was another safety-related measure indicated. National forestry agencies, often in cooperation with special organizations on safety and educational institutions, provide advice and guidance on the topic of workplace safety to organizations working in forestry, including private owners.

V2/15: inter-sectoral coordination and collaboration of sectors relevant for economically viable management of forests

The countries providing replies in respect of this commitment are engaging in a range of activities to ensure the existence of a diversity of inter-sectoral coordination and collaboration mechanisms. These varied from the establishment of working groups or special committees through to the acceptance of special programmes and strategies. Most often the communication and cooperation includes different ministries, involved in work on common projects or pursuing common goals, *inter alia* concerning water, energy, agriculture, nature protection and recreation.

> Besides cooperation between Ministries, there was a problem case presented on Ministries' cooperation in the Czech Republic. So called "double-track" responsibility for forest management across the country is something both foresters and most forest owners consider a major problem in forestry. There are sometimes discrepancies in the way the law is interpreted by the two governmental bodies involved – the Ministry of Agriculture and the Ministry of the Environment (Czech Environmental Inspection). Local municipalities have to be included in the discussion, particularly in the border areas of National Parks (the known problem of the bark beetle in the Sumava National Park and its zones without control measures).

V2/16: incorporation of economic viability of SFM into rural development policies

A range of forestry-related measures have been considered in the course of the elaboration of rural development policies. Examples include improved forest-sector competitiveness, incentives for forestry activities, improved infrastructure, technology development, forest regeneration, enhanced cooperation in forestry, etc. On the other hand, the contribution forests and forestry make to the development of the rural economy was mentioned as one of the important topics within NFPs.

V2/17: use of innovative economic instruments

Most countries pointed to the setting up of special funds or programmes that provide financial support for forestry activity in the form of grants, credits, subsidies, loans, etc. Rural development

plans or programmes were listed among the main economic instruments offering incentives in forestry. The activities supported included afforestation, restoration, forest improvement projects, the conservation of biodiversity, the construction and maintenance of forest roads and recreational facilities.

In Switzerland, the forest policy's entire incentive system is increasingly being focused on holistic integrated approaches and active encouragement of inter-sectoral cooperation. For example, financial institutions, institutional investors and insurance companies are likely actors in the promotion of the use of wood in the construction sector and for energy purposes (Swiss NFP).

In Belgium, a special instrument provided for a reduction or exemption of inheritance rights and land taxes in the case of forests within the Natura 2000 network, as well as forests under a management plan or in the Flemish Ecological Network.

The Finnish Ministries of Trade and Industry, of Agriculture and Forestry, and of Labour have pooled their strength regionally to create the Employment and Economic Development Centres (T&E Centre). Their main tasks as regards the forest sector are to support and advise small and medium-sized enterprises, to promote technological development, to implement regional labour policies, to plan and organise forest training and to promote and develop rural enterprise activities.

V2/18: voluntary co-operation of forest owners to develop economic viability, in particular of small-scale forest holdings

The question of voluntary co-operation of forest owners is closely related to issue of the establishing private forest-owner associations, covered under the next commitment. Additionally, valuable input in respect of the present commitment came with the international seminar on "Policies Fostering Investments and Innovations in Support of Rural Development – taking into account forest owners' perspective on enhancing economic viability through cooperation and innovation", which took place on the 27-29 March, 2006 in Zvolen – Sielnica (Slovakia). This seminar gathered together representatives of the MCPFE signatory countries and various international organizations, one of the leading topics embracing cooperation, innovation and investment, particularly from the perspective of forest owners.

V2/19: promote associations of forest owners, workforce and entrepreneurs

Private forest ownership and associations of private forest owners have a longer tradition in the West than in the East. While in Finland, for example, the first Forest Management Association had been established as early as in 1906, in Eastern European countries the main development or reestablishment took place in the 1990s or even later. The associations are still not present in countries like Cyprus, Belarus, Russia or Ukraine, where private forest ownership is either rare or entirely absent. Support for associations is being provided by countries in the form of financial assistance, training and advisory services, or informational resources and publications. Forest owner associations are often being promoted within the framework of the national rural development programmes and NFPs. In countries where associations are already well established (Norway, Switzerland), no additional measures are considered necessary.

3. National Implementation of Vienna Resolution V3

Preserving and Enhancing the Social and Cultural Dimensions of Sustainable Forest Management in Europe

Thanks to the Vienna Conference, the cultural values of forests have gained increased attention. However, many aspects of the social and cultural dimensions to SFM and sustainable development need further clarification.

3.1. Actors for Resolution V3

Responsibility for the cultural and spiritual values of forests is shared between forest-related and other ministries, as well as between public forest agencies counterparts responsible for tourism, national heritage, antiquities, archaeology and historical monuments, or else indigenous culture (see Table 6). Several countries underlined the important role of forestry, nature and local museums. The NGO cited by Belarus is the Belarusian Society of Foresters. In Finland, NGOs participate actively in the implementation of various cultural projects.

Table 6. Cultural and spiritual values – Most-relevant institutions.

Organisations	No Countries	Countries
Ministries of forestry, nature, agriculture or environment	17	Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Estonia, Finland, France, Ireland, Italy, Netherlands, Norway, Poland, Romania, Slovakia, Slovenia, United Kingdom
Other ministries (industry, transport, economics, culture, etc.)	13	Bulgaria, Czech Republic, Estonia, France, Greece, Italy, Lithuania, Netherlands, Romania, Russia, Slovakia, Slovenia, Ukraine
Public forest agencies	12	Estonia, Finland, France, Greece, Hungary, Lithuania, Poland, Russia, Sweden, Switzerland, Ukraine, United Kingdom
Other agencies	15	Austria, Belgium, Cyprus, Estonia, Finland, France, Hungary, Ireland, Latvia, Lithuania, Russia, Slovakia, Sweden, Switzerland, United Kingdom
Research and education institutions	4	Belgium, Norway, Ukraine, United Kingdom
Provinces, municipalities, communities	6	Austria, Estonia, Finland, Netherlands, Norway, Sweden
Private organisations and forest owners	2	Austria, Norway
NGOs	2	Belarus, Finland
No reply on the topic		Denmark, Germany, Iceland, Liechtenstein

3.2. Implementation of Commitments of Resolution V3

V3/5: social and cultural dimensions in NFPs and other policies

The social and cultural dimensions of SFM are being addressed by all responding countries in their NFPs or relevant forest policies. The issues most commonly mentioned under socio-cultural aspects include:

- recreation and tourism
- an improved quality of life in rural areas and the creation of new jobs and opportunities
- the competitiveness and economic viability of forestry
- cultural and heritage sites

- enhanced forest aesthetic values
- education, instruction and research
- others

V3/6: social and cultural dimensions of SFM in education and rural development programmes

The social and cultural dimensions to SFM have been the subject of intensive discussion and reflection in various national policies and programmes, including rural development programmes. Such documents set out aims and measures in regard *inter alia* to the promotion of traditional skills, the preservation of cultural sites and values, sites of high archaeological and historical value, awareness-raising and education, the designation of cultural landscape conservation areas, the promotion of forest-related recreation and leisure activities in the context of SFM, etc. Many research and educational institutions indicated that their work programmes and curricula had recently been broadened to include various socio-cultural aspects.

V3/7: property rights and land tenure

Most countries reported that, while property rights and land tenure are secured by virtue of domestic legislation, some new actions are being taken (Table 7). Some examples are presented below. Several countries continue to develop their legislation, often in relation to the process of land restitution.

Table 7. Forest property rights in the MCPFE signatory countries.

Situation with forest property rights	Countries
Property rights have been secured by law	Austria, Belgium, Bulgaria, Denmark, Estonia, Finland, Iceland, Ireland, Latvia, Liechtenstein, Lithuania, Netherlands, Norway, Poland, Sweden, Switzerland, United Kingdom
Forest property-related processes are ongoing	Czech Republic, Greece, Hungary, Romania, Slovak Republic, Slovenia
New actions on property rights are being taken	Belgium, Finland, France (French Guyana), Norway, United Kingdom
A majority of forests are in state hands	Belarus, Cyprus, Russian Federation, Ukraine
No reply on the topic	Germany, Italy

Belgium – improvement of cadastral data through the drawing up of digital maps;
Finland – the Act on Jointly Owned Forest (2003), aimed at jointly-owned forest means/areas belonging to several properties and intended for use in the pursuit of sustainable forestry for the benefit of shareholders;
Norway – by law, ownership of land previously owned by the state in Finnmark county has been transferred to a new corporate body called "Finnmarkseiendommen" (Finnmark Land Property). The new body is managed by representatives officially appointed by the Finnmark County Council and the Sami Parliament. The Finnmark Act contains rules which benefit the Sami people, their culture and heritage. The Act is based on international law pertaining to indigenous people and minorities;
United Kingdom – since the Country Forestry Strategies were first published, new legislation has been introduced for the implementation of the Strategies - Land Reform Scotland 2003 and in England and Wales - the Countryside Rights Of Way Act (CROW) 2000. Under the CROW Act (England and Wales), the Forestry Commission made new provision for dedicating access rights to the countryside. On CROW coming into force in 2004, significant areas of Forestry Commission freehold estate were dedicated for public access in perpetuity.

V3/8: maintaining and further developing material and non-material social and cultural aspects of SFM

Important input to the implementation of this commitment came with participation of country representatives at the MCPFE Seminar on Forestry and our Cultural Heritage (Sunne, Sweden, 2005) and the Conference "Cultural Heritage and Sustainable Forest Management: the Role of Traditional Knowledge" (Florence, Italy, 2006), as organized by IUFRO in co-operation with MCPFE and the Italian Ministry of Agriculture, Food and Forest Policies. Conference participants had a chance to discuss a wide range of social and cultural issues and also worked out a set of possible qualitative indicators that could be taken into account in future developments. The publications arising from the Conference should considerably enhance the development of common understanding of the cultural dimensions to SFM, and strengthen the implementation of overall goals regarding sustainable development in Europe.

V3/9: traditional elements of the cultural landscape, traditional knowledge and practices in SFM

The issue of the protection of landscape attractiveness and special elements, including traditional knowledge and practices, has been addressed in various types of document from NFPs through to special guidelines on landscape preservation and special forest harvesting regimes. Such plans have often been created at regional or local levels. Measures therein concern the protection of native vegetation, limits on clear-cutting, the designation of buffer zones and maintenance of forest edges, monitoring of landscape changes, the designation of special zones for traditional use by indigenous populations, the promotion of traditional forest management, encouragement for public participation in the managing of forest landscapes, public awareness-raising, education and special publications. Landscape attractiveness was considered especially important in urban areas, where recreation is one of the main forest uses.

V3/10: historical and cultural objects and sites in forests

Work on the identification and protection of historical and cultural objects and sites in forests has been ongoing in most countries. It is rarely the responsibility of forestry agencies alone, and is more often conducted in cooperation - or on the basis of special agreements - with other agencies in charge of culture, architecture and archaeology, which also oversee collaboration between foresters and specialists in other areas such as archaeology. The protection of historical sites and objects in forests is guaranteed by national and international legislature. There is a special status of natural or cultural monuments, which ensures a high level of protection of such objects, and this can also be differentiated at national, regional or local levels. To make a better account of these objects, some countries have produced special inventories in which cultural heritage sites are mapped out and registered in a national GIS database. Some of problems cited in regard to the protection of such objects in forests include a lack of the funding required to ensure restoration and adequate protection.

V3/11: encourage research on social and cultural aspects of SFM, including traditional forest-related knowledge

The overall trend as regards forestry research in European countries during the reporting period has involved a reorientation towards a three-dimensional (ecological, economic and social) approach. Countries reported the mirroring of this trend in their research strategies and programmes, and

also in NFPs. Cooperation between national and international institutions is being encouraged, with the focus on multi-disciplinary projects and the setting up of groups of researchers from different disciplines with a view to social and economic issues achieveing wider recognition. To ensure the preservation of cultural heritage objects in state and private forests as well as cultural values associated with forests, new research projects are often being established in cooperation with cultural, historical and other relevant organisations, as well as via the integration of local communities.

4. National Implementation of Vienna Resolution V4

Conserving and Enhancing Forest Biological Diversity in Europe

At the Vienna Conference, the Ministers responsible for forests reaffirmed that the conservation and appropriate enhancement of biological diversity is an essential element in their sustainable management. The commitments entered build on former MCPFE work and global decisions, especially those within the CBD and United Nations Forum on Forests (UNFF) frameworks.

4.1. Actors for Resolution V4

A wide variety of organisations are dealing with implementation of the MCPFE commitments related to biodiversity issues (Table 8). While the largest group includes forestry and environmental ministries, there are also other actors, such as agencies on biodiversity, seed selection and growing centers, environment and water agencies, national parks, and facilities working on nature conservation, agriculture, or genetic resources. Research and educational institutions providing an important knowledge base and collecting data on biodiversity were referred to by half of the countries reporting.

Table 8. Biodiversity (at Ecosystem, Species and Genetic levels) – Most relevant institutions.

Organisations	No Countries	Countries
Ministries of forestry, nature, agriculture or the environment	26	Austria, Belarus, Belgium, Bulgaria, Cyprus, Czech Republic, Estonia, Finland, France, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Netherlands, Norway, Poland, Romania, Russia, Slovakia, Slovenia, Sweden, Ukraine, United Kingdom
Other ministries (industry, transport, the economy, etc.)	5	Belarus, Bulgaria, Cyprus, Finland, Russia
Public forest agencies	19	Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, Greece, Iceland, Latvia, Lithuania, Poland, Romania, Russia, Slovakia, Slovenia, Sweden, Switzerland, Ukraine, United Kingdom
Other agencies	23	Austria, Belarus, Belgium, Bulgaria, Cyprus, Czech Republic, Estonia, Finland, France, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Norway, Poland, Romania, Russia, Slovakia, Sweden, Ukraine, United Kingdom
Research and education institutions	15	Belarus, Belgium, Cyprus, Czech Republic, Denmark, Finland, France, Hungary, Latvia, Lithuania, Romania, Russia, Slovenia, Ukraine, United Kingdom
Provinces, municipalities, communities	6	Austria, Estonia, Ireland, Italy, Norway, Sweden
Private organisations and forest owners	1	Slovakia
NGOs	2	Austria, Italy
No reply on the topic		Germany, Liechtenstein

4.2. Implementation of Commitments of Resolution V4

V4/4: Implementation of CBD and IPF/IFF

Most MCPFE signatory countries (except Andorra and the Holy See) have ratified the Convention on Biological Diversity and are implementing the IPF/IFF Proposals for Action, as well as participating actively in the further work conducted by the UNFF. Countries reported that documents developed

by these international processes serve as the base for their preparation of national plans of action, and are being reflected in both NFPs and national legislation. A number of countries have started assessment processes regarding national implementation of these international commitments.

V4/5: Biodiversity in NFPs

Biodiversity is one of the important aspects being considered by NFPs or relevant forest policies. Countries reported a wide variety of biodiversity topics included in their NFPs, among them:

- the preservation and proper improvement of biodiversity in forests
- the adjustment of forest management practices to preserve biodiversity
- the creation of new protected areas
- species inventorying and monitoring
- the protection of rare and endangered species and ecosystems
- the improvement of forest edges
- the safeguarding of sufficient amounts of dead wood
- connectivity of forest habitats
- other aspects

V4/6: Impact of policies on biodiversity

While being of importance within NFPs, biodiversity issues are also being addressed in line with other domestic law, through cross-sectoral cooperation between the agencies responsible for forestry and other administrations, including those dealing with agriculture, energy, education, or social and cultural issues. As countries report, this collaboration is often reflected in national biodiversity action plans or strategies, which foresee a variety of actions being implemented by related ministries and organizations, and being directed at the elimination of the policy inconsistencies that may result in the loss of biodiversity. As many countries note, forest certification is another important tool in the securing and promotion of valuable aspects of biodiversity.

V4/7: Impact of illegal harvest and trade on biodiversity

Illegal logging is not considered a prominent problem in most European countries, which reported that strict law was securing this issue nationally. Nevertheless, the level of concern is clearly greater in the east, where forest certification and international agreements come into play to assist in the tackling of the problem. However, many of the countries in question have been introducing changes into their national forestry legislation, with a view to forest law enforcement and regulation being improved. Several countries (Bulgaria, Lithuania, the Slovak Republic) report special organizational or administrative changes whereby law enforcement departments have been strengthened, or new ones established. Special attention is being given to international wood trade activity and the control of illegal timber harvesting and trade. A number of countries have reported their involvement in the EU Action Plan for Forest Law Enforcement, Governance and Trade (FLEGT).

V4/8: Linkages between ecosystem approach and SFM

Commitment 4/8 has been implemented through participation of many of the MCPFE national representatives at a series of international-level meetings and discussions. The Pan-European Understanding of the Linkage between the Ecosystem Approach and Sustainable Forest Management has been developed jointly by MCPFE and EfE/PEBLDS members, as the outcome of the Ad-Hoc

Working Group (Krakow, 2004), and a series of consultations between the two Ministerial Processes. The joint efforts resulted in it being agreed that SFM as defined and further developed by the MCPFE is consistent with the application of the Ecosystem Approach to forest ecosystems in the Pan-European region.

V4/9: Applying and further developing MCPFE assessment guidelines for protected forests

An extensive network of national experts has been involved in the harmonization and further clarification of the application of the MCPFE assessment guidelines for protected forests presented as Annex 2 to Vienna Resolution 4. The work was done to provide reliable and comparable data, and it resulted in the MCPFE Information Document on Data Collection and Compiling the Statistics On Protected and Protective Forest and Other Wooded Land in Europe. This Document serves the collection of national data for the MCPFE Report "State of Europe's Forests 2007" and will also be a basis for further work on protected forests.

V4/10: Developing protected forest networks

Extension of the existing protected forest networks was being planned by a majority of the reporting countries, with the aim of representative coverage of all forest plant communities being achieved. EU Member States are working on compliance with the Natura 2000 regulations, while the process of establishing Natura 2000 sites has been ongoing in many countries, most especially the newer members of the EU. In their national environmental and forest strategies, countries foresee the establishment of new protected areas, such as national forest parks and reserves. To implement protection measures, countries are also developing compensation mechanisms for protected sites under private forest ownership, or planning for the additional costs related to other conservation activities.

V4/11: Preventing fragmentation, maintaining ecological connectivity

In most countries, strict legislation regulates the conversion of forest to non-forest land. In addition, countries are taking measures to prevent further fragmentation and to reestablish ecological connectivity. This is *inter alia* being achieved via special regulations limiting clear-cutting, the division of forest property into small parcels, and the establishment of corridors and highway crossings. Many countries are involved in projects related to the creation of ecological networks that include afforestation and the restoration of forests. Forest connectivity-related objectives are being included in forest plans and rural development strategies, with forest legislation being amended as necessary to consider these topics.

V4/12: Restoration of forest biodiversity in degraded forests

Works on the restoration of degraded forests are ongoing in most countries providing reports. The accent is on regeneration by native species, with other methods used including silvicultural activity directed at the regulation of structural diversity, burning techniques (Finland), the restoration of water regimes in wet forest types previously affected by melioration projects, re-naturalization of plantations and degraded coppices, and the retention of deadwood. Forest health conditions are being followed by monitoring, and - in the case of natural disasters - government aid is being extended for restoration activity.

V4/13: Assessment and monitoring of forest biodiversity

All the countries indicated various measures introduced to improve the assessment and monitoring of forest biodiversity. A range of relevant projects are underway throughout Europe, with SFM indicators being applied in the development of biodiversity monitoring techniques. The national forest inventory processes are being updated in line with CBD, SFM and *Natura 2000* requirements. Many of the countries are continuing to maintain and develop networks of permanent research plots that are incidentally or exclusively engaged in the monitoring of biodiversity and natural succession. Some are also part of the ICP Forests plot network. The information collected on these plots has been compiled into regional, national or European databases. The assessment and monitoring of forest biodiversity is also being taken into account by national research and biodiversity monitoring programmes and forest plans.

A new scheme involving the European Forest Types is expected to improve the forest classification system and to lead to an optimizing of the design of future monitoring schemes and the obtainment of more precise assessments. It was under development and discussion by MCPFE participants at the Workshop on Pan-European understanding of forest classification held on 14-15 November, 2006 at Bled, Slovenia. An improved unified classification system would be important for future reporting and would be beneficial for next reporting on SFM.

V4/14: Pan-European strategy on invasive alien species

The "European Strategy on Invasive Alien Species" (IAS) was formally adopted by the Standing Committee of the Bern Convention at its 23rd meeting in December 2003 (Recommendation no. 99). Although there is no direct cooperation between MCPFE and CBD over this issue, many MCPFE countries are involved in the implementation of the IAS Strategy through the development of a specific strategy or action plan to manage IAS.

V4/15: Forest management planning for biodiversity

To enhance forest biodiversity, most countries have been developing nationwide biodiversity strategies, as supported by forest and nature-related legislation. These documents state the need for forest management plans to be prepared, with these being revised regularly to take biodiversity preservation goals into account. Management plans are also an important requirement of the forest certification systems ongoing in many countries throughout Europe.

V4/16: Conservation of forest genetic resources

In their replies on implementation, countries indicated that the conservation of forest genetic resources is assured by national forest legislation and various regulations, and is set as one of the NFP objectives. The related measures include *in situ*, as well as *ex situ* gene conservation, with some examples including the creation of specially protected seed stands and orchards, monitoring of the status of genetic resources, the management of forest gene conservation and tree breeding units, controls on the origin of forest reproductive material and the establishment of seed gene banks.

V4/17: Inter-disciplinary research for biodiversity

Research projects to study various aspects of biodiversity are underway in many MCPFE countries. The research includes a wide range of inter-disciplinary topics that take in ecological, economic, and social questions. Cooperation with research institutes and other agencies was often based

on the special research programmes countries had developed, examples being the scientific and technical programme "Forests of Belarus", a multi-disciplinary research programme on biodiversity in Finland known as MOSSE and the BIOFOREST programme in Ireland.

V4/18: Collaboration with PEBLDS

Collaboration between MCPFE and PEBLDS includes the multiple workshops and meetings discussed in greater detail in part II of this Report concerning Pan-European Implementation.

5. National Implementation of Vienna Resolution V5

Climate Change and Sustainable Forest Management in Europe

In Vienna Resolution 5, the Ministers responsible for forests recognise the threats posed to forests and their ability to provide multiple benefits for society by human-induced climate change, as well as the role Europe's forests play in the global carbon cycle.

5.1. Actors for Resolution V5

The most relevant institutions with regard to carbon issues are mostly forest-related ministries and forest agencies. However, an important role is also played by other agencies, such as those dealing with energy, the carbon cycle, agriculture or environmental protection, as well as research and education institutions (Table 9).

Table 9. Carbon balance – Most relevant institutions.

Organisations	No Countries	Countries
Ministries of forestry, nature, agriculture or environment	22	Austria, Belarus, Belgium, Cyprus, Czech Republic, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Norway, Poland, Romania, Russia, Slovakia, Slovenia, Ukraine, United Kingdom
Other ministries (industry, transport, the economy, etc.)	6	Bulgaria, Czech Republic, Estonia, Finland, Latvia, Slovenia
Public forest agencies	13	Austria, Belarus, Belgium, France, Ireland, Lithuania, Poland, Russia, Slovenia, Sweden, Switzerland, Ukraine, United Kingdom
Other agencies	8	Bulgaria, Cyprus, Finland, France, Hungary, Ireland, Sweden, Switzerland
Research and education institutions	9	Bulgaria, Finland, France, Germany, Hungary, Ireland, Italy, Russia, Ukraine
Provinces, municipalities, communities	4	Austria, Norway, Poland, Slovenia
Private organisations and forest owners	2	Norway, Poland
NGOs	1	Cyprus
No reply on the topic		Denmark, Iceland, Liechtenstein, Netherlands

5.3. Implementation of Commitments of Resolution V5

V5/5: Contribute to reduction of greenhouse emissions (sound use of wood; bio-energy)

Various actions from the advertising of wood products and wood promotion campaigns through to governmental programmes and regulations for wood were cited by countries among their contributions to reducing levels of greenhouse gas emissions (see Table 10).

Table 10. Promoting the efficient and sound use of wood.

Type of action	Countries implementing the action
Wood promotion campaigns	Austria, Belgium, Czech Republic, Estonia, Finland, Iceland, Netherlands, United Kingdom
Special action plans, programmes, schemes	Denmark, France, Norway, Slovenia, Sweden, Switzerland, United Kingdom

Type of action	Countries implementing the action
Wood certification as a wood promotion	Belarus, Slovak Republic
Research, education, training	Belgium, Finland, Ireland
Regulation/control over wood harvesting, processing and use	Bulgaria, Latvia, Liechtenstein, Lithuania, Slovak Republic, Ukraine
Timber sale portals, wood auctions	Netherlands, Poland, Russian Federation, Ukraine
Wood as bio-energy, use of residues	Finland, France, Ireland, Latvia, Lithuania, Ukraine
No measures taken	Cyprus*, Hungary**, Iceland
No reply on the topic	Germany, Greece, Romania

Cyprus*: forests are mostly managed for the production of non-wood products and services
Hungary**: no action taken yet, though wood promotion is included as an NFP issue

In France, a special Decree of 2005 was introduced to set as the minimum quantity 2 dm^3 of wood per square meter of living space to be used in new constructions. This represented the first time that foremen have been required to use a precise material during construction.
The Norwegian Government launched the 'Wood-based innovation scheme' in 2006, with the aim of increasing awareness of the positive aspects of wood and increasing the use of wood-based products. Funding is directed at activities that stimulate innovation and market orientation in the wood industry. The scheme supports the forest sector industries' target of an increase in the annual average consumption of wood per capita from 0.55 to 0.75 m^3 by 2010.

The desire to promote bio-energy as well as the use of wood residues from sustainably managed forest resources is also being reflected in various types of measures being implemented in all the MCPFE countries that reported. Alongside activity to promote wood as renewable energy, an important role is also being played by different kinds of financial support, such as **subsidies** for bio-energy investments, research and development, as well as 'green electricity' (Estonia, Finland, Hungary, Slovenia), **tax benefits** for wood and wooden-based energy sources or wood-energy efficient equipment and heating systems (Finland, France, Norway), and **grants** for wooden-based energy sources, the establishment of bio-energy crops and equipment purchases (Finland, Ireland).

There are several countries that have special bio-energy related programmes or strategies up and running, such as the "Programme for promoting renewable energy 2003-2006" in Finland, the "Wood energy plan" in the Walloon region of Belgium, the "Development plan for the promotion of biomass and bio-energy usage in 2007-2013" prepared in Estonia, the French wood energy plan, the "Strategy of utilization of renewable energy sources 2006-2013" in Latvia, and the "Bio-energy production and use" programme in Norway. Besides special bio-energy programmes, countries also cited the coverage of bio-energy issues in their NFPs, legislation and research. Several projects are ongoing or being prepared in regard to the establishment of stands of fast-growing tree species on agricultural land.

V5/6: Contribution to the implementation of the UNFCCC and the Kyoto Protocol

- **encouraging SFM that considers Kyoto**
- **NFPs with afforestation guidelines**
- **research on C sequestration in forests**

Carbon-related issues occupy an important place in NFPs or relevant policies, with the following activities being listed most commonly by respondent countries:

- reforestation, afforestation and forest expansion
- improvement of growing stock, protection of forest health

- monitoring of the effects of atmospheric pollution
- promotion of bio-energy
- adaptation of forests to climate change

Among forest management activities engaged in by countries with regard to Kyoto Protocol implementation, afforestation is named by almost all countries. Numerous countries have special afforestation programmes, goals, or special financial incentives for afforestation projects. Furthermore, natural reafforestation is in some cases reported to be occurring on abandoned agricultural land. The increase in forest stock, control of forest fires and damage due to pests and disease were among other activities contributing to carbon sequestration in forests. Countries also took special account of the activities contributing to the adaptation of forests to climate change, among these the use of mixed species and species mixtures more resistant to storms and pest damages, and close-to-nature forestry.

V5/7: Research and monitoring on impacts of climate change

Most reporting countries indicated the initiation of new research programmes and the development of forest monitoring systems with a view to a better understanding of the possible impact of climate change on forests being gained. The main issues covered by research activity include the evaluation of carbon sinks, the assessment of the impact of climate change on forest ecosystems as well as adaptation possibilities, climate-related changes in site conditions and species mixtures, forest health and vitality, forest damage due to biotic factors, and the adaptation of forest management practices to predicted changes.

During the last several years, many countries have introduced changes to their forest monitoring systems in reflection of the need for information on the carbon stock to be collected. 39 of the 46 MCPFE countries participate in the ICP Forests multifunctional long-term monitoring, which takes in the issues of climate change and carbon sequestration.

The ability of forests to reduce the impact of climate-related disasters, such as extreme weather events, floods and other calamities has been given special recognition. Depending on countries' natural conditions, forests are regarded as elements in the control of floods and landslides, in slope protection or avalanche control, with research being conducted on the development of special methods for these purposes.

Natural regeneration, mixed stand schemes, special forest management and harvesting techniques all serve to increase forest ecosystem stability and forests' ability to mitigate climate-related disasters and withstand storm and pest damages. In consequence, all are being used and further developed by countries.

Poland's State Forests Holding provides support for research and monitoring activities aimed at improving our knowledge of the possible impacts of climate change on forests. One research project accepted involves the Pisz Forest District, with its severe destruction induced by gales in 2002. A first Forest Area of Reference has been established in the form of 445 ha of damaged forest destined for spontaneous natural succession.

After the powerful storm Gudrun that swept over southern Sweden in January 2005, damaging 75 million cubic meters of timber, a storm analysis project has been under implementation, with one of its objectives being the obtainment of knowledge on reducing the risk of future storm damage. The government has appointed a Commission on climate and vulnerability due to report at the end of 2007, and to propose identified measures for all sectors in society, including the forest sector, where adaptation to climate change is concerned.

Switzerland has elaborated maps and cadastres of danger zones, including areas sensitive to natural hazards such as permafrost changes, avalanches, floods, landslides, rock falls etc. The Swiss platform for natural hazards (PLANAT) has been responsible for the elaboration of a national strategy to prevent and mitigate impacts of natural hazards. Research is ongoing and contributes regularly to a better understanding of the relationship between climate change, extreme weather events and natural hazards.

V5/8: Policies and measures for better adaptability of forests to climate change

Countries undertook multiple research projects in search of suitable measures by which to better adapt forests to climate change. These involve:

- the development of adaptive management strategies;
- tree-species selection and breeding for better resistance to the negative influence of climatic factors;
- rare species gene conservation;
- model development for risk assessment of damage (due to pests or fire), long-term climate scenarios;
- the enhancement of species diversity and mixtures with a view to forest resilience to natural and anthropogenic disturbances being increased;
- improved water and nutrient cycling in forest ecosystems;
- the use of local well-adapted species in afforestation and reforestation, drought resistant species, mixed species schemes;
- close-to-nature forestry.

Some of these measures have been included within forest management plans, or set out as goals of NFPs. Several countries have issued species recommendations related to afforestation and forest management practices, these being of importance in improving the adaptability of forests to climate change. In Finland, a special National Strategy for Adaptation to Climate Change has been developed (see information below).

Finland's National Strategy for Adaptation to Climate Change was initiated to provide an understanding of upcoming challenges to the year 2080, by means of long-term climate scenarios, scenarios describing economic development, and descriptions of natural systems. Gene pools of forest trees, forest tree improvement and seed management and sustainable forest management are the main tools foreseen where enhancement of the adaptability of forests to climate change is concerned.

V5/9: Contribution to UNFCCC work

A majority of the MCPFE countries have ratified the UN Framework Convention on Climate Change and its Kyoto Protocol, and are actively engaged in international processes and in the development of forest-related policies at international and regional levels. NFPs provided the platform for the structuring of national forest policies and legislation, and for the transferring of positions and messages from international to national and local levels.

Actions reported by countries in relation to their compliance with UNFCCC commitments include:

- national action plans, strategies;
- national reports on implementation;
- assessment of implementation;

- the reflecting of commitment goals in national legislation;
- the introduction of changes in silvicultural activity;
- related research

In Lithuania, the afforestation programme, promotion of wood fuel use, as well as forest management aimed at increased selective cutting instead of clear-cutting were some of the important measures pursued with a view to commitments under the Kyoto Protocol and UNFCCC being fulfilled.

V5/10: Share experiences on climate change

MCPFE signatory countries have met at several Workshops at which information and experiences on climate change were discussed and shared. The Workshops on climate change and genetic resources (Paris, 2006), on afforestation recommendations (Vilnius, 2006) and on wood mobilisation (Geneva, 2007) are examples of tools that allowed for such exchange. More information on these meetings is presented in the second part of this Report.

6. National Implementation of Lisbon, Helsinki, and Strasbourg Resolutions

This chapter describes and summarises comments and experiences as regards progress with the implementation of the Lisbon, Helsinki and Strasbourg Resolutions since the 2003 Vienna Conference.

6.1. Lisbon Resolutions

L1: People, Forests and Forestry – Enhancement of Socio-Economic Aspects of Sustainable Forest Management

Several commitments of Lisbon Resolution L1 (such as those on education and training programmes contributing to the development of a highly-skilled workforce, on safety and health standards, and on the valuation of the full range of forest goods and services) are reflected in Vienna Resolution V2 – Enhancing economic viability of SFM in Europe. The continuous work of countries on economic issues in forestry and measures taken to implement these commitments have already been discussed in Part I of this Report.

The concept of stakeholder participation in the development of forest policies and programmes has been fully incorporated into NFPs, and played an important role during their preparation. Various groups and levels of stakeholders were involved from the general public, NGOs and forest owners, through to the ministries responsible for education, culture and other issues. While several countries have a well set process of stakeholder dialogue (exemplified by the Forest Dialogue in Austria, the stakeholder negotiation body FOVET in Hungary or the Forest Council in Finland), others organized a wide range of events to invite stakeholder participation, including:

- public fora,
- round table meetings,
- advisory groups or boards,
- public debates,
- public hearings and consultations,
- forest summits.

The Internet was named as an essential tool where the discussion of forest policy, NFPs and forest legislation was concerned, allowing multiple participants to express their views and share comments.

An important step and follow-up to NFP development was the inclusion of stakeholder participation and public awareness as NFP objectives.

The role of forests for society and benefits of sustainable forest management are being widely introduced to the public in all countries, via awareness-raising events, and are embraced by national public awareness programmes and strategies. Countries incorporate many tools with a view to information on forests and SFM being delivered to the public: publications, the mass media, statistical editions, seminars, competitions and educational programmes. Numerous countries practice annual Weeks or Days of the Forest as country-wide events that involve informational campaigns, the distribution of forest-related information, educational seminars, and even specially

designed competitions and awards for best forest managers. Forest-related education in schools was especially underlined by respondents as a valuable process in the raising of ecologically-educated future generations. In some countries, forest fire prevention was a critical issue that had a direct connection with public activities. In Bulgaria and France, special radio and TV programmes were being developed and used during public forest fire prevention campaigns. Besides radio, TV and various types of publications, the Internet was gaining in popularity as a mean of communication and information distribution, with most of the forestry organizations, be they governmental, private or non-governmental, maintaining their own web-sites.

The gender aspects in forestry were reported as being taken account of in national legislature and policy, with only several new studies carried out.

- A study on work exposure of female forest workers was undertaken by the University of Natural Resources and Applied Life Sciences in Austria.
- Belarus was working on the fuller involvement of women in the sustainable management of forests as well as questions of family.
- Specific training and education programmes for women in forestry and nature conservation management were ongoing in Belgium.
- The Russian federal agency of forest management "Rosleskhoz" was working with NGOs in an IUCN project on "Building partnerships for forest conservation", which was directed at stimulating economic development through the sustainable use of non-timber forest products, and in particular, on capacity building as regards women and indigenous communities so that they might successfully set up and run businesses based around the sustainable harvesting and marketing of non-timber forest products.
- A research project focusing on gender equality in the forest sector was that realized in the Slovak Republic in 2005-2007, with the main aim being to the pursuit of a strategy of gender mainstreaming among employers from agricultural and forest sectors, as well as training of employees from the forest industry with a focus on gender aspects.
- The United Kingdom has encouraged research to provide information that will assist the Forestry Commission in fulfilling its duties under the Race Relations (Amendment) Act 2000, the aim being to produce guidelines for managers as to how to implement the Race Equality Scheme.

The involvement of forest certification systems in national forestry processes varied greately from one European country to another. While in Western Europe, many forests have been certified, in some of the eastern countries, the forest certification process seemed to be progressing more slowly, such that national certification standards are still being developed (in the Czech Republic and Hungary). At the same time, there are examples of special forest certification department being set up in Belarus and a national council on forest certification in Russia. Countries are also continuing to develop support and promotion for forest certification activities, and acknowledge the positive impact of certification on environmental and social issues in forestry, biodiversity aspects, and safety at work.

L2: Pan-European Criteria, Indicators and Operational Level Guidelines for Sustainable Forest Management

Only about half of the reporting countries provided replies with regard to further measures on the implementation of Resolution L2 commitments. The main actions included development of national sets of criteria and indicators on the basis of the Pan-European set, and using them as a framework for promoting better management and forest policy enhancement, as well as bases for

data collection and the drawing up of country reports on forest resources and their management. While the principles of the Pan-European Operational Level Guidelines (PEOLG) were adapted by many countries during the previous MCPFE reporting period, they were continuously being considered during the preparation of new forest legislation, programmes, and standards, as well as in the review of existing ones. A study conducted in Austria in 2004 concerned the "Implementation and relevance of Pan-European guidelines for sustainable forest management – Evaluation at the management unit scale under various management objectives" by the University of Applied Life Sciences.

6.2. Helsinki Resolutions

H1	General Guidelines for the Sustainable Management of Forests in Europe
H2	General Guidelines for the Conservation of the Biodiversity of European Forests
H3	Forestry Cooperation with Countries in Transition
H4	Strategies for a Process of Long-term Adaptation of Forests in Europe to Climate Change

The General Guidelines for the Sustainable Management of Forests in Europe (H1) prepared for the MCPFE Helsinki Conference in 1993 continued to be an important document used for the preparation and revision of many national forest-related documents, such as national Forest Acts and Codes, NFPs, forest development programmes, and other legislature. The General Guidelines for the Conservation of the Biodiversity of European Forests (H2) were reported to be helpful in the establishment of new protected areas from Biosphere Reserves to water- or soil-protection sites. Moreover, these guidelines were used in the development of the *Natura 2000* network, and the preparation of new forest legislation, forest management and forest monitoring guidelines. Not many countries reported on further measures concerning Helsinki Resolution H3: forestry cooperation with countries in transition (CITs). Also, there was considerable development in the group of CIT countries, many of which have joined the European Union during the last MCPFE reporting period. The replies provided showed continuous cooperation between Eastern and Western European countries, which included assistance in the development of forest legislature, the sharing of knowledge on silvicultural practices, research projects, or financial assistance for forestry and restoration projects. Eastern European countries reported on their participation in the UNECE/FAO team of specialists, the goal being the sharing of knowledge and experience in forestry. The reporting on Helsinki Resolution H4: Strategies for a Process of Long-term Adaptation of Forests in Europe to Climate Change was largely inter-linked with that on Vienna Resolution 5 on Climate change and SFM, countries presenting a variety of ongoing research projects, the establishment of monitoring plots to record climate-related changes in forests, and also the development of national climate change strategies and programs.

6.3. Strasbourg Resolutions

S1	European Network of Permanent Sample Plots for Monitoring of Forest Ecosystems
S2	Conservation of Forest Genetic Resources
3S	Decentralized European Data Bank on Forest Fires
S4	Adapting the Management of Mountain Forests to New Environmental Conditions
S5	Expansion of the EUROSILVA Network of Research on Tree Physiology
S6	European Network for Research into Forest Ecosystems

While the response of countries regarding the Strasbourg commitments was quite limited (coming from less than half of the reporting countries), it is true to say that the Strasbourg commitments are often covered by the newer MCPFE commitments and (as countries indicated), continue to be implemented through various European networks and projects (see Table 11) in which many MCPFE signatories participate.

Table 11. European networks and projects implementing Strasbourg commitments.

	Resolution	Network/Project	# MCPFE countries
S1	Permanent Sample Plots	ICP Forests	40
S2	Forest Genetic Resources	EUFORGEN	42*
S3	Forest Fires	EFFIS	20
S4	Mountain Forests	Different projects, EOMF	n.a.
S5	Tree Physiology	Genosilva	19
S6	Research into For. Ecosystems	ENFORS	27

* members and collaborating members

In brief, the programmes contributing to the implementation of Strasbourg commitments can be presented as follows, with more information on them shown under the Pan-European part of this Report:

(S1) The ICP Forests is a monitoring system of forest condition in 40 European countries. It puts into effect the extensive monitoring of forests on the basis of a systematic, trans-national grid throughout Europe (Level I) and a European-wide set of long-term observation plots covering the most relevant forest types within Europe (Level II).

(S2) The European Forest Genetic Resources Programme (EUFORGEN) has the overall goal of promoting the conservation and sustainable use of forest genetic resources in Europe. Coordinated by Bioversity International in technical collaboration with FAO, the programme has 42 members and collaborating members among the MCPFE countries.

(S3) The European Forest Fire Information System (EFFIS) EU fire database, which is a joint effort of the European Commission and EU Member States, is hosted by the EC-DG Joint Research Centre in Ispra, Italy.

(S4) Several Pan-European activities contribute to the implementation of Strasbourg Resolution S4 on mountain forests, including mountain forest assessment, the preparation of guidelines on watershed management, networks on forest energy and on biomass districts, and studies on linking forests to mountain policies. The European Observatory of Mountain Forests (EOMF) coordinates many of the activities among the European counties. Mountain areas and resources have also been benefiting from international and European initiatives aiming to reinforce their sustainability (e.g. the Mountain Partnership, Carpathian and Alpine Conventions).

(S5) The main objective of COST Action E28: Genosilva – the European Forest Genomics Network – is to transfer knowledge and technology from the basic science of plant functional genomics to the forestry sector.

(S6) The European Network for long-term Forest Ecosystem and Landscape Research (ENFORS) has the major tasks of setting up a network of sites at which long-term forest ecosystem research has taken place or is going on, and includes 27 MCPFE countries.

PAN-EUROPEAN IMPLEMENTATION

Executive Summary of Pan-European Implementation

Pan-European implementation represents the activities planned under the MCPFE Work Programme. This document was adopted at the MCPFE Expert Level Meeting (ELM) held on 16-17 October 2003 in Austria, and updated at the subsequent MCPFE ELM held on 14-15 October 2004 in Poland.

All MCPFE Resolutions, and in particular the Vienna Declaration and five Vienna Resolutions are worded in relation to the concept of SFM, indicating the main Pan-European issues inherent in each Resolution.

The main part of the MCPFE Work Programme deals with the implementation of the commitments signed at the Vienna Conference, and thus comprises 30 Pan-European actions for implementation. Many actions address both Pan-European commitments made in the five Vienna Resolutions and a related commitment formulated in the Vienna Declaration. In addition, the MCPFE Work Programme gives an overview of the follow-up work as regards MCPFE Resolutions adopted at previous Conferences, as carried out by international coordinators.

The Pan-European actions included in the MCPFE Work Programme also aim to contribute to the further implementation of global commitments, such as those agreed within the WSSD, UNFF, CBD, UNFCCC and UNCCD frameworks; as well as to maintain linkages with other regional processes and initiatives as noted in the Vienna Declaration and Resolutions.

As part of implementation of Vienna Resolution 1, MCPFE signatories discussed the experiences gained with the NFP process, and stressed the importance of NFPs as a tool for dialogue at different levels and among different forest-related sectors. A number of recommendations were elaborated to enhance cross-sectoral coordination, cooperation and integration between the forest sector and other relevant policy sectors. The study and recommendations on illegal logging and trade in Europe have come out as the result of an analysis and workshop conducted by the MCPFE.

The ad hoc working group on valuation and compensation methods for non-wood forest goods and services has been set up as part of the work programme on Vienna Resolution 2, the goals being the exchange of information and the identification of good practices relating to this topic. Stable institutional frameworks, proper clarification of property rights, better communication across sectors and capacity building were identified as necessary conditions if investments and innovations are to be fostered with a view to the competitiveness and economic viability of the forest sector being strengthened in the context of integrated rural development. Within other activities, the MCPFE has co-operated with various experts over measures to encourage the establishment of associations for small and medium enterprises (SMEs) and the forestry workforce, as well as to promote trans-national partnership, networking and joint collaboration among forestry education centres. The need for additional resources and political decisions was identified in support of expert knowledge on health and safety in forestry.

Several publications have resulted from the discussions conducted by the MCPFE and other experts on the topic of traditional knowledge and cultural heritage in forestry, in support of Vienna Resolution 3. The need to raise awareness of valuable cultural features, both inside and outside the forest sector, was recognised.

The "Joint position of the MCPFE and PEBLDS/EfE on the Pan-European understanding of the linkage between the Ecosystem Approach and Sustainable Forest Management" was adopted by the PEBLDS Council and the MCPFE ELM. The activities towards implementation of Vienna Resolution 4 also included analysis of European networks of protected forest areas and the preparation of a proposal for the classification of forest types in Europe. The EUFORGEN network has contributed to the promotion of the conservation of forest genetic resources as an integral part of SFM and the development of the international forest training programme on forest genetic resources.

The Pan-European actions for the implementation of Vienna Resolution 5 have targeted various issues regarding the contribution forests make to reducing net greenhouse-gas emissions and to carbon sequestration, among these the mobilization of wood resources, afforestation and reforestation. Draft "Pan-European Recommendations for Afforestation and Reforestation in the context of the UNFCCC" have been prepared as the result of several expert meetings, and have been presented for endorsement at ELM. The key role of forest genetic diversity in maintaining the resilience of forest ecosystems to threats and in the adaptability of forests to climate change was highlighted.

As well as working on the Vienna Resolutions, the MCPFE together with collaborating organizations continued work to implement the Lisbon, Helsinki, and Strasbourg Resolutions. Whereas documents developed by the MCPFE (such as guidelines for SFM and for the conservation of biodiversity) are being further implemented in the context of Vienna Resolutions, the activities supporting implementation of the Helsinki and Strasbourg Resolutions have been followed-up by the different European networks and projects, including the ICP Forests network of permanent plots, the European Forest Fire Information System (EFFIS), or the European Network for long-term Forest Ecosystem and Landscape Research (ENFORS).

Introduction to Pan-European Implementation

Like Part I of this Report, the chapter on the Pan-European Implementation presents the main activities being pursued in relation to:

- Implementation of the Vienna Resolutions
- Implementation of the Strasbourg, Helsinki and Lisbon Resolutions since the Vienna Conference (2003)

Part II is structured in line with the MCPFE Work Programme, discussing the implementation of actions planned for the period 2003-2007. The compiling of information was done by the Liaison Unit Warsaw and, where relevant, responsible implementing organizations, bodies, and countries were also involved. Separate reports were provided by the international organizations coordinating the implementation of the Strasbourg, Helsinki and Lisbon Resolutions.

The information on actions and leading actors related to them is followed by an assessment, giving the reader information on the event related to a specific action, its objectives, implementation status, and consequent decisions.

1. Pan-European Implementation of Vienna Resolution V1

Strengthen Synergies for Sustainable Forest Management in Europe through Cross-sectoral Co-operation and National Forest Programmes

The Pan-European actions to implement Vienna Resolution 1 and related commitments in the Vienna Declaration aim to improve the understanding of forest-relevant cross-sectoral issues at the Pan-European level, to enhance inter-sectoral coordination of policy and co-operation on these issues and to facilitate an exchange of experience on national forest programmes.

Experiences with NFPs

Focus	Actions	Leading actors	Time frame	Status	Commitment*
Experiences with NFPs	Workshop to exchange country experiences gained in the NFP process, on practical application of the "MCPFE Approach to NFPs in Europe" and the use of C&I for SFM as a component of the NFP process	MCPFE Liaison Unit, Poland	2004	Completed	V1 para 10 VD paras 16, 25 Lisbon GD

* V stands for the MCPFE Vienna Resolution, VD for the MCPFE Vienna Declaration, Lisbon GD for the MCPFE Lisbon General Declaration

Assessment

The Workshop took place on 22-24 November 2004 in Gdańsk, Poland. It was organized by the MCPFE Liaison Unit Warsaw in co-operation with the Regional Directorate of the State Forests in Gdańsk. The Workshop reviewed current and emerging issues faced by the MCPFE signatory countries developing or implementing national forest programmes in accordance with the MCPFE Approach to National Forest Programmes in Europe. The meeting also resulted in a stressing of the importance of NFPs as a tool for dialogue at different levels and among different forest-related sectors. A number of recommendations for achieving successful participation and the development of mechanisms for cross-sectoral coordination were made. It was proposed that the development of guiding principles for the evaluation of the NFPs in the European context be considered, and there was overall agreement that more attention should be paid to capacity building, as a central element of NFPs. The Workshop conclusions and highlights of the survey conducted by the MCPFE Liaison Unit Warsaw on the status of the NFPs at the Pan-European level were published in a brochure entitled: "National Forests Programmes in Europe". The brochure plus more documents from the Workshop are available at www.mcpfe.org

Cross-sectoral activities

Focus	Actions	Leading actors	Time frame	Status	Commitment
Cross--sectoral activities	Workshop on implications for policies of results of the European Forest Sector Outlook Study (EFSOS)	Switzerland, UNECE/FAO	2005	Completed	V1 paras 5, 6 VD paras 13, 14, 15

Assessment

The Workshop on the policy consequences of the European Forest Sector Outlook Study (EFSOS) took place on 20-21 June 2005 in Budapest, Hungary and was organized jointly by UNECE/FAO, MCPFE Liaison Unit Warsaw and the Government of Switzerland. The objective was to stimulate

discussion on the implications for policy formulation of the EFSOS conclusions and recommendations, to provide a critical review of policy recommendations of EFSOS, and to formulate recommendations for follow-up action at the national and Pan-European level, including possible input for the MCPFE Warsaw Ministerial Conference and suggestions for follow-up by the UNECE and FAO.

The Workshop confirmed that EFSOS can serve as a base for national policy decision-making. It also showed the interest in forest-sector outlook studies on Europe, and particularly in policy scenario analysis. The Workshop recommended that more frequent assessments be made, a global outlook study prepared and EFSOS work developed further in cooperation with modelling groups. The full report from this event is available at: http://www.fao.org/regional/seur/events/efsos/efsos

Focus	Actions	Leading actors	Time frame	Status	Commitment
Cross--sectoral activities	Workshop on forest-relevant cross-sectoral issues at the Pan-European level and improved inter-sectoral policy co-ordination	Switzerland, Latvia, MCPFE Liaison Unit, UNECE/FAO	2005	Completed	V1 paras 5, 6 V2 para 15 VD paras 13, 14, 15

Assessment

The Workshop on forest-relevant cross-sectoral issues at the Pan-European level and improved inter-sectoral policy coordination took place on 17-19 October in Riga, Latvia. The event entitled: "Forests – Common Benefits, Shared Responsibilities, Multiple Policies" was organized by the MCPFE Liaison Unit Warsaw, in cooperation with the UNECE/FAO, as well as the Governments of Switzerland and Latvia.

The meeting aimed to tackle the complex cross-sectoral issues at the policy level; showing why SFM has to be linked with activities in many new policy areas; and discussing the role of the forest sector in other sectors and vice versa. The conclusions formulated hold that all major developments in the forest and forest products sector (the "forest sector") are to be largely determined by major social, political economic or environmental trends outside the sector, which are in turn interacting with one other in increasingly complex ways. In this context, major decisions made by sectoral institutions and actors (i.e. on energy, agriculture, nature conservation, water, trade, etc.) may have strong, positive and negative impacts on the outlook and framework conditions for the forest sector. When such decisions are taken without adequate consultation with actors of the forest sector or without consideration being given to forest-related issues or circumstances, this might lead, on some occasions, to inter-policy contradictions with resulting perverse effects or negative impacts on the forest sector.

The participants drew up a number of recommendations with a view to our understanding of how policies and strategies developed in other sectors influence the forest sector and vice versa being improved, and with the aim of cross-sectoral coordination, cooperation and integration between the forest sector and other relevant policy sectors being enhanced. All conclusions and Workshop recommendations are included in the final report of the Workshop available at the MCPFE website: http://www.mcpfe.org.

Illegal logging

Focus	Actions	Leading actors	Time frame	Status	Commitment
Illegal logging	Scientific analysis of information on illegal harvesting of forest products, and related trade at Pan-European level	EFI, IIASA, CITES secretariat, CEC, UNECE/ FAO Timber Committee	2005	Completed	V2 para 7 V4 para 7 V4 Annex VD para 20

Assessment

The MCPFE Liaison Unit Warsaw induced the preparation of a scientific analysis of available information on illegal harvesting of forest products and related trade in Europe, by appointing international consultants to prepare a report serving as a background to the Workshop on combating illegal harvesting of forest products and related trade in Europe. It also contributed to the elaboration of a common Pan-European understanding of terminology used in relation to this topic. The study on the issues of illegal logging and related trade in timber and on other forest products issues in Europe can be found on and downloaded from the MCPFE website: http://www.mcpfe.org

The issue of illegal logging was also discussed by the Joint FAO/ECE Working Party on Forest Economics and Statistics, at its session of May 2006, which stressed that improved information was one element in the fight against illegal logging.

Focus	Actions	Leading actors	Time frame	Status	Commitment
Illegal logging	Workshop on combating illegal harvesting of forest products, and related trade in Europe	MCPFE Liaison Unit, PEBLDS secretariat, CEC , UNECE/ FAO, EFI	2005	Completed	V2 para 7 VD para 20 V4 para 7 V4 Annex

Assessment

The Workshop on combating illegal harvesting of forest products and related trade in Europe was held on 3-4 November, 2005 in Madrid, Spain. It was organized in co-operation with the UNECE/ FAO, EFI, EC, PEBLDS/EfE and Government of Spain, and drew on results of the UNECE/FAO workshop of September 2004 on the extent and causes of illegal logging in the UNECE region.

The Workshop's debate addressed different forms and causes of illegal logging in Europe and encouraged exchange of experiences in combating illegal harvesting and related trade throughout the continent. Possible interactions between the MCPFE and the Northern Asia Forest Law Enforcement and Governance Ministerial Conference (ENA FLEG) were also discussed. The Workshop resulted in the elaboration of a number of recommendations that countries are to take into consideration. It was suggested that countries arrive at a definition of illegal logging and the areas of legislation applicable to combating illegal logging and related trade. Recommendations were made as regards the analysis of available options for prohibiting or criminalizing the importation of and trade in illegally harvested timber, as well as for preventing corruption and money laundering. Moreover, the development of a public-private partnership to promote collaboration between suppliers and importers was encouraged in order that illegal timber products might be excluded from supply chains. There was recognition of the need for improved forest law enforcement via capacity building measures, as well as accessibility and transparency of information on management, concessions, conservation and other forest related issues. The output of the Workshop was disseminated at the ENA FLEG Ministerial Conference (21-25 November, 2005, St. Petersburg, Russia), so as to maintain mutually beneficial co-operation between the MCPFE and ENA FLEG, in particular with respect to the implementation of commitments arising from both initiatives. The Workshop proceedings, together with the "Study on the issues of illegal logging and related trade of timber and other forest products issues in Europe", were published in: "Combating Illegal Harvesting and Related Trade of Forest Products in Europe". This publication overviews relevant ongoing initiatives on the combating of illegal logging, and provides information on the social, economic and environmental consequences of illegal harvesting activities. More documents related to this Workshop are available at: http://www.mcpfe.org.

2. Pan-European Implementation of Vienna Resolution V2

Enhancing Economic Viability of Sustainable Forest Management in Europe

The Pan-European actions for the implementation of Vienna Resolution 2 and related commitments in the Vienna Declaration aim to put in place the better conditions necessary for a viable, competitive forestry sector, as well as to contribute to rural development.

Promoting wood use

Focus	Actions	Leading actors	Time frame	Status	Commitment*
Promoting wood use	Publication of reports:				
	"Europeans and Their Forests – What Do Europeans Think about Forests and SFM?"	UNECE/FAO-FCN, MCPFE	2003	Completed	V2 para 8 V5 para 5 L1
	"European Consumers and Their Attitudes towards Wood, Substitute Materials and the Image of Forest Industries"	UNECE/FAO-FCN, MCPFE	2007	In prepara-tion	V2 para 8 V5 para 5 L1

* L stands for the MCPFE Lisbon Resolution

Assessment

Publication of the report "Europeans and Their Forests – What Do Europeans Think about Forests and SFM?" was finalized by the Liaison Unit Vienna in August, 2003. Available at www.mcpfe.org

Publication of the report "European Consumers and Their Attitudes towards Wood, Substitute Materials and the Image of Forest Industries" was postponed.

Non-wood goods and services

Focus	Actions	Leading actors	Time frame	Status	Commitment
Non-wood goods and services	Workshop on valuation of the full range of goods and services of forests and their marketing: Progress and issues	MCPFE Liaison Unit, EU	2007	Ongoing	V2 paras 9, 10 VD paras 7, 25 L1

Assessment

As a part of the work programme for implementation of the EU Forest Action Plan, the Standing Forestry Committee (SFC) decided to set up an ad hoc Working Group on valuation and compensation methods of non-wood forests goods and services. The first meeting of this group took place on 28 June, 2007 in Brussels.

The goals of the Group are:

- to exchange information on the state of the art in the field of valuation of non-wood forest goods and services
- to identify methods and existing practices for compensation for non-wood forest goods and services
- to exchange information on approaches to the establishment of new markets and the marketing of non-market forest goods and services

- to discuss the need for and applicability of innovative mechanisms as regards valuation of and compensation for non-wood forest goods and services
- to identify good practices, draw conclusions and present proposals for possible further action

The output of this expert group will also contribute significantly to the implementation of the MCPFE work programme. It is further likely that the results arrived at by this expert group might stimulate subsequent steps to be agreed by the MCPFE within the framework of the next Work Programme.

Competitiveness and innovation

Focus	Actions	Leading actors	Time frame	Status	Commitment
Competitiveness and innovation	Seminar on co-operation of private forest owners Seminar on policies fostering investment and innovation in support of rural development	CEPF, USSE MCPFE Liaison Unit, EFI	2006	Joint Action, Completed	V2 paras 18, 19 VD para 12 V2 paras 7, 11, 16 VD para 19 L1

Assessment

The seminar on "Policies Fostering Investments and Innovations in Support of Rural Development – taking into account forest owners' perspective on enhancing economic viability through cooperation and innovation" took place on 27-29 March 2006 in Zvolen, Sielnica (Slovakia). This event was jointly organized by the MCPFE LUW; EFI; EFI-INNOFORCE Project Centre, Austria; the Union of Foresters of Southern Europe (USSE); the Confederation of European Forest Owners (CEPF); the National Forest Centre of Slovakia; the Ministry of Agriculture of Slovakia; and *Slovenská lesnícka spoločnosť* of Slovakia (the Union of Slovak Scientific and Technological Societies - Slovak Forestry Society).

The aim of the seminar was to review and discuss policy issues, experiences and options as regards the promoting of investments and innovations with a view to the competitiveness and economic viability of the forest sector being raised in the context of integrated rural development. It also sought to provide the latest knowledge and scientific findings regarding policies fostering investment and innovation within the framework of sustainable rural development policies and strategies in support of MCPFE and the EU's Lisbon Strategy. The roles of different institutions in the field of innovation and investment in forestry were also debated. The discussion concluded that stable institutional framework conditions, including proper clarification of property rights, are necessary for innovation and investment, especially in respect of countries in transition. Likewise, it was underlined that better communication across sectors is needed, and that both capacity building as regards innovation and investment and future study work are important for all parties involved. Innovation and investment are generally market-driven activities, but policies provide the framework. Legal, policy and cultural frameworks are important where innovation and investment activities are concerned. Furthermore, innovation and investment policies need coordination and cross-sector perspectives. The proceedings of the Workshop can be downloaded from: http://www.mcpfe.org

Focus	Actions	Leading actors	Time frame	Status	Commitment
Competitiveness and innovation	Workshop on encouraging the establishment of and organisation in associations for SMEs and the workforce, including self-employed and informal workers	ENFE, Joint FAO/ECE/ILO Expert Network	2005	Completed	V2 para 19

Assessment

The Workshop took place on 16 September, 2005 in Krakow, Poland, and was jointly organized by the European Network of Forest Entrepreneurs (ENFE), the Polish Contractors Association (SPL) and the MCPFE LUW.

The Workshop focused on encouraging the establishment of associations for SMEs and the forestry workforce, including self-employed and informal workers, as a means of reinforcing the role of contractors in the forest-wood chain. It aimed to strengthen forestry workforce representation and participation in decision-making processes at both national and European levels.

The Workshop discussed a number of issues related to competitive forest operations in Europe, and highlighted that sustainable forestry and the sustainable forest industry require a sustainable and competitive forest operation workforce. The participants made a number of recommendations which are to be viewed at:
http://www.enfe.net/archiv/sberichte/Krakow20050916_Final_Report.pdf

Education, training and safety

Focus	Actions	Leading actors	Time frame	Status	Commitment*
Education, training and safety	International Seminar on "Safety in Small-Scale Private Forestry"	Switzerland, France, Joint FAO/ECE/ILO Expert Network	2007	Completed	V2 paras 13, 14 L1
	First international conference of forest training centres	France, Joint FAO/ECE/ILO Expert Network	2005	Completed	V2 paras 12, 13, 14 VD para 17 L1, H2, H3

* H stands for Helsinki Resolution

Assessment

The 1st International Forestry Training Centres Conference was held on 16-18 February 2005, being organized by *the Centre Forestier de la Region Provence*, France, under the joint auspices of the MCPFE and the Joint FAO/ECE/ILO Expert Network to implement Sustainable Forests Management.

The Conference focused on the social dimension to SFM, addressing a number of issues relating to forestry networks, the establishment of a common database and effective dissemination of information. A special focus was the promotion of trans-national partnership, networking and joint collaboration with a view to the raising of funding among forestry educational centres.

The MCPFE LUW provided an overview on the MCPFE contribution and actions undertaken towards the enhancement of the economic viability and social aspects of SFM. The co-operation with the Joint FAO/ECE/ILO Experts Network had been shown to be a very important factor in the successful implementation of MCPFE commitments.

The participants arrived at a number of conclusions and recommendations. The full report from this event can be downloaded from the Eduforest website:
http://www.eduforest.eu/index3.php?page=34

The second International Conference on safety and health in forestry was held in Annecy (France) in May 2007, and focused *inter alia* on safety in small-scale private forestry. The participants, who came from 4 continents, stressed that experts in health and safety know how to reduce the still high level of accidents and illness in forest work, but that effective implementation required political will and resources. More documents related to this conference are available at:
http://www.unece.org/trade/timber

3. Pan-European Implementation of Vienna Resolution V3

Preserving and Enhancing the Social and Cultural Dimensions of Sustainable Forest Management in Europe

The actions of Vienna Resolution 3 and the related commitments in the Vienna Declaration aim to improve knowledge and understanding of the social and cultural dimensions to sustainable forest management.

Culture and sustainable development

Focus	Actions	Leading actors	Time frame	Status	Commitment
Culture and sustainable development	Seminar on the role of forest-related social and cultural aspects in sustainable development in Europe	Sweden, Austria, FAO/ECE/ILO Expert Network EFI, MCPFE Liaison Unit	2005	Completed	V3 paras 8, 11 VD para 11 Lisbon GD L1, H1

Assessment

The Seminar on Forest and our Cultural Heritage was held on 13-15 June 2005, in Sunne, Sweden, and was organized by the Swedish Forest Agency in co-operation with the MCPFE LUW and the Joint FAO/ECE/ILO Expert Network. The participation of the representatives of the Council of Europe and UNESCO emphasised a multidisciplinary context and the consideration of existing achievements as regards forest cultural heritage.

The Seminar reviewed a variety of issues regarding forest cultural heritage and especially landscapes, historical sites and monuments of nature, as well as bio-cultural heritage and the role of forests in shaping human culture. The broad scope of the presentations and varying approaches from country to country confirmed the need for future clarification and development of means and guidelines, so as to stimulate mutual awareness and understanding of all socio-cultural values of forests and forestry at both the political and management levels. The debate was the first step towards identifying the challenges for and threats to cultural heritage in forests. The Seminar was brought to a close with a number of recommendations forwarded for consideration at national and international levels. There was recognition of the need for awareness of cultural value to be raised, both inside and outside the forest sector. It was also considered a well established truth that the valuable cultural features forests possess can serve to spark the interest of forest owners, and to encourage them to look at the wider issue of nature conservation.

The seminar proceedings containing the presentations and outcome of the Seminar on Forest: "Forestry and Our Cultural Heritage" were published by the Liaison Unit Warsaw in co-operation with the Swedish Forest Agency.

Bearing in mind the Seminar's outcome, and in accordance with the decisions of the MCPFE ELM (September, 2005), the LUW invited the MCPFE countries and organizations to extend institutional support with a view to the implementation of Vienna Resolution 3 being further coordinated. The ELM of October 2006 also addressed and discussed the issue of consideration being given to the launching of international collaboration - and the elaboration of guidelines for countries – as regards the implementation of Vienna Resolution 3. The Seminar report and presentations can be downloaded from: http://www.mcpfe.org.

Cultural sites

Focus	Actions	Leading actors	Time frame	Status	Commitment
Cultural sites	Contribution to Pan-European Indicator 6.11: Enquiry on forest-related cultural sites through questionnaires and analysis and management of obtained data	MCPFE Liaison Unit, UNECE/FAO, UNESCO	2006	Completed	V3 para 10; VD paras 17, 25

Assessment

The Liaison Unit Warsaw prepared a questionnaire and conducted a survey on data availability regarding Indicator 6.11. The results of the questionnaire contributed to the discussion during the Seminar on Forestry and our Cultural Heritage (Sweden, 2005) and are published in the Seminar proceedings. Furthermore, they supported the process of elaboration of the MCPFE-UNECE/FAO Enquiry – National Data Reporting Forms for Indicator 6.11, and elaboration of the MCPFE "State of Europe's Forests 2007" Report.

Material and non-material aspects

Focus	Actions	Leading actors	Time frame	Status	Commitment
Material and non-material aspects	Publication on material and non-material social and cultural dimensions of SFM	MCPFE Liaison Unit	2007	Completed	V3 paras 6, 8 L1

Assessment

"Cultural Heritage and Sustainable Forest Management: The role of Traditional Knowledge", two-volumes proceedings of the International Conference held on 8-11 June 2006 in Florence, Italy, as published jointly by the MCPFE and IUFRO.

As a continuation of the discussion on cultural heritage and forests that began with the MCPFE Seminar Forestry and our cultural heritage (Sweden, 2005), the Conference voiced its significant support for the implementation of the MCPFE's Vienna Resolution 3. The meeting aimed to improve dialogue and information exchange among scientists, holders/users of traditional knowledge and related cultural landscapes, planners, managers and decision-makers.

In response to the invitation of the MCPFE ELM (October 2006) regarding the implementation of Vienna Resolution 3, and following the outcome of the MCPFE Seminar on Forestry and cultural heritage (Sweden, 2005) and the International Conference on Cultural Heritage and SFM (Florence, 2006), the IUFRO offered to take a leading role in developing scientific guidelines on preserving and enhancing social and cultural dimensions of sustainable forest management in Europe in support of the implementation of Vienna Resolution 3, with this to be presented for further consideration by the MCPFE.

The progress on preparation was presented by IUFRO at the MCPFE Expert Level Meetings (June 2007), and in September 2007.

4. Pan-European Implementation of Vienna Resolution V4

Conserving and Enhancing Forest Biological Diversity in Europe

The Pan-European actions for the implementation of Vienna Resolution 4 and related commitments in the Vienna Declaration aim to tackle the Pan-European priorities as regards the conservation and appropriate enhancement of forest biodiversity.

Ecosystem approach

Focus	Actions	Leading actors	Time frame	Status	Commitment
Ecosystem approach	MCPFE ad hoc working group to develop a Pan-European understanding on the linkage between the ecosystem approach and SFM	MCPFE, PEBLDS, Poland	2004	Completed	V4 para 8 V4 Annex H1, H2
	Integration of the Pan-European understanding of the linkage between the ecosystem approach and SFM into relevant processes at global level	MCPFE Liaison Unit, PEBLDS joint secretariat, CBD secretariat, UNFF secretariat	2004	Completed	V4 para 8 V4 Annex H1, H2

Assessment

The MCPFE and EfE/PEBLDS ad hoc Working Group on development of the Pan-European Understanding of the linkage between the Ecosystem Approach and Sustainable Forest Management was held on 19-21 April 2004 in Krakow, Poland, in co-operation with the Regional Directorate of the State Forests in Krosno. More documents related to this Workshop are available at: http://www.mcpfe.org.

The Workshop proceedings were published under the title: "Sustainable Forest Management and the Ecosystem Approach". The follow-up activities included negotiations of the "Joint position of the MCPFE and PEBLDS/EfE on the Pan-European understanding of the linkage between the Ecosystem Approach and Sustainable Forest Management", which was adopted by the PEBLDS Council and the MCPFE ELM and published. An overview of the results of the MCPFE/PEBLDS ad hoc Working Group were presented at 4th session of the UNFF (Geneva, Switzerland, 7th May 2004) during the MCPFE side event organized by the Liaison Unit Warsaw.

The joint position on the European understanding of the relation between the Ecosystem Approach and Sustainable Forest Management was presented at the joint side event run by the MCPFE and PEBLDS at the CBD COP-8 (Curitiba, Brazil, March 22nd 2006).

Protected areas

Focus	Actions	Leading actors	Time frame	Status	Commitment
Protected areas	Analysis of European networks of protected forest areas (PFA) concerning the comprehensiveness, representativeness and adequacy of protected forests with regard to the conservation goal	COST E27, MCPFE, PEBLDS, CEC, CoE, UNEP, IUCN,EFI	2005	Completed	V4 paras 10, 11 V4 Annex H2

Assessment

The COST Action E27 "Protected forest areas – analysis and harmonization" has aimed at providing a better understanding of national and international distinctions of protected areas and tried to explain the reason for this diversity. The main task of this action has been to analyse the whole range of PFA categories in Europe in compliance with existing international categories for protected areas (COST 2001). It is estimated that the total number of all designated areas in Europe amounts to approximately 65 000 to 70 000 sites. The major emphasis of this action was placed on cooperation between scientists and managers from both nature conservation and forest administration.

The action has set very ambitious goals and could reach the majority of them. The main strengths were the practical guidelines for the assessment of PFA categories, multivariate analysis on PFAs, and improved understanding of the diversity of PFAs across Europe, especially an improved and broadened understanding of the historical and social factors underpinning PFA's and an excellent science policy interface. Dissemination of the results could be strengthened, and further work and analysis in relation to the PFAs is recommended. A New COST Action proposal has been created on the basis of the COST E27 network, with the topic being "Integration of Protection with Forest Management". More information related to this action is available at: http://www.efi.fi/projects/coste27/

Forest classification

Focus	Actions	Leading actors	Time frame	Status	Commitment
Forest classification	Workshop on a Pan-European understanding of forest classification in coordination with UNECE/FAO and EEA	MCPFE Liaison Unit, IUCN, UNECE/FAO, CEC-EEA	2006	Completed	V4 para 13 VD para 25 H1, H2

Assessment

The Workshop on Pan-European understanding of forest classification was jointly organized by the MCPFE and the Ministry of Agriculture, Forestry and Food of the Republic of Slovenia, the European Environment Agency (EEA), IUFRO and UNECE/FAO. There was also a special contribution from the European Forest Institute, the Italian Accademia Italiana Di Scienze Forestali and the Joint Research Centre of the European Union. The Workshop took place on 13-15 November, 2006 in Bled, Slovenia.

The presentation and discussion of the proposal for the classification of forest types in Europe is based on the EEA Draft Technical Report: "European Forest Types – categories and types for sustainable management reporting and policy" (2006). The proposal comprises 14 Categories and 75 Sub-categories of forests. Possibilities of using the 14 Categories for the report on the seven MCPFE indicators were discussed. The identification of 'Plantations and self-sown exotic forests' as one of the proposed 14 Categories of European forests indicates a need to further clarify the definition of this category, with consideration being given to recent FAO work carried out in this area.

It was agreed that testing of the proposed system in projects at Pan-European level (ICP Forests Level I data gathered under the Forest Focus pilot study BioSoil, and ICP Forests Level II data gathered under the Forest Focus pilot study Forest Biota) had combined with national studies (the stand-based national forest inventory – data from the Slovenian forest management database and the plot-based national forest inventory – data from the Italian national forest inventory) to provide valuable proof as to the feasibility and ease of using the discussed system of classification with already existing databases.

The Workshop discussions focused on issues of the relationship between the new proposed system of classification and the MCPFE C&I for SFM, national forest inventories, data availability, as well as costs and benefits of using the new system in the process of reporting on SFM in Europe.

The system was recognized as scientifically-sound, and the 14 Categories were agreed to be adequate for reporting using MCPFE indicators that could largely outweigh the costs of this process. At the same time, it was appreciated that the proposed system was coherent and cross-referenced with the Habitats Directive Annex I and the EUNIS Habitat Classification. The results of the Workshop were presented to ELM (June, 2007). It was agreed that the unified classification system would be important for future reporting, and ELM in general agreed that improvement of the forest classification system would be beneficial for the next reporting on SFM.

Forest genetic resources

Focus	Actions	Leading actors	Time frame	Status	Commitment*
Forest genetic resources	Promotion of the conservation of forest genetic resources as an integral part of SFM and a continuation of Pan-European collaboration in this area through the EUFORGEN Networks	Bioversity International (previously IPGRI), FAO	2004 - (continuous)	Ongoing	V4 paras 5, 16 VD para 22 S2
	An international forest training programme on forest genetic resources as part of the collaborative capacity--building programme on "Conservation and use of biological diversity for development".	Austria, Sweden, Bioversity International	2004-2008	Ongoing	V4 para 16, VD para 17 S2, H2

* S stands for the MCPFE Strasbourg Resolution

Assessment

The European Forest Genetic Resources Programme (EUFORGEN) has developed 22 technical guidelines for genetic conservation and the use of forest trees in Europe targeted at practical forest managers. These six-page documents address different tree species and also include updated distribution maps. The technical guidelines and maps can be downloaded from the EUFORGEN Website (www.euforgen.org), and hardcopies can be requested from the EUFORGEN Secretariat at Bioversity International (previously IPGRI) (euf_secretariat@cgiar.org).

Phase III of EUFORGEN was launched in January 2005 – for a period of five years following endorsement by the EUFORGEN member countries. Presently a total of 34 countries participate in and contribute to the EUFORGEN activities. During its Phase III, EUFORGEN is focusing on the promotion of conservation and the use of forest genetic resources as part of sustainable forest management, and has established a specific network for this purpose. Furthermore, a new initiative has been launched to strengthen information management on forest genetic resources in Europe. More details on the EUFORGEN activities can be found in the chapter on the implementation of Resolution S2.

Bioversity International and the Austrian Federal Office and the Research Centre for Forests (BFW) initiated the international capacity-building programme on forest biodiversity with financial support from the Government of Austria. Bioversity and the BFW organized a two-week training workshop (13–24 June 2005) on the conservation and use of forest biodiversity in Pushkino, near Moscow, in the Russian Federation. Twenty-five young scientists from 14 mainly eastern and south-eastern European countries attended this Workshop and learned the basic principles of conservation genetics and their practical application in forest management. The training programme also includes two-year fellowships for young scientists and, in July 2005, a Serbian researcher started her work at the Department of Genetics of the BFW in Vienna.

5. Pan-European Implementation of Vienna Resolution V5

Climate Change and Sustainable Forest Management in Europe

The Pan-European actions for the implementation of Vienna Resolution 5 and the related commitments in the Vienna Declaration aim to enhance the contribution forests make to reducing net greenhouse-gas emissions, to encourage SFM practices in carbon-sequestration measures and to further increase the adaptability of forests to climate change.

Promoting bio-energy and the sound use of wood

Focus	Actions	Leading actors	Time frame	Status	Commitment
Promoting bio-energy and the sound use of wood	Workshop on resource mobilisation and comprehensive wood utilisation strategies in support of SFM	UNECE/FAO, Timber Section, MCPFE Liaison Unit, CEPI, EFI, Joint FAO/ECE/ILO	2007	Completed	V5 para 5 V2 para 8 VD para 9 L1, H4

Assessment

The Workshop on "Mobilizing Wood Resources" took place on 11-12 January 2007, in Geneva, Switzerland. The event was organized by the UNECE Timber Section, CEPI, the MCPFE Liaison Unit Warsaw, the FAO/UNECE/ILO Experts Network, the FAO Forestry Department, EFI and the Swiss Federal Office for the Environment.

The Workshop was planned to discuss strategies for mobilizing wood given a constantly increasing demand, better understanding of the impacts and effects of increased wood mobilization on different sectors, recommendations to policy-makers and stakeholders on these issues, and possible input to the Warsaw Ministerial Conference 2007.

During the Workshop, it was agreed that demand for wood is growing, being driven by the wood-processing industries and the energy generation sector, thus relevant policies should balance the need for energy security and the mitigation of climate change by reducing emissions from fossil fuels and guaranteeing the competitiveness of European industry, put in the context of sustainable regional development. Alongside many conclusions and recommendations developed at this Workshop were a number of principles elaborated by participants in relation to mobilizations of wood resources and specific elements for implementation, as well as a message for the up-coming Fifth Ministerial Conference.

The full report from this event can be viewed and downloaded from UNECE website:
http://www.unece.org/trade/timber

SFM and greenhouse-gas management

Focus	Actions	Leading actors	Time frame	Status	Commitment
SFM and greenhouse-gas management	Elaboration of a proposal for recommendations for site selection for afforestation and reforestation in the context of UNFCCC	MCPFE Liaison Unit, PEBLDS secretariat, IUCN, UNEP	2004	Ongoing	V5 para 6 V4 paras 11, 12, 15 V4 Annex H1

Focus	Actions	Leading actors	Time frame	Status	Commitment
SFM and greenhouse-gas management	Workshop on Pan-European recommendations for afforestation and reforestation in the context of UNFCCC	MCPFE Liaison Unit, PEBLDS Secretariat, Lithuania	2006	Completed	VD paras 17, 21 V5 para 6 V4 para 4 V4 Annex H1

Assessment

The MCPFE Workshop on Pan-European recommendations for afforestation and reforestation in the context of UNFCCC took place on 24-26 October, 2006 in Vilnius, Lithuania. The workshop was organized by the PEBLDS Joint Secretariat, the Ministry of the Environment of the Republic of Lithuania and the MCPFE LUW. The documents of the workshop can be viewed and downloaded from the MCPFE website: www.mcpfe.org

Draft Recommendations on Pan-European Guidelines for Afforestation and Reforestation in the Context of Climate Change Mitigation elaborated by the IUCN served as a departure point and a basis for the discussions. Experts in the working groups on general, ecological, and socio-economic issues have provided their expertise to review and improve the draft. The recommendations were presented to the MCPFE and PEBLDS decision-making bodies for further consideration.

As a follow-up process and in order to further elaborate the draft recommendations, the Government of Austria hosted the expert consultation meeting of EfE/PEBLDS and MCPFE representatives. The meeting took place on 8-9 May 2007 in Vienna, Austria. The draft recommendations were discussed further and the outcome was put forward to the MCPFE ELM (June, 2007) for comments. It was agreed that this document needs further elaboration, and that the final draft will be presented for endorsement at the ELM.

Adaptability of forests

Focus	Actions	Leading actors	Time frame	Status	Commitment
Adaptability of forests	Workshop on the role of forest genetic diversity on improving the adaptability of forests to climate change and in maintaining the productivity of forests under changing environmental conditions	Bioversity International, IUFRO	2006	Completed	V5 paras 8, 10 VD para 22 S2
	Publication of books: "Forests and Carbon Sequestration" "Environmental Change and Forest management"	IUFRO	2007 2005	Ongoing Completed	V5 para 8 VD para 17 H4

Assessment

The workshop on "Climate change and forest genetic diversity: Implications for sustainable forest management in Europe" was organized on 15 – 16 March 2006 in Paris, France, by Bioversity International (previously IPGRI), IUFRO, EUFORGEN, the Government of France and the MCPFE LUW. The Workshop analysed the ways in which forest trees will (or will not) cope with and adapt to climate change, and discussed the implications for the pursuit of sustainable forest management in Europe.

The Workshop noted that the impacts of climate change on forests will vary in different parts of Europe, bringing along both opportunities and threats. The genetic diversity of forest trees plays a key role when it comes to the maintenance of the resilience of forest ecosystems in the face of

threats and the taking advantage of opportunities. The Workshop recommended that management of forest genetic diversity be better linked with national forest programmes and other strategies, such as national adaptation strategies to climate change. Furthermore, forest management practices that maintain the evolutionary processes of forest trees should be promoted. The Workshop also stressed that the adaptation of forest trees to climate change can be accelerated through tree breeding and the transfer of potentially suitable forest reproductive material.

The detailed Workshop recommendations are available at www.euforgen.org. Bioversity and IUFRO have also prepared a joint publication based on the Workshop presentations, which can be downloaded from the same website. Hardcopies can be requested from the EUFORGEN Secretariat (euf_secretariat@cgiar.org).

Since 2004, the IUFRO Task Force on Carbon Sequestration has initialised the publishing of a series of e-notes on "The Role of Forests in Carbon Cycles, Sequestration and Store". This publication intends to replace the book "Forest and Carbon Sequestration" scheduled in the MCPFE Work Programme. The e-notes published by the Task Force aim to provide a suite of timely, readily available, concise and informative state-of–the-science summaries. They may be viewed at:
http://www.iufro.org/science/task-forces/carbon/publications-and-references

In 2005, IUFRO published a book entitled "Forestry and Environmental Change: Socio-economic and Political Dimensions" (Research Series No. 11), see:
http://www.iufro.org/auth/publications/series/research-series/

6. Pan-European Implementation of Lisbon, Helsinki and Strasbourg Resolutions since the 4th Ministerial Conference

The implementation of the Resolutions adopted at the Conferences in Strasbourg in 1990, Helsinki in 1993 and Lisbon in 1998 is ongoing. The respective Pan-European aspects of each Resolution are coordinated via the international organisations and institutions (Table 12). The Resolutions adopted at the Strasbourg, Helsinki and Lisbon Ministerial Conferences also form the basis for the commitments taken on at the Vienna Conference.[2]

Table 12. International coordinators of Lisbon, Helsinki, and Strasbourg Resolutions.

MCPFE Resolution	International Coordinator	Further Pan-European implementation[2]
Lisbon 1998		
L1: People, Forests and Forestry – Enhancement of Socio-Economic Aspects of Sustainable Forest Management	MCPFE Liaison Unit	Further implementation in the context of Vienna Resolutions
L2: Pan-European Criteria, Indicators and Operational Level Guidelines for Sustainable Forest Management	MCPFE Liaison Unit	Further implementation in the context of Vienna Resolutions
Helsinki 1993		
H1: General Guidelines for the Sustainable Management of Forests in Europe	MCPFE Liaison Unit	Further implementation in the context of Vienna Resolutions
H2: General Guidelines for the Conservation of the Biodiversity of European Forests	MCPFE Liaison Unit	Further implementation in the context of Vienna Resolutions
H3: Forestry Co-operation with Countries with Economies in Transition	UNECE	Adding of new information reported by national correspondents to the H3 Database
H4: Strategies for a Process of Long-Term Adaptation of Forests in Europe to Climate Change	IUFRO	Extension of IUFRO Research Series by several more state-of-knowledge reports
Strasbourg 1990		
S1: European Network of Permanent Sample Plots for Monitoring of Forest Ecosystems	ICP Forests in co-operation with CEC	Continued monitoring of effects of air pollution and other stress factors on forests, within framework of ICP Forests monitoring programme
S2: Conservation of Forest Genetic Resources	Bioversity International, Regional Office for Europe	Continued scientific and technical collaboration in framework of European Forest Genetic Resources Programme – EUFORGEN (phase II: 2000-2004), EUFORGEN (phase III: 2005-2009)
S3: Decentralized European Data Bank on Forest Fires	European Commission, Joint Research Centre, Institute for Environment and Sustainability	Continued collection of data and information about forest fires (European Forest Fire Information System (EFFIS) EU fire database)
S4: Adapting the Management of Mountain Forests to New Environmental Conditions	EOMF in co-operation with FAO and IUFRO	Further co-operation and continued implementation activities (e.g. Action Plan for the S4)
S5: Expansion of the EUROSILVA Network of Research on Tree Physiology	University of Oulu, Finland	COST Action 6 "EUROSILVA" completed, but several co-operative research activities originating from it; research also on-going in context of IUFRO
S6: European Network for Research into Forest Ecosystems	Swedish University of Agricultural Sciences	COST Action E 25 "European Network for a Long-term Forest Ecosystem and Landscape Research Programme" (ENFORS)

[2] Information derived from: "Implementation of MCPFE Commitments – National and Pan-European Activities 1998-2003", published by MCPFE Liaison Unit Vienna, Austria, in 2003.

6.1. Lisbon Resolutions

L1: People, Forests and Forestry – Enhancement of Socio-Economic Aspects of Sustainable Forest Management

Vienna Resolution 3: 'Preserving and enhancing the social and cultural dimensions of sustainable forest management in Europe' was an important follow-up to the Lisbon Resolution 1. The Pan-European activities related to the V3 Resolution are shown in Part II of this Report.

L2: Pan-European Criteria, Indicators and Operational Level Guidelines for Sustainable Forest Management

The main action related to the implementation of Lisbon Resolution L2 is the preparation of the MCPFE Report entitled "State of Europe's Forests 2007. The MCPFE Report on Sustainable Forest Management in Europe". For the first time in history, the Report has been structured in line with the quantitative and qualitative indicators. Further information on this can be found in Part III of this report.

The Improved Pan-European Indicators for Sustainable Forest Management, as adopted by the MCPFE Expert Level Meeting 7-8 October 2002 (Vienna, Austria), and the elaboration process in relation to them have also represented an important European contribution to the worldwide development of criteria and indicators. The Inter-Criteria and Indicators Process Collaboration Workshop, which was held at Bialowieża, Poland, in June 2006, was a response to calls from international experts for a dialogue on cooperation and collaboration between different C&I processes, such as ITTO, the Montreal Process and MCPFE. The Workshop supported the use of C&I in FAO Forest Resource Assessment, the further improvement of cooperation and collaboration among C&I processes, and the strengthening of political support for SFM, national reports and the use of C&I. The report on the Workshop presentations and discussions came out as one of the MCPFE publications and can be found at the MCPFE website: www.mcpfe.org

6.2. Helsinki Resolutions

H1: General Guidelines for the Sustainable Management of Forests in Europe

Author/Institution: MCPFE Liaison Unit Warsaw

Setting the bases for sustainable forest management in Europe, Helsinki Resolution H1 has been followed up in all further activities of the MCPFE, and developed through subsequent Lisbon and Vienna Resolutions.

The MCPFE work programme for the period 2003-2007 has reflected commitments under Resolution H1 in most MCPFE activities, which covered social, economic and ecological aspects of SFM. It would be important to mention here the development of a Pan-European understanding on the linkage between the ecosystem approach and SFM as drawn up by representatives of MCPFE and PEBLDS, and also the input of workshops and publications to the understanding of the role of forest-related economic, social and cultural aspects, which are described in greater detail under the Pan-European implementation of Vienna Resolutions 2, 3 and 4.

H2: General Guidelines for the Conservation of the Biodiversity of European Forests

Author/Institution: MCPFE Liaison Unit Warsaw

The conservation of biodiversity as an essential element of sustainable management was reaffirmed within Vienna Resolution V4: 'Conserving and enhancing forest biological diversity in Europe', with several actions of the MCPFE work programme being related to biodiversity issues. They included analysis of European networks of protected forest areas, the development of Pan-European understanding on forest classification, and promotion of the conservation of forest genetic resources as an integral part of SFM - all of which are covered in the above section under Vienna Resolution 4.

H3: Forestry Co-operation with Countries with Economies in Transition

Author/Institution: Kit Prins, UNECE/ FAO Timber Section, UNECE Economic Commission for Europe

General approach

Given the limited resources available and the importance of developments outside the forest sector, the implementation of Resolution H3 focused from the outset on the sharing of information on forestry assistance to countries in transition, as well as the identification of different countries' priority needs. The main objective was therefore to ensure that assistance was well targeted and coordinated and that information was properly shared (between donors and recipients of assistance). In pursuit of these objectives, ECE/FAO, with numerous partners, has collected and published information (the "H3 database") on forestry assistance to countries in transition. Successive teams of specialists, mostly consisting of experts from these countries, have reviewed the situation and needs.

Progress in implementation since Vienna, 2003

At a first meeting convened in November 2005 in Budapest, the newly-established Team of Specialists on the Contribution of Forests to Sustainable Development in Eastern Europe decided to investigate needs, options and modalities for the setting up of a new electronic database. However, to date, it has not proved possible to implement this. The team annually revises and reviews progress on the FAO/ECE Strategy for countries in transition, which assigns priorities and assists in the coordination of work between international agencies.

Assessment

The passing of Resolution H3 in 1992 has been followed by enormous progress in the countries in transition, many of which are now Member States of the European Union. The forest sector has participated in this transformation, and is now considerably more prosperous and well organized than it was 15 years ago. Many of the countries are now active participants in the international forest dialogue. The ECE/FAO activities under Resolution H3 have helped with the sharing of knowledge and experience, though their impact has been limited by a lack of both resources and political priority where the forest sector is concerned. The ECE/FAO feels that, given the very limited resources available, the present arrangement – monitoring and exchange of experience through a team of specialists – is a realistic and sustainable way of helping the transition countries engage in their own development. Undoubtedly, the shift in emphasis away from the countries which are now members of the EU to south-east Europe, the Caucasus and Central Asia properly reflects changing and developing priorities. It is nevertheless also necessary that close cooperation with all other organisations active in the region be maintained.

H4: Strategies for a Process of Long-Term Adaptation of Forests in Europe to Climate Change

Author/Institution: John Innes, Vice-President for Policy, Peter Mayer, Executive Director, and Alexander Buck, Deputy Executive Director of the International Union of Forest Research Organizations

General approach

The general approach taken by IUFRO has been to promote international collaboration in the specific areas for research set out in Resolution H4 - by means of Task Forces, scientific conferences and workshops organized by relevant IUFRO Units. The outcomes of these meetings are disseminated to scientists, policy- and decision-makers, practitioners and stakeholders by means of IUFRO communication and Public Relations tools, as well as through active participation in the MCPFE process.

Progress in implementation since Vienna, 2003

Since the 4th Ministerial Conference in 2003, more than 15 international scientific meetings dealing with climate change have been organized under the umbrella of IUFRO, nine of these convening in Europe. These meetings have involved numerous scientists representing national research institutions and universities, international members and partners of IUFRO, as well as policy- and decision-makers and stakeholders.

The scientific evidence gathered at these IUFRO meetings has further improved our understanding of the complex cause-effect relationships with regard to global and local climatic changes and the associated impacts on forest ecosystems. Several activities of IUFRO have specifically focused on the study of interactions between air pollution, climate change and pests and diseases, as well as forest fires.

The IUFRO Task Forces on the "The Role of Forests in Carbon Cycles, Sequestration and Storage" and "Forests and Carbon Sequestration" have, among other things, provided scientific evidence on adaptation strategies.

One specific focus of the activities of IUFRO, in collaboration with Bioversity International, regarding the adaptation of forests to climate change in Europe, has been to study the potential use of forest genetic diversity for accelerating adaptation processes and reducing risks associated with climate change.

Assessment

The emphasis placed on climate change in the deliberations of policy- and decision-makers at both the global level and in the European region clearly underlines the greater relevance than ever of the overall theme of Helsinki Resolution 4. Considerable progress has been made by IUFRO – and researchers in general – when it comes to our understanding of the impacts of climate change on forests and the latter's mitigation potential. Nevertheless, as it is evident that more scientific knowledge is needed, IUFRO is now aiming to develop an even stronger focus on the adaptation of forests to climate change and reducing emissions through avoided deforestation. Experiences gained in the implementation work also point to a need for the wider dissemination of this knowledge and its use in policy- and decision-making.

As climate change is a problem of global significance, the implementation activities as regards H4 have benefited from IUFRO's global network of scientists and research institutions.

The further implementation of MCPFE commitments related to climate change should entail adoption of an integrated approach that *inter alia* takes fuller account of the interlinkages between Resolutions S1 and H4 and the experiences gained in their implementation.

6.3. Strasbourg Resolutions

S1: European Network of Permanent Sample Plots for Monitoring of Forest Ecosystems

Authors: Aljoscha Requardt, Richard Fischer, Dr. Martin Lorenz, Prof. Dr. Michael Köhl, Federal Research Centre for Forestry and Forest Products, Institute for World Forestry

General approach

The origin of today's joint monitoring system lies in the 1980s, when a severe deterioration in the condition of forests was observed over large areas of Europe. As a response to growing concern about the role of air pollution in this decline, the International Cooperative Programme on the Assessment and Monitoring of Air Pollution Effects on Forests (ICP Forests) was established in 1985 under the UNECE Convention on Long-range Transboundary Air Pollution (CLRTAP). Today, 40 countries participate in the ICP Forests. In 1986, the European Union adopted the Scheme on the Protection of Forests against Atmospheric Pollution (Council Regulation (EEC) No. 3528/86). Since then ICP Forests and the European Commission have worked closely together over a joint monitoring programme. The first regulation was superseded in 2003 by the Forest Focus Regulation (Council Regulation (EC) 2152/2003), which went out of force on 31 December 2006. These activities pursue objectives set out in several MCPFE Resolutions, notably S1, H1 and L2.

With a view to its offering a periodic overview of spatial and temporal variations in the condition of forests, the extensive monitoring thereof is based on a systematic, transnational 16 x 16 km grid throughout Europe (Level I). The Level I monitoring provides annual estimates on forest health-related parameters like defoliation, discoloration and mortality, and several biotic and abiotic damaging factors. In addition, a soil survey was conducted between 1992 and 1996. A new soil survey as well as an additional assessment of biodiversity parameters is currently ongoing within the EC financed demonstration project BioSoil. In order for this to contribute to a better understanding of the relationships between the condition of forest ecosystems and stress factors, the intensive monitoring of forests at Level II is based on a Europe-wide set of long-term observation plots (860 in total) covering the most important forest types within Europe. As the selection of Level II plots is based on a case study approach rather than on any probability theory, available datasets are not representative for any international and national reporting. However, several surveys are conducted to assess specific cause-effect mechanisms, as between deposition of air pollutants and the effects on forest growth and increment (see annual Forest Conditions reports). Since the 1990s, soil and soil solution chemistry, foliar nutrient status, increment, meteorological conditions, ground vegetation and the deposition of air pollutants have all been measured, alongside the annual crown condition assessments on these plots.

Progress in implementation since Vienna, 2003

As well as providing general annual evaluations on developments and trends regarding the condition of forests in Europe, ICP Forests also conducts further specific case studies either a) to assess and describe particular situations and effects within a particular period of time, e.g. extreme droughts and forest fires in 2003 and 2004, or b) to develop and test new methodologies that might enhance

current monitoring on Levels I and II, e.g. with respect to forest biodiversity. In relation to MCPFE Resolution S1, monitoring has been carried out in the following topic areas between 2003 and 2007(see annual UNECE Forest Condition Reports):

Ozone

Ozone is today regarded as one of the most pervasive air pollutants affecting forests. A test phase on selected plots was launched in 2000. Estimated ozone concentrations based on passive samplers in remote forest areas were found to be higher in the south of Europe and at higher altitudes. In terms of the three-year average for the years 2000 to 2002 inclusive, critical levels of 5000 and 10000 ppb*h were exceeded at 95% and 69% of around 100 monitored sites, respectively. The programme's currently developed visible ozone injury assessment is the first direct effect monitoring system in forests to take place on the European scale.

Carbon

Carbon sequestration in forests delays the rise of CO_2 concentrations in the atmosphere and thus slows the rate of climate change. Data from this programme were used to estimate the total carbon sink in European forests on the basis of above- and below-ground data. Nitrogen deposition was estimated to account for 5% of the increase in carbon uptake over the whole of Europe during the last 40 years.

Forest Growth

Both, growth and defoliation are correlating and therefore highly valuable indicators of forest condition. Data of the programme show that forest growth has increased during the last 40 years. Individual tree growth was shown to correlate with defoliation at all site properties. Specific investigations on the influence of temperature and nitrogen deposition on tree growth are ongoing.

Biodiversity

The need for the biological conditions of forests to be monitored has been formulated at high political levels worldwide. In 2003, 14 countries participating in ICP Forests launched the ForestBIOTA project (Forest Biodiversity Test Phase Assessments). ForestBIOTA has developed harmonized monitoring methods for stand structure, deadwood, epiphytic lichens and ground vegetation on intensive monitoring plots, and has been a platform for the development of a new forest type classification. Assessments were carried out on around 100 plots. The project was a basis for the development of the BioSoil project, which is at present entailing related assessments on over 4000 Level I plots.

Extreme heat waves and drought

Much of Europe was affected by heat waves during the summer of 2003 and 2004. The ICP Forests monitoring data showed a marked effect of these weather extremes on forest condition. In some regions of Central Europe, defoliation scores in 2003 and 2004 were the highest ever recorded. Continuous growth measurements revealed growth reductions at low altitudes, whereas at higher elevations and in the far north accelerated tree growth was measured. The populations of especially damaging insects like bark beetles increased under the favourable warm and dry weather conditions of 2003.

Dynamic models to assess recovery of forest soils from acidification

Dynamic models can help to evaluate forest ecosystem response to changing deposition scenarios. They allow the future effects of today's clean air policies to be studied, and have been applied to 158 Level II plots. The majority of the evaluated plots show an increase in modelled soil acidification

until 1990 and a subsequent slight recovery. However, without additional measures of clean air policy on many of the evaluated plots, the original status as regards acidity will not be regained until 2050.

Cooperation with countries in East Asia

As a result of its rapid industrialization, the East Asian region faces increasing risks and problems related to excess deposition of acidic substances. ICP Forests cooperates with the Acid Deposition Monitoring Network in East Asia (EANET). The exchange of technical expertise and mutual support for global clean air policies are essential to this cooperation.

Data Potentials for MCPFE C&I reporting – 2006

The obligations towards the CLRTAP of the UNECE will remain unchanged. With the EC Forest Focus Regulation (Council Regulation (EC) No 2152/2003) going out of force in 2006, and the new funding instrument provided by the EC LIFE+ Regulation (2007-2013) going into effect, the future strategy of the joint programme of ICP Forests and Forest Focus is presently under discussion. It is widely accepted that an assessment of the list of attributes studied by the programme is necessary. Requardt (2007) analysed the present and future potential of Levels I and II with respect to the 35 MCPFE indicators for SFM. As a result, 16 indicators for which joint monitoring can contribute relevant data have been identified.

Assessment

For two decades, the ICP Forests and the European Commission have been cooperating closely over the monitoring of the condition of forest in Europe. In 1986, the EU Member States agreed upon the European Union Scheme on the Protection of Forests against Atmospheric Pollution (Council Regulation (EEC) 3528/86). This Regulation was continued with and enhanced in 2003 by the EC Forest Focus Regulation (Council Regulation (EC) 2152/2003). As the Forest Focus Regulation aimed specifically at maintaining and enhancing the health and vitality of forests in Europe, it contributed to, and built further on, the foundations laid by the ICP Forests scheme. The national dedication of many countries and the co-financing of EU Member States under the EC Forest Focus Regulation were preconditions for the success of long-term monitoring of forest condition in Europe.

S2: Conservation of Forest Genetic Resources

Author/Institution: Jarkko Koskela, Bioversity International, Regional Office for Europe, Rome, Italy

General approach

The European Forest Genetic Resources Programme (EUFORGEN) was established in October 1994 as an implementation mechanism for Resolution S2. The overall goal of EUFORGEN is to promote the conservation and sustainable use of forest genetic resources in Europe. The Programme is financed by its member countries and coordinated by Bioversity International, in technical collaboration with the UN FAO. EUFORGEN is overseen by the Steering Committee, which is composed of National Coordinators from all member countries. In June 2007, EUFORGEN had a total of 34 of these (Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Lithuania, Luxembourg, Macedonia FYR, Moldova, The Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom).

In 2004, the Steering Committee adopted the following objectives for EUFORGEN Phase III (2005-2009):

1. Promote practical implementation of gene conservation and appropriate use of genetic resources as an integral part of sustainable forest management;

2. Facilitate further development of methods to conserve genetic diversity of European forests; and

3. Collate and disseminate reliable information on forest genetic resources in Europe.

Objective 1 of Phase III contributes to the implementation of Resolution V4 (Conserving and enhancing forest biological diversity in Europe). EUFORGEN operates through networks to exchange information, discuss needs and develop strategies, methods and other actions for better management of forest genetic resources in Europe. Since January 2005, the work has been carried out through a thematic Forest Management Network and three species-oriented Networks (on Conifers, Scattered Broadleaves and Stand-forming Broadleaves). By June 2007, a total of 108 experts, scientists, managers or policy-makers from the member countries were contributing to the activities of these Networks. Further information on EUFORGEN is available at www.euforgen.org.

Progress in implementation since Vienna, 2003

The EUFORGEN Networks have implemented several activities and produced concrete output since 2003. The Networks have organized a total of 14 meetings to discuss their activities and to report the results of work carried out. Most of the latter is done between meetings by small working groups with specific tasks. The Network meetings have also provided a platform for sharing information and assessing the progress made in conserving forest genetic resources in different parts of Europe.

A major milestone since the Vienna Conference has been the development of 22 technical guidelines for the genetic conservation and use of European forest trees. These six-page documents are targeted at practical forest managers. They provide summarised species-specific information on biology and ecology, distribution ranges, importance and use, genetic knowledge, threats to genetic diversity and recommendations for genetic conservation and use. The guidelines are reviewed and agreed upon by Network members on the basis of available scientific knowledge of the species and widely accepted methods for the conservation of forest genetic resources. As part of the process, the Networks put a considerable amount of effort into preparing updated distribution maps of tree species in Europe. The technical guidelines and maps are also downloadable from the EUFORGEN Website.

Where information management is concerned, databases on clonal collections of black and white poplars have been updated. The database for the black poplar is hosted and maintained by the *Istituto di Sperimentazione per la Pioppicoltura* (ISP) in Casale Monferrato, Italy (http://www.populus.it/nigranet.php?lingua=EN), the same being done for the white poplar by the *Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria* (INIA) in Madrid, Spain (http://webainia.inia.es/albanet/albanet.php). Furthermore, a new project was launched in April 2007 for the 'Establishment of the European Information System on Forest Genetic Resources' (EUFGIS) – a project obtaining co-funding from the European Commission and being implemented by Bioversity International, in collaboration with the EUFORGEN member countries. The project aims at a strengthening of documentation and information management as regards dynamic *in situ* gene conservation units for the forest trees of Europe.

The EUFGIS project builds on the earlier work by the Networks, which have developed minimum requirements for the gene conservation units of forest trees. These are needed to ensure the

collection of more accurate and harmonized data from different countries, and to identify gaps in gene conservation efforts at the Pan-European level. Subsequently, the Networks have been in the process of preparing common action plans to facilitate practical implementation of gene conservation as part of sustainable forest management, and to link the existing gene conservation units for forest trees throughout the latter's entire ranges across Europe.

In 2006, the Forest Management Network carried out a survey on relevant policies and practices that influence the way in which the use of genetic resources is incorporated into forest management practices in different countries. As part of the survey, the Network also identified most relevant silvicultural practices in Europe and collected information on associated problems from the genetic point of view. Furthermore, the Network conducted another survey on policy tools to promote the use of high-quality forest reproductive material. The results will be used in promoting better integration of gene conservation into sustainable forest management and in tackling problems arising. One of these is the rapidly increasing establishment of energy plantations, which – in not being considered a forestry activity – have forest reproductive material exempted from the requirements of Council Directive (EC No.105/1999). This increases the risk of poorly-documented and low-quality seedlings ending up planted for forestry purposes if mistakes are made at nurseries or while seedlings are distributed.

Assessment

Participation in EUFORGEN has prompted several countries to increase their national efforts regarding the conservation of forest genetic resources, and to prepare relevant national strategies. This positive development is also reflected as an increasing trend in areas managed for the *in situ* and *ex situ* conservation of forest genetic resources and for seed production in Europe between 1990 and 2005 (see Indicator 4.6 in the MCPFE-UNECE report on sustainable forest management). EUFORGEN has provided a useful platform for the development of other actions concerning forest genetic resources in Europe, such as bilateral or multilateral cooperation programmes and large research projects. Furthermore, EUFORGEN has also contributed to the development of new relevant programmes and policies of the European Union.

The technical guidelines generated have been well received by forest managers in different countries, even though they were originally published in English. Several countries are now translating selected technical guidelines into their national languages (e.g. Belgium in collaboration with The Netherlands, Italy and Spain) and this will further raise the usefulness and impact of the technical guidelines. The distribution maps are also widely used for other purposes.

The member countries have recognized the benefits of regional collaboration on forest genetic resources and this explains much of the success in implementing Resolution S2. More recently, the prospect of climate change has been raising countries' awareness of their dependence on each other's forest genetic resources. An additional factor underpinning success is that EUFORGEN has clear decision-making principles, objectives and operating plans. The direction for the Programme is decided by the member countries and this has created a strong sense of ownership among the National Coordinators. Subsequently, the level of commitment has remained high within the member countries to continue with the implementation of Resolution S2.

S3: Decentralized European Data Bank on Forest Fires

Author/Institution: Andrea Camia, European Commission, Joint Research Centre, Institute for Environment and Sustainability

General approach

Following the establishment of the European Community information system on forest fires, which was initiated in 1992 (EC Reg. 2158/92), the EC-JRC has been collecting yearly fire data from EU countries, and storing them in the European Forest Fire Information System (EFFIS) EU fire database. Data on individual fire events described on the basis of a common core set of data items are delivered at the end of each year by the countries participating in the EFFIS network. Data are then consolidated by EC-JRC, i.e. transformed into a common format, validated and stored in the EU fire database. The data stored in the database have been used to support several European Union policies, as well as activities within EFFIS. Information on aggregated data from the database are made available through the EFFIS Web interface (http://effis.jrc.it) as online maps of fire frequency and burned areas for selected years.

Countries are encouraged to adhere progressively to the common system of data collection of the EU fire database. Currently 20 countries participate in the EFFIS network, while the information system is open to all countries signatory to Resolution S3.

Cooperation between the EC and UNECE has been established in regard to the exchange of fire statistical data. It is agreed that the EC shall act as data provider to the UNECE in the name of EU Member States. The applied procedure is the following: from the EU fire database summary forest fire statistics per country are computed by DG JRC and submitted to the EFFIS network as pre-filled questionnaires for validation. Validated fire statistics are then transferred to the UNECE for the Publication of Annual Forest Fire Statistics in the Timber Bulletin. A consolidated summary fire statistics database is under construction.

Progress implementation since Vienna, 2003

The number of countries actively participating in the information system and providing yearly fire data for the database has increased significantly (from 7 to 20). The EU fire database at JRC has therefore been enlarged markedly.

The EFFIS website has been enhanced. Maps of fire frequency, burned area and average fire size for NUTS3 regions for selected years can be retrieved by any user.

Assessment

The different agencies active in forest fire statistical data collection in the European region (UNECE, FAO, the European Union, Silva Mediterranea and the Global Vegetation Fire Inventory) have continued to work effectively together. Communication channels and the coordination of work have been maintained among the agencies, improving the quality and coverage of the work accomplished, with the result that no change to present arrangements has been necessitated. Cooperation between the EC and UNECE has proved particularly successful.

In no small measure this positive outcome has been achieved through the coordination of work between the different actors, helped considerably by a clear division of tasks together with the improvement of well-established communication channels. The role of individual countries in supporting the system by providing basic data has of course been crucial to this success.

S4: Adapting the Management of Mountain Forests to New Environmental Conditions

Author/Institution: Dr Pier Carlo Zingari, European Observatory of Mountain Forests (EOMF)

General approach

Following the Lisbon Ministers' conferral of the official mandate for coordinating Resolution S4 upon the EOMF (in cooperation with the FAO and IUFRO), the work on implementation has been based on four main tools:

1. The Action Plan on Mountain Forests in Europe, setting out actions and perspectives identified by the signatory parties in 1999 (Spain);
2. Voluntary financial contributions from the parties for coordination (20 active parties covering around one-third of the required budget);
3. A cross-sectoral network of mountain forest-related institutions, initiatives and information, based on the characteristics of this Resolution that covers several sectors (e.g. natural hazards, water, tourism and agriculture, among others);
4. Mountain-related database, GIS and mapping as stated in the text of S4.

Progress implementation since Vienna, 2003

It has proved possible to progress significantly with the main issues identified by Resolution S4, notably on:

- Mountain Forests Assessment. Special efforts have been made to improve the quality and availability of information, statistics and data, including GIS and mapping, and to provide indicators for these forests in their highly diversified geo-ecological and socio-economic contexts, e.g. via slope mapping at various scales (Eurostat NUTS-LAU). Thanks to valuable collaboration with the European Commission's DG Regional Policy (http://ec.europa.eu/regional_policy/sources/docgener/studies/study_en.htm) and to the assistance of the FAO (www.fao.org/forestry/site/mountains/), the first results are available on paper and via the electronic supports (www.eomf.org).
- Water, Watershed and Risks Review and Guidelines. Resolution S4 is the only one within the MCPFE process that clearly refers to water and watershed issues. Therefore, an overall four-year review of these issues in Europe has been made in collaboration with the FAO, UNESCO and the International Office for Water (OIEAU). Proceedings of Workshops and the final Conference are available on-line, as is FAO-Forestry Paper n° 150 of 2006 on Guidelines on the New Generation of Watershed Management Projects and Programmes" (www.fao.org/forestry/site/26161/en/). Thanks to the initiative of UNESCO-IHP-HELP, a network of watershed pilot sites is now available (www.unesco.org/water/ihp/help/).
- Wood Mobilisation and Forest-Energy in Mountain Areas. As S4 notes, mountain forests are the first to suffer from economic difficulties with wood mobilisation, due to such permanent natural handicaps as slope and limited access. The locally-based use of wood for energy, which is a characteristic of remote rural areas such as those in the mountains, may contribute to a regaining of economic viability by these forests. These issues have been raised as part of the work on awareness-raising regarding Resolution S4 (e.g. the White Paper on Mountain Forests in Europe), providing opportunities for, among other things, the launching of two locally-based European networks on forest energy and on biomass districts, as funded by the EC (www.euroforenet.eu; www.renewed.eu).

- Mountain Policies and Co-operation. In line with the S4 commitment "to mobilise signatory parties' resources... towards a forestry policy for mountain ecosystems", the coordinators have been active in linking forests to mountain policies (e.g. in the FAO study on mountain policies and laws in cooperation with countries and key mountain institutions, qv at www.fao.org/DOCREP/005/Y4181E/Y4181E00.HTM). A number of mountain-related institutions are active in the follow-up to the Rio and Johannesburg Mountain Chapters (e.g. the FAO, UNESCO, MF, MP, MRI, EU, AEM, FECOF, Euromontana, etc.).

Assessment

Thanks to financial support from most of the signatory parties, and due to the fact that new countries (including non-mountainous countries like The Netherlands) signed up to S4 commitments at the Vienna Conference (taking the total number of signatories from 25 in 1990 to 31 in 2003), the implementation efforts received significant input. At the same time, the period 2003-2007 saw mountain areas and their resources benefit from international and European initiatives aiming at reinforcing sustainability (e.g. the Mountain Partnership - http://www.mountainpartnership.org/ - and the Carpathian Convention that followed the Alpine one). Although the work done in achieving the S4 objectives has improved in quality and quantity, much still needs to be done within and among MCPFE countries. The database, GIS and mapping work deserves special attention as an effective tool for key priorities such as the monitoring of Criterion 5 "Maintenance and Appropriate. Enhancement of Protective Functions: soil, water and infrastructures" or Resolution V5 on Climate Change.

The fact that signatory parties have increased in number and that non-mountain countries have joined S4 are primary factors underpinning the significance and success of this Resolution. It remains the only territorial one within the MCPFE (relating to 40% of the total land area of Europe and 30% of its forest area); at the same time it covers to a large extent the ecological, economic, and socio-cultural aspects of sustainable forest management that could benefit most other resolutions and priorities in Europe. In this perspective and in some key aspects, mountain forests are early-warning systems for other types of forests.

Where coordination is concerned, the EOMF and FAO signed a cooperation commitment that reinforced their mutual work and produced tangible outcomes; a similar involvement of IUFRO would be beneficial. The end of the IUFRO Task Force on Forests in Sustainable Mountain Development in 2002 (the International Year of Mountains) has certainly not contributed to a refocusing of scientific and political attention, while management, technical and economic requirements are growing at the operational levels. Significant progress could also be achieved, giving clearer visibility to this Resolution in the context of and in relation to most of the MCPFE Resolutions. Greater synergy is required among Resolutions adopted, countries, stakeholders, and a number of policy and co-funding mechanisms.

Mountain forests are found in all the geographical and climatic areas of Europe from the Boreal through to the Mediterranean. While having consistent impacts on key aspects such as soil and water conservation, biodiversity protection, tourism development, local employment and revenues, they are experiencing relevant pressures on their sustainable management (e.g. natural and anthropogenically-induced risks, changes in land use, fires, instability, lack of regeneration, game populations, and high management costs).

Resolution S4 deserves more attentive consideration by the Ministerial process, remaining a key territorial challenge for the successful implementation of the overall principles and practices of sustainable forest management across Europe.

S5: Expansion of the EUROSILVA Network of Research on Tree Physiology

Author/Institution: Prof. Dr. Satu Huttunen, University of Oulu, Finland

Progress in implementation since Vienna, 2003.

The increasing concern for the serious problems of forest decline that occurred in the Northern Hemisphere in the late 1970's and early 1980's led to an emphasis on the need for the promotion and establishment of Europe-wide cooperation over investigations into the basic physiological mechanisms deployed by forest trees. Advances in plant molecular biology and forest genetics have opened up new avenues for such research on forest tree physiology.

Nevertheless, the problems of forest decline in Europe are not over. Climate change, especially in southern Europe and the mountainous regions, is causing drought stress and many other site factors to become stressors and causers of problems where forest functions are concerned. The diversity of ecosystems is an aspect of biodiversity which has recently become an important notion. Overall, the biological diversity at various levels of organization is decreasing alarmingly. Structural biodiversity (in terms of numbers, biomass, the composition of species and the population structure of communities) and functional biodiversity (the extent of functional trait variation among the species in a community) are related one to the other and provide a basis for an understanding of forest ecosystem functioning.

COST Action E6 EUROSILVA Forest Tree Physiology Research since 1995 successfully continued Strasbourg Resolution action until the year 2000. Since then, several European working groups and network themes have continued their work with funding from the European Union or national sources. The activities of EUROSILVA working group 1 have been continued through the new COST Action E28 project "Genosilva: a European Forest Genomics Network" having as its main objective the transferring of knowledge and technology from the basic science of plant functional genomics to the forestry sector.

Now, a new Pan-European approach on forest functional traits and biodiversity is urgently needed under EUROSILVA 2010.

S6: European Network for Research into Forest Ecosystems

Author/Institution: Prof. em. Folke Andersson, Department of Ecology, Swedish University of Agricultural Sciences, Uppsala, Sweden

General approach

With a view to Resolution S6 being implemented, two major activities have taken place, viz.

EFERN – the European Forest Ecosystem Research Network, a concerted action within the 4th EU Framework Programme for specific research and technological development, FAIR (1996-2001), and

ENFORS – the European Network for long-term Forest Ecosystem and Landscape Research, a COST Action E25 within the framework of European Cooperation in the Field of Scientific and Technical Research (2001-2005).

The major aims here have been:

- to better combine European forest ecosystem research efforts at the national and international levels;

- to set up a European network for research on forest ecosystems;
- to define research subjects for a sustainable use of European forests.

Progress in implementation especially since Vienna 2003

The major achievement of EFERN, relating to the first mentioned aim, has been an overview in terms of a web-based databank of institutions and scientists in Europe dealing with forest ecosystem research. Furthermore, a state-of-the-art analysis has been drawn up, giving an insight into the present basic understanding of forests and forest ecosystems, current problems, as well as an outline of future research. This analysis was published as a book in 2000, under the title "Pathways to the Wise Management of Forests in Europe" [3].

ENFORS with the participation of 27 countries and financial support from France and later also other countries has established a Secretariat in Paris. The major tasks have been to set up a network of sites at which long-term forest ecosystem research had taken place or was going on. The basis for the inventory of sites or field facilities to be included in the network was first an identification of scientific issues related to sustainable forest management in an ecosystem and landscape perspective[4] and the development of guidelines for national inventories of field research facilities[5]. The result is a compiled report on experimental and monitoring assets at the forest ecosystem and landscape levels[6]. A historical account of experimentation in forests is also given, as well as information from the participating countries with references to databanks, often web-based. The network includes 95 field facilities (See Fig. 7).

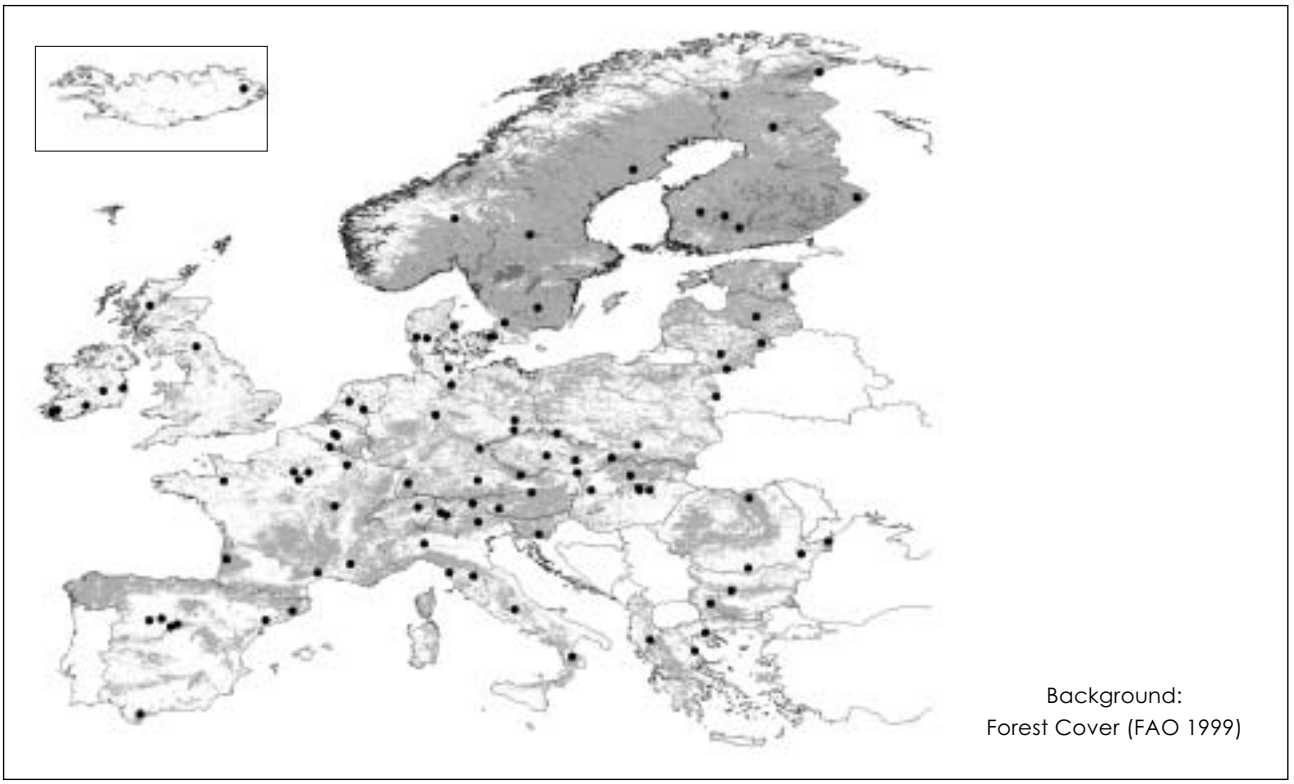

Figure 7. ENFORS Field Facilities.

[3] Führer E, Andersson F and Farrell T, 2000. Pathways to the Wise Management of Forests in Europe. Forest Ecology and Management 132:1-119.

[4] ENFORS 2003. Scientific Issues Related to Sustainable Forest Management in an Ecosystem and Landscape Perspective. Technical Report 1.62 pp. ISBN 2-914770-03-0

[5] ENFORS 2004. Guidelines for National Inventories of Field Research Facilities. Technical Report 2. 44 pp. ISBN 2-914770-09-X

[6] ENFORS 2005 a - European long-term Research for Sustainable Forestry: Experimental and monitoring assets at the ecosystem and landscape level. Part 1: Country reports. Technical Report 3. 149 pp. ISBN 2-914770-11-1. ENFORS 2005 b - European long-term Research for Sustainable Forestry: Experimental and monitoring assets at the ecosystem and landscape level. Part 2: ENFORS Field Facilities. Technical Report 4. 71 pp. ISBN 2-914770-07-3

The third aim seeking attainments of the intentions set out in Resolution S6 has involved the identification of research subjects for sustainable forestry from an ecosystem and landscape perspective. In an evolving process over three years, a research programme developed into a research strategy. This strategy tries to satisfy the need for research and development of a broad approach to sustainable forest management. On the one hand, there is a need to develop the knowledge base for forest ecosystems and forested landscapes and their functions. On the other, the gap between policy and science needs bridging[7]. The ENFORS action ended with an international conference on "Bridging the Gap – policies and science in implementing sustainable forest management", held in Alnarp, S. Sweden on October 17-19, 2005. There were 130 participants representing 23 countries.

Further information on these projects can be found at:
www.enfors.org; www.cost.esf.org; www.gip-ecofor.org (Present contact organisation and publications), and also in the latest publication by Andersson and Mårell (2007)[8].

[7] ENFORS 2005 c - European long-term Research for Sustainable Forestry: A Research Strategy for Sustainable Forest Management in Europe Technical Report 5. 149 pp. ISBN 2-914770-08-1

[8] Andersson F and Mårell A, 2007. A European network in support of sustainable forest management. Journal of Sustainable Forestry 27:278-293.

Regular MCPFE Work

Regular MCPFE Work

The Pan-European actions outlined above are complemented by a number of ongoing activities which can be characterised as regular work of the MCPFE. The following tables highlight these activities, the leading actors involved, and the linkages to the Vienna Resolutions and Vienna Declaration.

Ongoing MCPFE Activities	Leading actors	Status	Commitment
Mutual participation in meetings and close communication and consultation between the respective secretariats	MCPFE Liaison Unit, UNECE/FAO, PEBLDS secretariat	Ongoing	V1 paras 5, 6 VD para 18

Assessment

Coordination of work between the Liaison Unit Warsaw and the UNECE/FAO Secretariat assumed an intensive form after the MCPFE Conference in Vienna. Cooperation between the Secretariats continued on many levels, beginning with mutual, active participation at MCPFE Expert Level Meetings, as well as on the Timber Committee, European Commission and COFO sessions. An important module of this cooperation entailed close collaboration over the implementation of the MCPFE Work Programme, to which the UNECE/FAO Secretariat contributed to a significant extent. The Workshop on wood mobilisation held in Geneva in 2007 is one of the most prominent examples of this contribution. An action coordinated collaboratively by the two Secretariats in turn involved the elaboration of the MCPFE Report on the "State of Europe's Forests 2007" – a more detailed description of this action being found in the section related to SFM monitoring and assessment. Finally, bilateral cooperation among the Secretariats was extended to informal, working contacts and consultations in the course of the various activities ongoing at regional, Pan-European and global levels.

Cooperation between the MCPFE and PEBLDS after the Vienna Conference (2003) focused on the implementation of the Framework of Cooperation between MCPFE and the EfE/PEBLDS (Annex 1 to Resolution V4), as well as other biodiversity-related commitments arising from the Convention on Biological Diversity and IPF/IFF Proposals for Actions.

In line with the MCPFE Work Programme, both Secretariats worked on preparing joint statements, events and publications. One of the said events, which followed the MCPFE Work Programme and PEBLDS Forest Biodiversity Action Plan, was the session of the Ad-hoc Working Group on the "Development of Pan-European Understanding of the Linkage Between the Ecosystem Approach and Sustainable Forest Management", which took place on 19-21 April in Krakow, Poland. It was on the basis of this meeting's outcome that a joint position of the MCPFE and EfE/PEBLDS as regards The Pan-European Understanding of the Linkage between the Ecosystem Approach and Sustainable Forest Management was drawn up and agreed upon by both processes.

LUW joined with the PEBLDS Joint Secretariat in organizing several side events serving to communicate joint achievements with the implementation of Pan-European actions, namely:

1. a side event on linkages between the ecosystem approach and SFM at UNFF 4, Geneva, 2004;

2. a side event on implementation of biodiversity-related commitments in forestry in Europe at the Eighth Conference of the Parties to the Convention on Biological Diversity (COP 8) convened at Curitiba in 2006;

3. a side event on implementation of the Framework of Cooperation between MCPFE and the EfE/PEBLDS and the new challenges for forestry in Europe at the "Environment for Europe" Ministerial Conference, 10-12 October, 2007, Belgrade, Serbia.

A representative of the LUW took part in regular work of the PEBLDS by way of participation at meetings of the PEBLDS Bureau and Council, while a representative of the PEBLDS Secretariat participates actively at the MCPFE Expert-Level Meetings. LUW has also represented MCPFE at the annual "Biodiversity for Europe" Conferences.

Ongoing MCPFE Activities	Leading actors	Status	Commitment
Communication and Public Relations activities	MCPFE	Ongoing	VD

Assessment

As a regional policy process, the MCPFE has to make a continuous contribution to efforts at raising public awareness among and within European countries as regards the benefits of sustainable forest management. Previous achievements in this regard laid down a solid foundation for public-relations activity to be engaged in on a regular basis, though the accomplishment of this task requires systematic efforts and a flexible approach to all evolving issues.

The MCPFE has made considerable progress with the development of a visual identity and coherent standards for its publications. Maintenance of the existing communication tools and channels, including the website, has ensured a high level of credibility as a reliable source of information about the European forest policy forum. The MCPFE's fifteen-year anniversary was highlighted through promotional materials, such as CD presentations, posters and others, which were disseminated at international meeting with a view to better visibility and recognition of MCPFE achievements being developed, as well as a position on the international scene where the forest sector is concerned.

The engagement of the MCPFE in a number of international activities relating to the forest sector regarding public relations and communication was also achieved through intensive collaboration with the FAO/ECE Forest Communicators Network. Aspects of common interest and concern related to public-relations activities seeking to raise public awareness were presented and discussed during the FCN annual meetings (2004-2007). Furthermore, organizational support was provided for the 13th Meeting of the FAO-ECE Forest Communicators Network held at Białowieża, Poland (3–6 June 2005), this addressing the first outline for an international event on communication in forest-sector policy. The concept for an International Conference Linking Forest Communications and Policy was further elaborated by the FCN Working Group, with the contribution of the MCPFE, though the meeting remains at the planning stage.

The recognition of the need for better visibility of the forest-based sector has combined with progress towards sustainable forest management in Europe to result in the development of a proposal that a Pan-European Forest Week be promoted jointly by the MCPFE, European Forestry Commission, UNECE Timber Committee and European Commission in 2008. Work on the concept of the public-relations strategy for the Week and the identification of the key messages for the 5th Ministerial Conference has also been facilitated by the FCN Working Group, with a contribution from the MCPFE.

By building on previous achievements and maintaining the existing communication strategy, the MCPFE has succeeded in its verifiable networking activities sustained through a variety of instruments and approaches. However, the rotation of the Liaison Unit along with resource limitation can be considered major barriers to long-term, internationally acknowledged public dedicated activity.

Ongoing MCPFE Activities	Leading actors	Status by	Commitment
Pan-European contribution to global and regional work of UNFF, CBD, UNFCCC, UNCCD, CoE	MCPFE Liaison Unit	Ongoing	V4 paras 4, 10, 14 V4 Annex V5 para 9 VD paras 18, 23, 24

Assessment

The MCPFE has provided continuous support for the work of the United Nations Forum on Forests. In 2004, the Liaison Unit of the MCPFE responded to a request from the UNFF Secretariat by reporting on a voluntary questionnaire that was to facilitate review of the effectiveness of international arrangements on forests at the Fifth Session of the UNFF (www.un.org/esa/forests/).

The MCPFE also participated regularly at UNFF sessions. Following the MCPFE Work Programme and IPF/IFF proposal for action, the LUW organized a side event on relations between sustainable forest management and the ecosystem approach, which was held during the Fourth UNFF Session in Geneva, 2004.

The MCPFE LUW took part in the deliberations of the Fifth and Sixth Sessions of UNFF, providing input on Pan-European developments in regard to the implementation of SFM. At the Seventh Session of the UNFF held on 16-27 April, 2007 in New York (USA), the LUW contributed with a statement on the regional, Pan-European contribution to the UNFF. Furthermore, the LUW and GCC together organized a side event to highlight emerging forest-policy issues in Europe to be tackled at the 5th Ministerial Conference on the Protection of Forests in Europe.

CBD commitments relating to forest biodiversity were addressed continuously by the MCPFE through implementation of actions at Pan-European level within the framework of the Expanded Programme of Work on Forest Biological Diversity, as well as CBD decisions relating to forests, such as Decisions VI/22, VII/11, VII/31 and VIII/19.

The LUW took active part in the work of the Ad-Hoc Technical Expert Group on Review of the Implementation of the Programme of Work on Forest Biological Diversity, by providing information on the implementation of Pan-European activities contributing to achievement of the goals of the Programme of Work on Forest Biological Diversity in respect of three thematic elements. The LUW also participated in meetings of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) and Conferences of the Parties (COP), providing input on forest-related agenda items.

Through implementation of the MCPFE commitments, most especially as regards Vienna Resolution 5 on "Climate change and sustainable forest management in Europe", MCPFE countries provided their input to the work of the UNFCCC and UNCCD processes. At the international level, the main form of cooperation is mutual participation at meetings, as when representatives of these processes and MCPFE experts co-participated in the preparation of the "Pan-European Recommendations for Afforestation and Reforestation in the context of the UNFCCC". MCPFE also took part in various meetings related to these processes, maintained working contacts with their representatives and was engaged in information exchange, e.g. in the Workshop on Forests and Forest Ecosystems: Promoting synergy in the implementation of the three Rio conventions. The latest development on behalf of the MCPFE was the preparation of the Warsaw Declaration to be signed at the 5th MCPFE, wherein MCPFE signatory states commit themselves to strengthened collaboration with the UNFCCC and UNCCD, with a view to the role of forests in the mitigation of climate change being enhanced and desertification combated.

Cooperation with the Council of Europe (CoE) is mainly ongoing through the PEBLDS Joint Secretariat representing both the CoE and UNEP. In particular, the MCPFE provided input over issues relating to the Pan-European Ecological Network (PEEN). For example, at the 5th International Symposium of the PEEN "Pan-European Ecological Network in forests: conservation of biodiversity and sustainable management", the LUW reported on relevant objectives, working methods and implementation of the MCPFE's Vienna Resolution 4.

Ongoing MCPFE Activities	Leading actors	Status	Commitment
Research & knowledge transfer, mutual participation in meetings	MCPFE, IUFRO, EFI, IIASA, UNU, IPGRI, EFI	Ongoing	V3 para 11 V4 para 16 VD paras 17, 22 V5 paras 5c, 7
Conference to strengthen science/policy interface and analyse in 2005		Completed	
▪ Preparatory workshop in 2004		Completed	

Assessment

The European Ministers responsible for forests have committed themselves to the making of scientifically-grounded forest-related decisions and to the taking of measures that strengthen, support and increase scientific research. The MCPFE Work Programme constitutes a tool that strengthens the policy/science interface by embracing follow-up work on Ministerial commitments.

The Conference on "Strengthening the Science-Policy Interface", scheduled in the Work Programme for 2005 and organized in 2006, was initially discussed at the Preparatory Workshop: "Research and the MCPFE Past Achievements and Steps for the Future", held in Warsaw on 13 October, 2004 (organized by the EFI and IUFRO and supported by the LUW). Topics such as the role of science in the MCPFE and policy-relevant research funding and opportunities were included in the discussions. The LUW gave a presentation on "The role of science in the MCPFE - the past developments and present situation". The outputs of the Workshop were presented at the MCPFE ELM (October 2005, Warsaw, Poland).

The MCPFE LUW supported the Conference on "Bridging The Gap – policies and science as tools in implementing Sustainable Forest Management", held on 17-19/21 October, 2005 in Alnarp, Sweden, (organized by EFI, Swedish University of Agricultural Sciences and ENFORS, in co-operation with the Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning, COST and IUFRO). The thematic structure of the Conference (policy and planning, social-cultural dimensions, economic aspects, the biodiversity function, the protective function of soil and water) was built around MCPFE criteria. Mechanisms by which the gap between science and policy might be bridged successfully were identified (as Communication, Joint fora, Listen first, Link forest issues to issues of common concern to people, Training and Education). A representative of the LUW participated in all sessions of the Conference and also delivered an opening address on: "The Science/Policy Interface – a Pan-European Perspective".

The Conference on "Strengthening the Science-Policy Interface" was held on 26 April 2006 in Wroclaw, Poland (organized jointly by the EFI, IPGRI, IUFRO, IIASA and UNU, and supported by the LUW). The seminar aimed to provide a platform for dialogue between policy-makers and the science community on how to strengthen the knowledge base in support of Pan-European forest policy deliberations, formulation, implementation and monitoring processes. The discussion focused on the enhancing of collaboration between policy-makers and scientists, on making scientific knowledge more available and on the putting in place of mechanisms by which future priorities might be identified and addressed. Participants' comments on research priorities in support of the Pan-European Process concentrated on possible forest policy issues to be addressed by the

European Ministers at the forthcoming 5th MCPFE. It was generally agreed that the MCPFE Round Table Meeting held prior to the seminar had provided important thematic guidance on emerging research and information needs. The LUW addressed the seminar in a presentation on "Pan-European Perspectives on the Science-Policy Interface". The output of the meeting was presented at the subsequent MCPFE ELM (October 2006, Warsaw, Poland).

The LUW took part in several scientific meetings, *inter alia*:

- the EFI 2005 Annual Conference and Scientific Seminar on: Multifunctional Forest Ecosystem Management in Europe: Integrated approaches for considering the temporal, spatial and scientific dimensions (8-10 September 2005, Barcelona, Spain);
- the IPGRI and IUFRO Workshop on "Climate change and forest genetic diversity: Implications for sustainable forest management in Europe" (15-16 March 2006, Paris, France);
- the Conference on Cultural Heritage and Sustainable Forest Management: The Role of Traditional Knowledge (8-10 June 2006, Florence, Italy; organized by the Italian Academy of Forestry Science, IUFRO, the USDA Forest Service, the University of Florence and the Ministry for Policies in Agriculture and Forestry; as supported by the MCPFE Liaison Unit Warsaw);
- the EFI 2007 Annual Conference organized in conjunction with the IUFRO European Congress 2007: Forests and Forestry in the Context of Rural Development (5-7/8 September 2007, Warsaw, Poland).

Ongoing MCPFE Activities	Leading actors	Status	Commitment
SFM-related monitoring, assessment and reporting through C&I; PEOLG update; co-ordination with other C&I processes	MCPFE Liaison Unit, UNECE/FAO	Ongoing	VD para 25 L2
Working group on data collection and availability for social indicators	MCPFE, ENFE, IFBWW, Poland		

Assessment

The Ministers gathered in Vienna for the 2003 MCPFE Fourth Conference reaffirmed that the criteria and indicators for SFM were a tool for monitoring, assessing and reporting progress on sustainable forest management. In consequence, the elaboration of the relevant report for the Pan-European level – to be presented at the Fifth Ministerial Conference on the Protection of Forests in Europe (Warsaw, Poland, 2007) – was initialized.

Preparatory work on the Report on the "State of Europe's Forests 2007" was led jointly by the MCPFE Liaison Unit Warsaw and UNECE/FAO Secretariat. Coordinating units were supported by the advisory bodies, i.e. the UNECE/FAO Team of Specialists on "Monitoring forest resources for sustainable forest management in the UNECE Region" and the ad hoc MCPFE Advisory Group established exclusively to draw up the 2007 Report.

The Report is based on forest-resource assessment data collected from MCPFE and FAO national correspondents, international data providers and others. Coordinating units, supported by the FAO, organised the extensive data collection, verification, analysis and storage system that includes a computer-based information facility. The final text of the Report was the output of a team of invited authors, whose efforts were supported and consulted over by supervising, coordinating and advising bodies, as well as by numerous organizations and experts. Important support came via the invaluable, financial and in-kind contribution the European Commission and several MCPFE signatories were able to provide.

The MCPFE Report on the "State of Europe's Forests 2007" is expected to serve as an information source for decision-makers and other stakeholders, as well as for the wider public. The Report is an effect of an extensive cooperation process based on the work of thousands of forest-data collectors, and involves hundreds of experts coming from various national and international institutions and organizations.

The Liaison Unit Warsaw continued intensive cooperation over the development of criteria and indicators at both global and regional levels. Among other things, the LUW took part in global consultations on C&I and reporting on global forest resources. The culmination of intensive cooperation with other C&I secretariats (that on the Montreal Process in particular) came with the "Inter-C&I Workshop" held in June 2006 in Poland. The Workshop was organised by ITTO, the MCPFE and the Montreal Process, with the involvement of other organizations and processes. It contributed significantly to a clarification of the status and degree of advancement of the Process, allowing for the further devising of the scope, directions and means of future cooperation.

Ongoing MCPFE Activities	Leading actors	Status	Commitment
Operationalisation of Framework for Cooperation between MCPFE and EfE/PEBLDS, including definition of joint actions in the respective work-programmes of the MCPFE and PEBLDS	MCPFE, PEBLDS	Ongoing	V4 paras 4, 18 VD para 24

Assessment

The priority themes and tasks for cooperation between the MCPFE and PEBLDS, which were specified in the annex to the framework for cooperation of Vienna Resolution 4, have been implemented through various workshops organised by the MCPFE, as well as several documents prepared as the outcome of meetings and discussions. These included development of the following documents, which are also presented under Part II of this Report:

- The Pan-European Understanding of the Linkage between the Ecosystem Approach and Sustainable Forest Management;
- Information Document on Data Collection and Compiling Statistics on Protected and Protective Forest and Other Wooded Land in Europe;
- Pan-European Recommendations for Afforestation and Reforestation in the context of the UNFCCC;
- Proceedings of the Workshop on "Combating illegal harvesting of forest products, and related trade in Europe".

ANNEXES

Annex 1. List of National Reports

Country	Detailed report on Vienna Resolutions	General report on L, H, and S Resolutions
Austria	v	v
Belarus	v	v
Belgium	v	v
Bulgaria	v	v
Cyprus	v	v
Czech Republic	v	v
Denmark	v	–
Estonia	v	v
Finland	v	–
France	v	v
Germany	v	–
Greece	v	v
Hungary	v	v
Iceland	v	–
Ireland	v	–
Italy	v	–
Latvia	v	v
Liechtenstein	v	–
Lithuania	v	v
Netherlands	v	v
Norway	v	–
Poland	v	v
Romania	v	–
Russian Federation	v	v
Slovakia	v	v
Slovenia	v	v
Sweden	v	v
Switzerland	v	v
Ukraine	v	v
United Kingdom	v	v
	30	21

Annex 2. List of Commitments to the Vienna Resolutions

Resolution V1

V1/5. Work towards an improved understanding of cross-sectoral issues at the Pan-European level, identify key issues, actors and interaction to be considered in the regional context and enhance co-operation and dialogue to pro-actively seek solutions.

V1/6. Enhance inter-sectoral policy coordination by establishing or improving mechanisms:

- for regular communication between the forest sector and other relevant sectors to increase the exchange of information and consultation,
- to strengthen collaboration with these sectors and to develop inter-sectoral agreement on common priorities.

V1/7. Develop and implement national forest programmes, applying, as far as possible, the MCPFE Approach to National Forest Programmes in Europe.

V1/8. Use NFP processes among other tools to:

- identify and address key cross-sectoral issues of relevance to forests and sustainable forest management,
- assess gaps and inconsistencies in forest-relevant policies, programmes, strategies and legislation and take action to minimise them.

V1/9. Encourage the full consideration of the outcomes of NFP processes in overall national sustainable development strategies and other relevant processes and strategies.

V1/10. Continuously exchange country experiences gained in the NFP process, in particular the practical application of the MCPFE Approach to National Forest Programmes in Europe, and the use of criteria and indicators for sustainable forest management as a component of the NFP process.

V1/11. Make best use of information on mechanisms for implementation and financing of national forest programmes, of research, education as well as national and international programmes, such as the National Forest Programme Facility and PROFOR2.

Resolution V2

V2/7. Adjust policy and legal frameworks and instruments to support sound enabling conditions for sustainable forest management that encourage investment and economic activity in the forest sector, including effective measures for forest law enforcement and for combating illegal harvesting of forest products and related trade.

V2/8. Promote the use of wood from sustainably managed forests as an environmentally friendly, renewable and reusable raw material, and thereby contribute to sustainable production and consumption patterns.

V2/9. Improve enabling conditions for the market-based provision of a diversified range of non-wood goods and services from sustainably managed forests, *inter alia*, through identifying and removing unintended impediments and setting appropriate incentives.

V2/10. Work towards common approaches to the practical application of the valuation of the full range of goods and services provided by forests and contribute to existing information systems, in co-operation with relevant organisations; incorporate the outcome of these valuations in relevant policies and programmes.

V2/11. Enhance the competitiveness of the forest sector by promoting innovation and entrepreneurship among all relevant stakeholders, notably for the efficient provision of new and improved wood and non-wood goods and services.

V2/12. Support research, as well as mechanisms for the dissemination of generated knowledge.

V2/13. Enhance the quality of education, training, extension and skills conducive to the sustainable and competitive development of the forest sector; encourage stakeholders to continuously improve the working environment as well as the safety conditions of forest owners and the forest workforce.

V2/14. Strengthen the support of institutions concerned with workforce safety and education, as well as related research, thus contributing to the future availability of a highly qualified staff and workforce.

V2/15. Enhance inter-sectoral coordination and collaboration of all sectors relevant for an economically viable management of forests.

V2/16. Promote the incorporation of the maintenance and enhancement of the economic viability of sustainable forest management into rural development policies and strategies.

V2/17. Promote the use of innovative economic instruments for achieving forest related goals and targets.

V2/18. Encourage the voluntary co-operation of forest owners to develop opportunities for improving the economic viability, in particular of small-scale forest holdings.

V2/19. Promote the development of and encourage the participation in associations of forest owners, of the forest workforce and of forest entrepreneurs, in particular in Central and Eastern European countries.

Resolution V3

V3/5. Address the social and cultural dimensions of sustainable forest management in national forest programmes and other relevant policies.

V3/6. Encourage the identification, expression and communication of the social and cultural dimensions of sustainable forest management *inter alia* by including them in education and rural development programmes.

V3/7. Secure the property rights and land tenure arrangements of forest owners, local and indigenous communities, taking into account their economic interests as well as their

various social and cultural values, making sure that their land use is in line with sustainable forest management in accordance with relevant national legislation.

V3/8. Maintain and further develop both the material (e.g. wood in architecture, medicinal plants) and the non-material (e.g. recreation, well-being, health) social and cultural aspects and benefits of sustainable forest management.

V3/9. Maintain and increase the attractiveness of the landscape by, *inter alia*, enhancing and preserving traditional elements of the cultural landscape; raise awareness of the contribution of traditional knowledge and practices in sustainable forest management for the protection of landscapes, the conservation of biological diversity as well as for protection against natural hazards.

V3/10. Identify, assess and encourage the conservation and management of significant historical and cultural objects and sites in forests and related to forests in collaboration with relevant institutions.

V3/11. Encourage multi-disciplinary research into the role of the social and cultural aspects of sustainable forest management in the overall goal of sustainable development, including the role of traditional forest-related knowledge.

Resolution V4

V4/4. Strive for coordinated implementation of the Expanded Programme of Work on Forest Biological Diversity of the CBD and the Proposals for Action of the IPF/IFF at all levels,

V4/5. Address the maintenance, conservation, restoration and appropriate enhancement of forest biological diversity in national forest programmes and other relevant policies and programmes, and to set measures to achieve the coherence and mutual supportiveness of these policies,

V4/6. Assess the impact of relevant policies and programmes on forest biological diversity, collaborate in removing distortions and failures of policies resulting in loss of forest biological diversity, and in promoting the compatibility of trade regulations with forest biodiversity related goals,

V4/7. Provide and analyse information about the impact and underlying causes of illegal harvesting of forest products and related trade on forest biological diversity; take effective measures to combat illegal harvesting of forest products and related trade, and build capacity to ensure effective forest law enforcement,

V4/8. Develop a regional understanding of the linkages between the ecosystem approach and sustainable forest management as defined by the MCPFE; share this understanding with the relevant bodies in the assessment of the relation between the ecosystem approach and sustainable forest management at the global level,

V4/9. Apply the MCPFE Assessment Guidelines for Protected and Protective Forest and Other Wooded Land in Europe and further develop them, when appropriate,

V4/10. Analyse and further develop protected forest networks, taking into account existing networks, in terms of their comprehensiveness, representativeness and adequacy relative to forest types and the effectiveness of their management with regard to the conservation goal,

V4/11. Prevent and mitigate losses of forest biological diversity due to fragmentation and conversion to other land uses and maintain and establish ecological connectivity, where appropriate.

V4/12. Promote, as appropriate, the restoration of forest biological diversity in degraded forests and forests established on former forestlands or other landscapes, including plantations, and enhance incentives to promote natural regeneration and regeneration with native tree species and provenances.

V4/13. Improve the assessment and monitoring of forest biological diversity in Europe, taking into account existing monitoring systems and contribute to harmonised international classification systems through developing a Pan-European understanding on forest classification systems including forest types, naturalness and introduced forest species, in line with the Pan-European Criteria and Indicators for Sustainable Forest Management.

V4/14. Contribute to the development of a Pan-European strategy which prevents and mitigates the impacts of invasive alien species that threaten ecosystems, in accordance with the decisions of the CBD.

V4/15. Promote forest management planning and practices and landscape planning that is specifically suited to maintain, conserve, restore and enhance forest biological diversity, making use of the natural processes of forests.

V4/16. Promote the conservation of forest genetic resources as an integral part of sustainable forest management and continue the Pan-European collaboration in this area.

V4/17. Encourage and support inter-disciplinary research in order to take knowledge-based decisions on sustainable forest management aiming at maintenance, conservation, restoration and enhancement of forest biological diversity.

V4/18. Continue the fruitful collaboration with the ministerial process "Environment for Europe"/PEBLDS5, and put into action the "Framework for Co-operation" (Annex 1) by identifying common objectives and activities, especially through the co-operation of the MCPFE Liaison Unit and the Joint Secretariat of the PEBLDS.

and adopt:

V4/19. the "Framework for Co-operation" (Annex 1) between the MCPFE and the Ministerial process "Environment for Europe"/PEBLDS,

V4/20. the "MCPFE Assessment Guidelines for Protected and Protective Forest and Other Wooded Land in Europe" whilst proceeding to further co-operate with IUCN6 and its World Commission on Protected Areas to aim at full comparability with their Protected Area Management Categories.

Resolution V5

V5/5. Contribute to the reduction of greenhouse gas net emissions, *inter alia* from burning fossil fuels, through

- promoting the efficient and sound use of wood in order to replace non-renewable resources and energy intensive production techniques,
- promoting a significant increase in the efficient generation and use of bio-energy from sustainably managed forest resources as well as wood residues,

V5/6. Contribute to the implementation of the UNFCCC and the Kyoto Protocol by maintaining the carbon stock and enhancing carbon sequestration of forests in Europe through:

- encouraging sustainable forest management practices, taking into account the possible implementation of forestry activities under the Kyoto Protocol,
- national forest programmes or plans that provide appropriate guidance so that afforestation and reforestation takes due regard of environmental, in particular biodiversity, economic and social values, with a view to mitigating potential negative effects of large scale afforestation,
- supporting research and analysis on the potential scope and methods of carbon sequestration in forests and of carbon storing in forest products, of related benefits and costs as well as ways and means to share them.

V5/7. Support research and, as appropriate, monitoring activities to better understand the possible impact of climate change on forests and on their goods and services, and on their ability to reduce the impact of disasters, such as extreme weather events, including floods, and other calamities.

V5/8. Enhance policies and measures and develop forestry for a better adaptability of forests to climate change.

V5/9. Further contribute to the on-going work under the UNFCCC on the elaboration of methods to estimate, measure, monitor and report changes in carbon stocks in forest ecosystems and forest products, based on existing systems and in co-operation with relevant organisations.

V5/10. Share experiences at the Pan-European level on forest-related national and regional strategies for mitigation of and adaptation to climate change and contribute to develop related policies; contribute actively to the further deliberations of the UNFCCC and its Kyoto Protocol in order to ensure that decisions on forest-related measures as well as their implementation are taken in line with sustainable forest management.

Annex 3. List of Figures and Tables

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Annex 4. List of Abbreviations

C&I	criteria and indicators
CBD	Convention on Biological Diversity
CEC	European Commission (Commission of the European Community)
CoE	Council of Europe
COST	European Co-operation in the Field of Scientific and Technical Research
ECE	Economic Commission for Europe
EC	European Commission
EfE	Environment for Europe
EFFIS	European Forest Fire Information System
EFI	European Forest Institute
EFSOS	European Forest Sector Outlook Study
ELM	expert level meeting (MCPFE)
ENA FLEG	Europe and North Asia Forest Law Enforcement and Governance
ENFE	European Network of Forest Entrepreneurs
ENFORS	European Network for Research into Forest Ecosystems
EOMF	European Observatory of Mountain Forests
EU	European Union
EUFORGEN	European Forest Genetic Resources Programme
FAO	Food and Agriculture Organization of the United Nations
FCN	Forest Communicators Network
FLEGT	Forest Law Enforcement, Governance and Trade
FSC	Forest Stewardship Council
GIS	geographic information system
ICP Forests	International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests
IFF	Intergovernmental Forum on Forests
IIASA	International Institute for Applied Systems Analysis
ILO	International Labour Organization
IPF	Intergovernmental Panel on Forests
IPGRI	Bioversity International (previously International Plant Genetic Resources Institute)
IUCN	World Conservation Union
IUFRO	International Union of Forest Research Organizations
LUW	Liaison Unit Warsaw
MCPFE	Ministerial Conference on the Protection of Forests in Europe
NFP	national forest programme
NGO	non-governmental organisation
NWG	non-wood forest goods
PEBLDS	Pan-European Biological and Landscape Diversity Strategy
PEFC	Programme for the Endorsement of Forest Certification
PEOLG	Pan-European Operational Level Guidelines
SFM	sustainable forest management
UNCCD	United Nations Convention to Combat Desertification
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNFF	United Nations Forum on Forests
WSSD	World Summit on Sustainable Development

Publications and Papers of the MCPFE Liaison Unit Warsaw

Combating Illegal Harvesting and Related Trade of Forest Products in Europe
Report for the MCPFE Workshop held 3-4 November, 2005, in Madrid, Spain. Warsaw, 2007

Inter-Criteria and Indicators (C&I) Process Collaboration Workshop
Report of the Workshop held on 8–10 June, 2006, in Bialowieza, Poland - a collaborative effort by ITTO, the MCPFE, the Montreal Process, the FAO, the UNECE and the U.S. Forest Service. Warsaw, 2007

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Proceedings of the Conference 8-11 June, 2006, Florence, Italy, Volume 1. Warsaw, 2006

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Proceedings of the Seminar, 13 - 15 June,2005, Sunne, Sweden. Warsaw, 2006

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Joint position of the MCPFE and the EfE/PEBLEDS. Geneva - Warsaw, 2006

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Steps taken by the MCPFE towards the development, dissemination and implementation of the concept of the National Forest Programmes in Europe. Warsaw, 2005

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Outcome of the MCPFE and EfE/PEBLDS ad hoc Working Group on Development of the Pan-European Understanding of the linkage between the Ecosystem Approach and Sustainable Forest Management Session held in Krakow, Poland,19-21 April, 2004. Warsaw, 2005

Further information and order form: www.mcpfe.org

Annex 5. Overview of the Signatories of the Strasbourg, Helsinki, Lisbon and Vienna Documents

Country	S1	S2	S3	S4	S5	S6	H1	H2	H3	H4	L1	L2	VD	V1	V2	V3	V4	V5
Albania	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Andorra																		
Austria	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Belarus		x			x		x	x	x	x	x	x	x	x	x	x	x	x
Belgium	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x
Bosnia and Herzegovina																		
Bulgaria	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Croatia	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Cyprus	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Czech Republic	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Denmark	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x
Estonia	x	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
European Community	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Finland	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
France	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x
Georgia													x	x	x	x	x	x
Germany	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Greece	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Holy See																		
Hungary	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Iceland	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Ireland	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x
Italy	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Latvia	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x
Liechtenstein	x	x		x		x	x	x	x	x	x	x	x	x	x	x	x	x
Lithuania	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x
Luxembourg	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Malta	x	x	x		x	x	x	x	x	x			x	x	x	x	x	x
Monaco	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Montenegro																		
Netherlands	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Norway	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Poland	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Portugal	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Republic of Moldova							x	x	x	x								
Romania	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Russian Federation	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Serbia	x	x	x	x	x	x							x	x	x	x	x	x
Slovakia	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Slovenia	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Spain	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Sweden	x	x		x	x	x	x	x	x		x	x	x	x	x	x	x	x

Country	S1	S2	S3	S4	S5	S6	H1	H2	H3	H4	L1	L2	VD	V1	V2	V3	V4	V5
Switzerland	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
The Former Yugoslav Republic of Macedonia																		
Turkey	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Ukraine	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x
United Kingdom	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	39	39	35	32	37	39	40	40	40	38	38	38	41	41	41	41	41	41