



4<sup>th</sup> MINISTERIAL CONFERENCE ON THE  
PROTECTION OF FORESTS IN EUROPE



# Implementation of MCPFE Commitments

National and Pan-European Activities  
1998 - 2003

**Edited and published by**

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**Layout and Production**

- message Medien- & VerlagsGmbH  
Diefenbachgasse 5, A-1150 Vienna, Austria

**Design**

Dietmar Stiedl

**Photo**

[www.illuscope.com](http://www.illuscope.com), © Wolfgang Simlinger

**Printing**

Ferdinand Berger & Söhne Ges.m.b.H.  
Wiener Strasse 80, A-3580 Horn, Austria

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ISBN 3-902073-08-X



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## PREFACE

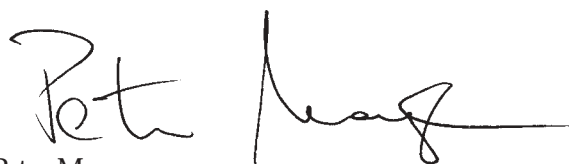
The Ministerial Conference on the Protection of Forests in Europe (MCPFE) is a dynamic policy process for the protection and sustainable management of forests. The political commitments made by the European forest ministers and the European Community over the last 13 years have influenced forest policy decisions in many countries. But how exactly have these decisions been implemented? Which activities, measures and actors have been involved in this process? What are the lessons that can be learned from this huge amount of work done in Europe in relation to forests?

These were the types of questions that the participants of the MCPFE Expert Level Meeting in October 2001 asked themselves and decided that a report on the implementation of the commitments made by the signatory states and the European Community should be initiated. It was agreed that one part of the report should cover the national implementation of commitments made at the Lisbon Conference as well as further progress in implementing commitments made at previous Ministerial Conferences (Helsinki, Strasbourg). The participants further decided that the second part of the report should analyse the implementation of MCPFE commitments at the pan-European level on the basis of the MCPFE Work Programme.

Following this guidance, the report on the implementation of MCPFE commitments contains these two levels of analysis – national and pan-European. The report gives information about progress and achievements in the implementation of MCPFE commitments since 1998, the obstacles that have been faced and the gaps in implementation as well as further needs.

In this respect, my thanks go to the MCPFE contact persons who provided important information about their national activities. Furthermore, I would like to thank all the international organisations and institutions, which were crucial in facilitating the implementation at the pan-European level. Last but not least, my thanks go to the international co-ordinators of the Strasbourg and Helsinki Resolutions, who provided up-to-date information on the most recent developments in the implementation process of these Resolutions.

Since implementation and the respective lessons learned are of key importance for further political decision making, the MCPFE report aims at providing policy makers background information for further activities on the one hand. On the other hand, this report should be regarded as a reference document taking stock of what was achieved with regard to the protection and sustainable management of forests in Europe through the decisions of the MCPFE.



Peter Mayer  
Head of the Liaison Unit Vienna

## I National Implementation



## **EXECUTIVE SUMMARY OF NATIONAL IMPLEMENTATION**

In preparation for the Vienna Conference the MCPFE participants agreed to analyse progress in implementing the commitments made at the Third Ministerial Conference on the Protection of Forests in Europe in Lisbon (1998). In addition, further progress made in implementing commitments made at the Ministerial Conferences in Helsinki (1993) and in Strasbourg (1990) since 1998 was reported through these national reports. The implementation reports received by the Liaison Unit Vienna (35 out of 44 European countries and the European Commission) differed in their comprehensiveness and detail, but provided a good basis for an overview.

The analysis indicated that most measures to implement actions of both Lisbon Resolutions are still in implementation or even only in the phase of preparation. Less than one third of the measures are reported to be fully implemented. About half of the instruments applied for the implementation of the Lisbon Resolutions are informational means. The other half of the measures are implemented through the use of legal/regulatory or financial/economic instruments. The actors in implementation of the Lisbon Resolutions are mainly governmental forest-related institutions or organisations. A similar experience regarding instruments and actors has been made in the implementation of the Strasbourg and Helsinki Resolutions.

Overall, the results point out that the experiences gained with the implementation of MCPFE Resolutions provided impetus for various initiatives or new projects. Regarding the Lisbon Resolutions, experiences in dialogue with the participation of different stakeholders and the public have been perceived as very positive. In general, the Lisbon commitments were often seen as a stimulus in the right direction. In particular, the development and the integration of criteria and indicators for sustainable forest management and the implementation of national forest programmes are considered to be important for new forest policies, programmes or guidelines about the sustainable management of forests.

Nevertheless, the time needed to implement some actions and the difficulties of taking adequately into account the heterogeneous private forest ownership structure were often seen as limitations for the implementation of all Resolutions. Further, difficulties have been expressed concerning data collection and the lack of institutional, informational or financial capacities.

Concerning the future orientation of policies, many signatories expressed the need for a more open, cross-sectoral, participatory approach to policy developments and research. Some reports also stressed the need to put more emphasis on forest-related socio-economic issues and private forestry. Finally, the need for raising public awareness for sustainable forest management was stated.



## INTRODUCTION TO NATIONAL IMPLEMENTATION

The first part of this report presents an analysis of the national implementation of MCPFE commitments since 1998. From spring to autumn 2002 the MCPFE conducted a survey on national implementation. The survey consisted of a detailed assessment by each country of the implementation of specific commitments for all actions adopted through Lisbon Resolutions L1 and L2 and related experiences gained. In addition, the national implementation steps concerning the Helsinki and Strasbourg Resolutions since the last Ministerial Conference in Lisbon 1998 were part of the survey.

Thirty-four countries and the European Commission submitted reports on the national implementation to the Liaison Unit.<sup>1</sup> Twenty-seven of these respondents submitted a detailed report regarding the implementation of Resolutions L1 and L2. A general overview on Resolutions L1 and L2 was given by 33 countries, while 29 countries reported on the Helsinki and 25 countries on the Strasbourg Resolutions. Less than one quarter of the European countries participating in the MCPFE did not send any report. An overview on the responses is given in Annex 1.

All reports were analysed in detail by the Liaison Unit Vienna. In principle, the analysis followed the structure used in the survey. Each Lisbon Resolution was analysed in general according to the status of its implementation, the actors and instruments involved as well as the lessons learned. One chapter provides additional detailed information about the implementation of each of the actions of the Lisbon Resolutions. Finally, the Helsinki and Strasbourg Resolutions were analysed individually, providing information about national experiences on the implementation since 1998.

However, the comprehensiveness of the reports varied largely between countries and between different sections within the national reports. As a consequence, the reported experiences, achievements and failures had to be condensed.

In general, the analysis of the national reports puts the main emphasis on frequently reported achievements, obstacles and policy needs rather than on specific national experiences. In addition, some specific national activities are highlighted as examples.

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<sup>1</sup> The full individual country reports sent to the Liaison Unit are available at [www.mcpfe.org](http://www.mcpfe.org)

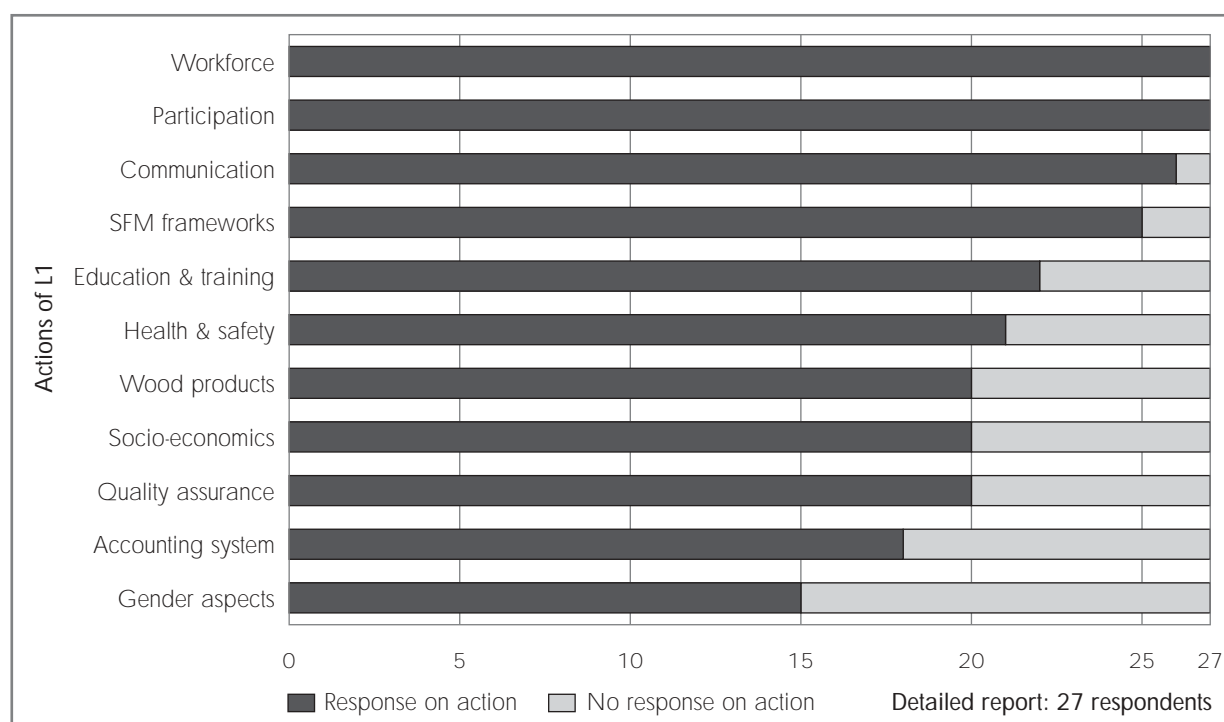
# 1 NATIONAL IMPLEMENTATION OF LISBON RESOLUTION L1

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

### 1.1 Status of Implementation of Resolution L1

Twenty-six countries and the European Commission sent a detailed report giving information about the implementation of actions of Resolution L1<sup>2</sup>. However, not all detailed reports contained responses on all actions (see Figure 1).

Figure 1: Detailed report – response on actions of L1



The state of implementation of individual actions of Resolution L1 differs significantly between the respondents. On the basis of the responses on the individual actions of Resolution L1, Figure 2 gives information on the state of implementation of the respective actions<sup>3</sup>.

Measures taken to implement actions 'participation' or 'health & safety' seem to have run rather successfully. More than one third of the respondents also report full implementation of measures under actions 'communication', 'workforce', 'gender aspects' and 'SFM frameworks'. However, progress on some of the actions such as on 'wood products', 'socio-economics', 'accounting system' or 'quality assurance' has

<sup>2</sup> For reasons of simplicity the actions of Resolutions L1 and L2 have been given short titles, e.g. action L1/1 was named action 'communication'. The full titles of the respective actions can be found in Annexes 2 and 3.

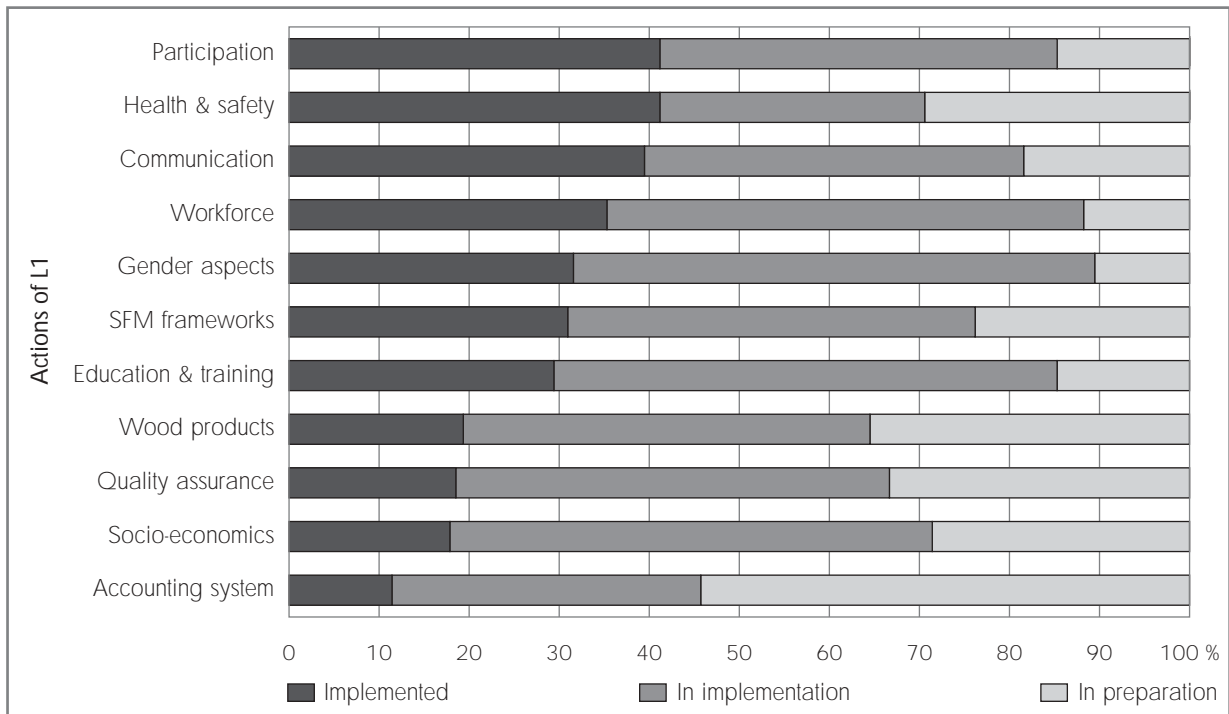
<sup>3</sup> Countries had the possibility for multiple answers regarding the measures taken to implement the individual actions.



been slower. Very few measures have been taken to implement these actions, while one third are still in preparation.

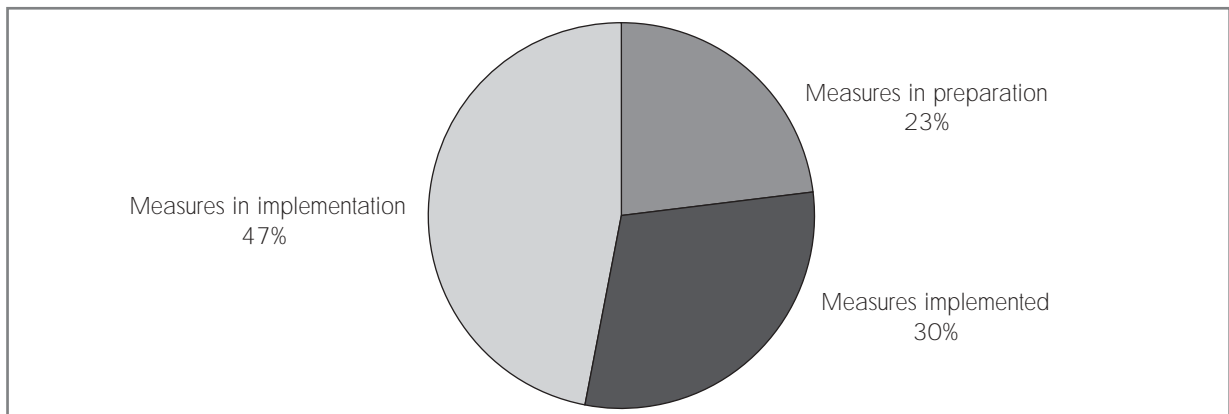
The feedback on actions such as ‘workforce’ or ‘participation’ was rather high. However, only few countries commented on the implementation of the actions about ‘gender aspects’ and ‘accounting system’. It also has to be kept in mind that not all countries that have submitted a detailed report reported on all actions.

Figure 2: State of implementation of measures taken to implement actions of L1



Overall, about one third of the measures related to actions of Resolution L1 have been implemented (see Figure 3). Almost half are still in the implementation phase and nearly one quarter are still in preparation. In most countries the majority of measures are either in the implementation or preparation phase. Thus, implementation of Resolution L1 is still some distance from being fully achieved.

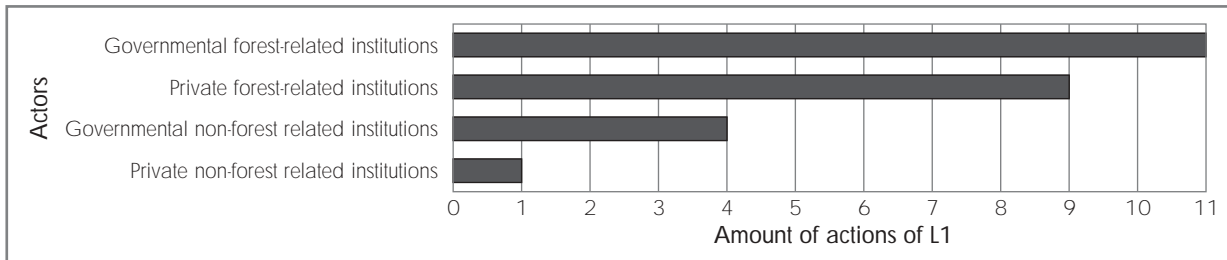
Figure 3: State of implementation of L1



## 1.2 Actors and Instruments of Resolution L1

The main actors for the implementation of Resolution L1 are governmental forest-related organisations or institutions such as ministries, the forest service, universities or governmental organisations (see Figure 4). These actors played an important role in the implementation work of the actions.

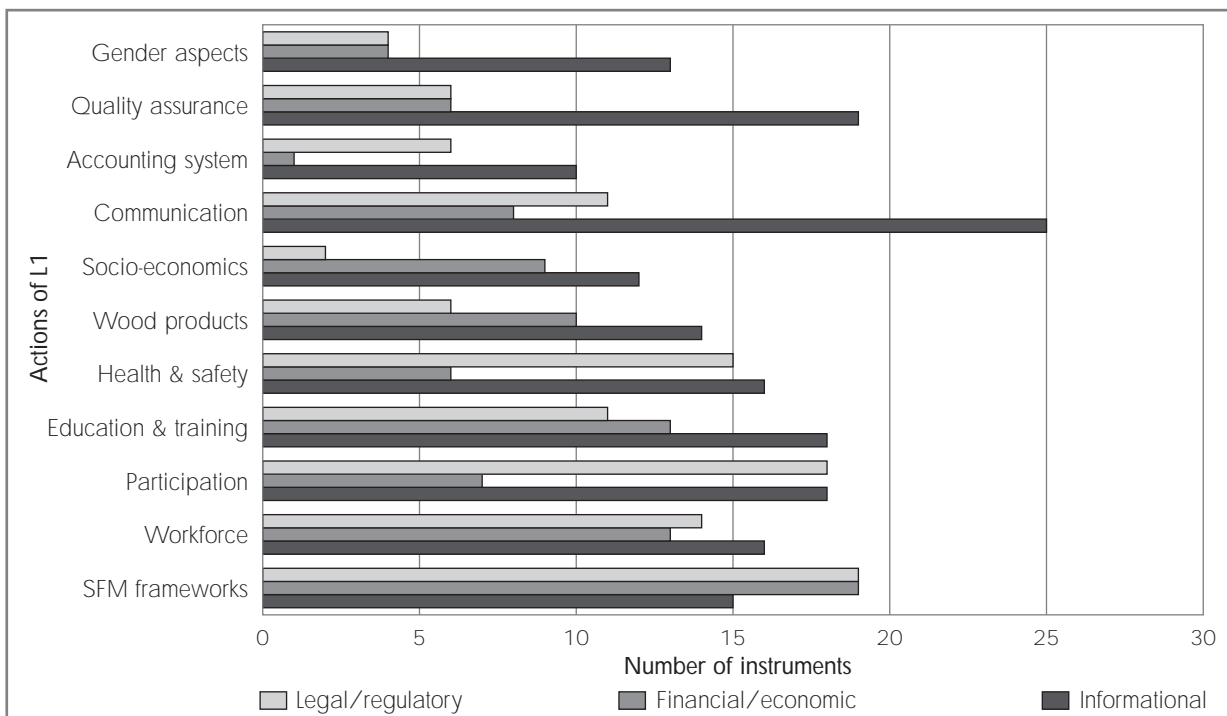
Figure 4: Main actors in the implementation of actions of L1



The second important group of actors are private forest-related institutions. They are active in all actions except in 'socio-economics' and 'accounting system'. Governmental non-forest related organisations or institutions play a minor role in the implementation process of Resolution L1. However, they actively participated in the actions such as 'communication', 'participation', 'health & safety' and 'accounting system'.

The instruments used for the implementation of Resolution L1 vary among the different actions (see Figure 5). Almost half of the instruments to implement Resolution L1 are informational means, whereas about one third of the instruments are legal/regulatory tools. The remaining quarter of the instruments applied are financial/economic ones. In most cases, implementation involves using a combination of instruments.

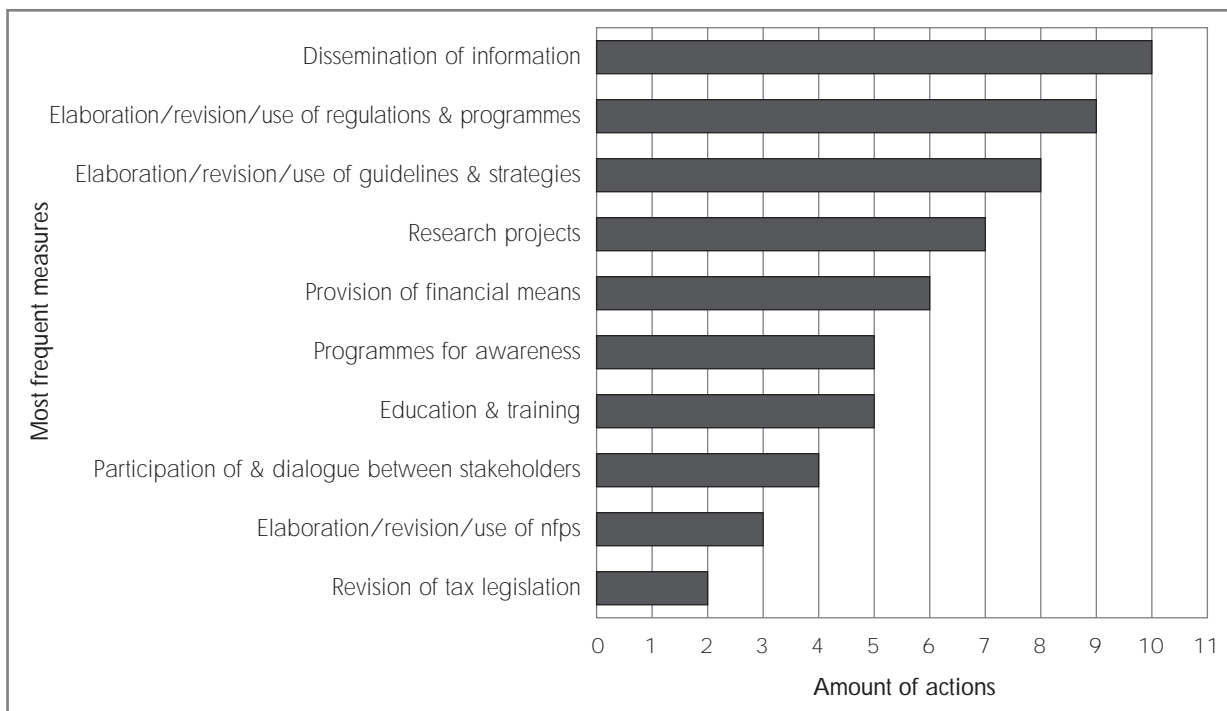
Figure 5: Instruments used to implement actions of L1



Informational means have mainly been used to implement measures related to actions ‘gender aspects’, ‘quality assurance’, ‘accounting system’, ‘communication and ‘socio-economics’. Financial or economic instruments have frequently been applied in ‘SFM frameworks’, ‘education & training’, ‘workforce’, ‘wood products’ and ‘socio-economics’. Regulatory/legal means have quite often been used in actions like ‘participation’, ‘health & safety’ and ‘accounting systems’.

The measures used in implementing Resolution L1 have been compared and split into main groups. The most frequently used measures in the implementation of the 11 actions of Resolution L1 were then ranked by their frequency (see Figure 6). Measures which are common to almost all actions are the dissemination of information, the elaboration, revision or use of regulations, programmes, guidelines or strategies.

Figure 6: Measures used most often to implement actions of L1



The measures used were often newly developed, but many were revisions or reorganisations of already established institutions or instruments. Usually the measures were targeted to a specific group (i.e. forest owners, women) at national level. Only few activities have been carried out for no specific target groups (i.e. public) or at local or sub-national level. Even fewer measures were implemented in a procedural, cross-sectoral or participatory process.

### 1.3 Implementation of Actions of Resolution L1 in Detail

Action L1/1: More communication leads to more understanding<sup>4</sup>

Most of the 27 respondents found that implementation of the action 'communication' resulted in both the public and stakeholders being better informed about sustainable forest management and their fellow stakeholders. Communication tended to lead to more co-operation and less conflict and misunderstanding. The implementation of the action also led to an increase of communication tools and of institutions involved, which in turn enlarged the number and kind of audiences reached. Some countries notably included schools in their communication programmes. Most of the public relations activities (i.e. forest days or weeks) are already well known by the target groups (i.e. public, forest owners), which also led to an increase of their knowledge of forestry issues.

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Example of measure (L1/1): *Every year communication campaigns were built around the "Week of the Forest": The concept of these public events is addressed through a specific theme often linked to a specific target group or actual policy related subjects. (Belgium, Flemish Region)*

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However, the weakness perceived in the action 'communication' is that its implementation takes time. Moreover, some countries found that people are only little interested in becoming involved in forestry issues and that the target audience is quite difficult to reach. Another perceived weak point in implementing the action is that most of the forest institutions have hardly any experience or resources to run public relations or other communication activities.

Most of the countries stated that there is a need for more suitable and innovative communication instruments to reach the public or specific target groups, in particular those people who are not represented in forestry unions or associations. Thus, some countries suggested to better focus on specific topics and specific target audiences. Furthermore, a broader and more participatory co-operation of different institutions in public relations activities is also recommended.

Action L1/2: Participation can lead to better decisions

In general, most of the respondents for the action 'participation' had good experiences with participatory processes. A number of countries learned that co-operation between different stakeholders can bring different interests into line and can also lead to a better understanding of issues and of other participants. Thus, participation is also seen as a tool to avoid individual groups blocking or leading decision making. Opening up the decision-making process is also seen as a good way of encouraging greater involvement and understanding by the public. However, the establishment of concrete structures and procedural rules is seen as an important precondition for a well-run participatory process.

One of the main drawbacks reported is that a participatory decision-making process demands considerable resources in terms of time, money and effort. It is also seen as quite difficult to find common solutions and interests because of the heterogeneity of participants and their divergent interests. Another drawback is that a too compromise-oriented approach can result in weak outcomes. A further difficulty seems to be that some actors in forestry still refuse to accept non-forest participants (i.e. NGOs) in the decision-

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<sup>4</sup> Please note that the sentences used as headlines for the analysis of the actions of L1 and also L2 aim at providing the core result of the analysis. The short titles of the actions are used in the text of the analysis; the full titles of all actions of L1 and L2 can be found in Annexes 2 and 3.

making processes. However, in spite of the generally successful participation processes in most of the countries, some indicated that more resources, more effective participation and more evaluation of participatory practices are needed.

Action L1/3: Incentives for working towards SFM are important

From the comments on the action 'SFM frameworks', it seems that most measures and programmes enabling and motivating forest owners to sustainably manage their forests are rather successful and accepted by the forest owners. However, it appears to be quite difficult to motivate forest owners, in particular small-scale forest owners, to aim at sustainable forest management in the absence of economic or market incentives. Other obstacles to enabling long-term investments or sustainable forest management were overly bureaucratic procedures and strict regulations in forest management, little financial support by the state and low energy prices of non-renewable fuels. Some countries called for more research on private forest ownership structures as well as more education and training programmes for forest owners.

Action L1/4: Life-long learning as a challenge for the future

Regarding the action 'workforce', it seems that most activities are well received by the target groups, and some improvements in qualification of the workforce could be achieved. The key word for the action 'workforce' is continuous learning and (international) co-operation. However, it appears to be difficult to reach all target groups in forestry. Furthermore, some countries mentioned that for a number of people (in particular older people) it is not easy to keep up with the continual increase and change in knowledge. In addition, the importance of enhancing the involvement of women in forest-related activities seems not to be recognised in most countries, as only little attention has been paid to gender aspects in the education system.

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Example of measure (L1/4): *A programme 'Active Forestry' is offering practical courses in forestry. The courses are addressed to all forest owners and workers. Additionally, specific courses are held for women and for forest workers to meet new requirements connected with certification. (Norway)*

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Some commentators claimed that more co-operation within the forestry education system and more adaptation of the system to changing requirements (i.e. revision of curricula) are needed. It was also demanded by some that the involvement of women and young people in the forestry sector should be promoted.

Action L1/5: Addressing gender aspects – easier said than done?

Very few comments were given on achievements of the action 'gender aspects'. Some statements gave the impression that gender aspects are seen as a minor issue. A number of the reporting countries referred to gender equality policies in the general law but not to actions about gender issues in the forestry sector. Others commented that there are no difficulties perceived for women in the forest sector or that women voluntarily choose not to be involved in forestry.

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Example of measure (L1/5): *The Association of Women-Foresters has been established as an NGO with the aim of identification, promotion and protection of the interests of women in forestry. (Slovakia)*

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Generally, the comments indicated that to implement gender issues in the forest sector is easier said than done. The sector is largely male-dominated with well-established traditions. The main requirements

to further implement gender aspects in forestry can thus be seen to strongly increase efforts for implementation, including raising awareness of the importance of the issue.

Action L1/6: More awareness of SFM through education & training

Most comments connected with the action 'education & training' indicated good experiences with education and training programmes for forest owners and managers. The continual revision of these programmes is seen as quite important.

Difficulties were reported by some respondents because of the diversity of the private ownership structure and their different interests, motivations and know-how in forest management. Therefore, the importance of knowledge about forest owners was highlighted as a precondition to create suitable and target-group oriented education and training programmes.

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Example of measure (L1/6): *The extension and information campaign 'Greener Forests' has been carried out to show new opportunities and techniques for SFM. (Sweden)*

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One country mentioned that the main obstacle to implementing the action 'education & training' is the national property right, which enables free access to all forests and also to non-wood forest products. This right is seen as an impediment for forest owners to create new opportunities or techniques for production and services from forests under sustainable forest management.

Action L1/7: Wood as the key renewable resource

With regard to the action 'wood products', a number of comments indicated that forest products and services are becoming more important, in particular in countries with a high potential for tourism or a high degree of urbanisation. It has also been found that the general attitude towards sustainable forest management is positive and wood consumption is increasing.

The main obstacles to more research or more promotion of wood are seen in the lack of institutional structures or lack of investments. Others argued that the low prices of competing products such as oil, gas or hydroelectricity make the promotion and use of wood more difficult. Some requested more research into wood materials and multiple uses of forests.

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Example of measure (L1/7): *The project 'Wood Fuel Development' has been established to identify and demonstrate the utilisation of wood fuel. (Lithuania)*

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Action L1/8: Education and training increases safety

The key issues of the action 'health & safety' can be seen in continuous education and training and in the revision and updating of regulations on health and safety standards. Some countries reported that according to statistics the number of work-related accidents and diseases in forestry has declined. A number of countries, however, argued that there is still a need for more safety regulations and new strategies for education and training, particularly in private forestry where it is more difficult to implement safety and health standards (i.e. small-scale forest owners, self-employed entrepreneurs, etc.).

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Example of measure (L1/8): *The campaign "Be a Professional in Your Own Forest" was developed and established to reach private forest owners and to continue their education for prevention of accidents. (Switzerland)*

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Action L1/9: Forest is more than timber

Concerning the implementation of the action 'socio-economics', some countries found that research results show an increasingly high value of and demand for wood and non-wood goods and services (in particular in rural areas). However, others have been critical of the effectiveness of methods for assessing and valuing the full range (i.e. costs, economic benefits) of forest goods and services. For some countries socio-economic aspects of forestry is a new research area, whereas for other countries methodologies for assessing goods and services are well developed.

Obstacles to implementation of the action 'socio-economics' are seen in the lack of institutional capacities or the lack of systematic and easily available information. Looking to the future, some countries recommended a greater mix of methods (quantitative, qualitative), more regional/local rather than nation-wide studies and more international co-operation.

Action L1/10: Accounting systems are still in development

With regard to the action 'accounting system', a number of countries found that the development of data collecting and natural resource accounting systems strengthened the assessment of multi-purpose use of forests and different forest resources as well as the information base for decisions on sustainable forest management.

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Example of measure (L1/10): *A feasibility study on the monetary evaluation of non-wood goods and services of forests for national economic and national resources accounting systems is conducted. (Austria)*

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The main obstacle to implementation of the action 'accounting system' is seen in the complexity of the valuation of wood and non-wood forest goods and services. Some countries suggested further and more detailed research studies, for example, to incorporate non-wood forest services into national account systems or to compare life cycles of wood products with non-renewable materials.

Action L1/11: Quality-assurance systems are important

Regarding the implementation of the action 'quality assurance', opinions about the potential impacts of quality-assurance systems and programmes differed among the respondents. Concerning forest certification, some experienced distinct improvements in forest management, while others observed no changes.

Some countries stated that the development of certification standards has improved dialogue and mutual understanding between different stakeholders (i.e. NGOs, traditional users of forests). Others saw certification systems as an important tool in the international timber market. A number of respondents mentioned that the potential impact and implementation of forest certification is strongly determined by the ownership structure. It was highlighted by some that particularly in small-scale private forest holdings there is no great desire for forest certification. On the other hand, in countries, where the state is the only forest owner, it was stated that there is no competition in forestry and thus no need to establish forest certification systems.

## 1.4 Lessons Learned in Implementing Resolution L1

The 27 respondents of the detailed report on the national implementation of Resolution L1 have highlighted the increased participation in dialogue between different stakeholders and the public. They see this as a good development in the formulation of policies. The Lisbon commitments in general and the implementation of national forest programmes are considered to be an influential framework for future forest policies, programmes and guidelines.

Difficulties in the implementation of Resolution L1 are seen by most of the respondents as a consequence of the predominantly heterogeneous private forest ownership structure. The co-ordination, integration, motivation and support of private (small-scale) forest owners as well as the implementation of regulations or guidelines in private forestry are considered to be quite a difficult task. Another limitation to implementing Resolution L1 is seen in the fact that long-term processes such as the commitments of Resolution L1 need a lot of resources (i.e. time, money, know-how).

In addition, involving the public in forestry issues is seen as a complex, long-term project. In general, according to the comments made in the national reports, it seems that the lack of institutional, informational or financial facilities has been the main impediment to implementing Resolution L1. Other obstacles cited are existing forest property rights and the overriding competition of non-sustainable products compared to forest products.

As a consequence, an important policy need is perceived as the development increase of public relations programmes for SFM. This comprises especially the need for a more open, more cross-sectoral and more participatory approach across sub-national entities in the process of policy development.

There are only a few cases where the actual obstacles or reasons to implement certain actions have been stated. This lack of reporting of negative experiences does not mean that there were only successes and achievements in the implementation processes in recent years. It also has to be noted that very few countries gave comments on policy needs or achievements.



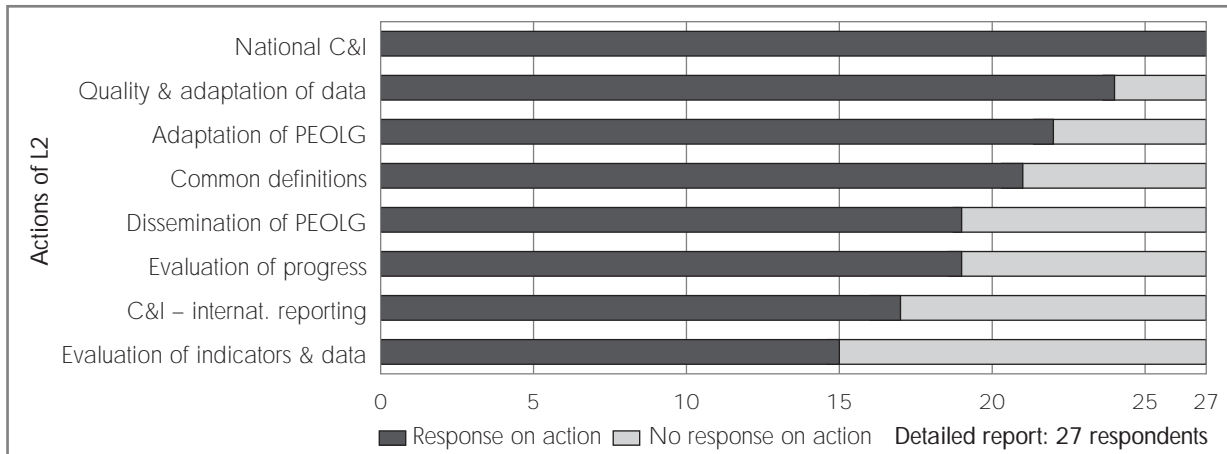
## 2 NATIONAL IMPLEMENTATION OF LISBON RESOLUTION L2

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

#### 2.1 Status of Implementation of Resolution L2

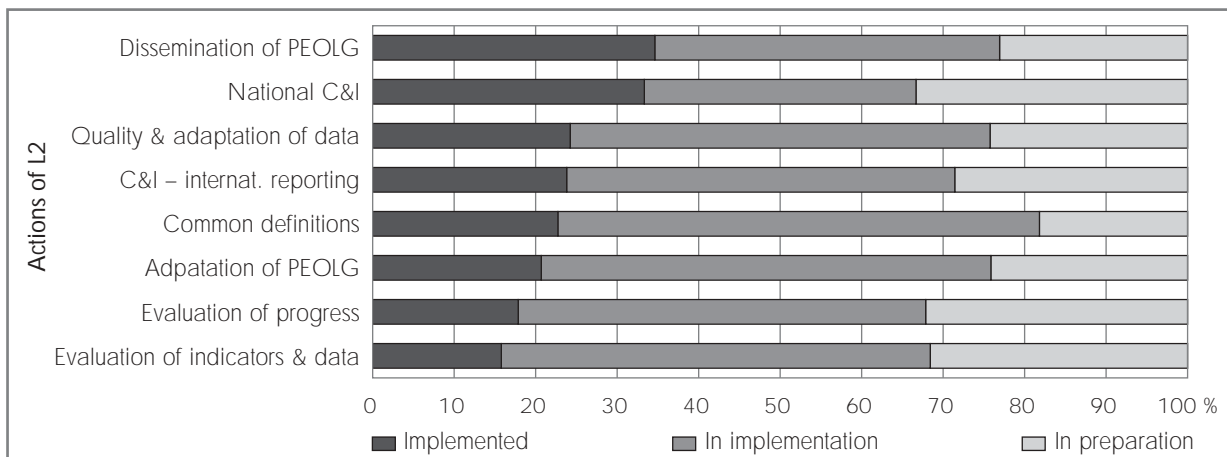
As for Resolution L1, 26 European countries participating in the MCPFE and the European Commission reported on the implementation of actions of Resolution L2. However, only about half of the respondents gave account of the implementation of all individual actions (see Figure 7).

Figure 7: Detailed report – response on actions of L2



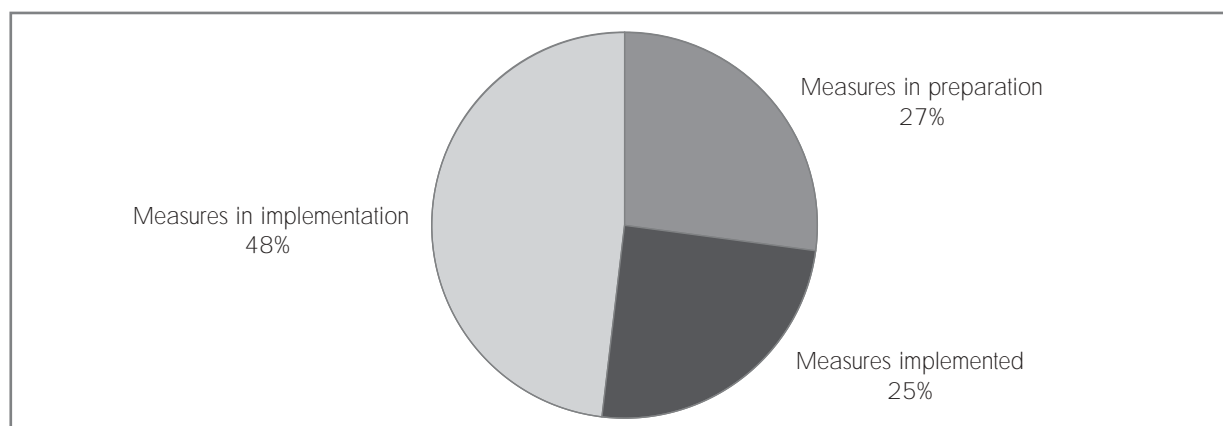
The state of implementation of measures taken in relation to actions of Resolution L2 differs between the respondents. On the basis of the response on the individual actions of Resolution L2, Figure 8 gives information about the state of implementation of measures taken regarding the respective actions.

Figure 8: State of implementation of measures taken to implement actions of L2



Overall, implementation of Resolution L2 appears still to be in the early stages in many areas. More measures are in a state of preparation than already implemented. About half of the reported measures to implement actions of Resolution L2 are in the implementation phase (see Figure 9). Only one quarter have already been implemented, and more than one quarter are in a state of preparation. In general, the state of implementation of the actions of Resolution L2 is quite similar to that of Resolution L1.

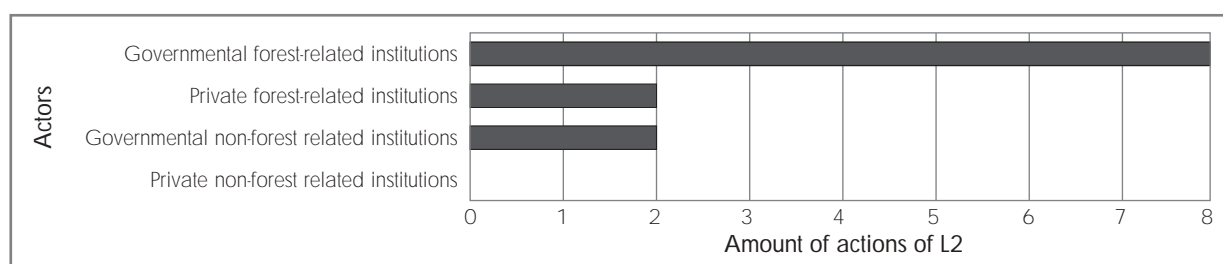
Figure 9: State of implementation of L2



## 2.2 Actors and Instruments of Resolution L2

Also similarly to Resolution L1, the implementation process is mainly conducted by governmental forest-related institutions, including organisations such as ministries, the forest service, other state research institutes or universities (see Figure 10).

Figure 10: Main actors in the implementation of actions of L2



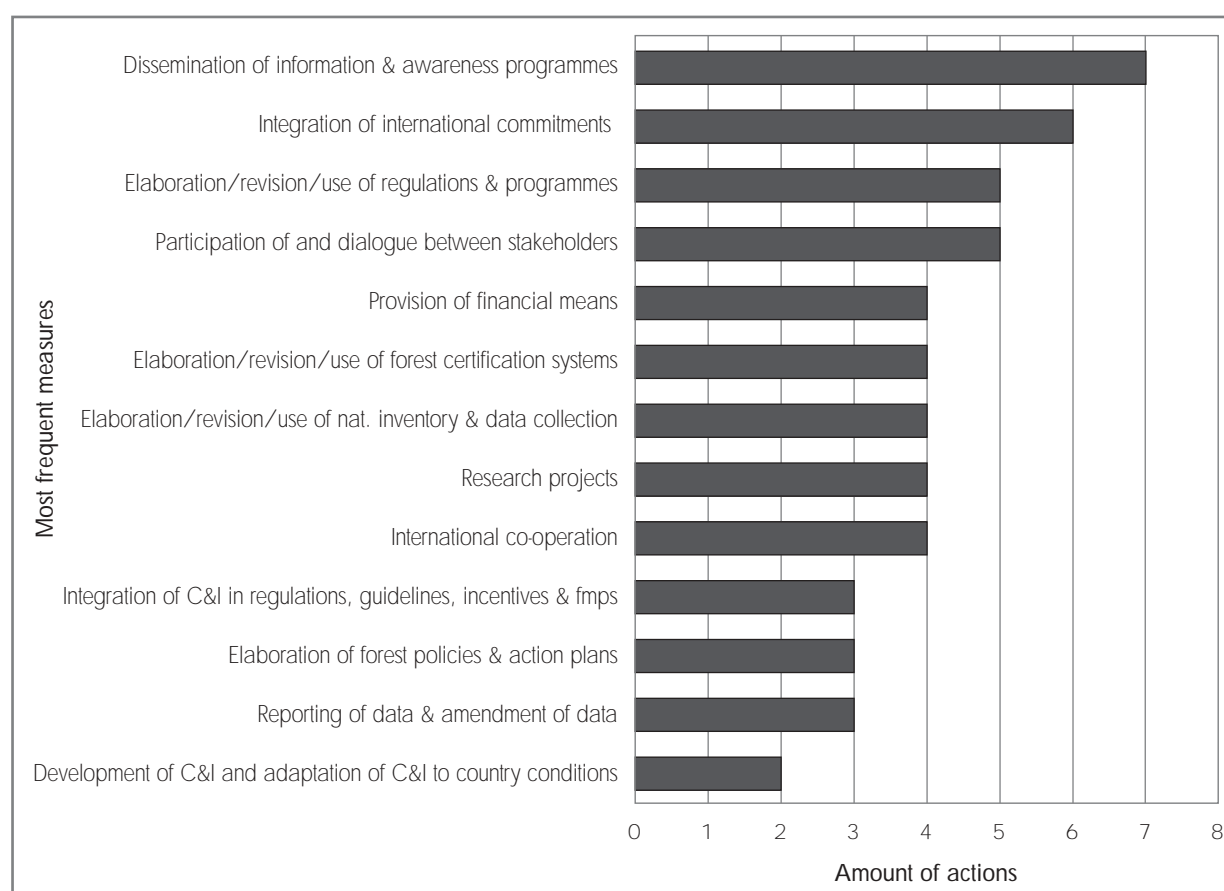
Governmental non-forest related or private forest-related organisations or institutions have played a minor role in the implementation work of many actions of Resolution L2. However, governmental non-forest related institutions and organisations have been important actors in the actions ‘adaptation of PEOLG’ and ‘dissemination of PEOLG’. Private forest-related institutions actively participated in the action ‘national C&I’ and the action ‘quality & adaptation of data’. Private non-forestry actors did not play a major role in the implementation of Resolution L2.

The informational means of Resolution L2 are obviously an even more important tool to implement Resolution L2 commitments than those of Resolution L1. This can partly be explained by the key objectives of the actions of Resolution L2, which are mainly based on information and communication processes. More

than half of the measures taken to implement the actions in Resolution L2 involve informational means. About one quarter of the measures taken have been or are carried out through legal/regulatory tools. Only 16% of the measures related to Resolution L2 are financial/economic instruments.

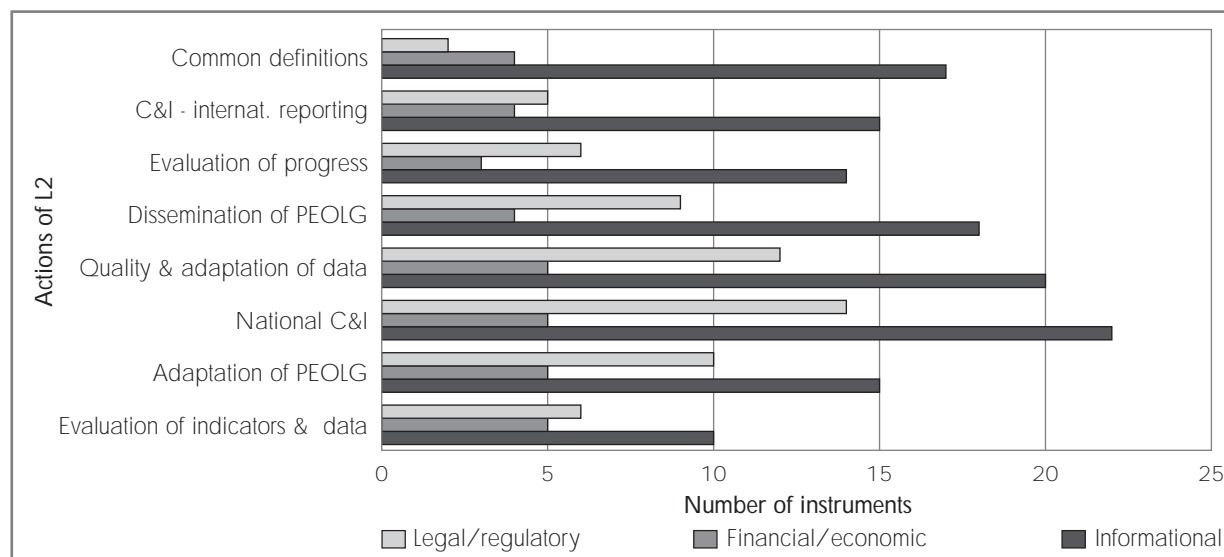
As for Resolution L1, all measures that were frequently used in the implementation of Resolution L2 were compared and split into main groups. These key groups of measures applied in Resolution L2 are ranked by their frequency (see Figure 11). The analysis shows that the dissemination of information and awareness programmes were the most frequently used measures, followed by the integration of international commitments.

Figure 11: Measures used most often to implement actions of L2



The combination of means for the implementation of Resolution L2 is very similar for almost all actions, except in the action ‘common definitions’, where the informational instruments are by far the predominant means (see Figure 12). However it has to be stressed that the results of Figure 12 are based on relatively few country reports (see Figure 7).

Figure 12: Instruments used to implement actions of L2



Further analysis shows that most of the actions have been carried out by newly developed or amended instruments or institutions, and at national level. Only few actions have been implemented through already established means at regional level.

## 2.3 Implementation of Actions of Resolution L2 in Detail

Action L2/1: Criteria and indicators as effective framework for SFM

Regarding the action 'national C&I', the Pan-European Criteria and Indicators for Sustainable Forest Management were seen as a useful framework for the management, monitoring and reporting on SFM and related policies. The pan-European C&I framework also proved to be an effective instrument to evaluate existing sets of C&I and also newly established guidelines. Furthermore, the development and implementation of national C&I have also been seen by the respondents as a functional tool contributing to international agreements towards SFM and forest certification.

*Example of measure (L2/1): A group of international experts has been established to assess the national forest policy. The experts based their nfp approach on pan-European C&I for SFM and described both the current and the desired conditions of Swiss forests as well as of the legal and political programmes. The comparison of both conditions enabled them to draw up recommendations for the forest authorities. (Switzerland)*

Regarding the development of C&I, it was stated by some countries that more indicators should be developed, especially on biodiversity and socio-economic functions of forests. One country commented that the national C&I should not be applied only for operational guidelines, but also used for controlling and evaluation. Obstacles to implementing the action 'national C&I' were seen as the lack of funds or personnel, the main attention to national processes or difficulties with available and reliable data. It was also pointed out that the development and integration of national C&I needs plenty of time and even more research, i.e. cost analysis, identification of priorities.

Action L2/2: Common efforts are important for data provision

For the successful implementation of the action 'quality & adaptation of data', the wide participation and the co-operation of all involved institutions and stakeholders as well as the continuous updating of data and inventories are seen as essential. It was stated that it is important to assess the value of information by distinguishing particular interests influencing the quality of information. Regarding the implementation of international commitments, some concerns have been reported, for example, if the data are not available or they do not fulfil any national but only international needs (i.e. structure of private forests). Others stated difficulties with the practical applicability of a few indicators. Because of the existence of already produced and reviewed national sets of C&I, some countries even doubted the usefulness of international sets of C&I. The main future policy needs are seen in more co-operation and more harmonisation of data collecting systems and international definitions.

Action L2/3: International reporting needs to use synergies

Concerning the action 'C&I – international reporting', most respondents recalled the co-operation with relevant organisations (i.e. UNECE, FAO) and the work undertaken under the agenda of FRA and TBFRA. Some countries mentioned a need for more adaptation and harmonisation of national standards and definitions to comply with international reporting formats. Others criticised that the international reporting of C&I is not the field of activity at national level and thus no comments have been made by these countries.

Action L2/4: Research for C&I development

The action 'evaluation of indicators & data' is seen as a good occasion to improve the quality of measures and observations and to evaluate the awareness of stakeholders about problems in the forests. Furthermore, more research is seen as the key issue for the development of C&I for SFM. Time and continuous work are seen as the main weaknesses to implement the action 'evaluation of indicators & data'. It also appears to be difficult to integrate and balance economic, ecological and social research interests in co-operative research projects. Generally, international and national co-operation of research institutes and more harmonisation of monitoring methods are required.

Action L2/5: Evaluation is important

Few but generally good experiences were mentioned regarding the implementation of the action 'evaluation of progress'. The lack of national sets of C&I or reliable data as well as limited resources of time and finance were mentioned as the main obstacles to implementing this action.

Action L2/6: Dissemination of information through more comparability

The main measure of action 'common definitions' is the participation of country experts in different international or regional initiatives carried out by international organisations (i.e. FAO, IUFRO).

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Example of measure (L2/6): *A set of C&I was elaborated for the Near East by participating in the work undertaken by the FAO Near East Forestry Commission. (Cyprus)*

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Comparing the sets of C&I and related definitions, some difficulties were mentioned because of regional or national peculiarities and varieties of climatic or other conditions (i.e. ecosystems). Others believed that limited resources (i.e. finance, institutions) can be the central obstacles to implementation of the action

'common definitions'. One country mentioned that it would be important to integrate in particular those countries which are still outside the international or regional processes.

Action L2/7: Fine-tuning of PEOLG through participation

Experience in implementing the action 'adaptation of PEOLG' is similar to that in the action 'participation'. For example, it was stated that more understanding could be created through more participation. However, according to the opinion of some countries it is still difficult to find a balance between the divergent interests of all stakeholders.

Action L2/8: Dissemination of PEOLG is ongoing

Some respondents suggested that the main tools driving and encouraging forest owners to SFM are usually market forces and public opinion. Regarding the action 'Dissemination of PEOLG', one country called for more training and extension services to fully achieve the aims and objectives of SFM. Some countries highlighted that implementation of PEOLG will take time and will be even more difficult in the private forest sector than in the public sector.

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Example of measure (L2/8): *All Resolutions (including PEOLG) have been translated into Spanish, published on the Internet and presented in the most interested and interesting forestry-related forums. (Spain)*

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## 2.4 Lessons Learned in Implementing Resolution L2

The development and implementation of C&I for SFM have been seen by the 27 respondents of the detailed report on the national implementation of Resolution L2 as important for the integration of national and international concepts and definitions. In general, C&I have been recognised as a key instrument and a useful theoretical outline for policy development as well as for the monitoring, assessment and reporting of sustainable forest management.

Generally, most respondents made no comments on weaknesses or obstacles to the implementation of Resolution L2. Some saw problems in the implementation of Resolution L2 due to necessary additional parameters in guidelines or amended monitoring systems as well as in the growing costs or difficulties with financial support. In particular, the collecting of data outside or even within the forestry sector, from private forestry, at sub-national level or of indicators related to multifunctional forestry or biodiversity meant a great effort for some countries. Obstacles to implementing Resolution L2 are seen in the lack of institutional, informational or financial facilities.

Some countries mentioned the need for a more open participatory approach in policy developments and in research projects. In addition, more awareness and more explanation concerning forest-related socio-economic issues and private forestry have been demanded.

After five years the state of implementation of both Lisbon Resolutions cannot be said to be in the final stage. This fact should act as an incentive to all signatories of the Lisbon Resolutions for further efforts in implementing these decisions. Furthermore, it has to be highlighted that all Resolutions are part of a continuing and dynamic process of progress.

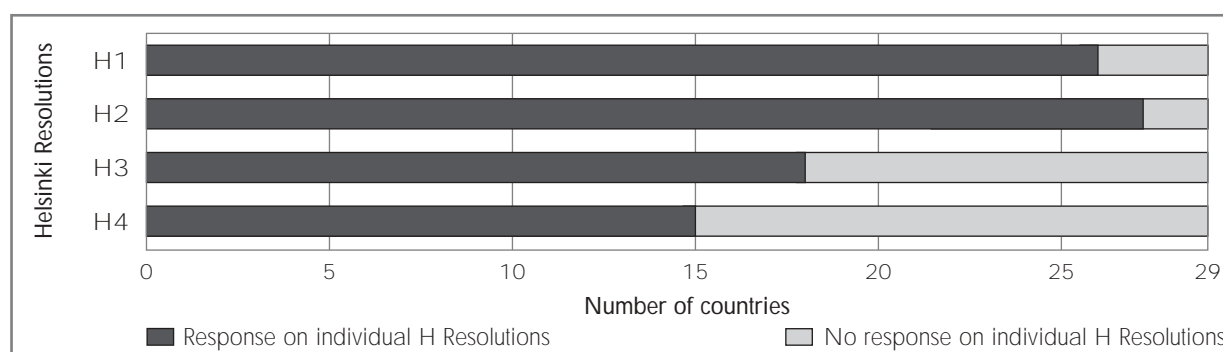
### 3 NATIONAL IMPLEMENTATION OF HELSINKI AND STRASBOURG RESOLUTIONS

This chapter describes and summarises the comments on and experiences on the implementation of the Helsinki and the Strasbourg Resolutions only since 1998.

#### 3.1 Helsinki Resolutions

In total, 28 countries and the European Commission reported on the national implementation of the Helsinki Resolutions. However, this sum is an aggregation of all reports giving information on any of the four Helsinki Resolutions. Figure 13 provides information on the individual response rates for each Helsinki Resolution.

Figure 13: Response on Helsinki Resolutions



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

Twenty-five countries and the European Commission reported on the implementation of Resolution H1. A number of countries mentioned that in recent years more attention was given to non-wood forest functions and products, the protective functions of forests, native species and close-to-nature forestry as well as restoration of forest ecosystems, landscape planning and multiple-uses of forests.

The main legal/regulatory means for the implementation of Resolution H1 were renewed forestry and nature legislation or guidelines. In addition, the revision or development of national sets of C&I for SFM as well as the establishment or revision of national forest programmes, monitoring programmes and forest management plans. The main financial or economic instruments of Resolution H1 were the establishment of new incentives for forest owners or, as an indirect follow-up of Resolution H1, the development of forest certification systems. The main informational or organisational means for the implementation of Resolution H1 were the development or revision of publications, research programmes, national databases and consultations or training programmes for forest owners. All informational means were also developed through more international co-operation.

### 3.1.2 Resolution H2: General Guidelines for the Conservation of the Biodiversity of European Forests

Twenty-seven respondents informed on the implementation of Resolution H2. The main measures to implement Resolution H2 were the development or revision of forestry and nature legislation, national forest programmes, grant aid schemes and national plans for biodiversity and national sets of C&I for SFM. Other measures to implement Resolution H2 were the development or amendment of projects and programmes for the monitoring, evaluation and registration of forest biodiversity and protected areas. The main informational or organisational instruments to implement Resolution H2 were the development of networks for biodiversity, the publishing of lists of conservation and protected areas as well as the development of information campaigns, research projects and surveys.

Some countries mentioned in their national reports that there are still objections to 'biodiversity' from forest owners or politicians and that the issue of biodiversity is addressed in a rather unspecific way within the context of general environmental policies. However, others noticed that the awareness among forest owners of the importance of the issue of biodiversity or SFM in forests is increasing.

### 3.1.3 Resolution H3: Forestry Cooperation with Countries in Transition

The implementation of Resolution H3 was reported by 18 respondents. The main measures to implement Resolution H3 were the development of workshops, international training programmes, forestry co-operation projects or expertise exchange with countries in transition. It seems that the implementation of Resolution H3 led to an increasing dissemination of experience, a rise of knowledge of other countries' situation in the forestry sector and to an improved mutual understanding and co-operation between the countries in transition and others. However, some countries stated that there is still a need for more training and capacity building as well as more co-ordination among the bodies promoting projects to avoid the overlapping of similar schemes.

### 3.1.4 Resolution H4: Strategies for a Process of Long-term Adaptation of Forests in Europe to Climate Change

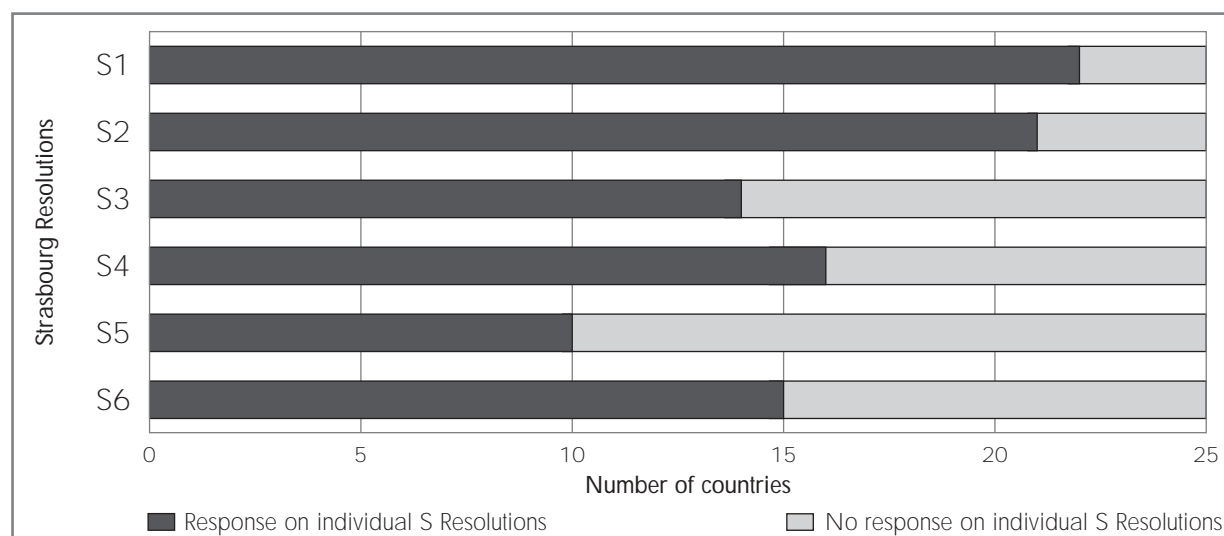
Only 15 respondents reported on the implementation of Resolution H4. The main measures for implementing Resolution H4 were the establishment of research programmes on carbon budget and on general effects of climate change on forests. Other instruments to put Resolution H4 into action were the promotion of forestry practices which improve the resistance to features of climate change and the development of national guidelines, programmes and strategies for the reduction of emissions. The main demand for the implementation of Resolution H4 was for more research to understand the global climate change.

## 3.2 Strasbourg Resolutions

Altogether, only 24 countries and the European Commission reported on the implementation of any of the six Strasbourg Resolutions. However, especially on some Strasbourg Resolutions (i.e. S3, S5) very few countries gave an account of achievements or measures used (see Figure 14).



Figure 14: Response on Strasbourg Resolutions



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

Twenty-two respondents commented on the implementation of Resolution S1. They reported that networks of permanent plots for monitoring the forest ecosystem and regional monitoring were renewed or established. Monitoring and analysis were developed on diverse indicators such as soil, foliage, crown conditions, ground vegetation, natural regeneration, volume of forest stands, climate change, changes in carbon stock and on effects of air pollution. Moreover, reports and guidebooks about the results of monitoring were published. Progress in the implementation of Resolution S1 is seen in the improved data checks and the increasing number of plots. Some countries mentioned a need for more financial means as well as more inter-sectoral and international co-operation to maintain the current monitoring systems.

### 3.2.2 Resolution S2: Conservation of Forest Genetic Resources

Twenty-one respondents reported on the implementation of Resolution S2. The main measures for the implementation of Resolution S2 were the creation of national programmes for the protection and sustainable use of genetic resources in forestry, the establishment of regional offices for the selection and conservation of forest genetic resources, the establishment of forest reserves and seed stands and the revision of legislation and laws about the conservation and management of forest genetic resources. Some countries mentioned participation in the EUFORGEN network. Other measures to implement Resolution S2 were international training programmes, inventory systems, implementation of grant schemes, in-situ and ex-situ measures for forest species, the development of methods of conservation of forest genetic resources as well as more information to forest owners and managers.

Regarding the further implementation of Resolution S2, the need for more co-operation among stakeholders on the national level and also among organisations on an international level was called for by some respondents. Moreover, the further development of long-term monitoring systems, specific conservation measures or in-situ measures have been noticed as the main needs.

### 3.2.3 Resolution S3: Decentralized European Data Bank on Forest Fires

Only 14 respondents commented on the implementation of Strasbourg Resolution S3. The main fire prevention programmes and strategies to implement Resolution S3 that were reported were the establishment of databases and monitoring programmes on forest fires and the launch of public relations programmes. The co-ordination and harmonisation of data and definitions as well as the availability of reliable data are seen as the most important preconditions for the further implementation of Resolution S3.

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

Sixteen respondents commented on the implementation of Resolution S4. The main measures taken to implement Resolution S4 were reported to be the establishment of training programmes, information campaigns, workshops, symposia or conferences. Other measures used to implement Resolution S4 were the development of research projects about SFM in mountain forests, the collection of data on flora and fauna and the launch of informative systems (i.e. forest maps). Regarding experience in implementing Resolution S4, some countries requested more research into protected areas or non-wood forest products. For the implementation of Resolution S4, there also appears to be a need for more cross-sectoral and international co-operation.

### 3.2.5 Resolution S5: Expansion of the EUROSILVA Network of Research on Tree Physiology

Only nine countries and the European Commission commented on the implementation of Resolution S5. Some countries gave accounts of their participation in the EUROSILVA network and in COST actions. EUROSILVA provided an opportunity to exchange ideas, develop new methodologies and co-ordinate research projects. The main obstacle to implementing Resolution S5 was seen as limited financial means.

### 3.2.6 Resolution S6: European Network for Research into Forest Ecosystems

Fifteen respondents gave an account of the implementation of Resolution S6. The main measures to implement Resolution S6 were the up-dating and the completion of databases for the European Network for Research into Forest Ecosystems (EFERN) and the participation in COST actions or other research projects. Generally, experience with the informational and co-operative instrument EFERN has been good. The main demands regarding the implementation of Resolution S6 were that results of research projects should be more effectively disseminated and that research still needs more support in resources (i.e. finances, personnel).

## 3.3 Lessons Learned in Implementing the Helsinki and Strasbourg Resolutions

Regarding the implementation of the Helsinki and Strasbourg Resolutions, it has to be noted that the individual national reports mainly provide a general overview of progress and experience and do not include a detailed description of the implementation of these Resolutions. Generally, the main actors of the Helsinki

and Strasbourg Resolutions are identical to those in the implementation process of the Lisbon Resolutions. They are primarily governmental forest-related organisations or institutions.

The main measures of the Helsinki Resolutions are the implementation of research projects, the establishment of (international) training programmes (i.e. for forest owners), the development or revision of national sets of C&I for SFM, the development and revision of forestry and nature legislation or guidelines and the establishment or revision of national forest programmes, forest acts or monitoring systems. The respondents generally identified that the implementation process of the Helsinki Resolutions has led to greater co-operation and improved mutual understanding between countries, as well as increased awareness of the importance of forest biodiversity and of sustainable forest management. Even so, there is still a need for more co-operation between the different stakeholders as well as more research and training programmes.

The key measures for the implementation of the Strasbourg Resolutions are the establishment or revision of databases and monitoring programmes, participation in international networks and international actions such as COST, the creation of national or international programmes and dissemination of information through public relations programmes. The main achievements regarding the Strasbourg Resolutions have been seen in the improved provision of forest-related data and information as well as an increasing exchange of ideas in particular concerning new methodologies or research projects in general. The main needs for the future are seen as more financial means, international, national or cross-regional co-operation, inter-sectoral co-ordination and more harmonisation, availability of data or definitions.

Finally, it has to be highlighted that the realisation of commitments depends largely on which country implemented the action and which action or Resolution has to be put into action. Many new and innovative informational, legal/regulatory but also financial/economic instruments have been developed and established. Moreover, important steps into more international co-operation have been made.

## **II Pan-European Implementation**



## EXECUTIVE SUMMARY OF PAN-EUROPEAN IMPLEMENTATION

The participants of the MCPFE adopted an MCPFE Work Programme in October 1999 as a common framework for the implementation of the MCPFE commitments at the pan-European level. Within the MCPFE Work Programme, the objectives set by the European ministers have been addressed in four main areas of work.

The pan-European implementation activities carried out in the first area of work, 'Dialogue with Society', focused on public relations, public participation and education. The respective work done by the MCPFE and its partners fostered the common understanding on concepts, such as public participation, and provided guidance for national activities. In addition, outcomes of the implementation activities on public participation were integrated into the pan-European work on national forest programmes. For the MCPFE itself, a communication strategy has been developed. However, limitations for public relations activities at the pan-European level have to be acknowledged.

The second major area of work set out in the MCPFE commitments were 'Socio-Economic Issues'. The MCPFE addressed the role of forests in rural development as well as different aspects in relation to forest goods and services as renewable resources. The various implementation activities fostered and improved the state of knowledge at the 'policy level', but also indicated the need for further political commitment. In addition, the significance of training, education and gender issues was promoted through a range of activities. Finally, the implementation work confirmed the high significance of co-operation with Central and Eastern European countries, but also indicated the need to take better account of the specific situations and requirements of each country.

The Work-Programme on the Conservation and Enhancement of Biological and Landscape Diversity in Forest Ecosystems 1997 – 2000 ('Biodiversity Work-Programme') elaborated and implemented jointly by the MCPFE, 'Environment for Europe'/PEBLDS<sup>5</sup>, provided an effective framework for addressing the third area of work 'Biodiversity and Conservation'. In the implementation work, particular emphasis was given to the issue of 'protected forest areas'. The assessment of the implementation of the Biodiversity Work Programme in 2000 also provided substantial guidance for further undertakings of the MCPFE related to forest biodiversity and for further co-operative action with Environment for Europe/PEBLDS. Through its forest biodiversity related activities, the MCPFE also underscored the important linkage between the regional and global levels.

In the fourth area of work, 'Planning, Monitoring, Evaluation and Reporting', the MCPFE took the task to specify in the pan-European context the global consensus achieved on national forest programmes and those principles which characterise this concept. As a result, an MCPFE Approach to National Forest Programmes in Europe was developed. As another important instrument, the MCPFE developed an improved set of pan-European indicators for sustainable forest management. Within this context and as a complementary source of information, the MCPFE also developed a comprehensive pan-European overview of international institutions and networks for data collection, storage and reporting related to sustainable forest management.

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<sup>5</sup> Pan-European Biological and Landscape Diversity Strategy

Finally, progress in pan-European implementation since the Lisbon Conference has been reported for the Helsinki and Strasbourg Resolutions. The scientific and technical collaborative activities have further increased the state of knowledge about forest ecosystems and about the impacts of factors such as air pollution, forest fires and climate change. Furthermore, activities have intensified the efforts to communicate generated knowledge and collected data to policy and decision makers as well as to the broader public. Taken together, the manifold implementation activities have underlined the continued importance of political, scientific and technical co-operation in promoting SFM in Europe.



## INTRODUCTION TO PAN-EUROPEAN IMPLEMENTATION

Complementary to the first part, which analyses the national implementation of MCPFE commitments, the second part of this report addresses the implementation of MCPFE commitments at the pan-European level.

The MCPFE Work Programme constitutes the common framework for the pan-European implementation of MCPFE commitments. The Work Programme, and consequently also the report on the pan-European implementation of MCPFE commitments, consists of two main parts:

- Implementation of the Lisbon Resolutions
- Implementation of the Helsinki and Strasbourg Resolutions since the 3<sup>rd</sup> Ministerial Conference

The analysis of the implementation of the 41 actions defined in the MCPFE Work Programme was done by the Liaison Unit Vienna and was cross-checked with responsible implementing organisations, bodies and countries. Additional information was provided by the international co-ordinators regarding the pan-European implementation of the Helsinki and Strasbourg Resolutions since the last Ministerial Conference in Lisbon in 1998.

In each section of the report on the pan-European implementation of MCPFE commitments, the objectives of the implementation work are indicated in brief. In addition, the concrete actions which have been taken at the pan-European level are described. Finally, a brief assessment of the quality of the actions, i.e. the degree to which the actions have contributed to achieve the objectives set, is carried out. As far as possible, factors of success and/or failure, i.e. the reasons why the actions delivered a certain level of quality, are analysed in a descriptive way.

# 1 PAN-EUROPEAN IMPLEMENTATION OF LISBON RESOLUTIONS

The ministers responsible for forests in Europe adopted two resolutions at the 3<sup>rd</sup> Ministerial Conference in June 1998 in Lisbon. These are Resolution L1 'People, Forests and Society – Enhancement of Socio-Economic Aspects of Sustainable Forest Management' and Resolution L2 'Pan-European Criteria, Indicators and Operational Level Guidelines for Sustainable Forest Management'. The ministers also agreed on a 'Biodiversity Work-Programme' (Work-Programme on the Conservation and Enhancement of Biological and Landscape Diversity in Forest Ecosystems 1997 – 2000), which had been elaborated in co-operation with the ministerial process 'Environment for Europe'/PEBLDS.

In the follow-up to the Lisbon Conference the MCPFE Work Programme was developed as the common framework for the pan-European implementation of the MCPFE commitments.<sup>6</sup> The MCPFE Work Programme sets out 12 elements and 41 related actions in four major areas of work (see Table 1 below). The implementation of these actions is based on scientific and technical co-operation and involves a broad range of contributing actors<sup>7</sup>.

Table 1: Areas of work and corresponding elements of the MCPFE Work Programme

Dialogue with Society	Socio-Economic Issues	Biodiversity and Conservation	Planning, Monitoring, Evaluation and Reporting
Public Relations	Rural Development	Biological and Landscape Diversity	National Forest Programmes
Public Participation	Goods and Services	Forests and Climate Change	Criteria and Indicators for SFM
Education	Training, Education and Gender Issues	Management of Mountain Forests	
	Countries in Transition		

The following report on the implementation of the Lisbon commitments is structured according to these four areas of work and the related elements of the MCPFE Work Programme. For each of the twelve elements

- the objective(s) of the implementation work is (are) indicated in brief (*rationale/objectives*);
- the actual implementation work is described and the degree of implementation is indicated (*actions and implementation*);

<sup>6</sup> The MCPFE Work Programme was adopted at expert level in October 1999.

<sup>7</sup> Contributing actors include United Nations specialised agencies, regional commissions and programmes; international and national research institutions and actions; institutions of the European Community; initiatives led or supported by countries participating in the MCPFE; and other international organisations and institutions.



- the quality of the implementation work under each element is assessed in a descriptive way (*assessment*). Where one or more actions have not been fully implemented, the reasons for the lack of implementation are examined.

## 1.1 Area of Work: Dialogue with Society

### 1.1.1 Element: Public Relations

#### Rationale/Objectives

- Increase awareness of the benefits of SFM to society
- Enhance communication of the work of the MCPFE and its achievements

#### Actions and Implementation

Action	Degree			Implementation
	fully	partly	not	
Elaboration of 10-year MCPFE report	x			The MCPFE Liaison Unit Vienna published the report 'Ten Years of Commitment to European Forests – The Ministerial Conference on the Protection of Forests in Europe' in April 2000.
Development of strategies and tools to better communicate the work of the MCPFE	x			A communication concept for the MCPFE was drawn by a professional agency under the auspices of the MCPFE Liaison Unit Vienna in autumn 2000.
International Forest Communicators Forum	x			The International Forest Communicators Forum was convened on 5-8 September 2000 in St. John's, Newfoundland, Canada, by the FAO/ECE Forest Communicators Network FCN (the former Team of Public Relations Specialists in the Forest and Forest Industries Sector). The FCN drew up a set of recommendations to be followed up. The current mandate and work programme of the FCN will expire in 2004.
European Forum on Forests and Society		x		A concept for the European Forum on Forests and Society (EFFS) has been drawn up by the FAO/ECE Forest Communicators Network. However, no meeting has been convened so far.

#### Assessment

Increasing awareness of and knowledge about the benefits of SFM to society is a continuous task which has to be accomplished mainly through sustained communication activities within the European countries. As an international platform for forest-sector public relations and communication, the FAO/ECE Forest Communicators Network facilitates these activities by embarking on those related aspects which are of common interest and concern. In this context, the various activities of the Network have, e.g., contributed to identifying key issues in forest-sector public relations (PR) and communication and developing common

concepts and strategies. Further activities, in particular the European Forum on Forests and Society, are currently in the planning stage.

The MCPFE itself has made considerable progress in the area of public relations by embedding all PR activities in a coherent communication strategy. This sets out the objectives of communication efforts, identifies target groups and describes suitable communication tools. However, the flexible working modalities of the MCPFE and the available resources also set clear limits to a more long-term oriented communication effort of the MCPFE. Thus, high importance again has to be ascribed to national PR activities in support of the MCPFE.

### 1.1.2 Element: Public Participation

#### Rationale/Objectives

- Develop a common understanding of the concept of participation within the context of sustainable forest management

#### Actions and Implementation

Action	Degree			Implementation
	fully	partly	not	
Clarification of the concept of 'participation' and development of a conceptual framework	x			The task was kindly accepted by the FAO/ECE/ILO Joint Committee's Team of Specialists on Participation in Forestry. The Team convened two workshops (August 1999, March 2002) and drew up the report 'Public Participation in Forestry in Europe and North America', published in autumn 2000 <sup>8</sup> .
Decision on further work based on the report of FAO/ECE/ILO Team of Specialists on Participation in Forestry	x			At the Expert Level Meeting in September 2002, the participants of the MCPFE agreed to incorporate the findings of the Team of Specialists into further work by the MCPFE on national forest programmes.

#### Assessment

The concept of 'participation' gained significant momentum in international forest policy deliberations, both at the global and the pan-European level. However, these deliberations also revealed considerable uncertainty about both the concept itself and how it might be implemented. Based on national experiences, the FAO/ECE/ILO Joint Committee's Team of Specialists on Participation in Forestry was able to generate significant knowledge about the concept of public participation in forestry. The Team, inter alia, drew up a definition and characteristics of public participation and investigated purposes and benefits, but also limits, levels and degrees of public participation in forestry. A synopsis of the report of the Team of Specialists was published by MCPFE in April 2002.<sup>9</sup> In a second phase of its work, the Team of Specialists focuses on clarifying the neighbouring concepts 'public awareness' and 'partnership'.

<sup>8</sup> ILO (2000): Public Participation in Forestry in Europe and North America. FAO/ECE/ILO Team of Specialists on Participation in Forestry. International Labour Office, Sectoral Working Paper no. 163.

<sup>9</sup> MCPFE Liaison Unit Vienna (2002): Public Participation in Forestry in Europe and North America – Synopsis of the Report of the FAO/ECE/ILO Joint Committee Team of Specialists on Participation in Forestry.

In further discussion of the MCPFE after the Lisbon Conference, 'participation' became an important issue within the context of national forest programmes. The MCPFE participants identified public participation as one key element/principle of national forest programmes (nfps) in Europe. In this regard, the work of the Team of Specialists significantly contributed to building a common understanding on public participation in an nfp process, and concrete use was made of the outcomes of the Team's work in the elaboration of the 'MCPFE Approach to National Forest Programmes in Europe'. However, the discussion of the MCPFE also indicated the need for a further exchange of national and sub-national experiences concerning public participation in an nfp process in the future. This effort should also take into account the relation between 'public participation' and 'raising awareness' as well as 'partnership in implementation' and further explore the role and mutual supportiveness of these concepts in promoting sustainable forest management<sup>10</sup>.

### 1.1.3 Element: Education

#### Rationale/Objectives

- Facilitate the exchange of national experiences on educational programmes for children and teachers

#### Actions and Implementation

Action	Degree			Implementation
	fully	partly	not	
Seminar on 'Public Relations and Environmental Education in Forestry'	x			The seminar on 'Forestry Meets the Public' was convened by the Joint FAO/ECE/ILO Committee on Forest Technology, Management and Training in collaboration with IUFRO on 8-11 October 2001 in Rütihubelbad, Switzerland.

#### Assessment

The seminar on 'Forestry Meets the Public' provided an international platform to discuss approaches to the communication of the forestry sector and to exchange experiences on educational programmes developed in several countries. Important impetus to the discussion about the effectiveness of public relations in forestry and approaches to environmental education was also provided by the research community.

The seminar identified three complementary approaches to improved communication, i.e. public relations, forest-related environmental education and public participation. It also came up with concrete conclusions on how to make environmental education more efficient and how the responsibilities between educational institutions and forestry should be distributed. Recommendations were made for national and international policy as well as for research organisations.

<sup>10</sup> The findings of the seminar on 'Partnerships in forestry' (3-6 June 2002, Brussels, Belgium) provide significant conceptual and empirical input to this task. The seminar was organised under the auspices of the 'Joint FAO/ECE/ILO Committee on Forest Technology, Management and Training'. In addition, the work of the Team of Specialists on Participation in Forestry on public awareness and partnership can contribute to this task.

## 1.2 Area of Work: Socio-Economic Issues

### 1.2.1 Element: Rural Development

Sub-Element: Rural Development Concept and Forest Policy in Europe

Rationale/Objectives

- Exchange information on rural development
- Clarify concepts and priorities on rural development and forest policy

Actions and Implementation

Action	Degree			Implementation
	fully	partly	not	
Questionnaire: Exploration of issues and approaches	x			A questionnaire on 'Rural Development in the Work of the Ministerial Conference on the Protection of Forests in Europe' was sent out by the Liaison Unit Vienna to all MCPFE participants in July 1999 and subsequently analysed.
Seminar on the Role of Forests and Forestry in Rural Development	x			The University of Agricultural Sciences Vienna and the MCPFE Liaison Unit Vienna convened an international seminar on 'The Role of Forests and Forestry in Rural Development – Implications for Forest Policy. A contribution to the Work of the MCPFE', 5-7 July 2000, Vienna. The results were published by the MCPFE Liaison Unit Vienna. <sup>11</sup>
Consideration of possible voluntary guidance tools		x		The conclusions of the seminar on 'The Role of Forests and Forestry in Rural Development – Implications for Forest Policy. A contribution to the Work of the MCPFE', 5-7 July 2000, Vienna, gave recommendations regarding approaches to rural development.

Assessment

As a first step, the questionnaire on rural development provided a good basis and identified those issues related to rural development which should be addressed by the MCPFE. The subsequent workshop in Vienna provided an international forum for scientists and policy makers to exchange their views on different concepts and questions related to rural development. The recommendations from this workshop are an important reference for possible further work on rural development. While the issue of voluntary guidance tools was discussed by the seminar participants, no direct guidance tools were agreed upon.

The complexity of rural development issues was evident through the implementation process of all three actions. The seminar in Vienna contributed a lot to bringing different fields of knowledge and experience together. Since the work on rural development touches the interests of different sectors, many issues identified

<sup>11</sup> MCPFE Liaison Unit Vienna (2000): The Role of Forests and Forestry in Rural Development – Implications for Forest Policy. A contribution to the Work of the MCPFE.

at this seminar need further exploration and co-ordination in the future at all levels, most importantly the national and local level<sup>12</sup>.

Sub-Element: Contribution of Forests and Forestry to Rural Development in Europe

Rationale/Objectives

- Explore the potential contributions from the forest sector to rural development
- Utilise the contribution of forestry to sustainable rural development through the coherence of forest policies and programmes and activities in other sectors

Actions and Implementation

Action	Degree			Implementation
	fully	partly	not	
Exploration of possible communication and information tools	x			The international seminar on 'The Role of Forests and Forestry in Rural Development – Implications for Forest Policy. A contribution to the Work of the MCPFE', 5-7 July 2000, Vienna, included the issue in its working group sessions.
Elaboration of information tools on the contribution of forestry to rural development		x		Work on rural development aspects was included in the improvement of the pan-European indicators for SFM.

Assessment

The international seminar in Vienna provided the opportunity to discuss rural development related aspects in Europe, including possible communication and information tools in four working group sessions, providing a good overview of the related possible tools.

However, in the elaboration of concrete information tools the seminar concluded that information on rural development should only be addressed in the work on the improvement of pan-European indicators for SFM. As the concept of rural development lacks a common and operational definition, information on rural development issues is given implicitly only under different indicators.

## 1.2.2 Element: Renewable Resources – Goods and Services

Sub-Element: Valuation of Goods and Services

Rationale/Objectives

- Engage in exchange of experiences and opinions on valuation of forest goods and services

<sup>12</sup> As an example for further activities contributing to this task, reference can be made to the international seminar 'Afforestation in the Context of Sustainable Forest Management', which was organised under the auspices of the Joint FAO/ECE/ILO Committee on Forest Technology, Management and Training on 15-19 September 2002 in Ennis, Ireland.

## Actions and Implementation

Action	Degree			Implementation
	fully	partly	not	
International Seminar on Valuation of Forest Goods and Services	x			The Forestry Department of the Ministry of Agriculture of the Czech Republic, IUFRO and the MCPFE Liaison Unit Vienna convened the 'Seminar on Valuation of Forest Goods and Services – A Contribution to the Work of the MCPFE' in Opocno, Czech Republic, on 19-21 November 2000. <sup>13</sup>

## Assessment

This international seminar provided the opportunity to present current knowledge and share experiences in the field of valuation of forest goods and services. It was a useful event in giving policy experts and the research community the opportunity to meet, exchange experiences and establish networks for further collaboration.

However, considerably more effort is needed on international co-ordination and standardisation of valuations if the objectives set on the valuation of forest goods and services are to be achieved in the future.

## Sub-Element: Certification and Labelling

## Rationale/Objectives

- Evaluate the potential impacts of quality-assurance systems and programmes such as voluntary and independent forest certification systems on SFM in the line of the proposals for action agreed by the Intergovernmental Panel on Forests (IPF)

## Actions and Implementation

Action	Degree			Implementation
	fully	partly	not	
Publication of Background Report on SFM-Certification Impact	x			The MCPFE Liaison Unit Vienna published the analysis 'Sustainable Forest Management Certification – Frame Conditions, System Designs and Impact Assessment' in 2000.
Preparation of Discussion Paper on the Role of Governments in Certification	x			The MCPFE Liaison Unit Vienna prepared the discussion paper 'The Role of Governments in Certification' in 2000.

<sup>13</sup> Forestry and Game Management Research Institute (2001): Seminar on Valuation of Forest Goods and Services – A Contribution to the Work of the MCPFE.

Assessment

All actions set out to be implemented at the international level have been achieved. The resultant publications informed a wide audience on the issue of forest certification from an analytical point of view. A key factor for success was early funding of research by the EU 4<sup>th</sup> Framework Programme and close collaboration with the research community.

Sub-Element: Wood and Substitutes in Relation to Other Sectors

Rationale/Objectives

- Encourage comparative studies of wood and non-wood substitutes

Actions and Implementation

Action	Degree			Implementation
	fully	partly	not	
Publication 'The Competitive Climate for Wood Products and Paper Packaging'	x			The study prepared by the FAO/ECE Team of Public Relations Specialists in the Forest and Forest Industries Sector on 'The Competitive Climate for Wood Products and Paper Packaging' was published in October 1998.
Seminar on strategies to stimulate and promote the sound use of wood and other forest-based products as environmentally friendly and renewable materials		x		The seminar on 'Strategies for the Sound Use of Wood' took place on 24-27 March 2003 in Poiana Brasov, Romania. It was organised by UNECE/FAO in Co-operation with Romania.

Assessment

The FAO/ECE Team of Specialists brought together a wealth of knowledge from industries producing substitution materials and thus compiled a useful reference document. This kind of inter-sectoral comparison provides a good example for international action other than research. The seminar in Romania had been postponed for logistic reasons until March 2003<sup>14</sup>.

### 1.2.3 Element: Training, Education and Gender Aspects

Rationale/Objectives

- Raise awareness about the necessity of continuous learning through training and education
- Raise awareness about the importance of gender issues and related aspects, encourage further research and actively support seminars and meetings on the issue

<sup>14</sup> This report was compiled before the seminar on 'Strategies for the Sound Use of Wood' had taken place. For that reason it has not been possible to include an assessment of the outcomes.

## Pan-European Implementation of Lisbon Resolutions

### Actions and Implementation

Action	Degree			Implementation
	fully	partly	not	
Workshop on 'Reducing the Impact of Forest Operations on Ecosystems'	x			The workshop was convened by the Joint FAO/ECE/ILO Committee on Forest Technology, Management and Training in co-operation with the International Union of Forest Research Organizations in September 1999.
International seminar on 'Forestry Education and Science in the Context of Environmental and Development Problems: Strategies for the XXI Century'	x			The international seminar was organised on 12-19 September 1999 in Lviv, Ukraine, by IUFRO Unit 6.15.00 'Improving Education and Further Education in Forestry' in co-operation with the Ukrainian State University of Forestry and Wood Technology, the Ministry of Education of the Ukraine and the SILVA Network.
Workshop on 'New Trends in Wood Harvesting with Cable Cranes'	x			The 'Workshop on New Trends in Wood Harvesting with Cable Systems for Sustainable Forest Management in Mountains' took place on 18-24 June 2001 in Ossiach, Austria. It was organised by the Joint FAO/ECE/ILO Committee on Forest Technology, Management and Training with the participation of IUFRO.
Workshop on 'Forestry Information Systems'	x			The workshop took place on 16-20 May 2000 in Hyytiälä, Finland. It was organised by the Joint FAO/ECE/ILO Committee on Forest Technology, Management and Training and the Finnish Forest and Park Service.
Seminar on Women in Forestry	x			The seminar on 'Women in Forestry – Strategies to Increase Women's Participation in the Forestry Sector in Europe and North America' was convened on 2-6 April 2001 in Viseu, Portugal, upon the invitation of the Government of Portugal and under the auspices of the Joint FAO/ECE/ILO Committee on Forest Technology, Management and Training in co-operation with IUFRO.

### Assessment

The individual and co-operative activities of the FAO/ECE/ILO and IUFRO related to training and education resulted in an international exchange of experience and know-how and in the further development of knowledge and capacity regarding the sustainable management of forests in Europe. They also contributed to highlighting at the pan-European level the importance of training and education and provided significant input for further activities. However, the adaptation of forest-related training and education to contemporary needs is a long-term objective to be accomplished through continuous activities at various levels.

The seminar on 'Women in Forestry – Strategies to Increase Women's Participation in the Forestry Sector in Europe and North America' explored the status of women in the forestry sector as well as obstacles and opportunities for them. The seminar also discussed strategies to promote equality of opportunity in



employment, income, careers and decision making. It came up with recommendations for national and international policy as well as for international research. The results of the seminar provide further input for IUFRO Working Group 6.18.00 'Gender and Forestry' established in August 2002.

#### 1.2.4 Element: Countries in Transition (CITs)

##### Rationale/Objectives

- Promotion and support of co-operation with Countries in Transition (CITs) to market economies
- Facilitation of an exchange of information, experience and major concerns among CITs

##### Actions and Implementation

Action	Degree			Implementation
	fully	partly	not	
Continuation of activities on forestry assistance to CITs, notably further development of the H3 Access Database on Assistance Projects	x			Data on bilateral and multilateral projects of assistance and co-operation have periodically been added by UNECE/FAO to the H3 Access Database, which contained about 650 projects by February 2002.
Workshop to facilitate an exchange of information, experience and major concerns among countries in transition to market economies	x			The international workshop 'Forests and Forestry in Central and Eastern European Countries – The Transition Process and Challenges Ahead' was convened on 12-14 September 2002 in Debe, Poland, in co-operation between the MCPFE, the Government of Poland and the UNECE/FAO Team of Specialists on Countries in Transition. The MCPFE Liaison Unit Vienna published the conference proceedings in two volumes. <sup>15</sup>

##### Assessment

The access database maintained by UNECE/FAO (international co-ordinator of the follow-up activities to Helsinki Resolution H3) constitutes an important pan-European tool for monitoring, analysis and co-ordination of activities related to assistance and co-operation with CITs, which is publicly accessible through the Internet. However, a number of signatory countries of Resolution H3 have not yet supplied information to the database, and for many projects only partial responses were received. For this reason, the information presented in the database must be considered as indicative.

The international workshop 'Forests and Forestry in Central and Eastern European Countries – The Transition Process and Challenges Ahead' was characterised by a strong participation, particularly of representatives from Central and Eastern European Countries. It provided an effective platform for reviewing the forest policy related developments during the transition process and addressing major challenges and threats

<sup>15</sup> MCPFE Liaison Unit Vienna (2002): Forests and Forestry in Central and Eastern European Countries – The Transition Process and Challenges Ahead. Volume I: Presentations and Outcomes. Volume II: Country Reports.

to forests and the forest sector in CEECs in the future. The workshop indicated the diversity of developments in CEECs. It proved to be of particular importance for the exchange of information, know-how and experience among the participants. Despite the differences in the developments of CEECs, the workshop revealed that policy issues most relevant for further work are similar for all European countries. Consequently, these issues have been included in the preparation of the documents for the 4<sup>th</sup> Ministerial Conference. In order to ensure a broad distribution of the workshop findings and the wealth of information delivered by countries to the workshop, the proceedings were published by the MCPFE in April 2002.

## **1.3 Area of Work: Biodiversity and Conservation**

### **1.3.1 Element: Biological and Landscape Diversity**

#### Rationale/Objectives

- Implement the joint Work-Programme on the Conservation and Enhancement of Biological and Landscape Diversity in Forest Ecosystems 1997 – 2000 ('Biodiversity Work-Programme') endorsed by both the ministers responsible for forests and for the environment in Lisbon and Aarhus in 1998
- Evaluate the outcomes of the implementation of the Biodiversity Work-Programme and, on that basis, decisions on further MCPFE activities concerning forest biodiversity

## Pan-European Implementation of Lisbon Resolutions

### Actions and Implementation

Action	Degree			Implementation
	fully	partly	not	
Ad hoc working group on 'Biodiversity, Protected Areas and Related Issues' 1 <sup>st</sup> session 2 <sup>nd</sup> session	x			Organised by the MCPFE Liaison Unit Vienna, the 1 <sup>st</sup> session of the ad hoc working group took place on 11-12 February 1999 in Helenental, Austria; the 2 <sup>nd</sup> session was convened on 22-23 June 1999 in Semmering, Austria. The participants discussed the implementation of the Biodiversity Work-Programme and agreed on further steps to be taken.
Proposal on Protected Forest Areas Meeting of Preparatory Group	x			The Preparatory Group on Objective 2 of the Biodiversity Work-Programme met on 20 May 1999 in Vienna, Austria, and drew up a 'Proposal on a Pan-European Approach to Definitions and Classifications of Protected Forest Areas', which was approved by the Expert Level Meeting on 28-29 October 1999 in Vienna.
Enquiry on protected forest areas: questionnaire, analysis, meeting	x			The supplementary enquiry to the TBFRA on protected forest areas was conducted together with UNECE and COST Action E4. A questionnaire was sent out in December 1999, and subsequently the data on national protection regimes were analysed. The findings of the enquiry were discussed at the 3 <sup>rd</sup> session of the ad hoc working group on 'Biodiversity, Protected Areas and Related Issues' on 11-12 September 2000 in Salzburg, Austria, resulting in a proposal for an MCPFE classification of protected forests in Europe.
Report on implementation of WP-CEBLDF: collection of information, compilation	x			The MCPFE Liaison Unit Vienna collected and compiled the information on national implementation of the Biodiversity Work-Programme. This compilation and the results of pan-European initiatives formed the basis for drawing up a report on the implementation of the Biodiversity Work-Programme in December 2000. All information on the implementation was published on the MCPFE web-site.
Evaluation of WP-CEBLDF meeting	x			The 4 <sup>th</sup> session of the ad hoc working group on 'Biodiversity, Protected Areas and Related Issues', which took place on 14-15 December 2000 in Innsbruck, Austria, evaluated the implementation of the Biodiversity Work-Programme on the basis of the implementation report and, consequently, recommended further steps in the MCPFE work on biodiversity and protected forest areas.
Elaboration of a new Work Programme on Biodiversity		x		Based on the evaluation of the Biodiversity Work-Programme implementation and the recommendation of the ad hoc working group on 'Biodiversity, Protected Areas and Related Issues', the MCPFE decided on further biodiversity related activities. A framework for co-operation with Environment for Europe/PEBLDS has been elaborated.

## Assessment

The series of sessions of the MCPFE ad hoc working group on 'Biodiversity, Protected Areas and Related Issues' significantly facilitated the implementation of the Biodiversity Work-Programme. Experts representing the countries and observers in the MCPFE identified the relevant levels of implementation and actors for the different activities defined in the Biodiversity Work-Programme. In addition, they initiated the necessary steps for the pan-European implementation and supported the work carried out by the international organisations and the Liaison Unit Vienna, especially the analysis of protected forest areas in Europe.

The comprehensive information compiled for the report on the implementation of the Biodiversity Work-Programme allowed an in-depth evaluation of the respective strengths and weaknesses. The evaluation led to recommendations for further MCPFE activities, which were in part already carried out as an additional follow-up of the Biodiversity Work-Programme. However, it also showed the need for further work to meet the long-term objective of the conservation and enhancement of biological and landscape diversity in European forests through continuous activities at various levels.

Consequently, the MCPFE participants decided to address the issue of biodiversity and forest conservation more broadly with a view to the next Ministerial Conference. Hence, further recommended activities have not been compiled in a new work programme on biodiversity, but have led to the elaboration of a Framework for Co-operation between the MCPFE and Environment for Europe/PEBLDS. In addition, a resolution on forest biodiversity has been prepared for the 4<sup>th</sup> Ministerial Conference.

## 1.3.2 Element: Forests and Climate Change

## Rationale/Objectives

- Contribute to IPCC and intensify contact with UNFCCC

## Actions and Implementation

Action	Degree			Implementation
	fully	partly	not	
Elaboration of expert review comments on the draft IPCC Special Report on LULUCF <sup>16</sup>	x			The MCPFE Liaison Unit Vienna submitted expert review comments on the draft IPCC Special Report on Land Use, Land-Use Change and Forestry in July 1999.
Elaboration of expert review comments on revised version of draft IPCC Special Report on LULUCF	x			The MCPFE Liaison Unit Vienna submitted expert review comments on the revised draft IPCC Special Report on Land Use, Land-Use Change and Forestry in December 1999.
Exchange of information. UNFCCC, IPCC-Kyoto Protocol	x			The MCPFE Liaison Unit Vienna exchanged information with the UNFCCC secretariat.

<sup>16</sup> Land Use, Land-Use Change and Forestry

Assessment

The comments submitted to the IPCC on the LULUCF Special Report were able to influence the presentation of some major issues, inter alia, the definition of sustainable forest management in Europe and the European work on concrete criteria and indicators for sustainable forest management.

Due to the lack of awareness of forest policy processes on the part of the UNFCCC and the related Kyoto Protocol on the one hand and the lack of concrete contributions from the MCPFE on the other hand, it proved to be rather difficult to establish a permanent and periodic link with the UNFCCC secretariat.

## 1.4 Area of Work: Planning, Monitoring, Evaluation and Reporting

### 1.4.1 Element: National Forest Programmes

Rationale/Objectives

- Clarify the importance and possible role of nfps in the pan-European context
- Provide a definition and guiding principles of nfps for European countries which can be applied on a voluntary basis, also indicating the European concept of nfps within the global discussion

Actions and Implementation

Action	Degree			Implementation
	fully	partly	not	
Determination of common objectives and actions – Workshop on the Role of National Forest Programmes in the Pan-European Context	x			The Workshop on the Role of National Forest Programmes in the Pan-European Context took place on 13-14 September 1999 in Tulln, Austria. The presentations and outcomes of the workshop were published by the MCPFE in 2000. <sup>17</sup>
Elaboration of a concept paper for discussion at the 3 <sup>rd</sup> Expert Level Meeting	x			Based on the results of the Workshop on the Role of National Forest Programmes in the Pan-European Context, a background paper was prepared for the 3 <sup>rd</sup> Expert Level Meeting summarising work already completed and outlining further steps in MCPFE work on nfps.
Further clarification of meanings and dimensions of principles and elements	x			The further clarification of the elements and principles of nfps in Europe was a major item in the discussion of the Second MCPFE Workshop on National Forest Programmes (2-3 July 2001, Lillehammer, Norway) and the MCPFE Preparatory Group on National Forest Programmes (24-26 April 2002, Riga, Latvia). As a result, the procedural and specific elements and principles of nfps in Europe have been described in the MCPFE Approach to National Forest Programmes in Europe.

<sup>17</sup> MCPFE Liaison Unit Vienna (2000): The Role of National Forest Programmes in the Pan-European Context. Presentations and outcomes of the NFP workshop organised by the MCPFE in Tulln, Austria, 13-14 September 1999.

### Assessment

The first workshop of the MCPFE on the issue of 'national forest programmes' (nfps), convened in Tulln in 1999, confirmed the high importance of nfps as a policy instrument for European countries. As a consequence, the participants at the three MCPFE meetings related to nfps took the task of further specifying within the pan-European context the global consensus on nfps by taking into account national/sub-national experiences. Special emphasis was given to further describing the procedural and specific elements and principles which are of particular relevance for nfps in Europe. At the same time the importance of nfps as an issue to be addressed at the 4<sup>th</sup> Ministerial Conference was highlighted by the MCPFE participants. In a step-wise approach, an MCPFE Approach to National Forest Programmes in Europe was developed. This document constituted an important input to the preparation of the 4<sup>th</sup> Ministerial Conference.

In accordance with the objectives set out in the MCPFE Work Programme, information about the work of the MCPFE on national forest programmes has periodically also been communicated to global forums, notably the United Nations Forum on Forests and the Convention on Biological Diversity, and disseminated to relevant international organisations and institutions. A close working relationship has also been established with the scientific community, in particular with research action COST E19 on 'National Forest Programmes in a European Context'.

### 1.4.2 Element: Criteria and Indicators for SFM

Sub-Element: Improvement of Pan-European Indicators for SFM

#### Rationale/Objectives

- Evaluate existing indicators under all criteria
- Elaborate a draft set of improved indicators associated with the six criteria for SFM

## Actions and Implementation

Action	Degree			Implementation
	fully	partly	not	
Determination of common objectives and actions – comments through questionnaires	x			A survey on the Improvement of Pan-European Indicators for Sustainable Forest Management, Data Collection and Reporting was conducted in July 1999 in order to clarify the views and expectations of the MCPFE participants and to give political-level orientation for further work.
Evaluation of existing indicators under all pan-European criteria	x			Evaluations of the usefulness, strengths, weaknesses and feasibility of the pan-European indicators for SFM were conducted in 1994/1995 as well as in 1999 (political level) and 2000 (technical level, through UNECE/TBFRA 2000 evaluation). The results of these evaluations were used as a basis for the improvement of the pan-European indicators.
Development of improved indicators	x			An Advisory Group on the Improvement of Pan-European Indicators for SFM <sup>18</sup> was established in 2001 with the mandate to give recommendations for an improved set of indicators.  Substantial input to the work of the Advisory Group was obtained from a series of four workshops on the improvement of the pan-European indicators for SFM conducted in 2001-2002.  In addition, the outcomes of an ad hoc working group on biodiversity and protected areas contributed to the improvement of the pan-European indicators under Criterion 4 (biodiversity).

## Assessment

The joint determination of objectives and actions and the parallel evaluation of the indicators from a political as well as from a technical perspective proved to be a solid and consensus-based foundation for the improvement work. While the technical evaluation was carried out by UNECE by reviewing the experiences made in the data collection and reporting of TBFRA 2000, the political one was done by the MCPFE participants.

The Advisory Group, established to elaborate recommendations for improved indicators in co-ordination with the Liaison Unit Vienna, consisted of members representing relevant international data collecting as well as forest research organisations in Europe. The Advisory Group consulted with a wide range of experts through a series of four workshops, open to all interested participants. All four workshops were characterised by a strong participation of country representatives as well as by representatives of interest groups and data-collecting and data-processing institutions. This ensured that the diversity of national situations and experiences as well as the work undertaken by various bodies in Europe were adequately reflected in the improved pan-European indicators for sustainable forest management.

<sup>18</sup> Members of the Advisory Group were: Mr. Michael Köhl (IUFRO/UNECE Team of Specialists TBFRA 2000), Mr. Thomas Haußmann (ICP Forests), Mr. Tor-Björn Larsson (European Environment Agency), Mr. Risto Päivinen (European Forest Institute), Mr. Derek Peare (IWGFS/Eurostat) and Mr. Christopher Prins (UNECE/FAO).

Sub-Element: Towards Harmonising Data Collection and Reporting Systems

Rationale/Objectives

- Harmonise international data collection and reporting systems

Actions and Implementation

Action	Degree			Implementation
	fully	partly	not	
Exploration of possibilities of harmonising forest-related data-collection and reporting systems in Europe through questionnaires and expert interviews	x			A survey on the Improvement of Pan-European Indicators for SFM, Data Collection and Reporting was undertaken among MCPFE participants in July 1999. A Background Report on International Institutions and Networks for Data Collection, Storage and Reporting Related to Sustainable Forest Management in Europe was compiled by the MCPFE.

Assessment

A Background Report on International Institutions and Networks for Data Collection, Storage and Reporting Related to Sustainable Forest Management in Europe contains in-depth information on the major international institutions and networks for data collection, storage and reporting related to forests, forestry and sustainable forest management. The report gives a comprehensive overview of the institutional landscape and the multiple activities that are on-going.

Sub-Element: Pan-European Reporting for SFM

Rationale/Objectives

- Elaborate a common reporting format for national reports

Actions and Implementation

Action	Degree			Implementation
	fully	partly	not	
Elaboration of a common reporting format for national reports	x			A reporting format on the national implementation of the MCPFE commitments was developed and distributed to the MCPFE member countries in February 2002.

Assessment

The MCPFE reporting format on the national implementation of the commitments made by the MCPFE member countries allowed for a detailed assessment of the implementation of specific commitments to actions of Lisbon Resolutions L1 and L2 and related experiences gained, as well as further progress in implementing commitments made at previous Ministerial Conferences. Part I ('National Implementation') of this publication is based on information collected by means of this reporting format.



A future common reporting format on SFM could be based on the improved qualitative indicators for sustainable forest management. These could allow countries to report on policies, institutions and actions related to SFM in their respective countries as well as on recent changes.

## 2 PAN-EUROPEAN IMPLEMENTATION OF HELSINKI AND STRASBOURG RESOLUTIONS SINCE THE 3<sup>RD</sup> MINISTERIAL CONFERENCE

The follow-up work of the resolutions adopted at the 2<sup>nd</sup> Ministerial Conference (Helsinki, 1993) as well as at the 1<sup>st</sup> Ministerial Conference (Strasbourg, 1990) constitutes an essential component of the overall MCPFE Work Programme.

The responsibility for the pan-European implementation of the Helsinki and Strasbourg Resolutions has been entrusted to international co-ordinators (Table 2). These international co-ordinators were invited to submit the information presented below for each resolution. For each resolution, the international co-ordinators were asked to:

- indicate in brief the *objective(s)* of the respective resolution;
- outline the *general approach* to the implementation of the resolution (e.g. establishment of a special programme, network or database, etc.);
- describe in more detail the *progress in implementation* since the 3<sup>rd</sup> Ministerial Conference, i.e. the concrete action that has been taken since 1998;
- assess in a descriptive way implementation work under each resolution.

Table 2: International co-ordinators of Helsinki and Strasbourg Resolutions

Res.	Resolution	International Co-ordinator(s)
H1	General Guidelines for the Sustainable Management of Forests in Europe	MCPFE Liaison Unit Vienna
H2	General Guidelines for the Conservation of the Biodiversity of European Forests	MCPFE Liaison Unit Vienna
H3	Forestry Cooperation with Countries in Transition	United Nations Economic Commission for Europe/Food and Agriculture Organization of the United Nations (UNECE/FAO)
H4	Strategies for a Process of Long-term Adaptation of Forests in Europe to Climate Change	International Union of Forest Research Organizations (IUFRO)
S1	European Network of Permanent Sample Plots for Monitoring of Forest Ecosystems	Programme Co-ordinating Center (PCC) of ICP Forests; European Commission
S2	Conservation of Forest Genetic Resources	International Plant Genetic Resources Institute (IPGRI)
S3	Decentralized European Data Bank on Forest Fires	United Nations Economic Commission for Europe/Food and Agriculture Organization of the United Nations (UNECE/FAO)
S4	Adapting the Management of Mountain Forests to New Environmental Conditions	The European Observatory of Mountain Forests (EOMF) in co-operation with FAO and IUFRO
S5	Expansion of the EUROSILVA Network of Research on Tree Physiology	University of Oulu, Finland
S6	European Network for Research into Forest Ecosystems	COST Action E25 'European Network for Long-term Forest Ecosystem and Landscape Research' (ENFORS), ECOFOR, Paris and IUFRO

## 2.1 Helsinki Resolutions

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

Author/institution: MCPFE Liaison Unit Vienna

#### Rationale/Objectives

The pan-European definition of sustainable forest management (SFM) and the general guidelines set out in Helsinki Resolution H1 capture the common understanding of European countries on the most important aspects to achieve SFM in Europe. The definition of SFM included in Resolution H1 sets out the overall objective of forest policy in Europe. Helsinki Resolution H1 defines sustainable management as *‘the stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfil, now and in the future, relevant ecological, economic and social functions, at local, national and global levels, and that does not cause damage to other ecosystems.’*

#### General Approach

The definition and the General Guidelines for the Sustainable Management of Forests in Europe provide an important basis for forest policy formulation, implementation, monitoring and evaluation at the national as well as the pan-European level. Consequently, they are reflected in the follow-up work and commitments of the MCPFE since the Helsinki Conference. As indicated in the MCPFE Work Programme, Resolution H1 is particularly linked to follow-up work on Lisbon Resolutions L1 (‘People, Forests and Forestry – Enhancement of Socio-Economic Aspects of Sustainable Forest Management’) and L2 (‘Pan-European Criteria, Indicators and Operational Level Guidelines for Sustainable Forest Management’).

#### Progress in Implementation since Lisbon, 1998

While recognising that a whole range of activities of the MCPFE implicitly contributes to the further implementation of Helsinki Resolution H1, there are two of particular relevance in this context:

The work of the MCPFE to improve the pan-European indicators for SFM (see sub-element ‘Improvement of Pan-European Indicators for SFM’ on page 57) not only puts into action a major commitment made in Lisbon Resolution L2, but also constitutes an important follow-up activity to Helsinki Resolution H1. The Pan-European Criteria and Indicators (C&I) for SFM had been developed in the follow-up of the Helsinki Conference as a common pan-European tool to monitor, assess and report on the state of and changes to SFM, as set out in Resolutions H1 and H2.

In addition, the work of the MCPFE on national forest programmes (see element ‘National Forest Programmes’ on page 56) contributes to the implementation of Helsinki Resolution H1. As captured in the ‘MCPFE Approach to National Forest Programmes in Europe’, national forest programmes aim to support further progress towards the objective of sustainable forest management as defined in Helsinki Resolution H1, and to contribute to sustainable development.

#### Assessment

Through its activities on the pan-European indicators for SFM and on national forest programmes, the MCPFE has underlined the high significance of Helsinki Resolution H1 and contributed to its further implementation.

In the working process concerning the pan-European indicators for SFM, the six pan-European criteria for SFM were confirmed as the most important aspects of SFM in Europe on a conceptual level. The revised pan-European indicators should provide improved means to show changes over time in the sustainable management of forests in Europe as described in Helsinki Resolution H1.

The 'MCPFE Approach to National Forest Programmes in Europe' re-emphasises the importance of SFM as defined in Resolution H1 and provides a conceptual framework shared by all MCPFE participants in order to further proceed towards SFM.

## 2.1.2 Resolution H2: General Guidelines for the Conservation of the Biodiversity of European Forests

Author/institution: MCPFE Liaison Unit Vienna

### Rationale/Objectives

Helsinki Resolution H2 recognises the importance of conserving and enhancing the biological diversity of forests as an essential element for their sustainable management and sets out general guidelines as well as a number of future actions. It addresses forest biodiversity at all levels, i.e. the genetic, species and ecosystem level.

### General Approach

The general guidelines set out in Helsinki Resolution H2 provide an important basis for a wide range of activities of the MCPFE and are reflected in MCPFE commitments since the Helsinki Conference and related follow-up work. As indicated in the MCPFE Work Programme, Resolution H2 is in particular linked to follow-up work on Lisbon Resolution L2 ('Pan-European Criteria, Indicators and Operational Level Guidelines for Sustainable Forest Management').

### Progress in Implementation since Lisbon, 1998

The joint Work-Programme on the Conservation and Enhancement of Biological and Landscape Diversity in Forest Ecosystems 1997 – 2000 ('Biodiversity Work-Programme'), endorsed by both the ministers responsible for forests and for the environment in Lisbon and Aarhus in 1998, is strongly connected to the implementation of Helsinki Resolution H2. The related activities (see element 'Biological and Landscape Diversity' on page 53) contribute to the further implementation of H2.

The work of the MCPFE on the improvement of pan-European indicators for SFM (see sub-element 'Improvement of Pan-European Indicators for SFM' on page 57) constitutes a second major contribution to the implementation of Helsinki Resolution H2. The improved pan-European indicators for SFM related to Criterion 4 ('Maintenance, Conservation and Appropriate Enhancement of Biological Diversity in Forest Ecosystems') aim to provide a more comprehensive picture on the state of forest biodiversity in Europe.

### Assessment

Through its activities on biodiversity and forest conservation, which were based on H2, the MCPFE underlined the high importance of this Helsinki Resolution and facilitated its further implementation.

The work done within the framework of the Biodiversity Work-Programme has substantially contributed to the further implementation of H2, as it has incorporated the guidelines and future actions of H2 to a large extent. The activities at both national and pan-European levels, especially in relation to protected forests and

the conservation of biodiversity in SFM, have strong linkages to various commitments in H2.

Furthermore, the work on the improvement of Pan-European Indicators for SFM led to an improved set of biodiversity indicators, which should provide a comprehensive tool to support the conservation and enhancement of biological diversity in European forests as defined in H2.

### 2.1.3 Resolution H3: Forestry Cooperation with Countries in Transition

Author/institution: Christopher F. L. Prins, UN Economic Commission for Europe, Timber Branch

#### General Approach

In Helsinki, signatory countries and the European Union made a number of commitments to strengthen co-operation with (and within) this group of countries. This resolution gave a new impetus to the work in this field. The key tool for monitoring and co-ordination of activities in this area is the electronic database, which was elaborated and developed by UNECE/FAO with direct input from national correspondents, and periodic expert reviews of the situation and needs of the countries concerned. The aim of the H3 work is to improve transparency and increase the exchange of information, between countries in transition and between donors and recipients of assistance, in order to maximise synergies, and encourage activities which are targeted to the priority needs of those countries.

#### Progress in Implementation since Lisbon, 1998

The bilateral and multilateral work on assistance and co-operation with forestry and forest product sectors of countries in transition has been going on at different levels (local, regional, sub-regional) and is implemented by many institutions and organisations. The H3 database is organised on a project by project basis. Although the database coverage is not yet comprehensive, it includes more than 650 projects of assistance and co-operation reported by donor and recipient countries and organisations. The projects themselves have a variety of objectives, scope and methods for implementation. The majority of them respond to the priority needs of the transition countries as identified by the UNECE/FAO Team of Specialists, namely: institution building, including legal and policy infrastructure, and development of market-oriented and ecologically-sound enterprises. Most of the reported projects are aimed at dissemination of knowledge, experience and information. For each reported project the information in the database refers to the title and contents of the project, type of co-operation, dates, cost, contact person, results expected, results gained, etc. It is possible to sort and search the database in order to produce statistics for analysis and other practical purposes. A detailed Interim Report on the co-operation with countries in transition in the forestry and forest products sector and the implementation of the MCPFE Resolution H3 (status report 2002) has been prepared by the UNECE secretariat (ECE/TIM/DP/25).

The activities and the issues were reviewed in depth at the International Workshop on Forests and Forestry in Central and Eastern European Countries in Debe, Poland, in September 2001.

#### Assessment

The forest sector in many (but by no means all) transition countries has been transformed since Resolution H3 was passed. It is likely that activities under the resolution have helped to improve transparency and provide strategic direction. The various meetings associated with this activity also contributed to strengthening international networks. However, most of the progress by far is due to the efforts of the countries themselves,

with some bilateral help. With the limited resources available, it was not realistic to expect a greater impact from these activities.

It should be noted that the only sources of the information presented are national correspondents for Resolution H3. A number of signatory countries have not yet supplied H3 information to the database, and for many projects only partial responses were received. Nevertheless, it is hoped that more and more projects will be reported and that the reliability of the database will continue to increase as its dissemination and use as an analytical tool become better known.

#### 2.1.4 Resolution H4: Strategies for a Process of Long-term Adaptation of Forests in Europe to Climate Change

Author/institution: Heinrich Schmutzenhofer, International Union of Forest Research Organizations

##### General Approach

The International Union of Forest Research Organizations (IUFRO) was asked to support Resolution H4 in 1998.

IUFRO has established a Task Force on Environmental Change co-ordinated by Professor John Innes (<http://iufro.boku.ac.at/iufro/taskforce/tfec/abtfec.htm>). The objectives of the Task Force are to provide an integrated assessment of the interactions between air pollution, climate change and forest ecosystems throughout the world. Within this context, the Task Force will:

- provide, without ideological bias, information on the state of science, through easily understandable reviews of existing knowledge;
- disseminate scientific knowledge, individual opinions, existing hypotheses, uncertainties, conflicting views and gaps in our knowledge;
- promote contacts and co-ordination between IUFRO and other organisations;
- encourage a holistic approach to research and forest management.

Progress in Implementation since Lisbon, 1998

IUFRO Research Series published as books by CAB International (UK):

No. 1: *Forest Dynamics in Heavily Polluted Regions* edited by J.L.Innes and J.Oleksyn (...Air pollution has been recognised as a potential problem for forests for nearly 150 years. Today, sulphur dioxide, fluorides and heavy metals remain a significant problem in some areas, where they are usually associated with large-scale sources in industrial and urban areas. Problems are exacerbated in those regions where there is a poor understanding of the factors involved in forest decline and where no rigorous pollution controls have been implemented. It includes case studies from Europe, North America and Russia and in addition it has a summary for policy makers. It is of particular interest to those researching and studying in the fields of forestry, environmental science and pollution studies...)

No. 4: *Air Pollution and the Forests of Developing and Rapidly Industrializing Countries* edited by J.L.Innes and A.H.Haron (...This book examines the importance of air pollution for the forests of rapidly industrialising countries and regions. Its geographical coverage includes South and Central America, Africa and Asia, including Siberia, China and Korea. The problems presented by air pollution are placed within the more general context of sustainable development within these regions and the historical legacy that they are attempting to deal with. Attention is drawn to the very serious problems associated with poor air quality in cities such as Mexico City and Chongqing, China. Air pollution in these areas is among the worst in the world. Several chapters examine the importance of forest

fires as a source of air pollution, with particular reference being made to the Southeast Asian fires in recent years. The available information about the effects of this pollution on the surrounding forests is reviewed, and recommendations are made for a better understanding of the impact. A final chapter reviews the recent developments in air pollution control policies in the different regions covered by the book...)

No. 8: *The Impact of Carbon Dioxide and Other Greenhouse Gases on Forest Ecosystems* edited by David F. Karnosky, R. Ceulemans, G. E. Scarascia-Mugnozza, and J. L. Innes (...Carbon dioxide and other greenhouse gases, such as ozone, nitrogen oxides, carbon monoxide and chlorofluorocarbons, are all increasing in the atmosphere. These gases are directly affecting biological processes in trees and ecological processes in forests. They are also causing considerable radiant energy to be trapped near the earth's surface, resulting in the so-called 'greenhouse' effect, which may significantly alter global climate in the 21<sup>st</sup> century. However, this issue is subject to some controversy. This book provides an authoritative review, written by expert world forest scientists, of what is known about the impact of elevated CO<sub>2</sub> and other greenhouse gases on forest ecosystems...)

#### Assessment

The IUFRO Research Series will be extended by several more state-of-knowledge reports in the next few years<sup>19</sup>. Still missing is the summary of experience gathered and projects under development in individual countries of Europe regarding Resolution H4 to draft strategies for a process of long-term adaptation of forests in Europe to climate change. The activities to further develop Resolution H4 should continue.

## 2.2 Strasbourg Resolutions

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

Author/institution: Thomas Haußmann, ICP Forests in co-operation with the European Commission

#### General Approach

Since 1986, ICP Forests and the EU have been co-operating closely in monitoring the effects of air pollution and other stress factors on forests. Today 39 countries are participating in the monitoring programme, which contributes to the implementation of clean-air policies under UNECE and EU as well as at national levels. The objectives of the monitoring programme are:

- to provide a periodic overview of the spatial and temporal variation in forest condition in relation to anthropogenic and natural stress factors for a European and national large-scale systematic network (Level I);
- to contribute to a better understanding of the relationships between the condition of forest ecosystems and stress factors, in particular air pollution, through intensive monitoring of a number of selected permanent observation plots spread over Europe (Level II);
- to contribute to the calculation of critical levels, critical loads and their exceedances in forests;

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<sup>19</sup> 'Natural Hazards and Environmental Change in Forests' edited by R.Sidle. In press with CAB International; 'Socio-economic Changes and Forestry' edited by H.F.Hoen and J.L.Innes. In final edit; 'UV-B Impacts on Forests' edited by S.Huttunen. In preparation; 'Forests and Carbon Sequestration' edited by T.Karjalainen and M.Apps. In preparation; 'Environmental Change and Forest Management' edited by F.Mohren. In preparation.

- to collaborate with other environmental monitoring programmes in order to provide information on other important issues, such as climate change and biodiversity in forests and thus contribute to the sustainable management of European forests;
- to compile information on forest ecosystem processes and to provide policy makers and the public with relevant information.

The objectives of the programme are implemented by a systematic large-scale monitoring network (Level I) and an Intensive Forest Monitoring Programme (Level II).

At Level I approximately 6000 permanent plots are systematically arranged in a 16 by 16 kilometre grid throughout Europe. At these sites crown condition is assessed annually. In addition, soil and/or foliage surveys were conducted on most of the plots. A new soil survey is under discussion.

For intensive monitoring, more than 860 Level II plots have been selected in the most important forest ecosystems of the participating countries. A larger number of key factors are measured on these plots; the data collected can be used for case studies of the more common combinations of tree species and sites.

Key factors measured at both levels form the basis for an extrapolation of results. The inclusion of further parameters and surveys is currently being considered.

Progress in Implementation since Lisbon, 1998

Almost half of Europe is covered by forests. These extensive ecosystems are partly affected by the deposition of atmospheric pollutants. These inputs act within a complex of other anthropogenic and natural stress factors. The monitoring programme of ICP Forests and EU has become an essential source of information in the fields of clean-air policy and atmospheric pollution, also taking into account their relationship to sustainable forest management, biodiversity and climate change. Main programme results as indicated in the Executive Report 2002 are:

Time trends of its large-scale data on **forest condition** show an overall deterioration in crown condition again over the past five years, although the level of damage is lower compared to the peak in the mid-1990s. More than 20% of all trees assessed in 2001 were classified as damaged. For the first time correlations between deposition and deteriorating crown condition of the trees were clearly shown in large-scale evaluations based on 1300 plots of pine trees and nearly 400 beech plots. Furthermore, insect and fungi attacks and unfavourable weather conditions have had an impact on forest condition.

Under the Intensive Monitoring Programme, **total deposition** has been calculated for more than 200 plots. Inputs of nitrogen from 1995 to 1999 mostly range between 3.5 and 39 kg per hectare and year with an average value of 19 kg. Average sulphur inputs are around 12.5 kg and range mostly between 3 and 29 kg. The effects of these depositions depend on the sensitivity of the ecosystems. **Critical loads** for nitrogen and acidity have been calculated which express the highest quantity of inputs tolerable for specific plots. Results show that the forests in Scandinavia are particularly sensitive. Critical loads for nitrogen and acidity were exceeded by present depositions on large parts of the plots. Based on the official UNECE manual for calculation of critical loads, the plotwise results largely based on measurement data are important cornerstones for the partner programme of ICP on Modelling and Mapping, which produces area-related maps for Europe, largely based on estimated data.

The UNCED conference in Rio de Janeiro in 1992 expressed a serious concern about the world-wide loss of **biodiversity** and considered atmospheric deposition as one of the factors that might be responsible for this. The ground vegetation data of the monitoring programme in relation to the measured environmental influences



now shows that the present acidity status of the soil is clearly related to the species occurrence. Impacts of nitrogen deposition were found for some species. Additional important environmental influences were precipitation, temperature and the tree species growing on the plots. The programme has recognised the importance of the biodiversity issues, and a newly established working group is now responsible for intensified assessments and evaluations that might in the future make it possible to quantify environmental impacts on floristic biodiversity in forests.

#### Assessment

In the 16 years of its existence, the forest monitoring programme of ICP Forests and the EU has been effective as a promoter, supporter and creator of awareness in the scientific, political and public areas. The programme has fully implemented the Resolution S1. Its growing datasets and its infrastructure have become increasingly interesting for other organisations and projects, and at the same time the widened scope of activities requires competent partners. This is reflected in the growing number of requests for programme publications and access to the programme webpage (<http://www.icp-forests.org>). In the Nordic countries in particular, the programme's monitoring data are linked to the national forest inventories. Also, their use for monitoring Natura 2000 habitat types is under discussion. The work of ICP Forests and the EU takes into account international processes like the Convention on Biological Diversity (CBD) and the United Nations Framework Convention on Climate Change (FCCC) and benefits, for example, from the co-operation with the Ministerial Conference on the Protection of Forests in Europe (MCPFE) and with deposition-monitoring networks in other parts of the world.

### 2.2.2 Resolution S2: Conservation of Forest Genetic Resources

Author/institution: Jozef Turok, International Plant Genetic Resources Institute

#### General Approach

The European Forest Genetic Resources Programme (EUFORGEN) was established in 1995 as the implementation mechanism of Resolution S2. The overall goal of EUFORGEN is to ensure the effective conservation and the sustainable use of forest genetic resources (FGR) in Europe. The Programme operates through five species-oriented networks. Network members from participating countries carry out an agreed workplan, with their own resources, as inputs in kind to the Programme. EUFORGEN is financed by its participating countries and is co-ordinated by the International Plant Genetic Resources Institute in close collaboration with the UN Food and Agriculture Organization. EUFORGEN is overseen by a Steering Committee of National Coordinators nominated by the participating countries.

#### Progress in Implementation since Lisbon, 1998

The collaborative workplans include regular exchange of data and information, technical guidelines, common information standards, preparation of joint project proposals, exchange of genetic materials, literature overviews and public awareness. The main task of all the Networks during phase II (2000-2004) is to produce a set of technical guidelines for genetic conservation and management of the different mandate species. The target audiences are forest officers and agencies responsible for FGR in each country. Technical guidelines for four species have been produced so far. Provision of widely accepted information standards and products represents another major area of the collaborative work. The bibliographic database now provides easy

access to literature published mainly in journals with limited distribution ('grey literature'). This on-line database currently contains 1800 records. The Networks have prepared tools for raising public awareness, such as image collections, common brochures, posters and presentations. With regard to research, all the Networks have been increasingly involved in facilitating and supporting relevant European research projects. Regular Network meetings provide an important tool in the operation of EUFORGEN. Since 1998, 14 Network meetings have been held, each attended by approximately 25 specialists. Twelve technical publications have been produced as a result of the Network meetings. The summary reports of meetings and other main information products of the Networks can be found at [http://www.ipgri.cgiar.org/networks/euforgen/euf\\_home.htm](http://www.ipgri.cgiar.org/networks/euforgen/euf_home.htm).

#### Assessment

In view of the positive results obtained during the first phase (1994-1999), the EUFORGEN Steering Committee, at its meeting held in Vienna in 1998, recommended that the second five-year phase be developed. The number of participating countries in this second phase increased to thirty-two. The third meeting of the Steering Committee took place in Jönköping, Sweden, in June 2002. It acknowledged the progress made during the first part of phase II, provided guidance for the remaining period and made recommendations for future collaborative action on FGR in Europe. With regard to research, the increasing recognition of the information and infrastructure provided by EUFORGEN has led to its involvement in the preparation of a network of excellence for the Sixth Framework Programme of the European Union. The international collaborative work to implement Resolution S2 has had a documented technical and political impact on the development of national programmes for FGR, fully recognising that the responsibility for decisions on the management of FGR and their financing lies entirely with each country. The EUFORGEN Networks also promoted and assisted in efforts to develop similar initiatives in other parts of the world. The strong endorsement by participating countries of the work conducted within the framework of EUFORGEN confirms the importance of FGR for future sustainable forest management in Europe, timely recognised by adopting Resolution S2 in Strasbourg.

### 2.2.3 Resolution S3: Decentralized European Data Bank on Forest Fires

Author/institution: Jorge Najera, United Nations Economic Commission for Europe in co-operation with the European Commission

#### General Approach

Both organisations, UNECE and the EU, together with European countries are committed to presenting a reliable and comprehensive source of information on forest-fire statistics as to definitions and accuracy of the data. The European Commission established a Community information system on forest fires on the basis of the common core of information for each Member State containing areas classed as 'at risk from fire'; the information system is open to all signatory countries to Resolution S3. The UNECE continues to collect and publish annually forest fire statistics, with a simplified questionnaire. Countries are encouraged to adhere progressively to the common core system of data collection. The measures implemented by the various institutions involved will be continued:

- collecting UNECE forest fire statistics;
- common core of information from the signatory countries, European Commission.

Progress in Implementation since Lisbon, 1998

UNECE – Publication of Annual Forest Fire Statistics in the Timber Bulletin

Forest Fire Statistics 1996-1998, ECE/TIM/BULL/52/4, Volume LII (1999)

Forest Fire Statistics 1997-1999, ECE/TIM/BULL/53/4, Volume LIII (2000)

Forest Fire Statistics 1998-2000, ECE/TIM/BULL/54/4, Volume LIV (2001)

In preparation:

Forest Fire Statistics 1999-2001, ECE/TIM/BULL/55/4, Volume LV (2002)

European Commission: Forest Fires in the European Union; a Community Scheme to Protect Forest Against Fires<sup>20</sup>

Assessment

The implementation actions following the Lisbon Conference have been identical to those in the period leading up to the Conference. 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 together effectively. Communication channels and co-ordination 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 needed.

In no small measure this successful outcome has been thanks to the co-ordination of the 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 the basic data has been crucial to this success.

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

Author/institution: Pier Carlo Zingari, European Observatory of Mountain Forests in co-operation with FAO and IUFRO

Introduction

Resolution S4 has two special characteristics: it is the only 'territorial' resolution of the 12 resolutions adopted since the 1<sup>st</sup> Ministerial Conference in Strasbourg in 1990, and it has been signed by 25 'mountain' countries and the European Commission. From the Strasbourg to the Lisbon Conference, Resolution S4 has been co-ordinated by Portugal with significant results. From Lisbon, ministers decided to charge the EOMF, FAO and IUFRO with the follow-up. The main results are reported below with reference to the methods and means developed and through a short presentation of the strengths and weaknesses. Besides this short report, EOMF, FAO and IUFRO are working on a comprehensive report to be presented to signatory parties and new countries by the next Ministerial Conference in Vienna in April 2003.

<sup>20</sup> The web-site [http://europa.eu.int/comm/agriculture/fore/fires/index\\_en.htm](http://europa.eu.int/comm/agriculture/fore/fires/index_en.htm), set up by the European Commission, provides up-dated information on the forest fires information system of the European Community.

### General Approach

Although in 1990 the ministers responsible for forests unanimously recognised in an *ad hoc* resolution in Strasbourg that mountain forests deserved special attention, only some countries signed this resolution, considering it of 'local' interest. The methods used in the co-ordination have been relying on the international approach to mountain ecosystems. In 1992, Agenda 21 of the UNCED recognised the fragile nature of mountain ecosystems (Chapter 13) both in ecological and in socio-economic terms. This has been confirmed by the work of IPF/IFF/UNFF. Methodologically, the co-ordination work for Resolution S4 has been based on the following criteria: integration of ecological and socio-economic aspects, involvement of FAO and IUFRO capacities in the follow-up, involvement of different stakeholders (owners, managers, practitioners, researchers, among others) through regular meetings, consultation and participation of signatory parties.

### Progress in Implementation since Lisbon, 1998

After the Lisbon Conference in June 1998, an International Workshop on Mountain Forests in Europe took place in Trento, Italy, in September 1998 to start a new phase of Resolution S4. Subsequently a check list was prepared to identify priorities and an Operational Meeting was held in El Escorial, Spain, in October 1999 to produce an Action Plan for Resolution S4. The Workshop of Igls, Tyrol, Austria, May 2000, presented the White Book 2000 on Mountain Forests in Europe, providing an assessment and proposals based on countries' involvement and a synthesis of research during the latest five years. The European Commission, DG Agriculture, decided in 2001 to co-fund the publication of the White Book with a large distribution in Europe (five languages). In order to effectively progress, a trust fund was identified at the Operational Meeting in Spain as an effective means for the co-ordination work. Most of the signatory countries continued to participate (21 out of 25). Countries have been systematically requested to provide: a focal point contact, an interaction on initiatives and a mutual information flow.

### Assessment

- Awareness of the significance and value of mountain forests in Europe has been increasing, helped by, for example, the adoption of Article 32 of the Regulation EC 1257/1999 by the EU, research initiatives and publication of the White Book as part of the S4 Plan. There is now clear recognition of the beneficial effects of mountain forests not only on the land they cover but on large territorial portions (e.g. risks, erosion, biodiversity, air and water).
- Assessments of the mountain forest resources have been promoted and implemented in collaboration with countries, the EU, FAO and the UNEP-WCMC. These assessments have estimated mountain forest cover in Europe to be 28% of the EU Member countries' land area or 30% of greater Europe. In Russia 40% of forests are found in the mountains.
- Participation of different actors is increasing: the three international workshops organised since the Lisbon Conference give evidence of an interest by a large set of actors involved in various aspects of mountain forest policies and practices: wood and energy production, soil, water and biodiversity conservation, risk prevention, rural development, revenue and employment opportunities. The United Kingdom recently officially declared its intention to sign up to Resolution S4 during a European workshop on rural development.
- Initiatives on mountain forests are growing. Mountain forests are receiving growing attention through political, technical and scientific initiatives. The European Federation of Local Forest Communities stated mountain and Mediterranean forests to be among its priorities; the European Parliament and

Commission have taken decisions linked to territorial cohesion (i.e. keep people on the land), in addition to the economic and social ones. Researchers have determined the importance of the theme and are taking various initiatives (e.g. IUFRO, COST, R&D Projects, Network of Excellence).

- Knowledge and successful practices are taking advantage of the political momentum. In addition to increased information and data on mountain forests, knowledge is increasing both about ecology and economic and technical aspects; interdisciplinary research is also expected to grow.
- European and international co-operation on mountain forest issues is strong among many organisations, including the EU. Countries are still hesitant about taking a clear position. For some countries and political actors, mountain forests are still seen as being of limited interest, strictly an ecological or an 'Alpine' problem. There is still a weak commitment to recognising these forests as being of Europe-wide concern.
- Links between this and other resolutions have been weak.

#### Conclusions

Mountain forests have a clear territorial, ecological and socio-economic importance beyond the area they cover. Their beneficial effects are not only those on tourism and recreation activities but on larger local socio-economic challenges, like rural development and territorial cohesion. Their benefits on downstream areas are of paramount importance, as has been recognised outside Europe by international organisations (e.g. FAO, WB, IUCN).

Accession countries are also 'mountain-related' countries and a clear position on these forests, like the one recently expressed by the United Kingdom, will contribute to the conservation and sustainable management of all types of forests across Europe. Resolution S4 remains an MCPFE pillar for the future of forests in Europe.

A reinforcement of the institutional links between Resolutions S4 and other resolutions is a condition for further outputs on the management of mountain forests as a genuine European characteristic.

#### 2.2.5 Resolution S5: Expansion of the EUROSILVA Network of Research on Tree Physiology

Author/institution: Satu Huttunen, Botany Division, Department of Biology, University of Oulu, Finland

##### General Approach

The 1<sup>st</sup> Ministerial Conference in Strasbourg in 1990 proposed that forest tree physiology research should be included within the pan-European research network. The objectives were signed as Resolution S5 in Strasbourg by 20 countries intending to reinforce, organise and co-ordinate research projects in tree physiology. Further attempts to promote co-operation in European tree physiology research led to COST Action 6 EUROSILVA: Forest Tree Physiology Research. The Memorandum of Understanding was signed on 25 October 1995. The final EUROSILVA network consisted of 20 countries and over 440 announced projects (Final report 10-2000). The Action was structured as three working groups: WG 1: Growth and Development, WG 2: Tree Nutrition and Water Relationships, and WG 3: Biotic and Abiotic Interactions.

##### Progress in Implementation since Lisbon, 1998, and Assessment

A scientific book of reports entitled *Trends in European Forest Tree Physiology Research* (edited by COST Action core group) in the Kluwer Academic Publishers series 'Tree Physiology' was published in 2001.

Working group meeting results have been published in several proceedings since 1996.

There have been no further activities under the title EUROSILVA, but several co-operative research projects originating from the COST activities and financed by the European Union or national sources have been pursuing research since 2000. New applications have been submitted as well. Many scientists and research groups also belong to corresponding IUFRO project groups in, for example, the Tree Physiology and Genetics and Forest Health Divisions.

## 2.2.6 Resolution S6: European Network for Research into Forest Ecosystems

Author/institution: Folke Andersson, Department of Ecology and Environmental Research, Swedish University of Agricultural Sciences

### General Approach

A concerted action (EFERN) was started in 1997 in order to fulfil the aims of Resolution S6:

- to better combine European research efforts on the national and international level;
- to set up a European network for research on forest ecosystems;
- to define a few research subjects particularly for the protection of European forests.

A secretariat was established in Vienna in order to develop a European network/databank on institutions, scientists and projects. Priority research areas were identified by an analysis of concepts such as sustainability, productivity, biodiversity, ecosystem dynamics and multifunctionality.

### Progress in Implementation since Lisbon, 1998

The EU-FAIR<sup>21</sup> concerted action was successfully concluded in 1999. The major achievement was the publishing of the book *Pathways to the Wise Management of Forests in Europe* (Forest Ecology and Management 132:1-119). This book starts with an historical account of utilisation of European forests and the development of forestry research. Basic ecosystem concepts are discussed along with identification of critical areas in understanding biodiversity and management as well as sustainable forest growth. Regional problems of boreal, temperate, mountainous and Mediterranean areas are discussed. Finally, in order to achieve a sustainable use of European forests, a special chapter is devoted to the concept 'ecosystem and landscape forestry'. The multiple use of forestland will require an understanding based on an increase in scale and scope. The increase in scale means that it is not enough to focus on the forest stand or the ecosystem. The landscape level must be treated in order to understand biodiversity issues as well as water quality as a function of forest management. The increase in scale and scope means that socio-economic issues also need to be considered.

With support from Austrian, French and Swedish authorities, the EFERN-network and related activities have been maintained. The realisation of a closer European collaboration has been under way since September 2001 under the auspices of 'Cooperation in Science and Technology' (COST Action E25 – European Network for Long-term Forest Ecosystem and Landscape Research / ENFORS). Twenty-four European nations have signed the agreement. The aims of the agreement are to establish a broad European network of research sites or facilities of relevance for sustainable forestry as well as a common research programme. The secretariat in

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<sup>21</sup> FAIR is an acronym for the fourth framework specific research and technological development (RTD) programme 'Agriculture and Fisheries'. It includes agro-industry, food technologies, forestry, aquaculture and rural development.

Vienna is now a communication centre, and an ENFORS secretariat is located in Paris. An 'Expression of Interest' for a network of excellence has been delivered to the 6<sup>th</sup> EU Framework Programme as a part of the realisation of the intention of Resolution S6 as well as the fulfilment of other resolutions from Helsinki and Lisbon.

Information on EFERN may be found at <http://iff.boku.ac.at/efern> and on ENFORS at <http://iff.boku.ac.at/enfors>. The EFERN and ENFORS web pages were visited 14,500 times a month during 2001.

#### Assessment

The result of the work must be considered as successful. Funding has been made available for meetings and secretarial functions, which have been essential to the creation of the network and databank. The EFERN network includes 38 European countries, 1371 institutions, 1716 scientists and 1419 projects. The national participation and authorship work has come through voluntary commitments. The EFERN network has been the key to the continuation of the realised COST Action E 25 ENFORS.

 **Annexes**




**ANNEX 1: List of National Reports<sup>22</sup>**

Country	Detailed report on L1 and L2	General report on S, H and L Resolutions
Albania	✓	✓
Austria	✓	✓
Belgium (Flemish/Walloon Region)	✓	✓
Croatia	—	✓
Cyprus	✓	✓
Czech Republic	✓	✓
Denmark	—	✓
Estonia	✓	✓
European Commission	✓	✓
Finland	✓	✓
France	—	✓
Georgia	✓	—
Germany	✓	✓
Greece	✓	✓
Hungary	✓	✓
Ireland	✓	✓
Italy	—	✓
Latvia	✓	—
Liechtenstein	—	✓
Lithuania	—	✓
Luxembourg	✓	✓
Netherlands	✓	✓
Norway	✓	✓
Poland	✓	✓
Portugal	✓	✓
Romania	—	✓ (draft)
Russia	✓	✓
Slovakia	✓	✓
Slovenia	✓	✓
Spain	✓	✓
Sweden	✓	✓
Switzerland	✓	✓
Turkey	✓	✓
United Kingdom	✓	✓
Ukraine	—	✓
<b>35</b>	<b>27</b>	<b>33</b>

<sup>22</sup> Reports submitted to the Liaison Unit Vienna by 31 December 2002.

## ANNEX 2: List of Actions of Resolution L1

1. Action L1/1 (communication): Develop, at adequate levels, a dialogue with the public and efficient programmes to increase awareness of the benefits of sustainable forestry to society.
2. Action L1/2 (participation): Continue to develop the conditions for the participation of relevant stakeholders in the development of forest policies and programmes.
3. Action L1/3 (SFM frameworks): Explore ways and means to maintain and develop at national level sound regulatory, institutional and economic frameworks conducive to enabling and motivating all forest owners to practise sustainable forest management and to make long-term investment in forestry.
4. Action L1/4 (workforce): Adapt education and training systems and programmes contributing to the development of a highly skilled, multidisciplinary workforce, also enhancing the involvement of women in forest-related activities.
5. Action L1/5 (gender aspects): Encourage studies on gender aspects of forest policy and practices in Europe, especially within the context of education, training, communication and decision-making to improve sustainable forest management.
6. Action L1/6 (education & training): Promote the development of education and training programmes, especially directed at forest owners and managers, focusing on new opportunities and techniques for the production of goods and services from forests under sustainable management.
7. Action L1/7 (wood products): Encourage comparative studies of wood and non-wood substitutes, considering their complete life cycles, and strive for conditions favourable to the production, marketing and consumption of wood and other products and services from forests under sustainable management, as viable alternatives to competing products using non-renewable natural resources, generating more employment and income.
8. Action L1/8 (health & safety): Promote the improvement and application of appropriate safety and health standards and practices, professionalism of forest owners, forest workers and contractors, and skills certification.
9. Action L1/9 (socio-economics): Engage further research efforts on the socio-economic aspects of sustainable forest management, in particular on the assessment and valuation of the full range of forest goods and services, in order to provide reliable information for policy and decision-making and public dialogue.
10. Action L1/10 (accounting system): Promote the incorporation of the results of assessment and valuation of wood and non-wood forest goods and services into national economic and natural resource accounting systems.
11. Action L1/11 (quality assurance): Evaluate the potential impacts of quality-assurance systems and programmes, such as voluntary and independent forest certification systems, on sustainable forest management in line with the proposals for action agreed by the Intergovernmental Panel on Forests (IPF).

## ≡ ANNEX 3: List of Actions of Resolution L2

1. Action L2/1 (national C&I): Promote the development and implementation of national criteria and indicators using the pan-European criteria and indicators as a reference framework, and taking into account specific country conditions, and integrate them into national forest programmes or other relevant policy frameworks.
2. Action L2/2 (quality & adaptation of data): Improve the quality and promote the necessary adaptations of national data-collection systems to fulfil the needs of information for national and international reporting on sustainable forest management, recognising the need for continuity of terms and definitions.
3. Action L2/3 (C&I in international reporting): Use to the extent possible the criteria and indicators in international reporting on the status and conditions of European forests. Also call upon the UNECE, FAO and other relevant organisations to consider whether their regular international reporting, particularly the Forest Resource Assessment (FRA) Programme, could take into account the most recent criteria and indicators.
4. Action L2/4 (evaluation of indicators & data): Encourage national and international research institutes to evaluate the consistency, relevance and cost effectiveness of indicators in assessing sustainable forest management, as well as availability of national data. Together with governments and organisations, identify needs, and promote and support necessary co-operative research to improve and better assess the multiple functions and uses of forests which are considered as being insufficiently covered by the existing set of criteria and indicators.
5. Action L2/5 (evaluation of progress): Evaluate, at a national level, the development over time in measurable indicators with respect to the agreed developed objectives in order to assess progress made in sustainable forest management.
6. Action L2/6 (common definitions): Engage efforts with other international and regional processes and initiatives, FAO, UNEP and other relevant international organisations as well as conventions to further elaborate common definition of key terms and concepts as well as methodologies for data collection, storage and dissemination in order to enhance comparability of the different sets of criteria and indicators for sustainable forest management.
7. Action L2/7 (adaptation of PEOLG): Encourage the adaptation of the ‘Pan-European Operational Level Guidelines for Sustainable Forest Management’ to the specific national, sub-national and local economic, ecological, social and cultural conditions, with participation of the interested parties.
8. Action L2/8 (dissemination of PEOLG): Disseminate the ‘Pan-European Operational Level Guidelines for Sustainable Forest Management’, or equivalent existing national standards in line with the guidelines, to the forest owners, forest managers, forest organisations, general public and other interested parties, and encourage their voluntary use.

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## ANNEX 5: List of Abbreviations

C&I	criteria and indicators
CBD	Convention on Biological Diversity
CEECs	Central and Eastern European Countries
CITs	Countries in Transition
COST	European Co-operation in the Field of Scientific and Technical Research
ECE	Economic Commission for Europe
ECOFOR	Ecosystème Forestiers, a French co-operative on forest ecosystem and landscape research
EFERN	European Network for Research into Forest Ecosystems
ENFORS	European Network for Long-term Forest Ecosystem and Landscape Research
ENGO	environmental non-governmental organisation
EOMF	European Observatory of Mountain Forests
EU	European Union
EUFORGEN	European Forest Genetic Resources Programme
FAO	Food and Agriculture Organization of the United Nations
FGR	forest genetic resources
fmps	forest management plans
FRA	Forest Resources Assessment
ICP Forests	International Co-operative Programme on the Assessment and Monitoring of Air Pollution Effects on Forests
IFF	Intergovernmental Forum on Forests
ILO	International Labour Organization
IPCC	Intergovernmental Panel on Climate Change
IPF	Intergovernmental Panel on Forests
IPGRI	International Plant Genetic Resources Institute
IUFRO	International Union of Forest Research Organizations
IWGFS	Inter-Secretariat Working Group on Forest Statistics
LULUCF	Land Use, Land-Use Change and Forestry
MCPFE	Ministerial Conference on the Protection of Forests in Europe
nfp	national forest programme
NGO	non-governmental organisation
NWFP	non-wood forest product
PEBLDS	Pan-European Biological and Landscape Diversity Strategy
PEOLG	Pan-European Operational Level Guidelines
R&D	research and development
SFM	sustainable forest management
TBFRA	Temperate and Boreal Forest Resources Assessment
UNCED	United Nations Conference on Environment and Development
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNEP-WCMC	UNEP World Conservation Monitoring Centre

Annex 5

UNFCCC	United Nations Framework Convention on Climate Change
UNFF	United Nations Forum on Forests
WB	World Bank
WP-CEBLDF	Work-Programme on the Conservation and Enhancement of Biological and Landscape Diversity in European Forests 1997 – 2000 ('Biodiversity Work-Programme')



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