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GENEVA TIMBER AND FOREST STUDY PAPER 26

PRIVATE FOREST OWNERSHIP IN EUROPE

Franz Schmithüsen and Franziska Hirsch

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ECE/TIM/SP/26

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Forestry and Timber Section, Geneva, Switzerland

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Note

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Abstract

More than half of Europe's forests, not including Russia and other CIS countries, are privately owned. Private owners play a key role in sustaining forest ecosystems, enhancing rural development and supplying resources to markets. Nevertheless, a significant lack of knowledge remains on private forest ownership in Europe. A joint enquiry was conducted during 2006-2007 by the United Nations Economic Commission for Europe, the Food and Agriculture Organization of the United Nations, the Ministerial Conference on the Protection of Forests in Europe (MCPFE, now Forest Europe) and the Confederation of European Forest Owners (CEPF) in an attempt to contribute to closing this knowledge gap. A questionnaire was addressed to 38 MCPFE member countries with records of private forestry. Twenty-three countries participated through submitting national reports, mostly for the year 2005: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Finland, France, Germany, Hungary, Iceland, Ireland, Latvia, Lithuania, Netherlands, Norway, Poland, Romania, Serbia, Slovakia, Slovenia, Sweden, Switzerland and the United Kingdom. This study paper presents the main findings from the national country reports and draws conclusions on the state of private forestry in Europe in terms of ownership distribution, holding structure, socio-economic findings and trends, with regard to restitution/privatization, changes of ownership patterns and association of private forest owners.

Keywords

Forest ownership; private forest sector; wood resources; sustainable forest management; data base, empirical enquiry.

ECE/TIM/SP/26

UNITED NATIONS PUBLICATION

Sales No. E. 09.XX.X.XX
ISBN XXX-XX-X-XXXXX-X
ISSN 1020 2269

Preface

UNECE, together with FAO, through its integrated programme of work on timber and forestry, works to strengthen the forest sector and its contribution to sustainable development. This is also done through data collection and analysis, which contributes to better knowledge of the forest sector within the UNECE region. This study sheds light on private forestlands in Europe, which are of crucial importance in the region.

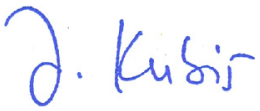
Forest owners play a key role in sustaining forest ecosystems and enhancing rural development while also providing an economic and industrial resource of primary importance in the UNECE region. Nevertheless, a significant lack of knowledge on forest ownership in Europe remains.

A joint enquiry by UNECE/FAO, the Ministerial Conference on the Protection of Forests in Europe (MCPFE) and the Confederation of European Forest Owners (CEPF) contributed to closing this knowledge gap. This study presents the main findings from the national reports and draws conclusions on the state of private forest ownership in Europe, in terms of ownership distribution, structure of holdings, socioeconomic findings and overall trends, with regard to restitution/privatization, changes of ownership patterns and associations of private forest owners.

The publication informs policy makers about the socioeconomic realities linked to private forest ownership, including the objectives and motivations of private forest owners. Important and changing trends, such as forest land fragmentation, ownership transfer from public to private, owner demographics and socioeconomic situation, and many other changes, are identified throughout the publication. Monitoring changes in this area is particularly important in view of the increasing need to reach out to private forest owners who control such a significant portion of Europe's forests. This has become increasingly important in view of the bioenergy policies which are reshaping the forest sector and require the mobilization of additional resources, in particular from the often under-utilized private forests.

The identification by this report of best practices/examples contributes to informing Governments and policy makers of possible courses of action.

With this publication, UNECE, with FAO and its other partners, continues to contribute to sustainable forest management in the region by providing relevant and objective data and analysis.



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Acknowledgements

The secretariat wishes to expresses its appreciation to the authors of this study paper, Prof. Dr. Franz Schmithüsen, Swiss Federal Institute of Technology (ETH), Zurich, and Franziska Hirsch, responsible for forest policies and institutions at the UNECE/FAO Forestry and Timber Section. While UNECE/FAO took the lead in conducting the enquiry and the establishment of a dataset on private forest ownership in Europe, both authors worked together in analysing the data gathered and their findings provide the basis for this study.

The secretariat wishes to thank Alexander Korotkov and Matthias Wilnhammer for the preparation and initial conduct of the private forest ownership study. Helena Guarin and Richard Slaby provided invaluable support in the validation of the data and the preparation of the private forest ownership database, available on the UNECE/FAO website (http://www.unece.org/trade/timber/fra/PFO.htm). Matthias Wilnhammer is owed special thanks for the production of the graphics in this paper, and for the production of the initial data tables.

The authors wish to thank Kit Prins, former Chief, UNECE/FAO Forestry and Timber Section, Virginia Cram-Martos, Director, UNECE Trade and Timber Division, as well as Atilla Lengyel and Morton Thoroe, Confederation of European Private Forest Owners (CEPF) for their review and excellent comments which helped improve the paper. They also thank Matthew Fonseca for his work on the editing and layout.

The secretariat also wishes to thank the national country correspondents for the submission of completed national reports, often completed in cooperation with counterparts in the country and in correspondence with the secretariat. Without the dedication of the national correspondents, this study would not have been possible.

The secretariat would also like to state its appreciation for the contribution of its partners in the preparation of the questionnaire on private forest ownership in Europe. Valuable comments on the draft enquiry were provided by CEPF, the European Landowner's Organization, the Fédération européenne des communes forestières (FECOF), European Landowners' Organisation (ELO), the European Forest Institute (EFI) and the Joint UNECE/FAO Working Party on Forest Economics and Statistics, which reviewed the draft enquiry during its twenty-eighth session and endorsed its distribution. Special thanks for review and the provision of valuable suggestions which led to improvements of the paper is owed to Simon Gillam (UK), Florian Borlea (Romania) and Florian Steierer (University of Hamburg and UNECE/FAO).

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1. CONTEXT AND PROJECT DEVELOPMENT

1.1 Context

The importance of private forestry has been acknowledged in several political processes and expert meetings. Already, the EU Forestry Strategy recognized in 1998 the importance of private forest owners within the European Union and the wide variety of ownership types.[1] In 2003, the fourth Ministerial Conference on the Protection of Forests in Europe (MCPFE) stated that sustainable forest management in Europe relied, inter alia, on private owners[2]. MCPFE Vienna resolution 2 "Enhancing economic viability of sustainable forest management in Europe" highlights awareness that sustainable forest management in Europe relies on millions of private owners.[3] Moreover, the mobilization of incentives for sustainable forest management practices among small private forest landowners was stressed in the policy recommendations in the fifth Session Report of the United Nations Forum on Forests (UNFF)[4].

The workshop "Mobilizing Wood Resources" in January 2007, organized by UNECE/FAO, MCPFE, the Confederation of European Paper Industries (CEPI) and other partners, identified the empowerment of private forest owners as an important means for mobilizing wood resources sustainably in order to meet both the needs of the forest-based and related wood processing industry as well as of the bio-energy sector. It recognized that there was a need to improve knowledge of ownership structures as well as of the attitudes, goals and motivations of forest owners, which may affect wood production and mobilization. This was reflected in Warsaw Resolution 1 on "Forests, Wood and Energy", adopted at the fifth MCPFE Ministerial Conference in November 2007, through which Signatory States committed themselves to encourage partnerships among public and private forest owners, forest based industries and energy producers aiming at the development of markets for bio-energy."[5]

Despite the accepted importance of the private forestry sector for sustainable rural development, there is a significant lack of information on forest ownership in Europe, especially on private forest holdings. Comprehensive information is crucial for the development of policies for private forestry, and for European forestry in general.

1.2 Project development

With the objective of contributing to closing this knowledge gap, UNECE/FAO Forestry and Timber Section, together with MCPFE and the Confederation of European Forest Owners (CEPF) decided in October 2005 to launch a private forest ownership database (PFO Project 2006-07). A questionnaire, to gather both quantitative and qualitative data, was developed and sent to national correspondents. During the design and development of the enquiry, comments were received from the Federation of European Communal Forests (FECOF), the European Landowners Organisation (ELO) and from European forest ownership experts[6]. In December 2005, a draft questionnaire was tested by Finland,

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[1] EU Forestry Strategy (1998). Council Resolution of 15 December 1998 on a Forestry Strategy for the European Union: "The implementation of the EU Forestry Strategy (...) is a dynamic process. The strategy encourages a participatory and transparent approach involving all stakeholders, while recognising the wide variety of ownership regimes within the Community and the important role of forest owners."

[2] MCPFE Liaison Unit Vienna, UNECE/FAO Timber Branch Geneva (2003). State of Europe's Forests, The MCPFE Report on Sustainable Forest Management in Europe, Vienna 2003.

[3] http://www.mcpfe.org/system/files/u1/vienna_resolution_v2.pdf

[4] United Nations Forum on Forests (2005). Discussion paper contributed by the Farmers and Small Forest Landowners Major Group, New York 2005: "Policy and decision makers need to give higher priority to the establishment of clear ownership structures in favour of family forest owners and community forest owners."

[5] http://www.mcpfe.org/files/u1/warsaw_resolution_1.pdf

[6] 2nd Meeting of the UNECE/FAO Team of Specialists on "Monitoring forest resources for SFM in the UNECE Region"

Slovakia and Lithuania. The feedback from the test questionnaires allowed adjusting the enquiry towards its final format.

The launch of the regional private forest ownership project was endorsed by the 28th session of the Joint FAO/UNECE Working Party on Forest Economics and Statistics in March 2006. National data reporting forms were sent to the 38 MCPFE countries with private forestry in May 2006, and completed by December 2006. During the response period, national correspondents were assisted in filling in the data reporting forms by the UNECE/FAO secretariat.

1.3 Participation by countries

Altogether, 23 reports were received by January 2007, from the following countries: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Finland, France, Germany, Hungary, Iceland, Ireland, Latvia, Lithuania, Netherlands, Norway, Poland, Romania, Serbia, Slovakia, Slovenia, Sweden, Switzerland and the UK. Limited or incomplete responses may be seen in insufficient national data, lack of reporting capacities or a too detailed questionnaire. Country reports received were validated with regard to data consistency and comprehensiveness. The compatibility with other data sets was verified, namely with the regional UNECE/FAO Forest Resources Assessment and Quantitative Criteria & Indicators on Sustainable Forest Management (Criterion 6.1: Forest Holdings) which were collected in the context of the reporting for the fifth MCPFE, and analysed in the report on "State of Europe's Forests in 2007". The response rate of countries participating in the Private Forest ownership (PFO) Project amounts to 60% i.e. 23 responding countries of the 38 MCPFE countries that had been initially addressed[7] (figure 1.3.1). The forest and other wooded land area of the 23 countries participating in the enquiry amounts to 138 million hectares or 70% of the European countries initially addressed which represent a total of 198 million hectares[8].

If related to the European MCPFE Warsaw country group classification (figure 1.3.2) the sub-regional representation is as follows.

- Nordic/Baltic Group: six participating countries out of eight (Finland, Iceland, Latvia, Lithuania, Norway, Sweden, making up 52% of the area of forest and other wooded lands (FOWL) of all participating countries[9]).
- North West Group: six participating countries out of seven (Belgium, France, Germany, Ireland, Netherlands, United Kingdom, making up 23% of the FOWL area of all participating countries).
- Central Group: seven participating countries out of eight (Austria, Czech Republic, Hungary, Poland, Slovakia, Slovenia, Switzerland, making up 16% of the FOWL area of all participating countries)
- South West Group: no participating country out of five (0% of the region's forest area)
- South East Group: four participating countries out of ten (Bulgaria, Cyprus, Serbia, Romania, making up 9% of the FOWL area of all participating countries)

As a result of the private forest ownership enquiry, the private forest ownership database was established in 2007 (Private Forest Ownership database, based on 2006-2007 enquiry), organized according to the format of the original questionnaire (annex I):
1. Forest ownership categories by area and management status

[7] The enquiry was addressed to the following 38 of the 46 MCPFE countries, with records of private forest area, according to the TBFRA-2000: Albania, Andorra, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Monaco, Montenegro, Norway, the Netherlands, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the UK.

[8] Figures from Forest Resources Assessment (FRA) 2005, Europe without Belarus, Moldova, Russian Federation, Ukraine.

[9] Forest area and other wood land, as reported in the private forest ownership enquiry (for Germany, forest area only).

2. Area and number of private forest holdings according to size of holding
3. Characteristics of forest and other wooded land by area and volume
4. Economic indicators of private ownership
5. Economic indicators of public ownership
6. Demographic information on individual private forest owners
7. Social background of individual private forest owners
8. Country statements on changes in private forest holdings, forest management and association.

Information obtained for data frames 1-7 is of a quantitative nature, whereas country statements for reporting form 8 are qualitative findings. This information is presented in a database, available along with the 23 national country reports at http://www.unece.org/trade/timber/fra/PFO.htm

Figure 1.3.1: Participation of countries in the private forest owners project 2006-2007

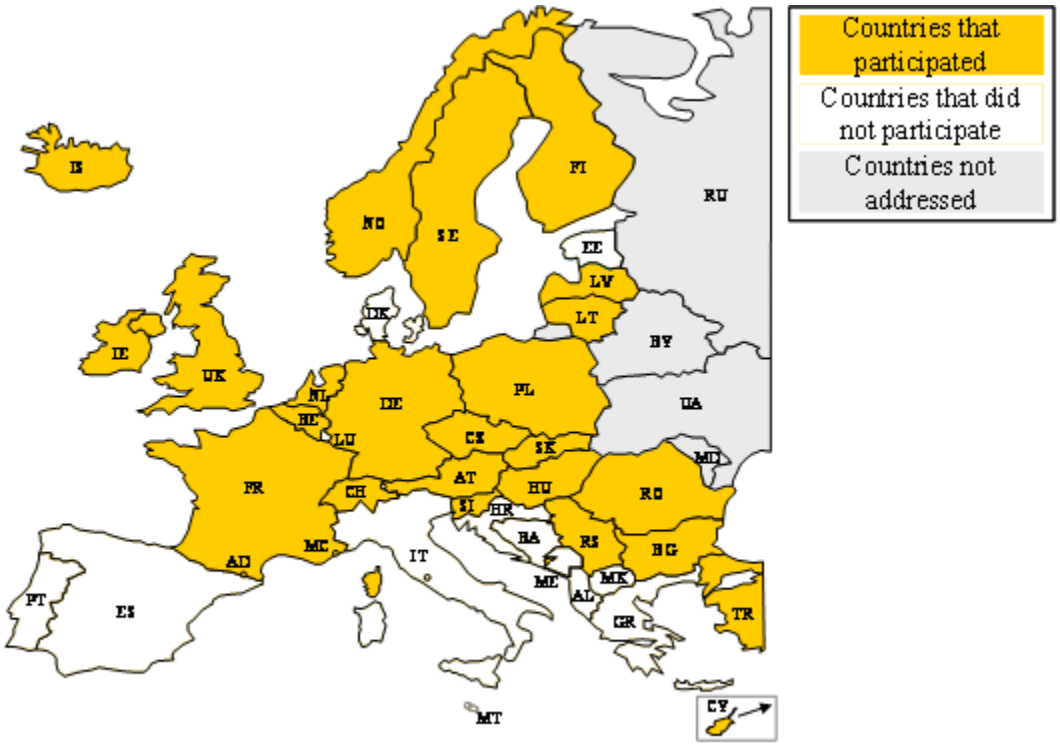
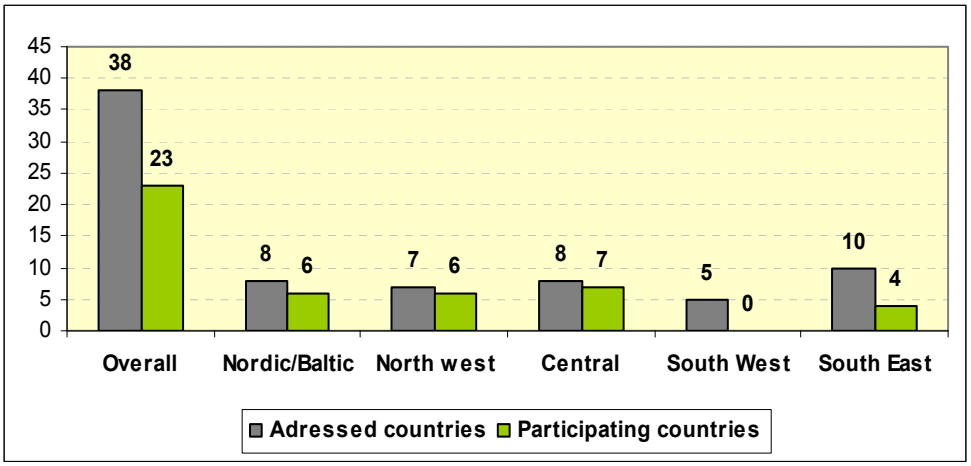


Figure 1.3.2: Participating countries according to MCPFE country groups



1.4 Data availability

General data for ownership distribution, growing stock and annual wood production are available for all or most of the 23 responding countries. Other information such as specific data on size class distribution of private forest owners or on economic values for non-wood forest products and services are weakly reported. Such data are either difficult to trace or not available in a number of countries.

Most data were submitted for the year 2005, as requested in the enquiry. However, correspondents could freely choose the reference year for each reporting form, and have in some cases provided data for different reference years. The reference period is indicated for each reporting form in the database

A lack of information can be observed notably in the PFO categories individual/family owners, forest industries, private institutions and on socioeconomic issues. Data are more easily available on an aggregate national level (PFO total, public forests total), on area and management status, and on holding structures except for small holdings. Basic forest inventory data (growing stock, annual increment) are usually available for public ownership -but not necessarily for small-scale private forest holdings. Demographic information on individual owners (gender, age) are scarce, as well as data on their social background (knowledge, motivation, objectives). Insufficient data were received on volume and value of wood production (notably from private forests) and value of non-wood forest products (NWFP). Descriptive information in response to question 8 revealed good insight into the privatization and/or restitution processes, ongoing ownership changes and their underlying reasons, as well as association and training of private forest owners. While some country information is more extensive than others, for most countries descriptive information can be obtained more easily. Further work on private forestry is required to validate and complete some of the findings and trends presented in this paper, and to complement the information base needed for adequate policy making.

1.5 Database and results

The private forest ownership database, together with the original country reports, is available on the UNECE/FAO website: http://www.unece.org/trade/timber/fra/PFO.htm. It is structured in a manner that allows inserting additional forthcoming information and complementing the information available as of December 2007 with data from further investigations.

The findings of the PFO enquiry are compatible with the UNECE/FAO Temperate and Boreal Forest Resources Assessment (TBFRA-2000), but go further by also addressing socioeconomic issues of forest ownership. Results have been presented as part of the overall FAO forest tenure work at the eighteenth session of the FAO Committee on Forestry (COFO) in March 2007[10] and are reflected, together with the findings from Indicator 6.1 "Forest Holdings", in the Report on the State of Europe's Forests 2007 prepared for the fifth MCPFE Ministerial Conference in November 2007.[11] The main findings, along with a draft study, have been presented to the Joint FAO/UNECE Working Party on Forest Economics and Statistics, which welcomed it "as a major step forward in an area which had been little known at the European level before (…). It considered the study should be repeated at intervals of 5-10 years. The timing should be coordinated with other data collection activities."[12]

The findings presented in chapters 2 and 3 of this publication follow the structure which formed the basis for information collection, i.e. the reporting forms 1-8 (Annex I). Technical terms and definitions are set out in Annex II. The full database is accessible on the UNECE/FAO website (http://www.unece.org/trade/timber/fra/PFO.htm.) The results obtained from country respondents in response to the 12 questions posed in reporting form F8 are summarized in Annex III.

[10] http://www.fao.org/forestry/foris/data/cofo/2007/reeb_dominique_et_all_understanding_forest_tenure_towards_forest_tenure_diversification.pdf

[11] http://www.mcpfe.org/system/files/u1/publications/pdf/FE_EN.pdf

[12] Report of the Working Party on Forest Economics and Statistics at its 38th session, para 32 (http://www.unece.org/trade/timber/docs/stats-sessions/stats-30/english/report.pdf)

2. RESULTS AND ANALYSIS

2.1 Ownership categories by area and management status

Classification of ownership categories

Ownership categories were classified as private and public. Forests and other wooded land[13] classified as "privately owned" comprise areas owned by persons and families either individually or under some form of cooperative arrangement, by forest industries or by private organizations, i.e. private corporations, co-operatives or institutions (religious, educational, pension or investment funds, nature conservation societies). Forests and other wooded land classified as "publicly owned" comprise land that belongs to the State, either at the central or provincial level, as well as communal forest land owned by communes, cities and municipalities.[14]

In a few countries, ownership of some forest areas has been classified as neither public nor private, for instance, if the ownership status is unknown or has not yet definitely been acknowledged. The largest proportion of other ownership (383,500 ha.) is found in Germany, the so-called "Treuhand Wald," areas expropriated within the scope of the land reform in the former German Democratic Republic, transferred into public ownership and now either privatized or about to be privatized. Other examples of countries having classified certain forest areas as "other ownership," as reported, are Hungary (2,240 ha) and Slovakia (113,000 ha).

Predominant private forest ownership

Fifty percent private forest ownership is prevalent in the 23 countries submitting information. The land base of the private and public forest sector in the 23 countries responding to the enquiry amounts to 138.5 million hectares forest and other wooded land, of which 128.5 million (93%) are classified as forests and 10 million (7%) as other wooded land. The distribution between private and public ownership is balanced: 68.5 million hectares (49.6%) are privately owned forest and other wooded land, around 70 million (50%) are publicly owned, and 0.5 million ha (0.4%) have been reported as other ownership (Reporting form 1[15], figure 2.1.1).

For the major forest countries of western and central Europe, with a cumulative area of 198 million ha of forest and other wood land, the portion of private forest ownership is higher. Information from the Global Forest Resources Assessment 2005 shows a distribution of 115 million hectares (58%) private forest land versus 83 million hectares (42%) public forest land.

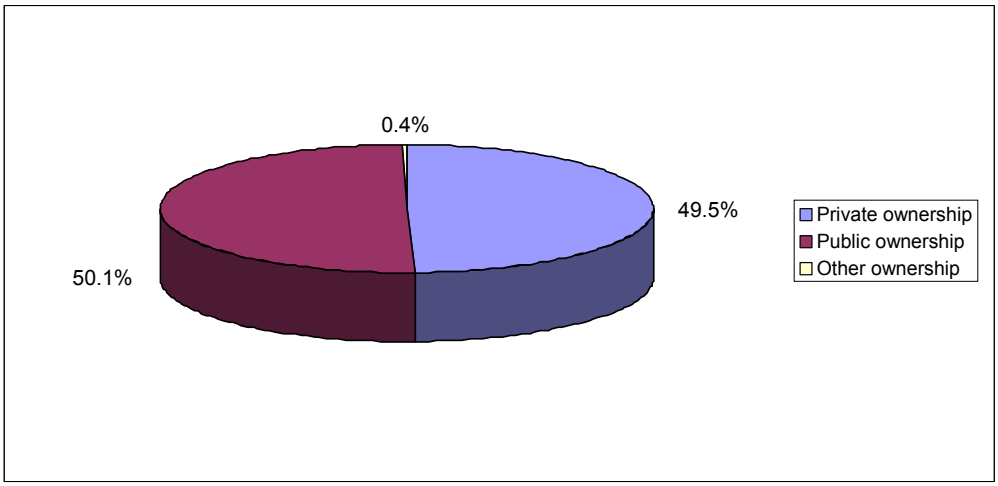
The percentage share of private forestry is significantly reduced when considering the ownership structure at a European continental scale, including the Russian Federation, Belarus and the Ukraine, where up to 100% of the forests are publicly owned. The data of the Global Forest Resources Assessment 2005 indicate a total of 1,098 million hectares forest and other wooded land for the European continent, of which 998 million are classified as forest and 100 million as other wooded land. Of this enormous land resource 882 million ha (80%) are situated in the Russian Federation, and another 19 million (1.7 %) in the eastern European countries Belarus and Ukraine. All forest land in the Russian Federation, Belarus and Ukraine is currently classified as publicly owned. Public forestry in terms of land resources on the whole European continent (comprising in addition to other eastern Europe, the Russian Federation, Belarus, Ukraine; western, central, eastern and southern Europe) comprises 983 million ha (89.5%) of the total of 1,098 million hectares. Thus, the proportion of privately owned forest land at the European continental scale currently amounts to 10.5%.

[13] In accordance with the Forest Resources Assessment, the term "forest" in the context of this enquiry refers to land with tree crown cover or an equivalent stocking level of more than 10% and an area of more than 0.5 hectare. Other wooded land refers to areas with a tree crown cover or an equivalent stocking level of 5-10 % of trees able to reach a height of 5 meters at maturity in situ. See Annex Terms and Definitions.

[14] For more detailed definitions of private and public ownership categories see Annex II Terms and Definitions.

[15] The reporting forms in their blank version are presented in Annex I. For the final data, please refer to the database on the website: http://www.unece.org/trade/timber/fra/PFO.htm

Figure 2.1.1: Private and public ownership share in 23 European countries participating in the enquiry 2006 in terms of percentage share of forest ownership and other wooded land



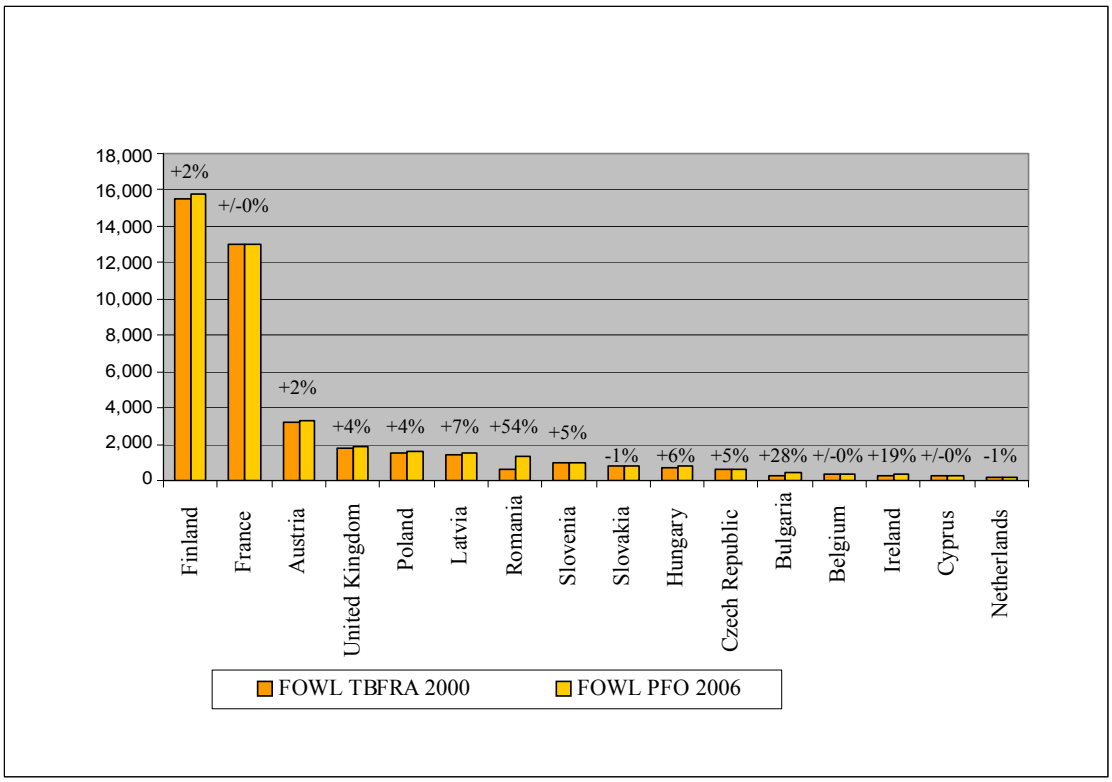
Note: Forest area only for Germany and Lithuania.

Source: Private Forest Ownership database based on 2006-2007 enquiry, reporting forms 1.1, 1. 2.

Growing private forest area

Comparing the data available from the PFO database for those countries which have provided 2005 data and for which comparable data were available for the year 2000 from the Forest Resources Assessment (TBFRA) 2005, an increase in private forest ownership at country level is noticeable (figure 2.1.2). Total private land area of the 14 countries with comparable information rose by 6 % from 28.1 million hectares to 29.7 million hectares between 2000 and 2005. In the private forest ownership enquiry, 18 out of the 23 countries indicated an increase in private forest area and in growing stock, mostly due to afforestation (answers to open questions in reporting form 8).

Figure 2.1.2. Trends at country level of changes in private ownership between 2000 and 2005 (in 1,000 ha and percentage)



Source: FRA 2005 (data for 2000) and Private Forest Ownership database, based on 2006-2007 enquiry (data for 2005)

Large difference in ownership structure at country level

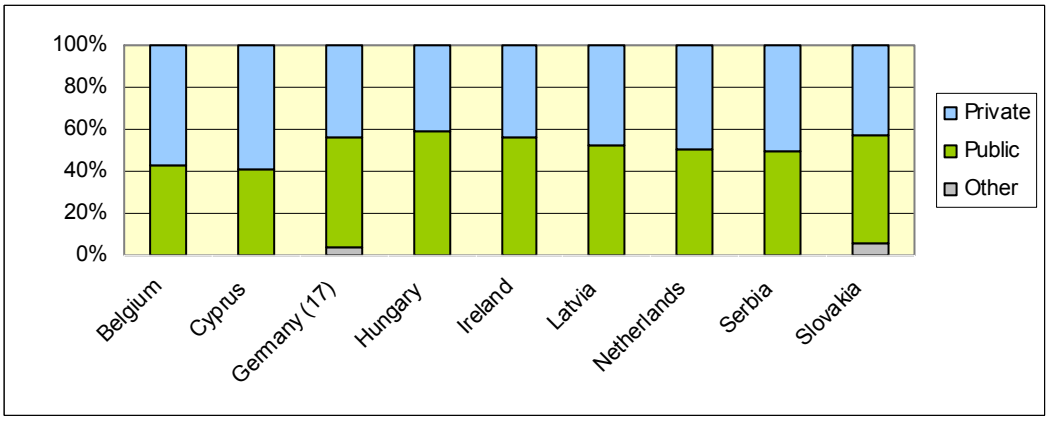
There is a great variance of ownership structure among the countries in terms of distribution of private and public holdings. Figures 2.1.3, 2.1.4 and 2.1.5 present a grouping of countries with a predominantly private forest ownership, a balanced ownership structure, and predominantly public ownership, respectively.

For instance, private forest area in Austria, France, Norway, Slovenia and Sweden accounts for more than 75% of the total forest area, whereas in Poland and Bulgaria it accounts for less than 20%. In eight out of 23 responding countries, private ownership clearly dominates and varies between 60% and 80% of the countries' forests. In eight countries there is a more balanced ratio between private and public forest land. In another six countries public forest ownership extends over more than 60% of the area: seven countries had no record of private forestry, according to the Forest Resource Assessment (FRA), at the time of the launch of the enquiry: Belarus, Georgia, Holy See, Malta, Republic of Moldova, Russia, and Ukraine.[16]

Figure 2.1.3. Countries with predominance of private ownership of forest and other wooded land (percentage)

Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 1.1, 1.2

Figure 2.1.4. Countries with balanced private and public ownership of forest and other wooded land [17] (percentage)

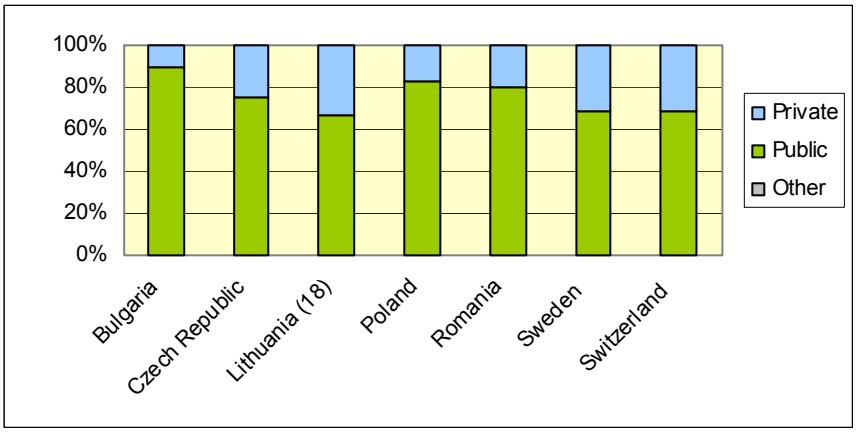


Source: Private Forest Ownership database, based on 2006-2007 enquiry Reporting form 1.1, 1.2

[16] According to the Forest Resources Assessment 2005

[17] Germany; Forest area only.

Figure 2.1.5. Countries with predominance of public ownership of forest and other wooded land[18] (percentage)



Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 1.1, 1.2[19]

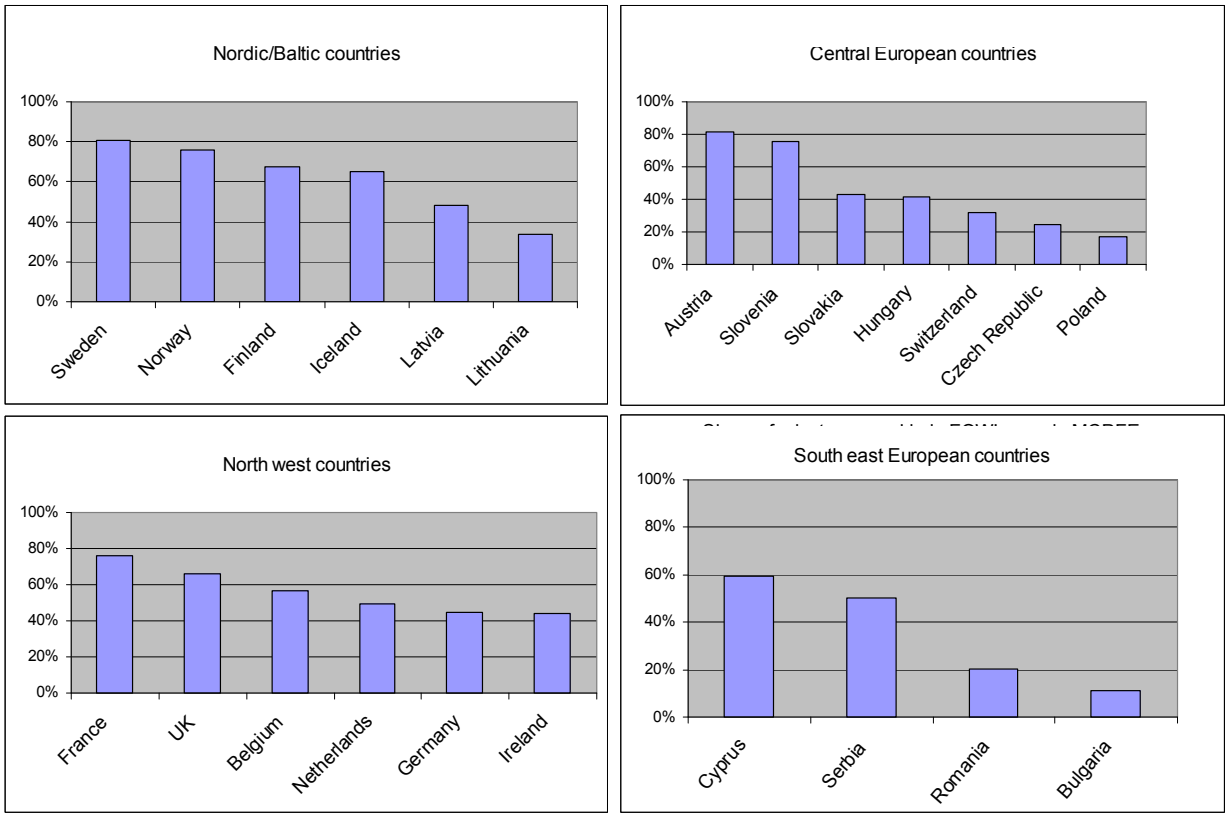
Differences among countries by European MCPFE subregions

There are considerable differences in terms of private and public ownership distribution amongst countries in the various European MCPFE sub-regions participating in the enquiry. In the Nordic/Baltic sub-region, in Sweden, Norway, Finland and Iceland, private ownership amounts to two thirds of the total forest area, whereas it is below one half in Latvia and Lithuania. In the Central European country group, Austria and Slovenia have more than three quarters of private forest land, whereas the share of private forests in Slovakia, Hungary Switzerland, the Czech Republic and Poland ranges between 17% and 43%. The countries of the North West subregion show a more even distribution of private forest area, ranging from 76% (France) to slightly below 50% (Netherlands, Germany, Ireland). In the Southeast European group, the proportion of private ownership is smaller, ranging from 60% in Cypress to 10% in Bulgaria (figure 2.1.6).

[18] Lithuania: Forest area only

[19] The data for Romania are based on the information submitted by the national correspondent for 2005. As of 2008, an additional 1.5 million ha. have been privatized, resulting in a higher percentage share of private ownership, compared with public ownership. Additional information is provided in footnote 23 to Figure 2.2.12.

Figure 2.1.6. Share of private ownership in forest and other wooded land according to MCPFE Warsaw country groups (percentage)



Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 1.1, 1.2

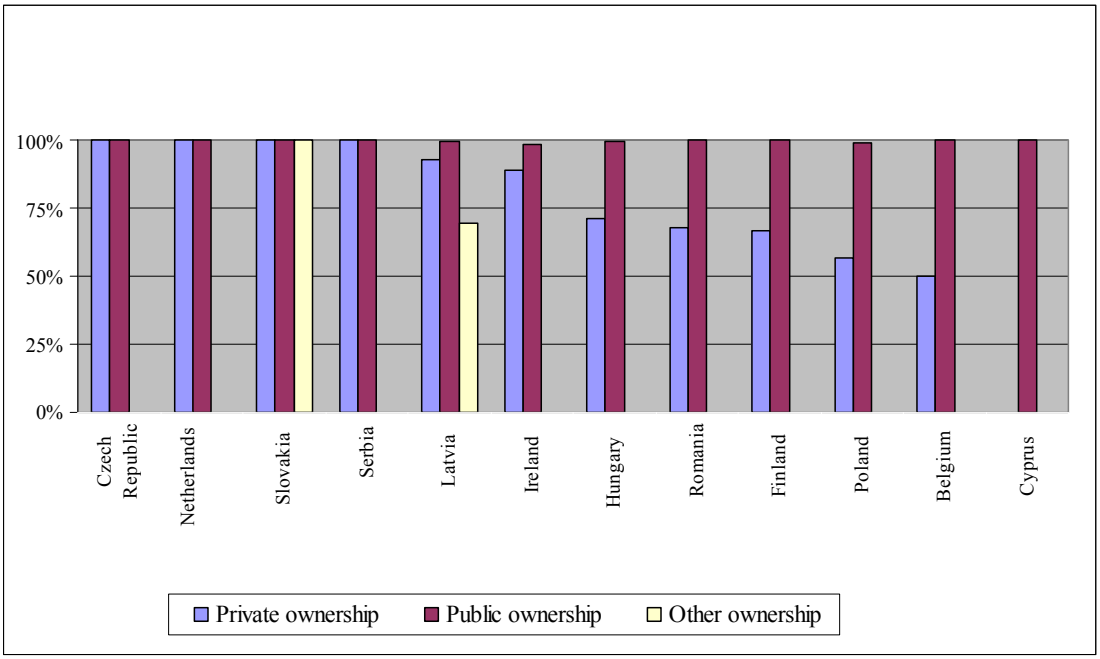
Managed forest and other wooded land areas

Managed forests and other wooded land have been defined, for the purpose of the enquiry, as areas managed in accordance with a formal or an informal plan applied regularly over a sufficiently long period (five years or more). Management operations include the tasks to be accomplished in individual forest stands, e.g. compartments during the given period. Twelve responding countries have supplied information on the share of managed areas according to ownership categories (figure 2.1.7). In six countries (Czech Republic, Netherlands, Slovakia, Serbia, Latvia and Ireland) both private and public forests have been reported to be completely or almost completely under some form of management. In some of the countries, governments require the adoption of a management plan for all types of forests, both private and public.

In five countries (Hungary, Romania, Finland, Poland, Belgium), there is a significant difference between the management requirements for private and public holdings. Whereas practically all public forests are under a management status, only between 50% and 75% of private forests are at present classified as managed forest areas. In Iceland, only a small proportion of both ownership categories are classified as managed forests. In Cyprus information is only available for the public forest which is entirely under forest management regulations.

Overall, it remains difficult to draw general conclusions from the presence or absence of a management plan about the sustainability of the management of public or private forests. While management plans contain requirements for sustainable forest management, such requirements differ. Furthermore, the absence of a management plan, in particular in small-scale often privately owned forests, does not necessarily imply that the forest owners 'aren't trying to manage their forests sustainably.

Figure 2.1.7. Share of managed area of forests and other wooded land by private and public ownership categories (12 countries) (percentage)



Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 1.1, 1.2

2.2 Size classes and ownership categories of private forests

Prevailing number of smallholdings

In terms of numbers of private forest owners as well as distributions of size classes, small scale land holdings prevail in European forests. This is demonstrated by the data from responding countries that were able to furnish detailed information on the prevailing land structure of holdings. Figure 2.2.1 provides an overview of total area, total number of holdings[20] and average size of units of private forests in 9 responding countries. Aggregated figures[21] show that 61% of all private forest holdings have an area of less than 1 hectare and 86% of all holdings belong to the size classes of up to 5 hectares. 13% of the private forest holdings are in the size classes from 6 to 50 hectares and around 1% of the owners have forest units over 50 hectares (figure 2.2.1). The total reported number of private forest holdings in the nine countries amounts to 4,343,097.

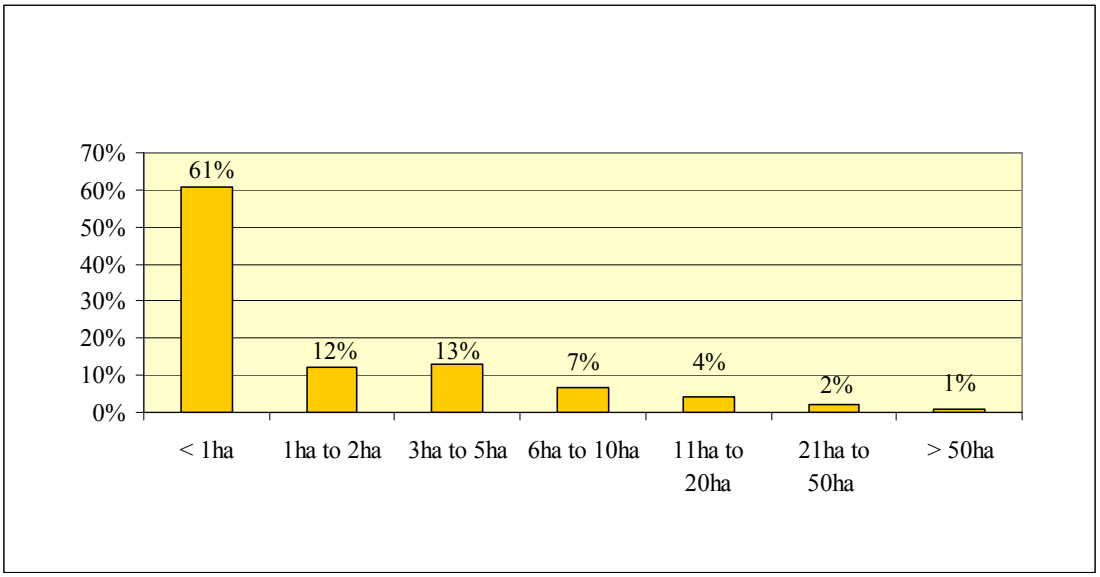
The situation is different if one examines the private forest structure of holdings by area. For instance, the combined area of forest holdings in the size classes 0-5 hectares in eight reporting countries[22] amounts to 19%; the area of the size classes 6-50 hectares to 40%; and the size classes with more than 50 hectares to 41% (figure 2.2.2). The total reported area of private forest land in the eight countries amounts to 20.3 million hectares.

[20] One or more parcels of forest and other wooded land which constitutes a single unit from the point of view of management or utilization. For more detailed explanations see Annex Terms and Definitions

[21] Austria, Belgium, Bulgaria, France, Hungary, Latvia, Lithuania, Slovakia and United Kingdom

[22] Austria, Belgium, Bulgaria, France, Hungary, Latvia, Slovakia and United Kingdom

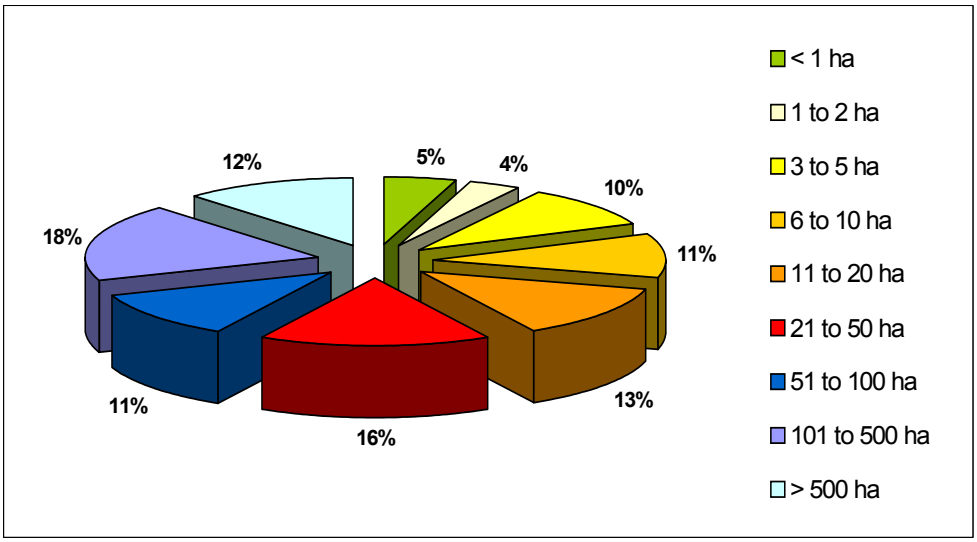
Figure 2.2.1. Size structure by the ratio of private holdings to the total number of holdings (percentage)



Note: Nine Countries: Austria, Belgium, Bulgaria, France, Hungary, Latvia, Lithuania, Slovakia and United Kingdom

Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 2

Figure 2.2.2. Share of holdings by size class to total area of holdings (percentage)



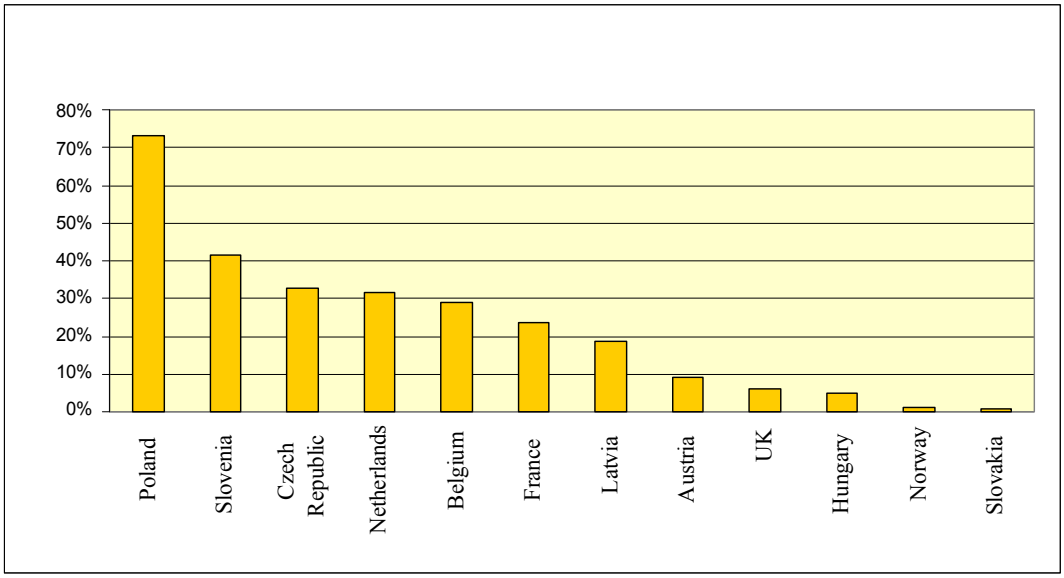
Note: Eight countries: Austria, Belgium, Bulgaria, France, Hungary, Latvia, Slovakia, United Kingdom.

Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 2, for countries which provided detailed data in the breakdown of size classes as indicated).

Differences in area structure by size classes of private holdings

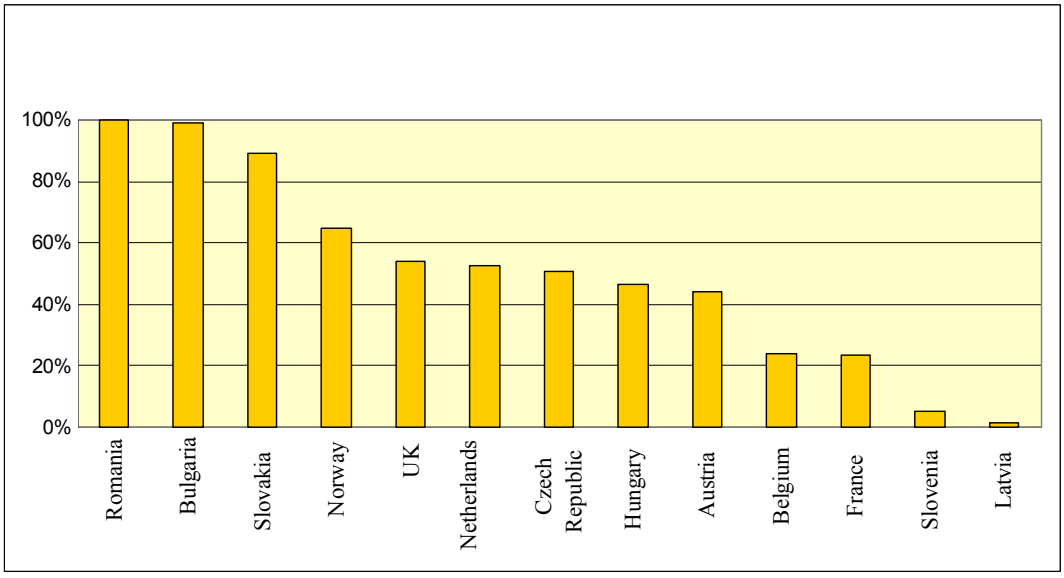
The area structure of private forest holdings varies among countries. The data from 12 reporting countries[23] show the variations of area size classes below 6 hectares and those from 13 reporting countries[24] the variations of area size classes above 100 hectares (figure 2.2.3, figure 2.2.4).

Figure 2.2.3. Share of size classes smaller than 6 ha[23] (percentage)



Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 2

Figure 2.2.4. Share of size classes greater than 100 ha[24] (percentage)



Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 2

[23] Poland, Slovenia, Czech Republic, The Netherlands, Belgium, France, Latvia, Austria, United Kingdom, Hungary, Norway, Slovak Republic

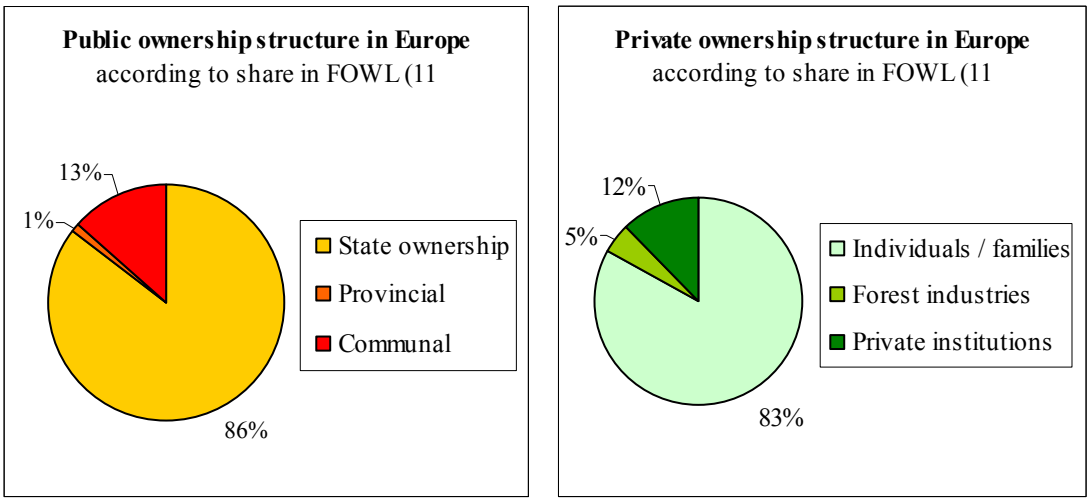
[24] Romania, Bulgaria, Slovak Republic, Norway, United Kingdom, The Netherlands, Czech Republic, Hungary, Austria, Belgium, France, Slovenia, Latvia

Several categories of private and public forest holdings

The private forest ownership enquiry distinguishes between several categories of private and public forest holdings. Among private owners of forests and other wood land, the first and most important category by numbers refers to individuals and families including those that have organized themselves into companies. This category comprises individuals and families combining forestry with agriculture (farm forests) as well as those living in or near their forest holdings or those who live elsewhere (absentee owners).[25] A second category of holdings are forests and other wooded land owned by private wood-processing enterprises or industries. The third category of owners is formed by private institutions such as, for instance, corporations and cooperatives, religious and educational entities, or pension and investment funds.

Not only does the structure of holdings differ significantly at the country level, but also the distribution of forest area among different private and public owners. At an aggregate level (figure 2.2.5) the results for 11 countries which reported data show that private forests are mostly owned by individuals/families and public forests by the state.

Figure 2.2.5. Aggregate structure of private and public ownership



Note: Eleven countries (Belgium, Bulgaria, Czech Republic, Finland, France, Hungary, Norway, Poland, Romania, Slovakia, United Kingdom)

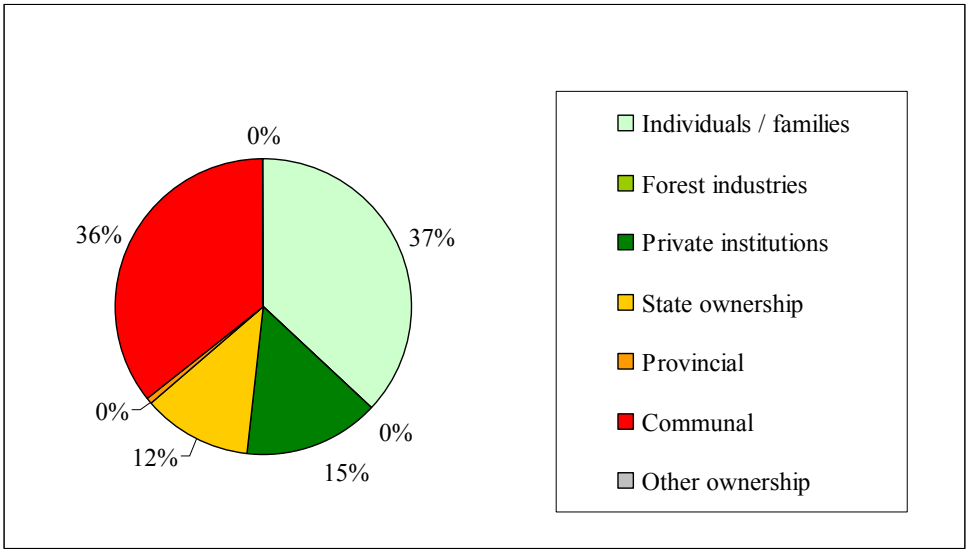
Source: Private Forest Ownership database, based on 2006-2007 enquiry, Reporting form 1, data for countries which provided information on each ownership category indicated below

Large variety of ownership profiles at the country level

The ownership profiles from countries that have been able to provide specific information on the national ownership structure show a variety of combinations of private and public land ownership categories (figures 2.2.6 to 2.2.16). Examples of countries in which private forest holdings clearly dominate are Finland, France and Norway. In Finland, for example, around two thirds of forests are privately owned by individuals and families (56%), forest industries (8%) and private institutions (4%). In France 64% of the forest area belongs to individuals and families and 12% to private institutions. On the other hand, the examples of Bulgaria (89%), Poland (83%) and Romania (79%) show countries in which State and communal ownership of forests are the dominating categories at the reference period for which data was provided (Bulgaria: 2000, Poland, Romania: 2005). The ownership profile in Belgium has a more balanced distribution of private and public holdings. Private holdings amount to slightly more than half of the forest area whereas 36% and 12% are communal and state forests, respectively. A similar situation exists in Slovakia where the ownership structure is rather diversified.

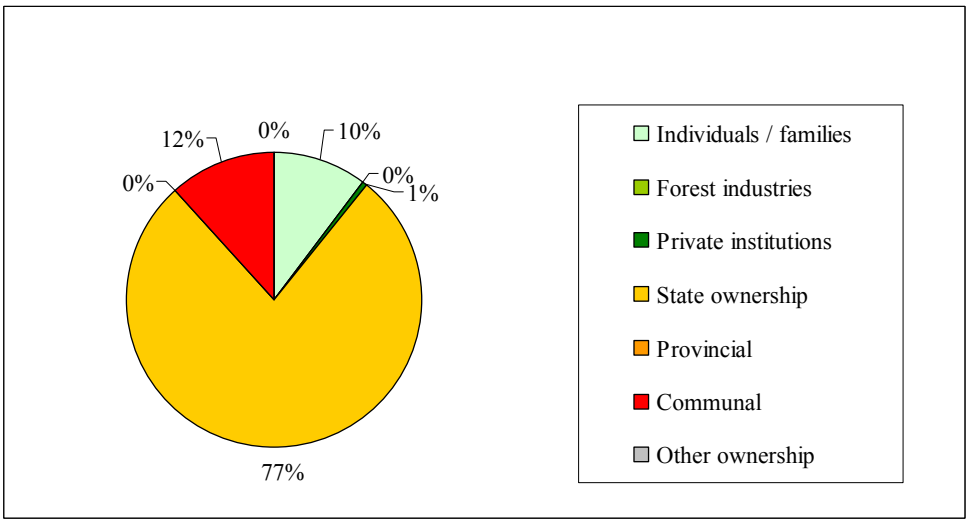
[25] Annex Terms and Definitions

Figure 2.2.6. Belgium: Ownership structure of forest and other wood land area



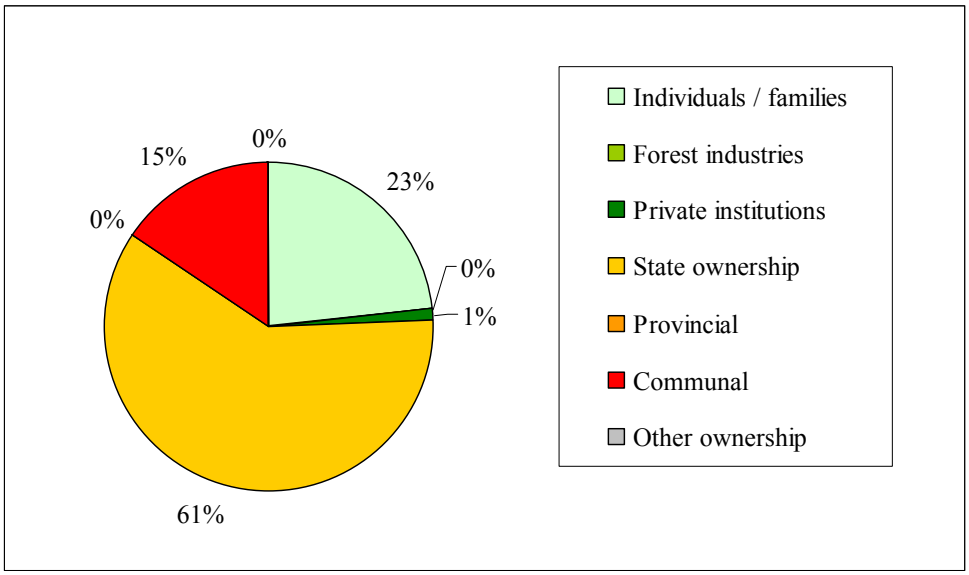
Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 1.

Figure 2.2.7. Bulgaria: Ownership structure of forest and other wood land area



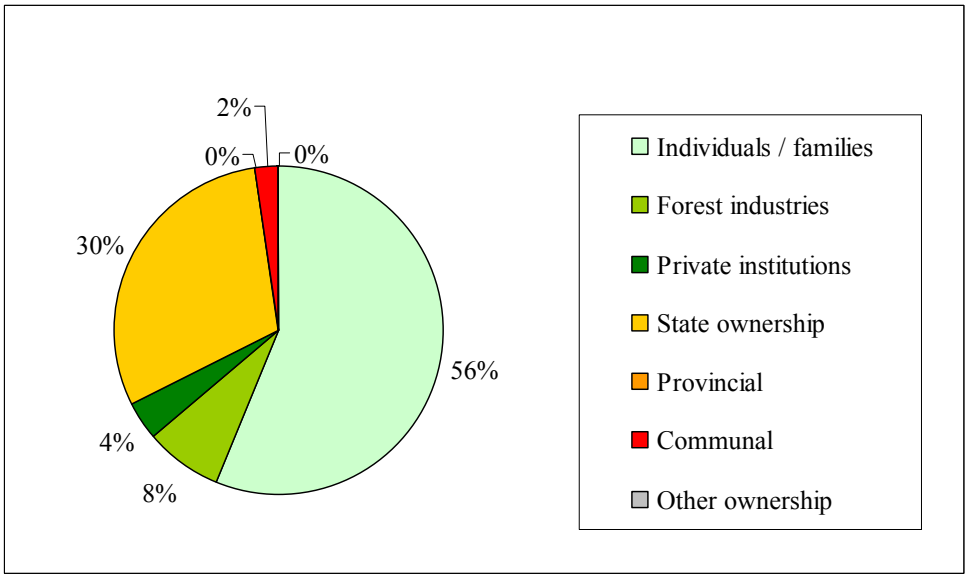
Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 1, data for 2000.

Figure 2.2.8. Czech Republic: Ownership structure of forest and other wood land area



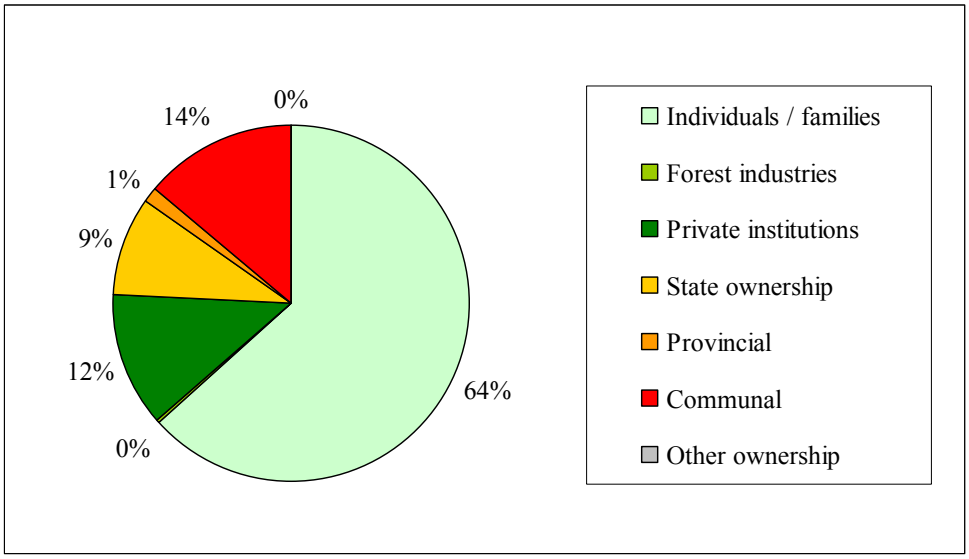
Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 1, data for 2005.

Figure 2.2.9. Finland: Ownership structure of forest and other wood land area



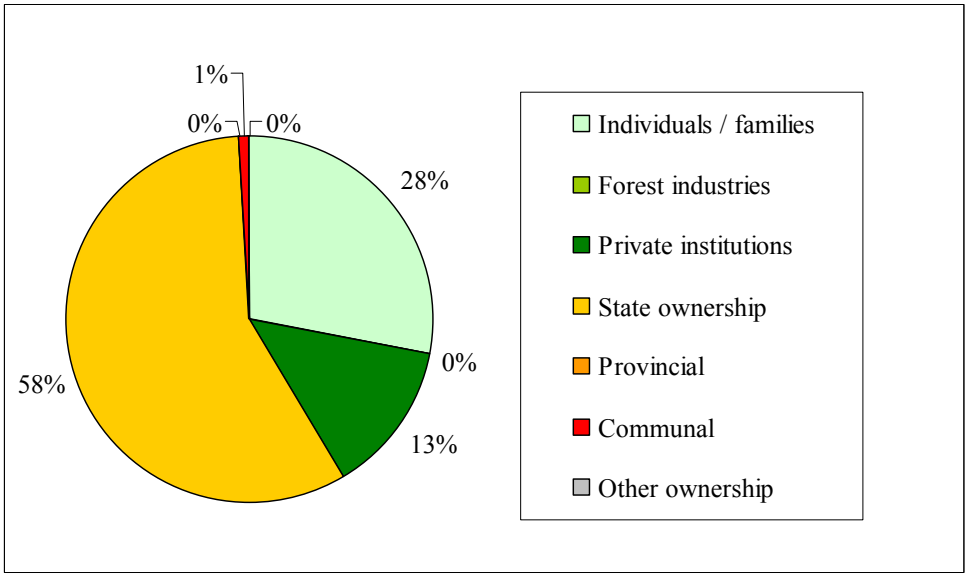
Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 1, data for 2005.

Figure 2.2.10. France: Ownership structure of forest and other wood land area



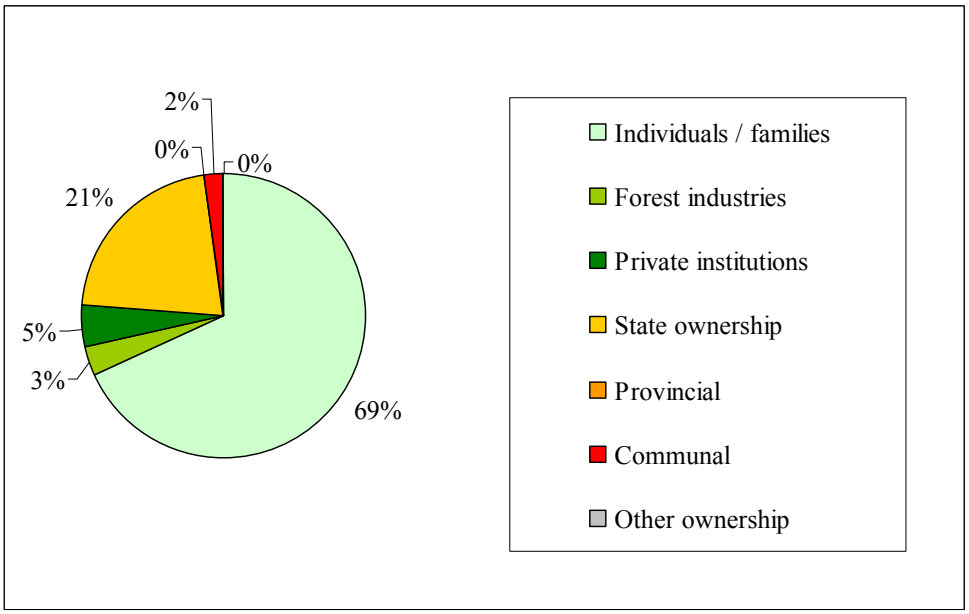
Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 1, data for 2005.

Figure 2.2.11. Hungary: Ownership structure of forest and other wood land area



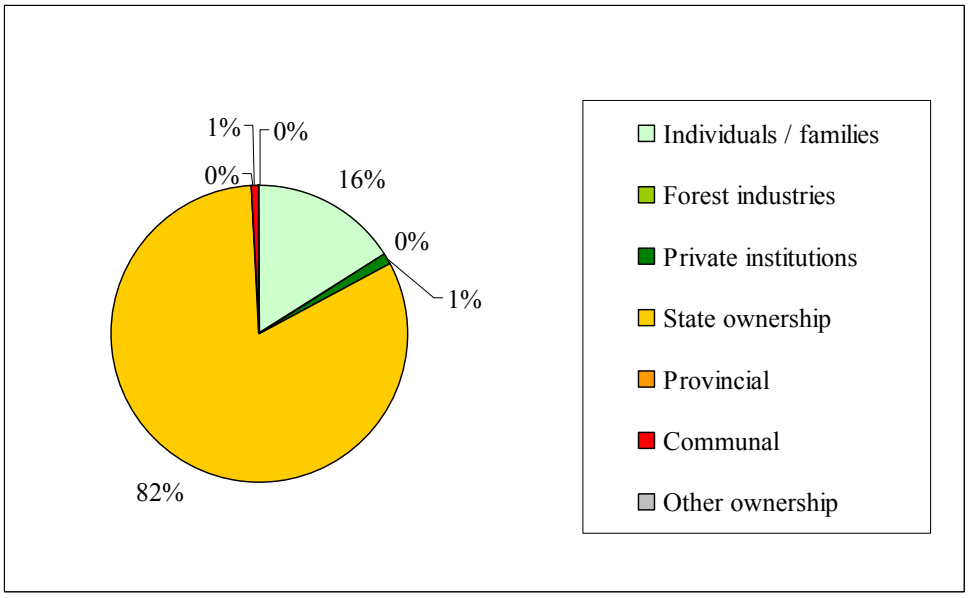
Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 1, data for 2000

Figure 2.2.12. Norway: Ownership structure of forest and other wood land area



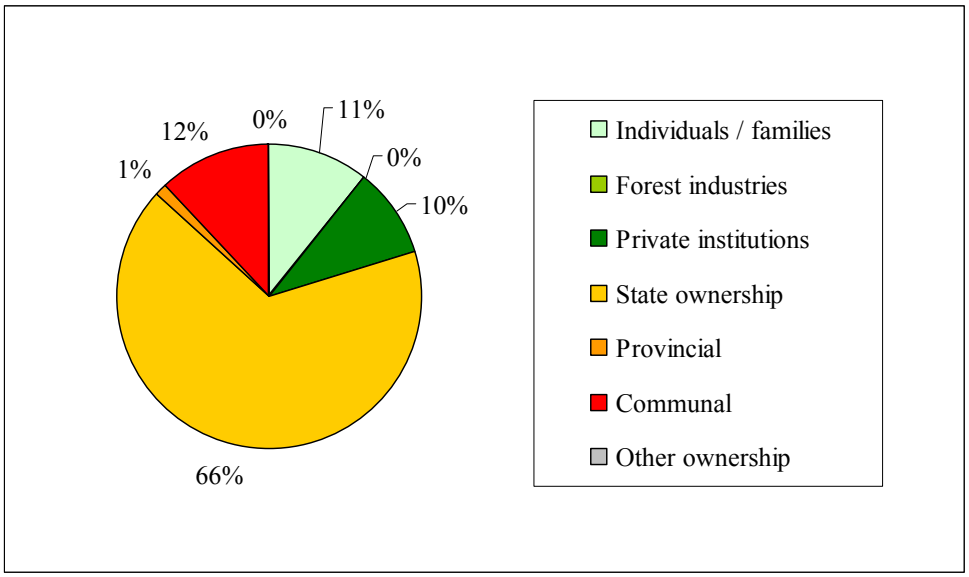
Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 1, data for 2000.

Figure 2.2.13. Poland: Ownership structure of forest and other wood land area



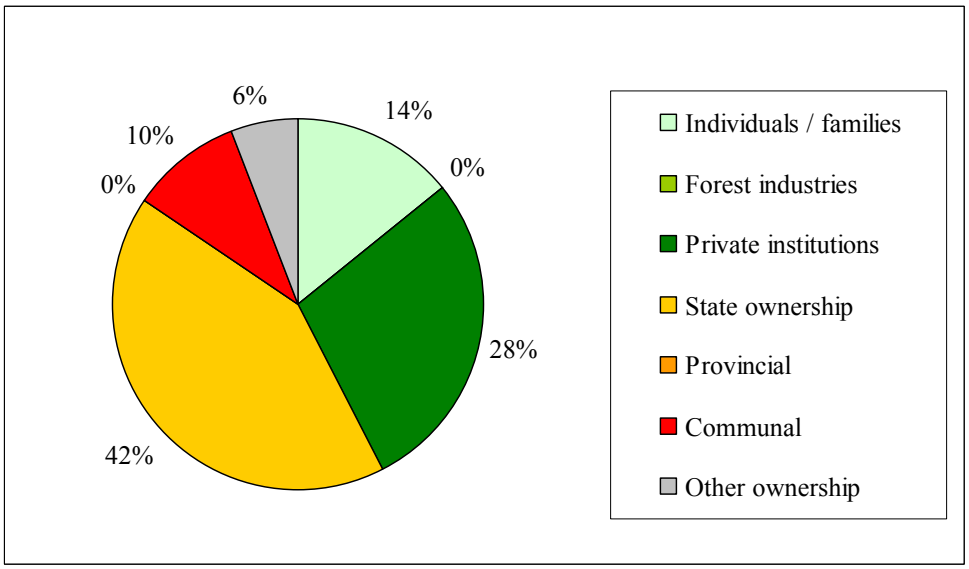
Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 1, data for 2005.

Figure 2.2.14. Romania. Ownership structure of forest and other wood land area[26]



Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 1, data for 2005.

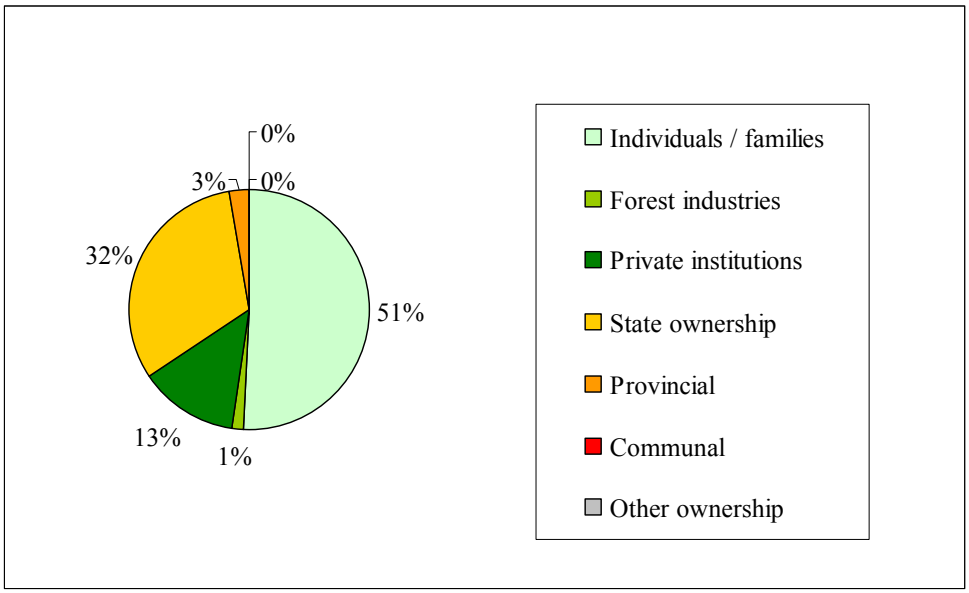
Figure 2.2.15. Slovakia: Ownership structure of forest and other wood land area



Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 1, data for 2005.

[26] As of 2008, the ownership structure in Romania changed, according to the Ministry of Agriculture and Rural development, with approx. 1.5 million additional hectares having been privatized as follows: individuals/families 1,033,218 ha; associative forms of property 676,332 ha ("composesorates"); "urbarial", "obsti" and church 107 775 ha; communal and municipal ownership 929.246 ha; with a total area of private forest in Romania of 2 743 571 ha (31.03.2008). These 1.5 million hectares represent 23% of the total FOWL ownership as indicated in the private forest ownership enquiry.

Figure 2.2.16. United Kingdom: Ownership structure of forest and other wood land area



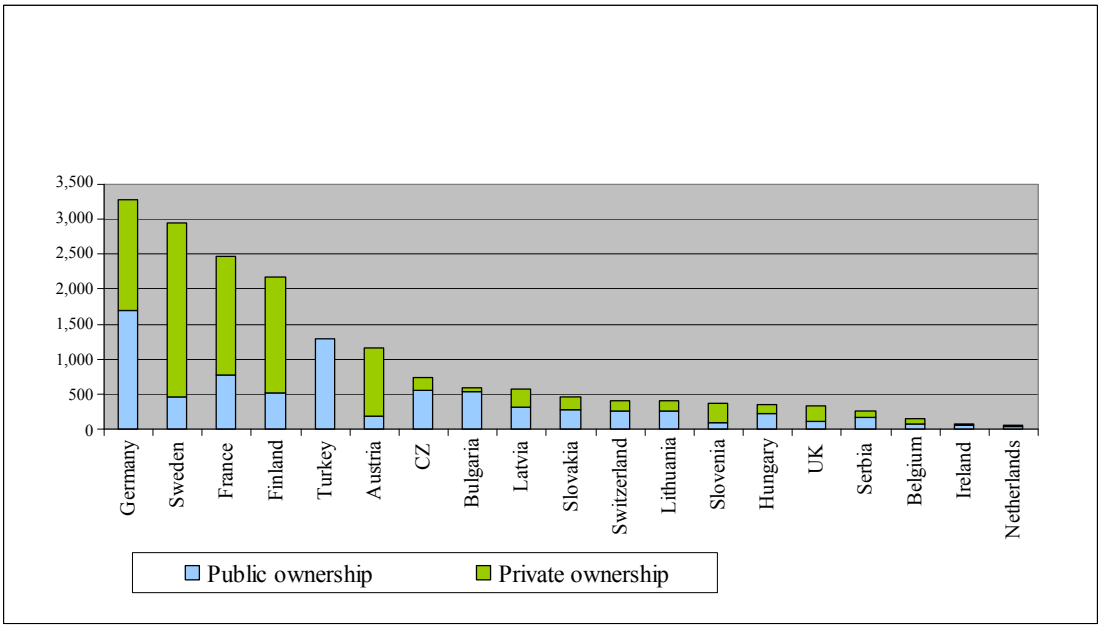
Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 1, data for 2005.

2.3 Growing stock, increment, annual fellings and certified area

Large difference in growing stock

Total volume of growing stock, both in private and public forests varies considerably at the country level (figure 2.3.1). Countries with a high share of growing stock on private lands are, for instance: Sweden, France, Finland, Austria, Slovenia and United Kingdom. Among the countries with a high proportion of growing stock on public lands are the Czech Republic, Switzerland, Lithuania, Hungary and Serbia. Germany, Latvia, and the Slovakia show a more balanced distribution of the stocking volume.

Figure 2.3.1. Total growing stock of forest and other wooded land by ownership categories (million m^3)

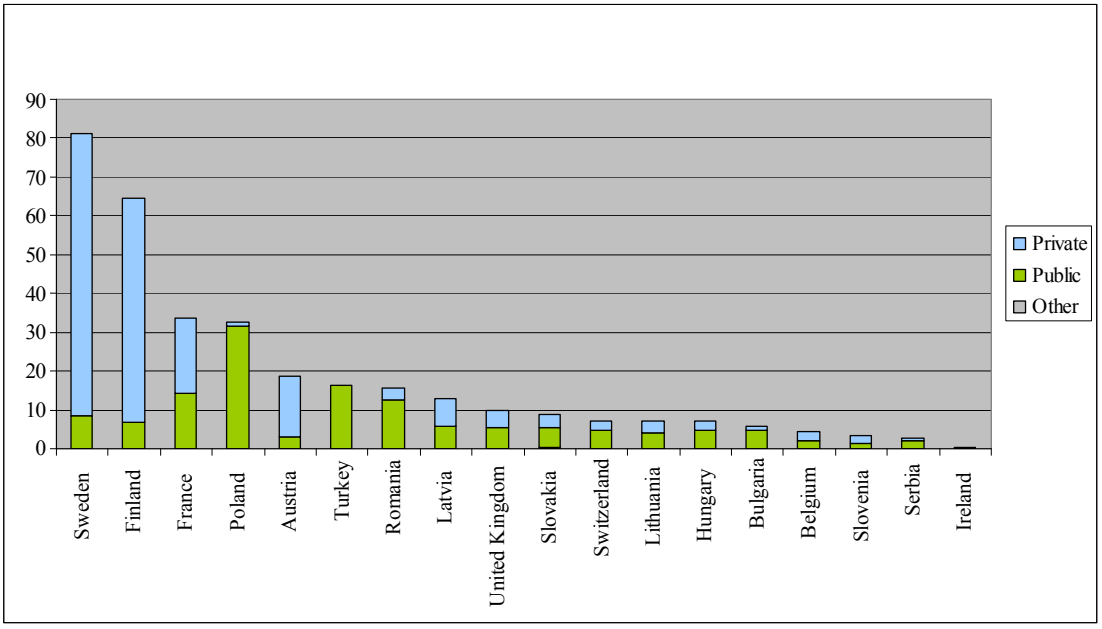


Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 3.

Annual fellings

Total annual fellings on forest and other wooded land amount to around 80 million m^3 in Sweden, more than 60 million m^3 in Finland, more than 30 million m^3 in France and around 30 million m^3 in Poland. Total annual fellings among the other responding countries are below 20 million m^3 (figure 2.3.2). The share of the private and respectively the public sector shows a largely similar distribution to the distribution for growing stock.

Figure 2.3.2. Total annual fellings on forest and other wooded land by ownership categories (million m^3)



Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 3.

Utilization rate

A comparison between gross annual increment and annual fellings (utilization rate) on private and public forest land, provided by correspondents through the private forest ownership enquiry, indicates in a number of countries a rather balanced relationship but in others notable differences.

Countries which use their private forests intensively are, for instance: Belgium, Bulgaria, Finland and Slovakia. In Austria, Germany, Switzerland and the UK, annual fellings amount to approximately half of the annual increment of private forests (figure 2.3.3).

Some of the countries which use their public forests intensively are: Austria, Belgium, Slovakia and Switzerland (figure 2.3.4).

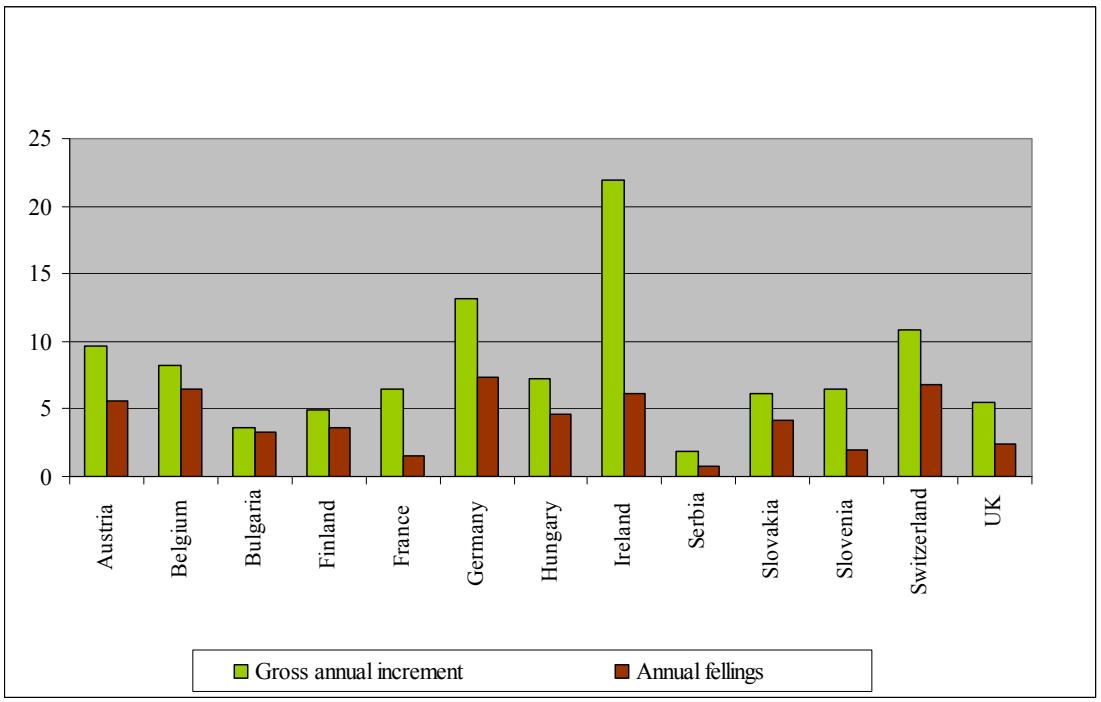
A comparison of the utilization rate in private and public forests shows that in the majority (seven) of the countries which provided data on annual increment and annual fellings, the utilization rate is higher on public forest land: Austria, Belgium, Serbia, Slovakia, Slovenia, Switzerland and the UK. In three out of the 10 reporting countries, the utilization rate is higher in private forests: Bulgaria, Finland, France (figure 2.3.5). In Finland and France, there is a large proportion of private ownership, 68% and 76%, respectively. In Bulgaria, public forests predominate, as private forests only make up 11% of the total. This finding emphasizes the potential for enhanced efforts to mobilize private forest owners and to stimulate wood utilization and sustainable forest management, further discussed in chapter 3.

Interpreting country data on utilization rates

Several factors may determine the relationship between annual increment and annual fellings for individual countries and ownership categories and it is important to take into account the data on real utilization rates. In countries or ownership categories with large areas of plantations that are currently established or have been established recently, for instance in private forest in Ireland, gross annual increment is high whereas fellings are still limited due to the large areas of young stands not ready yet for wood harvesting. A similar situation has been described for public-sector planting in the United Kingdom, which had been undertaken during previous decades and had made up the majority of softwood harvesting up to now. To some extent the apparent differences in the utilization rates are thus determined by natural and socioeconomic factors such as age class distribution of forest stands, afforestation of marginal agricultural land at certain periods of time, or replanting of forest land after devastating effects of large-scale storm calamities. In some countries such as Finland and Sweden, public forests tend to be in remote areas with lower productivity and higher biodiversity values, leading to a lower utilization rate.

Using annual increment as an indicator of potential wood supply is limited by a number of factors, including that annual increment only reports stem wood from forests, not other biomass in the forests, e.g. branches, tops and stumps. Harvesting increment in the long run would not necessarily be sustainable, as increment is a dynamic figure that may change over time as it refers to the age structure of the forest and the potential rotation age. [27]

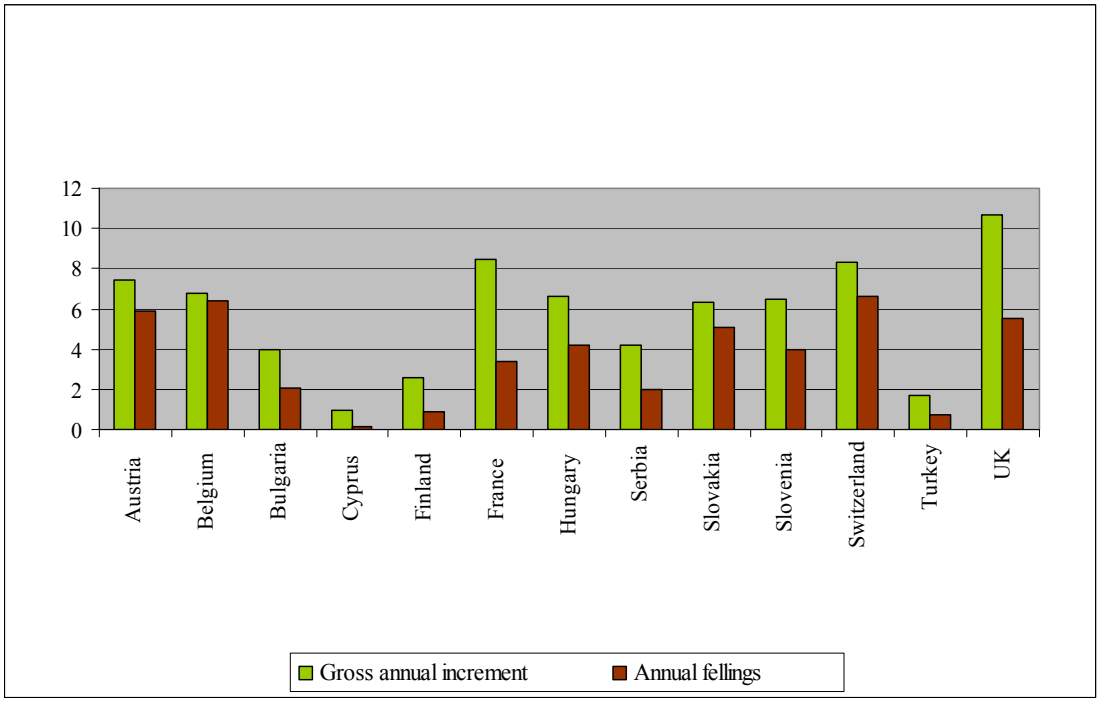
Figure 2.3.3. Comparison between gross annual increment and annual fellings in the private forest sector (m^3/ha)



Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 3.

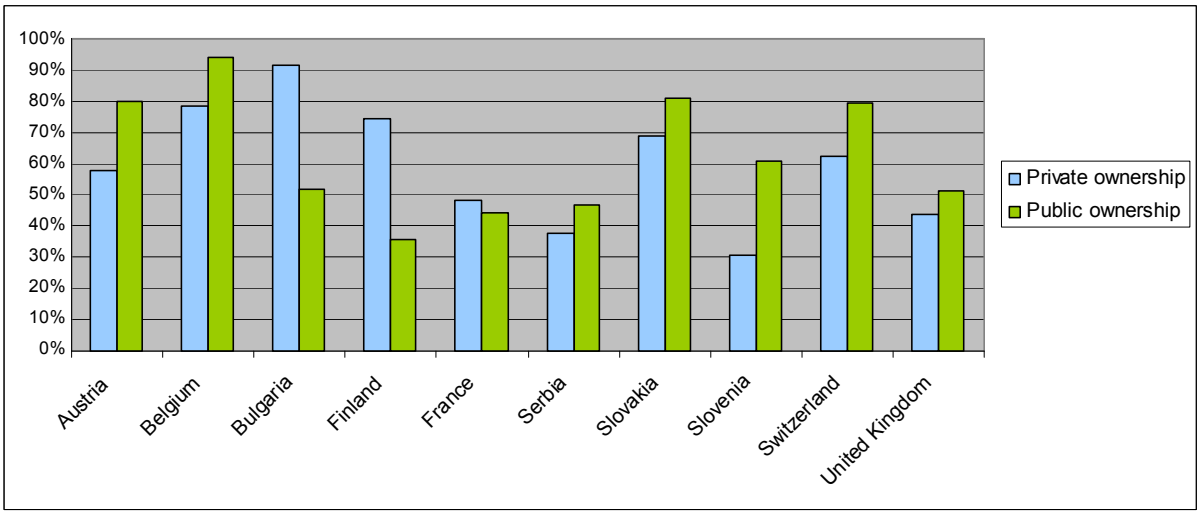
[27] Hetsch, Steierer, Prins: wood resources availability and demands II – future wood flows in the forest and energy sector. UNECE, FAO and University of Hamburg, March 2008. (http://www.unece.org/trade/timber/workshops/2008/wood-balance/docs/wood_availability_part2.pdf).

Figure 2.3.4. Comparison between gross annual increment and annual fellings in the public forest sector (m^3/ha)



Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 3.

Figure 2.3.5. Utilization rate of private and public forest and other wooded land, i.e. gross annual increment/annual fellings (percentage)



Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 3.

Important role of individual and family owners in private forest wood harvesting

Information from nine reporting countries shows that private forest institutions are dominant players in wood harvesting, in particular individual and family holdings in annual wood harvesting in the private forest sector (*Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 3*).

Countries in which more than 50% of private annual fellings come from individual and family holdings are Belgium (77%), Bulgaria (99%), Finland (90%), France (81%), Ireland (100%), Serbia (100%) and Sweden (67%). In Romania individual and family holdings contribute 43% and in Slovakia 36% to the annual wood production on private forest land.

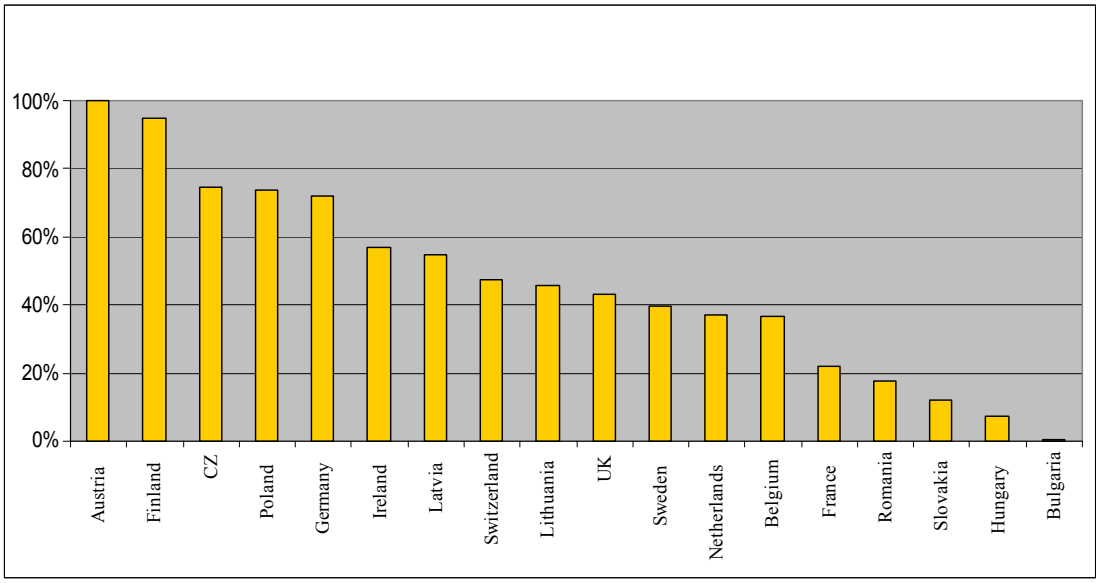
Importance of firewood

Annual firewood production comes mainly from individual and family forests. Its importance varies considerably among countries (*Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 4)*. The proportion of firewood harvesting in individual and family forests is substantial, for instance, in Bulgaria (49%), Romania (35%) and Serbia (43%) whereas it is more limited, for instance, in Belgium (13%), France (8%) and Sweden (8%).

Significant level of certification in public forests

The proportion of certified forest and other wooded land accounts for more than half of the total forest area in Austria (100%), Finland (95%), the Czech Republic (74%), Poland (74%), Germany (72%), Ireland (57%) and Latvia (55%). In the remaining 11 countries the certified area is below 50% and in some countries still quite small (figure 2.3.6).

Figure 2.3.6. Share of certified areas of forest and other wooded land[28] (percentage)

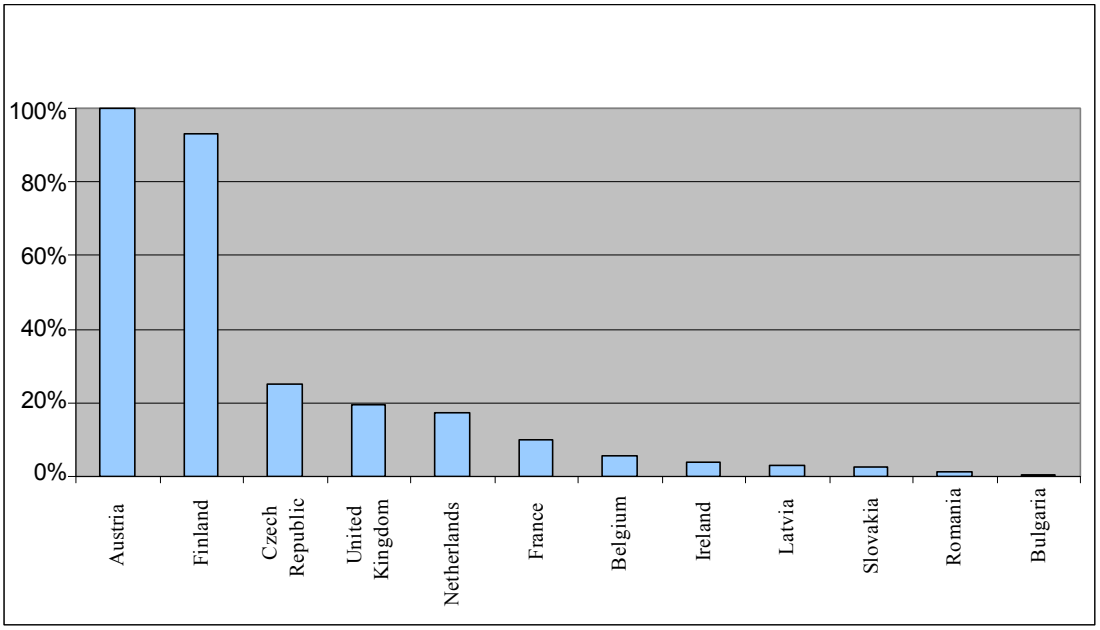


Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 3.

The difference between the level of certification in private and public holdings is striking. For the private forest sector, with the exception of Austria and Finland reporting 100% and 93% respectively, the certification level is still rather low or even non-existent (figure 2.3.7). The opposite is the case for public forest holdings for which 10 out of 14 countries report more than 50% of the area as certified (figure 2.3.8).

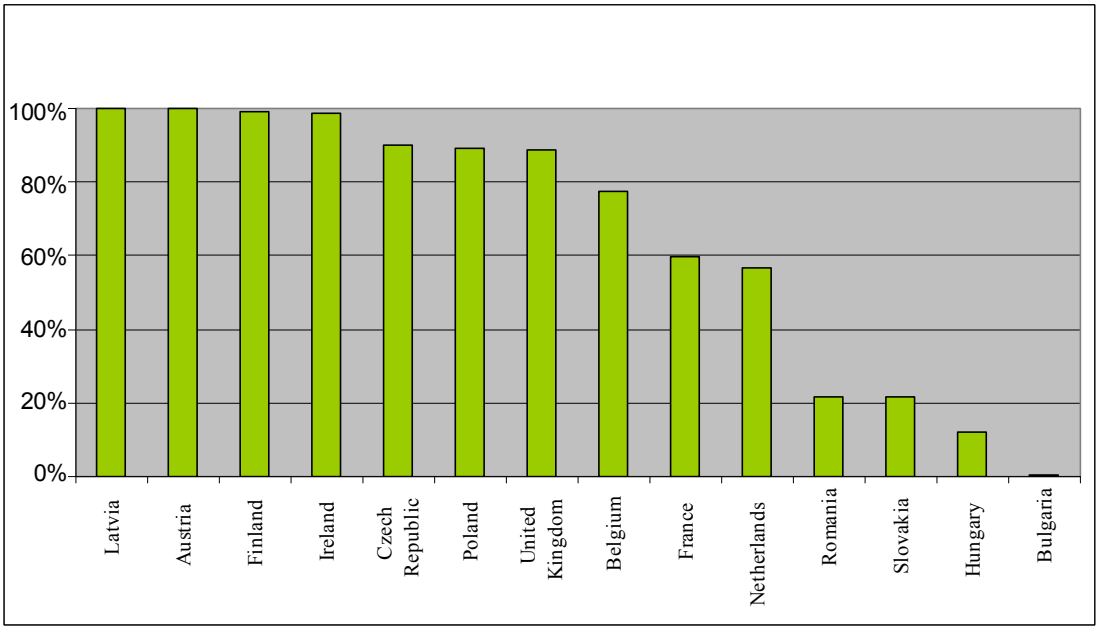
[28] More recent data is available in the Forest Products Annual Market Review, chapter on certified forest products: http://www.unece.org/timber/mis/fpama.htm

Figure 2.3.7. Share of certified area in the private forest sector (percentage)



Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 3.

Figure 2.3.8. Share of certified area in the public forest sector (percentage)



Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 3.

2.4 Economic indicators of forest production

In general terms, the volume, assortments and market value of wood production is a major and in many cases, the primary indicator for the economic dimension of forestry activities. Thirteen countries have been able to provide data on the annually harvested volume of wood in private and public forests and most of them could also indicate the value of the produced quantities for the year 2004 as well as 2005. Figure 2.4.1 summarizes the available data for wood production in the private sector for roundwood (which includes industrial wood and fuelwood) by volume, and where available, by production value.[29] Similar data for the public sector are presented in figure 2.4.2. A cautionary remark seems to be necessary because the indicated volumes and values for industrial wood categories are usually measured and recorded in official statistics, whereas the corresponding figures for fuelwood, especially used for home consumption, are more difficult to obtain.

The most recent data on wood production and trade are available in the UNECE/FAO Timber database (http://timber.unece.org/index.php?id=84) and data on the quantity and value of marketed roundwood in the database on quantitative indicators for sustainable forest management (http://w3.unece.org/pxweb/DATABASE/STAT/Timber.stat.asp).

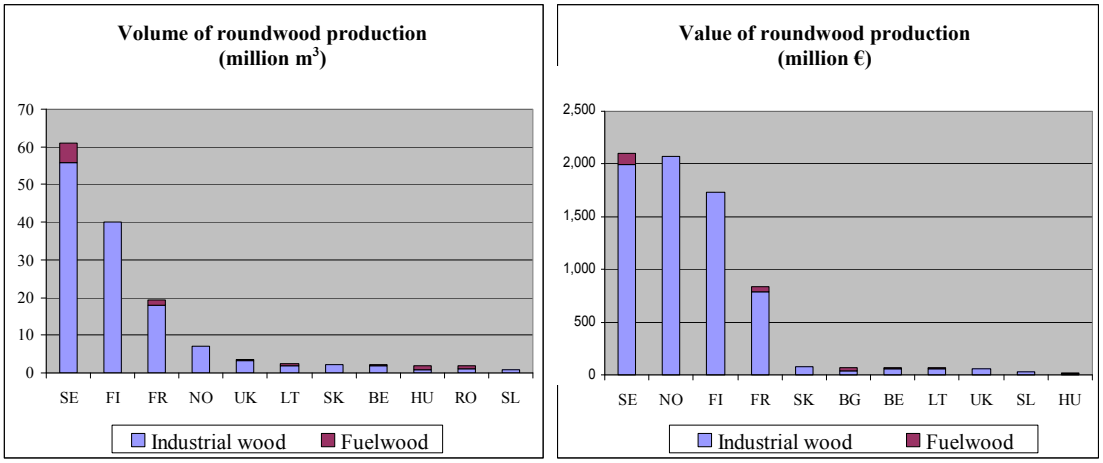
Quantitative and qualitative information for the kind, quantity and value of non-wood forest products is another increasingly important economic indicator for assessing the value of forest production. It comprises a variety of outputs for livelihood and cash income such as products for human consumption (fruits, berries, nuts, honey, game meats and mushrooms) and medicinal plants**.** Fodder and forage (grazing, range) are another category in this group. Other non-wood products of commercial use are, for instance, cork, resin, tannins, industrial extracts, wool and skins as well as hunting trophies, Christmas trees, decorative foliage, mosses and ferns, and essential and cosmetic oils.[30]

Only three countries (Finland, Slovakia and United Kingdom) have reported complementary information on the aggregated value of non-wood forest products. This is a major shortcoming in the present database since non-wood forest products as well as recreational and environmental services are in some regions an important economic resource for sustaining livelihood. They play an important role as a second source of cash income in many countries. More consistent information on this aspect of forest production is necessary both for all ownership categories, and in particular, for individual and family forest holdings.

[29] For detailed definition of roundwood, industrial wood and fuelwood see Annex Terms and Definitions

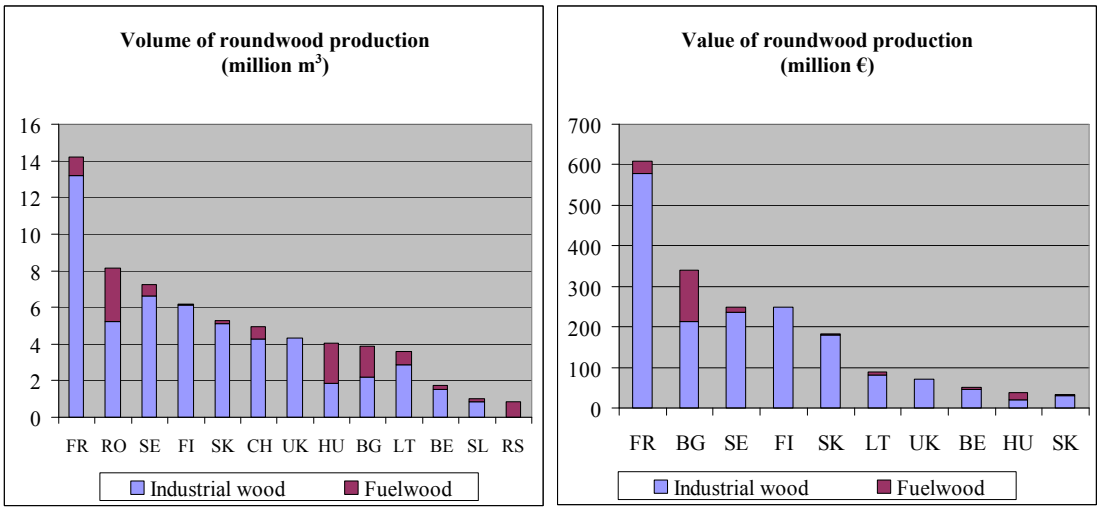
[30] Annex Terms and Definitions

Figure 2.4.1. Volume and value of roundwood production (industrial wood and fuelwood)) in the private sector by countries



Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 4.

Figure 2.4.2. Volume and value of roundwood production (industrial wood and fuelwood) in the public sector by countries



Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 4.

2.5 Demographic and socio-economic data

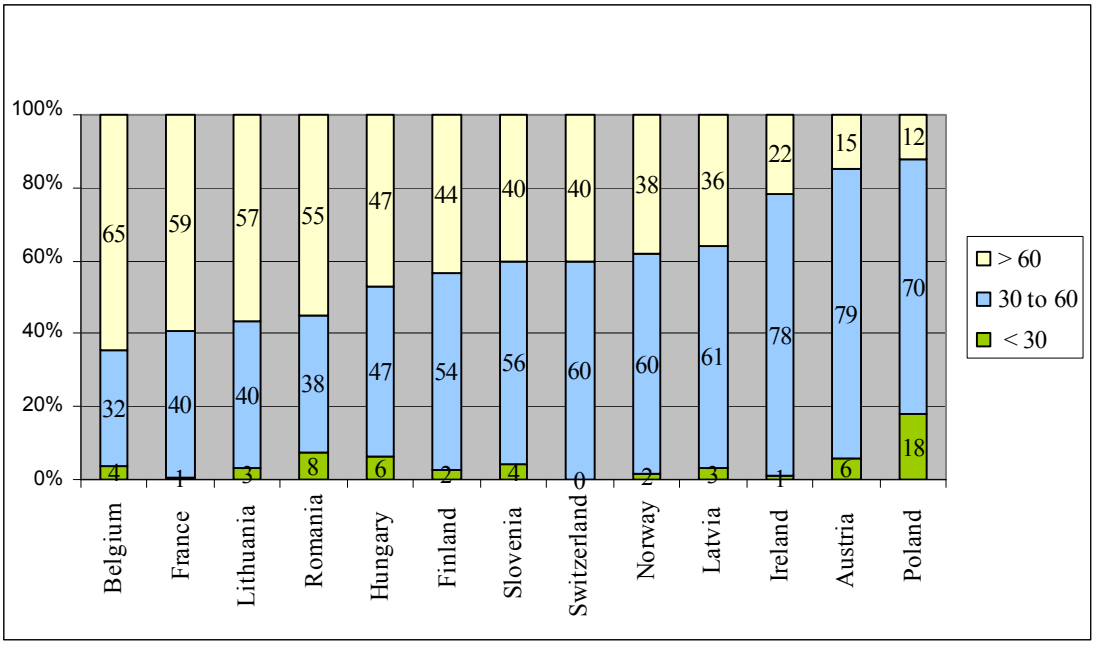
Demographic and socioeconomic data on private forest owners have been reported with varying completeness of information by approximately half of the countries participating in the 2006-2007 enquiry. The information refers to age distribution of owners and share of female and male owners, field of occupation and residence, and to the objectives of individual owners with regard to forest utilization and management. There is a considerable lack of data in this area from the country information received through the enquiry as a whole.

The distribution of forest owners according to age classes shows an astonishing variation among the reporting countries (figure 2.5.1). Whereas, for instance, there is only a very small number of owners in the age class below 30 years in most countries, Poland indicates 18% of young owners. The same is true for the age class 30 to 60 years, which varies between 32% in Belgium and 70% in Poland. The number of forest owners in the age class above 60 is considerable. Belgium, France, Lithuania, and

Romania indicate a share of over 50%, whereas like Hungary, Finland, Slovenia, Switzerland, Norway and Latvia indicate a share ranging between 50% and 30%.

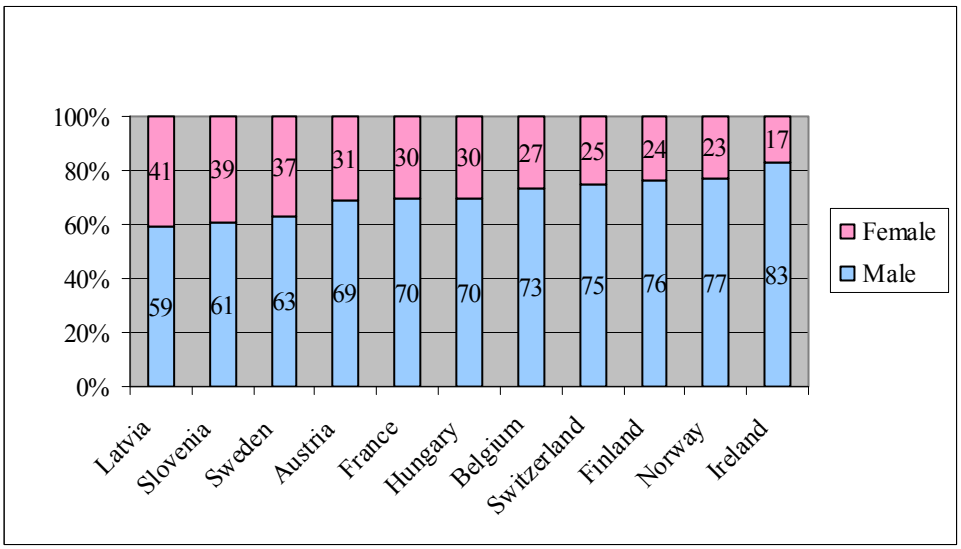
Female owners are a minority and the share of forests owned by them varies from around 41% in Latvia to slightly over 17% in Ireland (figure 2.5.2). The age class distribution of females shows a more balanced distribution and stronger representation (between 20% and 30%) in the age class below 30 years (figure 2.5.**3**).

Figure 2.5.1 Private forest ownership by owners' age classes (percentage)



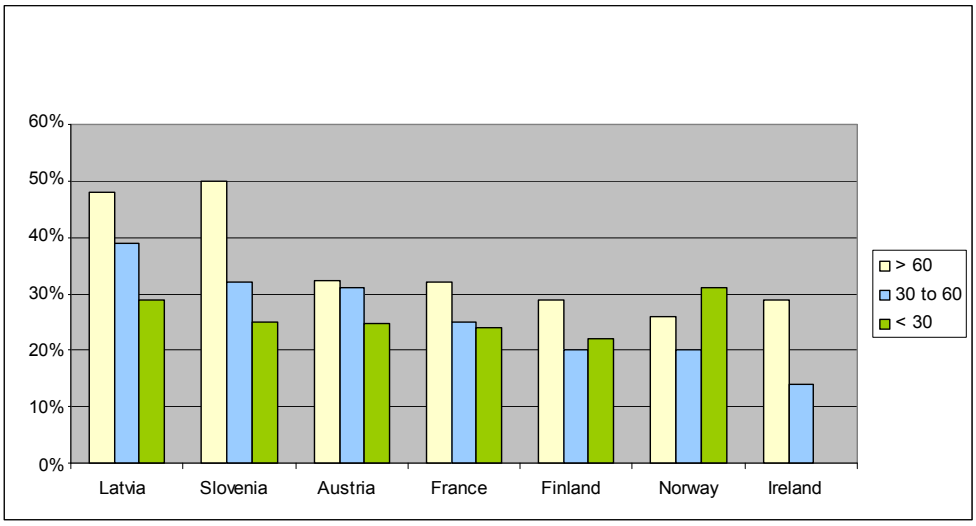
Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 6.

Figure 2.5.2. Share of female and male forest owners (percentage)



Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 6.

Figure 2.5.3. Share of female forest owners by owners' age classes (percentage)



Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 6.

Employment of forest owners

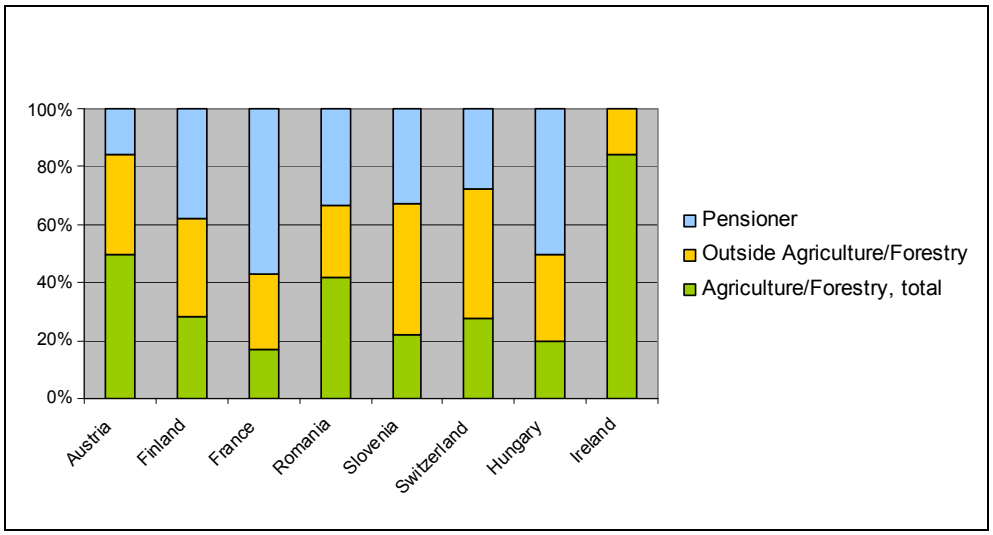
Information from eight reporting countries shows that the proportion of forest owners engaged in agriculture and forestry ranges from less then 20% in France to over 80% in Ireland (figure 2.5.4). On the whole this category of owners is rather a minority if compared with those engaged outside the primary sector or living as pensioners. In France close to 60% and in Hungary around 50% of all forest owners have been reported as pensioners.

Another indicator for the employment structure results from the information that around 80% of the forest owners are fully employed in the agriculture/forestry sector (An exception is Slovenia, reporting that more than 80% of forest owners that are employed are only employed part-time in the primary sector).

Six countries reported data on the trend of residence of individual owners.[31] Residence in rural areas ranges between 60% and 80% in Finland, Belgium, Romania and France, and is still as high as more than 90% in Latvia and Austria (figure 2.5.6). In Belgium close to 70% and in Finland around 50% of the urban forest owners live in cities with more than 20,000 inhabitants.

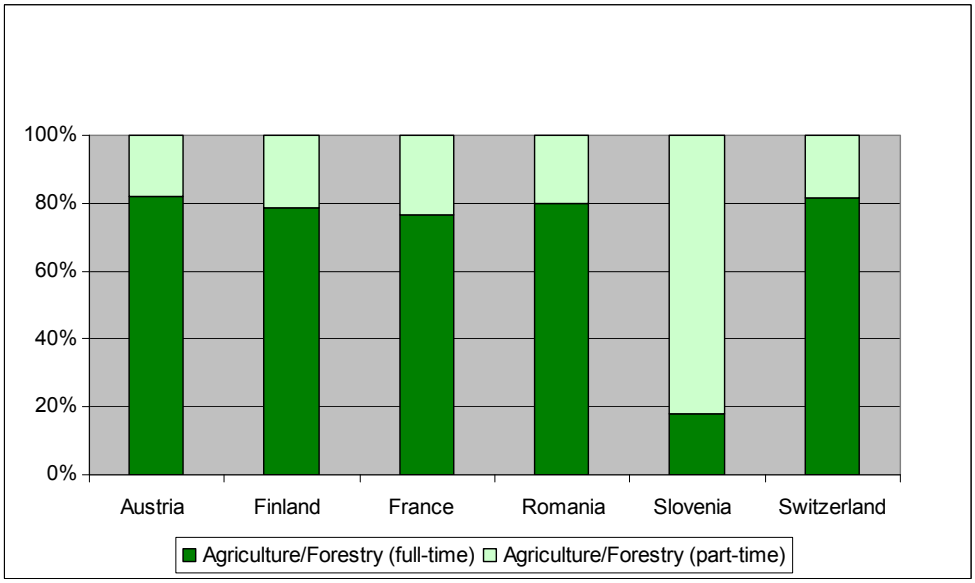
[31] Residence means the geographic place where a person usually lives independently from the place where he/she is actually present at the time of the census. Residence in rural areas refers to persons living in a geographic location where the population density is low and the main economic activity is agriculture, forestry, hunting and fishery. Residence in urban areas means persons living in a geographic are with high density of people over a limited area. See Annex Terms and Definitions

Figure 2.5.4. Field of occupation of individual owners (percentage)



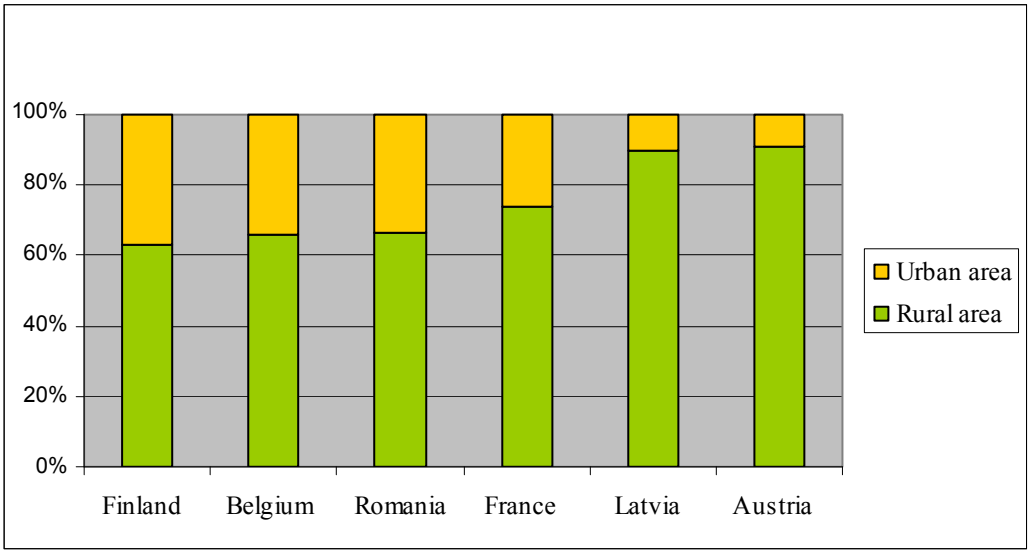
Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 7.

Figure 2.5.5. Share of full-time and part-time occupation within agriculture and forestry (percentage)



Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 7.

Figure 2.5.6. Residence of individual forest owners (percentage)



Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form.

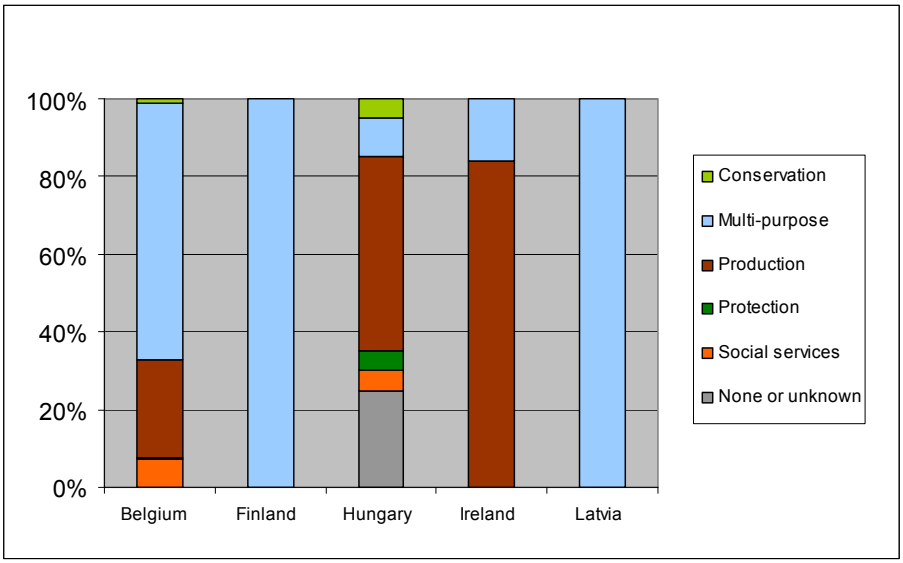
Multiple objectives of ownership

The changing profiles with a large and increasing percentage of forest owners with occupational activities outside the primary sector and living increasingly in urban areas, as much as the diversity of social and economic conditions among countries, are reflected in their management and utilization objectives. This is demonstrated by information from five countries (figure 2.5.7). Correspondents from Belgium (66%), Finland (100%) and Latvia (100%) indicated that the ownership objective is mostly "multi-purpose", defined by the enquiry and the FRA 2005 as "Forest or other wooded land designated to any combination of: production of goods, protection of soil and water, conservation of biodiversity and provision of socio-cultural services and where none of these alone can be considered as being significantly more important than the others."

Multi-purpose use thus includes rather different combinations of management goals and it may be necessary to further substantiate this in further investigations. Production is an important specific objective in Ireland (84%), Hungary (50%) and Belgium (25%). Other objectives that have been mentioned by one or two countries with a frequency below 10% are conservation, protection and social services. In four countries 100% of the owners have defined their objectives fully whereas in Hungary 25% had indicated none or unknown objectives.

It is obvious that the data supplied from only five countries forms too small a basis to be representative for the region. However, they give us an interesting overview of objectives and show how diversified the motivation of private forest owners at the country level can be.

Figure 2.5.7. Utilization and management objectives of private forest owners (percentage)



Source: Private Forest Ownership database, based on 2006-2007 enquiry, reporting form 7.

2.6 Information from country statements by MCPFE country groups

This section is based on the replies from 23 responding countries to the questionnaire of the PFO enquiry 2006 (*Annex I, Reporting Form F8*). This comprised the following twelve questions:

1. How has the private holding structure changed in your country within the last 15 years?
2. Please describe recent political processes concerning privatization / restitution of forest land in your country?
3. In the future, will there be more restitution / privatization of forest land in your country?
4. Is the number of private forest owners in your country increasing or decreasing?
5. Are your country's private forests increasing / decreasing in forest area and growing stock? If yes, what are the reasons?
6. How many National Forest Owner Associations are present in your country?
7. How many of your country's private forest owners are members in national Forest Owners Associations? How many hectares do they represent?
8. Are there differences between private and public forests concerning game management? If yes, how does it influence SFM?
9. How many individual private forest owners attend forestry training courses each year? Has the figure altered in the last 15 years or is it expected to alter?
10. How has the share of urban forest owners in your country altered in the last 15 years? How will it alter in the future?
11. What role does property fragmentation play for your country's individual private forest owners?
12. Are youth interested in managing family forest in the future? Are they involved and integrated into family forest management?

The country profiles presented in chapter 2.6 are based on the aggregate information submitted by each country. They are presented in the order of country groups as determined by the Ministerial Conference for the Protection of Forests in Europe (MCPFE).

In chapter 3 the information is then analysed across the various country groups, primarily with regard to "changes in the ownership structure" (section 3.1) drawing from the answers to questions 1 to 5, 8 and 11; "Forest Owners' Interests and Profiles" (section 3.2) referring to the answers to questions 10 and 12; "National Organization and International Representation of Private Forest Owners" (section 3.3), comparing information from the different countries provided in response to questions 6 and 7; and "Management Information and Training" (section 3.4) using findings from answers to questions 6-7 and 9.

Nordic /Baltic Country Group: Finland, Iceland, Latvia, Lithuania, Norway, Sweden

Finland The main changes occurring in the structure of forest ownership within the last 15 years are a reduction in the number of farmers; forest owners moving their residence to somewhere outside the forest holding; migration to urban areas; an ageing of the population of owners; and a growing proportion of female forest owners. The number of private forest owners is increasing slightly. No changes in private forest area are expected but the growing stock will increase because annual fellings are lower than annual growth. No significant differences are seen in game management between private and public forests. However, there are some differences in the opinions of hunters, foresters and forest owners. Fragmentation is a problem and the number of small holdings is increasing. On the other hand, the number of large holdings (> 100 ha) is increasing as well.

There are 154 local forest management associations under the umbrella organization of the Central Union of Agricultural Producers and Forest Owners (MTK). Almost all of the family forest owners are members in national Forest Owner Associations (FOAs). Some 40,000 forest owners attend forestry training courses each year. There have been no substantial changes during the last 15 years and the number may increase slightly in the future. The interest of youth in managing family forests in the future depends on the location and size of the farm, among other things.

Iceland Since 1990, the part of private holdings in forestry has increased because of newly started regional afforestation projects aiming at greater participation of farmers in forestry and afforestation. The Government started special regional afforestation programmes on private land in all regions of Iceland between 1990 and 2000. There is no indication of change in ownership of forest and woodland from private to public and vice versa, but the participation of farmers in afforestation will tend to increase the privately owned part of forested areas in Iceland. About 150 individuals are participating annually in a training programme offered by the State. The figure has been increasing and will probably continue to do so in the near future.

There is one National Forest Owner Association, which is an umbrella organization for six regional FOAs. It is not a member of an international FOA. About 700 private forest owners are members of forestry associations. The share of urban forest owners is increasing because urban dwellers are buying holdings in the countryside for leisure and are probably more interested than farmers in afforestation. With increasing afforestation of private land more people are involved in forestry, and on the farm the whole family is taking part in the work of planting trees which is the main work in Icelandic forestry at the moment. Property fragmentation is ongoing to some extent but is partly controlled by special land-regulations. There is no game management in Icelandic forests.

Latvia After the restoration of Latvia's independence in 1990 the ownership structure has changed significantly as a result of privatization and restoration of property rights. In the year 1990 practically all forests were managed by the State. In 2005 private forests account for 47%, 50% are owned by the State, and the rest are owned by local governments. Changes in the structure of private holdings are mainly related to land privatization and the process of restoration of property rights. In recent years, the forest ownership structure has been more or less stable and no significant changes are expected to take place in the future. If changes in the private holding structure are analysed for the recent five-year period (2001 - 2005), the area of properties and land assigned for use to legal persons is increasing, whereas the area of properties and land assigned for use to natural persons is decreasing.

Special issues regarding forest land are covered by the Forest Law. It stipulates that State forest land shall be the land of the Forestry Department of the Ministry of Agriculture according to the situation on 21 July 1940. It has not been transferred in the course of the land reform to other natural or legal

persons for permanent use, this land belongs to, or is under the jurisdiction of the State, and shall be entered in the official Land Register as such. State forest land shall not be granted for permanent use and shall not be alienated or privatized, except in the following cases: (a) Performance of a land exchange specified and according to the procedures of the Law on the Rights of Landowners to Compensation for Restrictions on Economic Activities in Specially Protected Nature Territories and Micro-reserves; and (b) If State forest land is necessary for performing local government autonomous functions specified in the Law on Local Governments. Alienation or privatization of State forestland shall be permitted by an order of the Cabinet, issued each time, in the cases mentioned above.

The number of private forest owners has been increasing because of the restitution/privatization process. Comparing the forest area of 1935 and 2005, the extent of private forests has almost doubled. The main expansion of forest took place on private land in the years after World War II and during the 1960s when natural afforestation took place or when abandoned agriculture lands were afforested. The forest area is given on the basis of State Forest Register information but first results of the National Forest Inventory show that the actual forest area is bigger than the registered one. The reason is natural succession on abandoned agricultural land. Game management requirements in private and public forests are similar.

Private forest owners receive information about forest management through consultations and seminars provided by different institutions (State, private and other). More detailed information is only available on consultations provided by the State Forest Service and the figures show that the number of consultations has doubled since 2000. The main reasons are the change of private forest owner's attitude to forest management and the need in consultations on forest legislation. Private owner's interest for consultations and seminars on forest management is expected to increase.

There is no information about changes of the share of urban forest owners. Information on the situation for the year 2004 is available. It is hard to find indicators on how to evaluate the involvement of youth in family forest management. In general, more attention is paid to public education work and many activities are pointed to educate youth about the forest. Each year, Forest Days are organized with more than 500 events in 2006.

Lithuania The land restitution process since 1992 led to a large number of private forest owners. After the re-establishment of independence on 11 March 1990, the Republic of Lithuania adopted the laws legalizing the private ownership in land, forest and other immovable property. Forest land restitution started in 1992. Since 1 May 2005, companies are allowed to own forest land. The restitution process is not yet completed in Lithuania and should be finished in 2-3 years. The privatization of State-owned forest land is not foreseen in the near future. Even leasing of State-owned forest land for forestry is forbidden by the Forest Act.

As of January 2006 there were 213,000 forest owners with 717,000 hectares of private forests (34% of the total forest area). The average size of forest land holdings in Lithuania is growing slowly and amounts at present to less then 5 ha. The area of private forest is increasing as a result of restitution of land as well as afforestation of abandoned agricultural land. The growing stock increases in reserved restitution forests as a result of limited cutting volumes. No differences exist between private and public forests concerning game management. Fragmentation of forest properties is a big obstacle for achieving an economically sustainable private forestry. The Forest Law forbids splitting forest holdings into parcels of five ha and less.

The national organization for forest owners is the Forest Owners Association of Lithuania (FOAL), with over 5,500 active members. There are a few other organizations of which the more significant one could be called a private forest owners association. More than 3,000 owners attended forestry training courses in recent years. This number is increasing annually. Every year over 1,600 forest owners attend the forestry training courses organized by FOAL network. A similar number is served by State Forest Enterprises. Almost half of the forest owners are living in urban areas. There is no research available with regard to youth being involved in family forest management. But it was noticed that young people living in the countryside and those who had obtained education in forestry are more interested in family managed forestry then others.

Norway Ninety percent of Norwegian forest holdings are family forestry, managed through generations, and 97% of forest sales are done within the family. The forest owners' cooperatives make it possible to manage small holdings relatively efficiently. For most of the owners, forest management is a part-time activity, which contributes to their income. There have been no dramatic changes in ownership patterns and the official policy is supporting private ownership. State ownership is very limited, but local municipalities have some forest managed in the same way as private holdings. In 2006 about 1.25 million ha of forest and other wooded land in Finnmark County will be transferred from State ownership into formally private ownership under administration by a board consisting of representatives from regional and indigenous people's (Sami) authorities.

Both public and private forests are slowly increasing in area and more rapidly in growing stock. The main reasons for this are changed agricultural and grazing practices, significant silvicultural efforts over several decades, and fellings that are lower than the annual increment. There are few differences with regard to game management. Some of the public forests near cities have reduced hunting, and in some areas political influence tries to limit the price of hunting rights. In practice, the differences are marginal. So far, the Norwegian forestry and agricultural regulations have worked against fragmentation. Fragmentation does not impose a large problem, but the stable structure also works against merging of properties. The number of private forest owners has remained stable.

The Norwegian Forest Owners Federation has 45,000 members and represents 90% of the private forest production. This organization is a member of several international organizations (CEPF, COGECA, IFFA and the International Family Forestry Alliance) and of the PEFC certification scheme. The other organization, NORSKOG, has about 200 members, mostly owners of larger holdings. Approximately 46,000 forest owners (of a total of 120,000 owners with more than 2.5 hectares) are members of associations. Approximately 5,000 private owners attend forestry training courses. Owing to increased mechanization and decreased manual harvesting, training is changing towards management skills – moving away from practical skills. The Norwegian Extension Institute develops computer-based training in order to reach modern owners in a better way.

Ninety per cent of Norwegian forest owners live closer than 30 minutes driving time from their property. The share of urban forest owners is slowly increasing. In our most recent survey only 25 % of the respondents replied that their children were not interested in forestry. Ninety seven percent believed that the property would remain in the family for the next 15 years; 50% believed that they would remain as owners, and 45% indicated that one of the children had taken over. Normally the forest is a matter that involves the children. This may be reduced over time but there are no indications of this so far.

Sweden The structure of holdings has not changed much during the last 15 years. The number of owners, the extent of area and the average area per holding have remained almost the same. The number of female owners has increased by 2% and the average age among the holders has also increased slightly. A revision has been made in the category “forest industries” regarding the State-owned company SveaSkog which used to be categorized as a "Forest industry" but is now categorized in the “State” category. There is no indication that the share of private forest land will increase. However, the number of private forest owners has increased by 2 to 3 per cent over the last ten years, the main reason being children inheriting forest estates from parents. In the near future the increase is expected to be the same (2-3 %). In general, there are no differences in game management. Property fragmentation is a problem in some small areas in Sweden.

There are four forest owners’ associations that are associated with the Federation of Swedish Farmers. They are all, indirectly at least, members of international forest owner associations since the Federation of Swedish Farmers is the focal point for international contacts and cooperation between Swedish and international forest owners. In addition, there are two small independent associations. The four national forest owners’ associations have some 90,000 members with a total area of 6.2 million hectares.

The Swedish Forest Agency, as well as the forest owners’ associations, is carrying out forestry training for forest owners. However, no statistics are available on this training. It is probable that the number of forest owners attending such courses has slightly increased since new owners are coming

from urban areas and do not have any experience in farming or forestry. The share of urban forest owners has increased in the last 15 years and will continue to rise in the future due to the transfer of estates to children. Children tend be less interested in managing the family forest, are to a lesser extent near the forest estate and receive income from sources other than from the forest.

North West Country Group: Belgium, France, Germany, Ireland, Netherlands, United Kingdom

Belgium The total private area is now quite stable after an increase during the last 40 years due to plantations on former agricultural and marginal lands. The mean size of holdings is decreasing as the number of owners is increasing after inheritance. The growing stock increases due to changes in age classes in conifers stands and transformation from coppice or coppice with standards to high forest in broadleaved stands. This increase will probably stop in the next years as coniferous fellings are now equal to or higher than increment.

The number of individual owners increases by 10% each ten years due to division of forest holdings after inheritance. Many larger holdings (more than 100 hectares) have been constituted in property companies. Another part of them stay as family-owned holdings after inheritance. Based on a 1999 federal law a few "forest groups" have been created with a special tax status. Twelve groups of this kind exist in Wallonia for 3,420 ha. In Flanders, mixed groups (with both private and public owners) have been created, with 19 groups now existing. The "Société Royale Forestière de Belgique" (SRFB) is the main forest owners association. It is a member of CEPF. A few cooperatives exist for sales and forest operations. About 3,000 owners are members of SRFB with an area of about 30 000 ha of forests.

France The ratio of public (26%) to private (74%) forests has not changed significantly. Afforestation of agricultural land by natural succession or by plantations is slightly more in private forests. Public forests expand as well, mainly in the mountainous areas where public ownership is dominant. The average size of private forests increased slightly between 1980 (2.6 ha) and 2000 (3.0 ha). During the same period, the number of forest owners decreased from around 3.7 million in (ESSES 1976-1983) to around 3.5 million. Around 2.4 million owners have less than 1 ha according to the cadastre and around 1,1 million have 1 ha or more (SCEES SPF survey 1999). Forest area and growing stock increase regularly. The forest area is increasing because of the agricultural decline mainly in mountainous areas where agricultural production is poor. The growing stock increases because the harvested volumes are smaller than the increment, even if self-consumption is included.

Property fragmentation is a major economic hindrance to the competitiveness of wood mobilization and a reason for lack of management at the local level. For that reason the forestry law of 9 July 2001 has established new tools for land reorganization. Forest cooperatives and services' groupings have developed activities to not only cover wood sales but also to assist owners in their forest management activities. There are 35 cooperative groupings counting 83,000 members with 1,800,000 ha forest. Modalities of use of hunting rights differ in public (most often renting in a public auction) and private forest. The rules for hunting big game are settled by the Prefect of the department.

The main union of private forest owners is the Fédération Forestiers Privés de France (ex Fédération nationale des Syndicats de Propriétaires Forestiers Sylviculteurs). The FPF is a member of the Confederation of European Forest Owners (CEPF). Sixty thousand owners are member of a professional forestry organization (syndicat, CETEF…) owning 2,520,000 ha; 14,000 owners with an area of 540,000 ha participate every year in forest information meetings. The development of professional agencies, information and training offers led to increased owners' participation. The comparison between the SCEES ESSES 1976-1983 enquiry and SPF 1999 enquiry does not show a significant change of the owners' residence (rural areas, towns, cities) between 1980 and 2000. The forest owners are of relatively high age. In 2000, 59% were over 60 years old as compared with only 41% in 1980. In comparison this generation represents only 21% of the French population according to the 1999 census.

Germany Following the reunification of West and East Germany, the national forest area has changed and hence conducting a comparison of the changes in holding structure during the past 15 years is not

meaningfully feasible, as indicated by the national correspondent. Forest expropriated within the scope of the land reform in the German Democratic Republic and transferred into public ownership is now either privatized or about to be privatized.

Ireland An estimated 15,000 farmers have switched their land use from agriculture to forestry since 1990. This has been the main contributing factor in a 220,000 ha increase in the forest area since 1990. Many of these areas are, however, relatively small (2-3 ha) compared with the larger average block size in the publicly owned forest and the private estates in existence prior to the mid-1980s. It is envisaged to further increase the forest cover to 17% from just over 10% currently. There have been no recent political processes concerning privatization of forest land. Privatization of publicly owned forest land is not envisaged. Apart from older, larger forest estates there is little game management in private forests. Deer are becoming an increasing problem. The State forestry company has an active game management plan but it, too, is experiencing problems with deer.

The main forest owner associations are the Irish Timber Growers Association (ITGA) and the Irish Farmers Association. There are another three or four smaller groups. ITGA is a member of CEPF. Approximately 2,200 private forest owners are members of national forest owner associations. There are no data available on the area that they represent. Figures on attendance at forestry courses by private forest owners are as follows: (2002) 51 Courses - 574 attended; (2004) 19 courses - 288 attended; (2005) 47 Courses - 590 attended; (2006) 36 Courses - 893 attended.

Netherlands The ownership structure remained more or less the same during the last 15 years. The only change in the private structure of holdings is an increase in the number of forest owning foundations. In 2006, 129 foundations owning a forest area of more than 5 ha were registered. In the past the focus of the Government was on nature management by the State forest service and large nature conservation organizations. However, during the last decade the Government has been stimulating private nature management by subsidies that are specifically designed for this aim. This is a result of the fact that the government has become aware of the important role that private owners play in the conservation of nature in the Netherlands.

As a result of the creation of the National Ecological Network, large areas of agricultural land are bought by the Government. This agricultural land has to be transformed into nature areas to become part of the network. The management of the land is either handed over to the State forest service directly or to large nature conservation organizations. The network includes valuable natural areas, woodlands, wetlands and important landscape features, which together form the backbone of the Dutch countryside.

The number of private forest owners is stable and the number of private holdings of more than 5 ha has not changed since 1992. The forest area is stable, but the growing stock is increasing due to reduced harvesting intensities especially, by small forest owners. The growing stock is also increasing, because the forests in the Netherlands are ageing. Fragmentation of private forest holdings is occurring, due to splitting of property between different heirs. The extent of this fragmentation is not known. There are differences with regard to game management between different groups of forest owners; especially the nature conservation organizations, who are not inclined toward active game management and hunting.

A change in forest management took place during the last decades from a traditional system to a nature-oriented forest management system called “integrated forest management”. A large number of private forest owners have been attending courses and workshops in this type of forest management. Attendance at these courses is stimulated by the national government and the forest owner cooperatives. The number of private forest owners attending forest training courses is not known. The Dutch federation for private land owners has a youth department that tries to involve the next generation of land owners in the management of the family property. A problem seems to be that the older generation wants to pass the property on to the next generation in its current traditional way, having difficulties with some of the new ideas of the next generation. As it is very difficult to earn money from forestry in the Netherlands, the next generation has to search for new sources of income. In order to develop new sources of income some changes have to be made and a large number of the older generation have difficulties in coping with this.

United Kingdom The area of farm woodlands has increased substantially, but with less increase in the number of farm woodland holdings. No data are available for time trends for other types of woodland. A disposals programme between 1980 and 1997 resulted in a net reduction of about 120,000 hectares in Forestry Commission forest land. The programme ended in 1997. Comprehensive data on forest owners are not available, but the number is estimated to have increased since 1990 (see MCPFE 2006). Forests are increasing in both area and growing stock. Reasons for the increase in area are new woodland creation, mostly grant-aided, and FC disposals until 1997. For growing stock, additional increase comes from the maturing of conifer plantations newly created from the 1950s to the 1980s.

Central Country Group: Austria, Czech Republic, Hungary, Poland, Slovak Republic, Slovenia, Switzerland

Austria About 80% of the forest area in Austria is privately owned, of which about half is owned by small private forest owners (<200 ha), most of whom also own agricultural land. Small private forest owners have traditionally managed their forests primarily with the help of family members. As a result of structural changes in the last decades, the number of full-time farmers is decreasing constantly and the share of non-farming forest owners is increasing. These owners feel less closely linked to the forest or have lost this connection and are therefore not willing to work in the forest themselves. No major changes owners are observed regarding the number of private forest. However, there was a slight shift from 1980 to 1999 from smaller holdings (5-20 ha forest area) to larger holdings (20-50 ha, 50-200 ha, >200 ha).

Forest area and growing stock are increasing mainly because of a decrease in agricultural area and of low harvesting rates. The forest cover increases slightly by around 5,000 hectares per annum. These dynamics cannot be explained solely by planned interventions, such as afforestation or officially approved clearing. The development of forest cover is influenced primarily by natural processes such as the overgrowth of areas formerly used for agriculture or the effects of small-scale natural disasters. The slow natural reforestation of no longer managed land, following the total or partial abandonment of operations, results in a marked increase in forest cover in the ownership category private forests (< 200 hectares), especially along the forest borders. Therefore it is not surprising that 90% of the total increase in forest cover takes place in private forests, which can be observed not only in the higher alpine pasture regions but also in other structurally weaker regions. As a result of farmers reducing their farming activities to part-time, as well as migration from rural areas and property sales, the number of full-time farmers is decreasing. The result is a decreasing interest in intensive agricultural use.

With 1,095 billion m³ over bark, the growing stock in Austrians productive forest is higher than ever before. The average increase in stocking volume from 1994 (Austrian Forest Inventory 1992/96) to 2001 (AFI 2000/02) was 30 m³ over bark per hectare. This is due to the increase in increment and a declining utilization rate. The private forest (<200 ha) has shown the strongest volume increases with 44 m³ over bark/hectare during the mentioned period. And with 333 m³ standing volume over bark/hectare, the private forest also has the highest average stocking volume of all ownership types. In large private forest holdings with more than 1,000 hectares and in the Österreichische Bundesforste AG (ÖBf AG), the increase of 10 m³ over bark / hectare is still considerable, albeit markedly lower. In general, property fragmentation is not a big issue in Austria and there is no worsening trend, but in some areas with small lots of land, forest management is difficult. Austria's forest policy tries to improve this situation by encouraging forest owner cooperation (e.g. joint forest management ventures). There are no differences concerning game management between private and public forests.

It is estimated that 6,000 private owners attend forestry training courses every year. The figure is based on statistics of the two federal forestry training centres. The share of private forest owners, attendance at forestry training courses, and attendance of forestry training courses in other training centres are estimates only. Over the past years the number was relatively constant. In general, the share of urban forest owners is expected to increase. Since only two studies (2001 and 2006) have been conducted, no statements can be made with respect to a significant change for the past 15 years and for the development in the future. There are many good examples of young interested people

involved and integrated into family forest management. However, no data or studies are available to quantify the present situation.

Czech Republic In 1991 the ownership distribution was as follows: State forest 95.8%, agro-cooperatives 4.1% and private forests 0.1 %. In 2006 the ownership distribution is: State 60.1% (incl. public schools and universities); municipal 15.5%; regional units 0.2%; forest cooperatives 1.0 %; private 23.2%. Restitution took place, following the enactment of two main restitution laws. Restitution is almost finished, except for some specific cases. The majority of the public does not agree with further privatization of State forest. The number of private forest owners has stabilized with slight oscillations.

No significant changes between private and public forest management can be seen because of the short period since restitution. In the past (before World War II) some of the municipal and many of the small private (farmers') forests were of lower quality. The National Forest Owner Association (SVOL) and the Association of Municipal and Private Forest Owners joined FECOF and CEPF in 1999. Membership was extended later also to ELO (2005), the Organisation of European Sawmillers (EOS), and to the Network of European Forest Entrepreneurs (ENFE)[32]. Each forest owner must have a licensed professional forest manager. For small forest owners the expenses of such a manager are paid by the State.

Hungary Privatization started in 1993 and ended in 1998. During that time around 200,000 ha of formerly State-owned forests and 500,000 ha of forests formerly in the possession of cooperatives were privatized. Since then, changes in the structure of holdings have been moderate. According to estimates, only one third of the private forest area is owned by individual owners, the rest is owned by groups of owners. Privatization took place in the form of a voucher system. Instead of getting back their former properties the former owners, or their heirs, received vouchers with a nominal value which then could be used as currency in auctions where other properties and forests were being privatized. Members of agricultural cooperatives had the right to claim for any of the assets, including forest areas, of the given cooperative up to the financial value of their membership in the specific cooperation. There is no official intention to further privatize State-owned forests.

The Association of Private Forest Owners (MEGOSZ) is the main organization of national importance dealing specifically with private forest ownership. In addition, there are the National Forestry Association (OEE) and the Federation of Wood Industry (FAGOSZ), which have interests in private forestry development. MEGOSZ has 1,500 members among which 70 "integrators"[33] representing approximately 20,000 forest owners. The total area managed by members amounts to about 100,000 ha[34]. There are no official records on other, mainly local or regional, forest owners' associations, which can be estimated to be around 20. The number of forest owners is increasing through inheritance and the private forestry sector is increasing both in area and growing stock. Due to afforestation of around 10-15 000 ha annually and management of so far unmanaged forests, the growing stock of private forests increases as well.

Property fragmentation is greatly influencing private forestry caused mainly by inheritance customs. Besides, common private ownership is a widespread phenomenon hindering proper forest management on the concerned areas. Property concentration is encouraged by the authorities but being a long process, no significant results have yet been achieved. The Law on hunting and game management does not distinguish between different categories of ownership. Private and public forests are under the same regulations. Due to the small number of requirements, State owned forest management units have a better chance to establish their own hunting units than private forest owners, in particular those with small forest lots. The minimum area for big game hunting is 3,000 hectares.

[32] CEPF 2009.

[33] The term "integrator" is used in Hungary and refers to a licensed forest entrepreneur company being at the same time owner of a defined size of forest area (200 ha), contracting small holdings for management into bigger units and providing advice for other owners.

[34] In 2008 the figures increased to 30,000 owners and to a managed area of 230,000 ha (according to CEPF data).

Poland Structural changes in rural Poland started several years ago and increased particularly after accession to the EU in May 2004. A decrease in the number of private agricultural holdings and an increase in their average size, mainly as the result of the purchase of agricultural land are the most characteristic aspects of these changes. Privatization or restitution of forest land did not occur and at present there is no political will for such processes. Private forest area is gradually increasing as the result of increased afforestation of agricultural land. Growing stock is increasing slowly because younger age classes still dominates the structure of forest stands belonging to individuals. The number of private forest owners has increased slowly as the result of two processes: (a) purchasing agricultural land for afforestation by inhabitants of towns, and (b) decrease in the total number of agricultural land owners. There are no differences between private and public forests concerning game management. Fragmentation is the basic problem of private forest ownership in Poland as the average size of forest property in agricultural holdings amounts to a mere 1.28 ha; furthermore, the forest property consists approximately of three plots. The fragmentation significantly influences the forest quality.

In 2006, Poland's Union of Forest Owners Associations (FOAs) was in the process of registering at the court. When it will be strong enough it will join CEPF. Above 300 forest owners are members of seven local FOAs and two associations are in the final stage of registration. It is expected that all local FOAs will join the national Union in the near future. There are no systematic and continuous training courses for forest owners. Constant advisory tasks are fulfilled by the State forests or by district forestry officers as part of the supervision in private forests. During the period 2005/2006 short training courses supported by the EU on afforestation and young-growth tending principles were organized by the State forests for agricultural land owners. It is expected that such training will be continued. The share of urban forest owners has increased in recent years as the result of national and EU support increased afforestation of agricultural land. However, this trend may not last if a new regulation changing the principles of purchasing agricultural land comes into effect. Generally there is no concept of family forest in Poland. The majority of private forests are considered as a part of agricultural family holdings.

Slovakia The structure of private holdings has changed substantially over the last 15 years. Before 1991, when the act on restitutions entered into force, all forests were held and managed by State organizations (1,912,905 ha) and agricultural cooperatives (8,800 ha) which were under the supervision of State forest enterprises. According to the report on forestry in the Slovakia 2006, the ownership distribution of forest land (1,931,645 ha) was as follows: State 807,753 ha, private holdings 275,243 ha, common ownership 480,160 ha, municipalities 187,816 ha, church forests 65,242 ha, cooperative holdings 2,635 ha, and unknown ownership 112,796 ha. Returning forests to their original owners (on an average of about 10,000 ha annually) has stagnated since 1997, mainly because of the small individual units of forest property. These cannot be identified easily on the ground, especially as they consist mostly of shared co-ownership. Owners refuse to associate or do not submit the required documents relating to their property. Completion of this process will be possible only after removal of the existing legislative, technical and economic barriers.

The intention of non-privatization of forest estates in State ownership is included in a Program Declaration of the new Government. Enforcement of and amendment of legislation related to an arrangement of ownership rights concerning forest estates with the objective of removal of existing stagnation in the restitution process is one of the fundamental measures resulting from the proposal of "The Concept of Agriculture Development for 2007-2013 - Part Forestry". There will probably not be more privatization in the future but more progress should be made in completion of the restitution process. New legislation should solve the problems related to land of unknown owners with the objective of providing a basis for a market on land favouring entrepreneurial activities in managing such lands.

The number of private forest owners is more or-less constant but the number of forest holdings that are managed by their owners is decreasing as a result of leasing of 17,068 forest holdings in 2000 and of 14 475 holdings in 2005. The growing stock increases are mainly due to the actual age structure of all forests, including private ones. Fragmentation of forest property is to be considered as an unfavourable factor in sustainable forest management. Therefore regulations are enacted in the forest law requiring the approval of the respective body of State administration in the case of dividing forest land with an

area of less than 10,000 m^2. The system of game management is valid in private and public forests resulting from a uniform legislation.

There are four forest owner associations: the Union of Regional Associations of non-State Forest Owners in Slovakia, the Association of Municipal Forests in Slovakia, the Union of Diocesan Forests in Slovakia, and the Association of Private and Cooperative Forests Owners in the Banská Bystrica County (2005). In the meantime, the four associations have created an umbrella organization (2007) called Union of Forest Owners of Slovakia[35]. Forest land owners with a total forest area of 536 132 ha (67%) are members of the mentioned associations. Thirty-three per cent of the non-State forest owners (264 727 ha) are not members of associations. Between 2000 and 2005 there were professional (average attendance 356) and general (average attendance 161) educational activities for non-state forest owners and forest workers. The number has been slightly increasing. There are not any significant measures adopted so far with regard to promoting family forest management.

Slovenia The area covered by private forests has increased because of the denationalization process that started in 1991 and because of abandoned agricultural activities during the last decades. Forest holdings are continuously split between relatives during inheritance processes and the number of private forest owners is increasing steadily. Private forests, owned by individuals, have been the prevailing ownership category for more than 100 years. After World War II private ownership was limited by area according to the socioeconomic status. The Denationalization Law was adopted in 1991 and the process is not finished yet. However, it is quite close to the end and big changes are not expected anymore.

The reasons for an increase of private forest area and number of holdings are denationalization, the practice of splitting property between relatives during the heritage process, and abandonment of agricultural activities. The reasons for an increasing growing stock are conservative forest management planning during the last four decades, enough other energy sources for heating, and diminishing economic interest in wood harvesting. Property fragmentation is a huge problem for the smallest private forest owners. They are less and less dependent economically on income from forests. Average private forest property in Slovenia is split in three different locations. There are no differences in game management regulations according to forest ownership categories.

There is one National Forest Owner Association in Slovenia, established in May 2006. It is not yet officially member of an international FOA. There are more than 1,000 members in the national association; and these are usually owners of larger forests. The first courses in the new organizational scheme of forestry in Slovenia were organized in 1995 by the Slovenian Forest Service, SFS. During the first five years there was a boom of activities and in the number of participants. During the next five years there was stagnation with regard to the number of participants. Ten to 15 years ago, Slovenia and Slovenian forestry passed a process of transition and just a few activities in this field were undertaken. In 2005, almost 200 courses were organized with 3,500 participants. The main topics were silviculture, forest protection, safety at work, and harvesting. In line with general trends in society, urban forest owners predominate. Individuals own more than half of the private forest holdings. Youth in urban areas are not interested in managing family forests. In rural areas, however, many activities undertaken by field foresters receive a positive response among younger people. Generally speaking, much more should be done with this part of the population on the topic of active forest management in the future.

Switzerland The number of private forest holdings has developed as follows: 2004 – 246,415; 2000 – 246,117; 1995 – 257,113; 1990 – 256,137; 1980 – 250,052 (Swiss Forestry Statistics). Currently there are no political processes in relation to privatization. The inertia of changes in ownership during the last decades (low rate of exchange in the forest estate market), the minor importance of forest holdings for income, and the stability of the institutional/legal framework are indicators for the maintenance of the status quo.

Private forests are increasing. With regard to area mainly in mountainous regions caused by the abandonment of agricultural land; 15% of private forest owners say that their parcel had been

[35] According to information provided by CEPF.

agricultural land in the past (SAEFL 2005). The main reason for the increase in growing stock is the decrease in forest management activities such as tending and wood harvesting. Characteristic of private ownership in Switzerland are small-scale parcels of forested land. Cost-efficient management by individual owners is very difficult if not impossible. In addition the income from the forest has in many cases no or only minor importance for many of the private owners. Game is a public good in Switzerland. The cantons are in charge of game management (Article 3, Swiss Federal Law on Hunting and the Protection of Wild Mammals and Birds).

Numerous forest owner associations (private, public, and mixed with various organizational forms and legal status) exist at national, regional, cantonal, communal and local levels. Membership is estimated to be roughly 10% of the total of private forest owners. Attendance in forestry training courses is as follows: more than once a year 1.3%; once a year 1.7%; every second year 1.3%; every 2-5 years 6.9%; less than 2-5 years 18%; never attending 70.9%. An information campaign including training courses on occupational safety designed for private forest owners was started in 2006.

South East Country Group: Bulgaria, Cyprus, Republic of Serbia, Romania[36]

Bulgaria After 1997, when the Law for restitution of forests and lands within the forest fund entered into force, there followed a process of restitution which led to the establishment of small and fragmented private forest holdings. There was no privatization and the restitution is almost completed. There are, however, still some unsolved cases in the Court and applications for ownership carry on through the Court. The number of private forest owners is increasing as there is a transfer of ownership from one person to his/her inheritors or execution of partition. There is an increase in forest area respectively in growing stock. The high degree of fragmentation hinders sustainable forest management. One reason is a lack of incentives to individual private forest owners to fulfill their legal obligations related to their property. No differences exist between private and public forest concerning game management.

Cyprus Private forests consist of small, scattered holdings that have been acquired by inheritance. Many of these holdings were small vineyards or other minor agricultural cultivation on steep slopes, poor in site quality, or far away from roads. Constituting uneconomic investments, the areas have been abandoned by their owners and forested naturally by nearby forest vegetation. The total number of private owners is not known and it is very difficult to find out relevant figures. Owing to the lack of adequate infrastructure private forests are vulnerable to forest fires. This causes problems even to the protection of State forests. For their adequate protection the Department of Forests purchases private forest lands that form either an enclave or a wedge into the State forests. A Rural Development Plan, covering the three year period from 2004 to 2006 and co-financed by the European Union, supports the forestation of agricultural and non-agricultural land and provides investments for the conservation and improvement of the economic, ecological and social functions of forests.

No ownership changes from the current situation or trends are expected in the future. The private forest area is expected to increase slightly, especially around existing forested areas, due to the continuing abandonment of unproductive agricultural plantations and the gradual expansion of native forest vegetation. The growing stock will increase in some forested areas where no thinning and felling are carried out. Private forestry in Cyprus cannot be a viable business for reasons such as many private forest owners owning small pieces of land (usually less than 1 ha) and low productivity of wood production (usually less than 1 m^3/ha/year) due to the prevailing climatic conditions and low forest soil fertility. Therefore neither the owners nor their children are involved in forest management. There are no differences between private and public forests concerning game management. Fragmentation is highly present in the private forests of the island. This is mainly because of the way that these areas were forested and also because of the absence of any legislation prohibiting land use change in private forests.

[36] In the meantime, additional information has become available for Albania and Macedonia, see CEPF Reports by Lako (2008) for Albania and Trendafilov et al. (2008) for Macedonia.

Serbia In Serbia there have not been significant changes in the structure of private forests in the last 15 years. Forest land in Serbia is not part of a process of privatization. Some forest land, however, has been restored to religious organizations (i.e. church). By 2008 the restitution process of forest land should be finished. Some estimations are that the State will give back about 45,000 ha of forest land. The number of private forest owners in Serbia has not been changing. According to preliminary results of the national forest inventory the forest area is increasing. The reason is probably migration from rural to urban areas and natural changes where forest expands on former agricultural land. Growing stock is higher than the present official statistic indicates. In the past the state just estimated the growing stock in private forests without measurement. There are no differences between private and public forests concerning game management regulations. While there is no national forest owner association in Serbia; there are 10 local private forest owners associations (CEPF 2008). Families and youth are interested on average level in forest management. It depends a lot on the size of the forest property[37].

Romania Based on Law No. 18/1991 about 356 000 ha of forest were restored to private owners. Subsequently, based on Law No. 1/2000 an additional 1.8 million ha of forest were restored to the former owners. According to Law No. 247/2005 an additional estimated area of about 2 million ha will be restored to the former owners. The Association of Private Forest Owners of Romania is the largest private owner organization. There are a few other smaller associations as well. The Association of Private Forest Owners of Romania has 21 branches and subsidiaries, and comprises about 670 legal entities and 190 individuals (2005). Each legal entity is in turn an association of forest owners. The organization estimates a number of about 1 million forest owners as members which is higher than the number estimated by the forestry inspectorates. In order to limit property fragmentation which is an inconvenience concerning SFM, appropriate legislation has been developed. Forest owners are obliged to ensure forest management by their own established forest structure, with staff formed by professional foresters or by contracting management services with existing state or private management structures (forest districts). Private forest owners, especially individuals with small areas, if not members of associations, are contracting such services.[38]

[37] Additional more recent information is available in a CEPF report; see Nonic and Milijic (2008).

[38] According to data provided by the representative to the UNECE/FAO Working Party on Forest Economics and Statistics, as of March 2008, the ownership structure in Romania had changed considerably with an additional 1,442,571 ha of forest having been privatized. The total private forest area now accounts for 2,743,571 ha.

3. OVERVIEW OF SIGNIFICANT ISSUES AND TRENDS

Chapter 3 presents significant issues and highlights trends, on the basis of the main findings of the enquiry, presented in chapter 2, and of additional information sources. These issues pertain to overall changes in the ownership structure, socioeconomic observations in terms of owners' interests and profiles, owners' associations, management information and training. The chapter presents developments in the forest policy framework are presented, and highlights the trends and opportunities for forest owners associated with the need to mobilize additional wood resources.

3.1 Changing ownership structure

Changes in the overall structure of holdings*:* In the majority of countries there have been notable changes in the structure of holdings during the last 15 years. For instance, privately owned area has increased in Ireland and Norway due to reforestation of marginal private agricultural and pasture land. In Ireland, an estimated 15,000 farmers have changed their land use from agriculture to forestry since 1990, thus being the main contributor to a 220,000 hectare increase since 1990. Slovenia reports an increase in private forest area, due to the denationalization process and to abandoned agricultural activities in the last decade. In Finland the main changes in structure of holdings in the last 15 years have been caused by the decline in the number of farmers and by increasing urbanization, along with the ageing of forest owners and a growing proportion of female forest owners. In a number of countries the structure of holdings has been stable, such as in Austria, Norway and Sweden. France reports that there have been no significant changes, other than that the afforestation of agricultural land through natural colonization or plantations is greater in private than in public forests.

Transfer of ownership rights on forest land: In Central and Eastern European Countries, considerable shifts in ownership structure have occurred due to restitution and privatization processes. In looking at the country-specific developments in ownership changes, the situation before 1990 should be taken into consideration. In Poland, for example, a proportion of forest land was always in private ownership and the present changes in ownership patterns result mainly from the purchase of agricultural land for afforestation by urban inhabitants. A similar situation existed in some parts of former Yugoslavia, where a certain proportion of forest was privately owned. However, in a considerable number of countries, forest land was restored to former owners, in others, State forest land was privatized, and in some countries both privatization and restitution took place.

The following countries reported restitution and/or privatization of forest land during the last 15 years: Bulgaria, Czech Republic, Germany, Hungary, Latvia, Lithuania, Romania, Slovakia, Slovenia and Serbia. A strong increase in private forest area, for instance, took place in Bulgaria and Romania. While the process of restitution and/or privatization is nearing completion in most countries, national respondents reported that it is still ongoing in Lithuania, Romania, Slovakia, and Serbia. In Romania another 2 million hectares had yet to be privatized at the time of the present enquiry, which will impact on its current, predominantly public, ownership structure. In Hungary, a type of "compensatory" privatization took place, as forests were used as compensation for other lands. Instead of receiving their former properties the legitimate owners or their inheritors received vouchers with nominal value for use as currency at auctions where forests along with other properties were privatized.

Restitution of forests acknowledges the continuity of private ownership rights on forestland in returning them to the former owners or their heirs and/or to local communities and institutions. The term privatization refers, in the present context, mainly to the process of creating new private property rights on forest land. It is, however, important to keep in mind that privatization in more general terms has a broader meaning and addresses the transfer of productive assets or economic rights and privileges from the state to individuals or to the private sector as a whole. Privatization increases competition and commercialization by reducing the role of the public sector and is concerned, for instance, with transferring tenure and management rights to private individuals and corporate bodies (Lengyel 1999, 2002).

Examples of restitution and privatization processes: The change of property structures in Central and Eastern European countries occurred mainly through the restitution of forest to the former owners. In Bulgaria, the Czech Republic, Romania, Serbia, Slovenia and Slovakia, a process of restitution of forest land to the original owners took place upon the entry into force of the laws to that effect. This process has been long and encountered several obstacles.

In Slovakia, for example, the return of forests to their original owners has stagnated since 1997. Among the reasons that have been identified are the difficulty to determine the borders of small scale private forest properties as well as the delay or resistance of some owners in submitting the necessary legal documents. In Slovenia, the denationalization process led to an increase in private forest area since 1991. Transfer of ownership rights also took place in Hungary where during the period 1993-1998, 200,000 hectares of formerly State-owned forests and 500,000 hectares formerly owned by cooperatives were transferred. As mentioned above, the transfer occurred in the form of a voucher system based on compensation for previously existing land rights. In addition to the possibility of compensation, members of agricultural cooperatives had the right to claim assets, including forest area, of a given cooperative, up to the financial value of their membership in a specific cooperation.

Estonia decided that only forest areas belonging to the State prior to 1940 would not be subject to privatization. The forested area of Estonia has increased substantially since that time through afforestation of lands abandoned by agriculture. In Germany, forests expropriated within the scope of land reform in the German Democratic Republic were transferred into public ownership and offered subsequently for privatization. In Latvia, both privatization and restitution has led to a change in ownership structure since 1990. Lithuania considered restitution and privatization in a common approach and decided to privatize land and forests which were not claimed by former owners and by persons with ancestral rights to use them. The area in need of clarification of ownership, privatization and restitution procedures combined, represented 38% of the total forest in 1998, 22% in 2003, and 19% at the beginning of the year 2004.

A different situation in the Commonwealth of Independent States (CIS): The countries in the Commonwealth of Independent States accepted, only after long hesitation, the existence of privately owned lands. Until 2001, Russia, Armenia, Moldova, and the Kyrgyzstan recognized only private forest property from newly created plantations on agricultural lands. CIS national forest legislation claims all forests as “common property of the people”. However, this formulation has nothing to do with the classical definition of “common property” in scholarly literature on property rights (Bouriaud and Schmithüsen 2005). The CIS term clearly means that forestland and its standing timber are managed as State property. Use rights, e.g. for cutting timber, are granted by leasing procedures or by reserving certain forest areas for the exclusive use of communes, agricultural cooperatives, or farms. The forest law may grant private rights on public forest estates for growing hay, grazing of cattle, resin production, accommodation of beehives, and the gathering of forest fruits, mushrooms, and medicinal plants. Depending on the case, felling and forest permits may be issued to private and collective holders as an entitlement for specific forest uses, either on a long term basis (concession), or on a short term basis. Altogether, the fundamental fundaments which differentiate the CIS countries from the CEE countries are the following: The former have so far preferred to maintain the principle of public ownership combined with the granting of entitlements to private actors. The latter have clearly preferred the establishment of real rights through the transfer of ownership entitlements to forestland.

Significant differences in average size of private holding: The average size of the structure of holdings varies significantly between countries. In the Northern country group, there is a comparatively high number of larger holdings. In Norway, for example, 65% of holdings are above 100 ha. In Finland, of a total number of 443,800 holdings, 84,000 (19%) are in the category 11-20 ha., 97,800 (22%) in the category 21-50 ha., 44,000 (10%) between 50-100 ha. and 14,600 (3 %) above 100 ha. A similar distribution is found in Sweden, where close to 18% are in the category 11-20 ha., 24% in the category 21-50 ha., and 14% in the category 51-100 ha (out of total of 268, 235 private holdings). On the other hand, the country data shows that small scale forest ownership is an important aspect of the private forest owners (PFO) sector in many European countries. Typical examples are Switzerland with an average size of private holdings of 1.2 hectares and Poland, where 73% of the

total area is made up of holdings smaller than 6 ha. In Eastern Europe, restitution and privatization have led to an increase in the number of small holdings and fragmented ownership.

Increasing numbers of private forest owners: In 11 countries (Belgium, Bulgaria, Finland, Hungary, Iceland, Ireland, Lithuania, Poland, Romania, Slovenia, Sweden) the number of private owners has been reportedly increasing. There are different reasons for this. In central and eastern Europe, it is mainly the result of restitution/privatization. Heritage laws have also been mentioned specifically by a number of countries as a reason for the increasing number of owners (Belgium, Bulgaria, Hungary). This resulted in property distributions amongst multiple new owners. Respondents from Belgium, for example, have estimated that the number of individual owners increases by 10% each ten years. In six countries (Austria, Czech Republic, Netherland, Norway, Serbia, Slovakia) the number of owners has been reported as stable. In two countries (France, Switzerland) the number is decreasing, in France from 3.7 million owners (1980) to 3.5 million (2000), while the average size of private forest holdings has increased slightly, from 2.6 ha in 1980 to 3 ha during the same period. In Switzerland, there are slight variations in the numbers, possibly vested in data variance or in real changes for which no conclusive explanation is available.

Smallholdings – A challenge to cost-effective forest management: The increases in the number of private forest owners needs to be seen in light of the overall changes in ownership structure. Restitution/privatization has led to the establishment of small holdings in many countries, as has afforestation of agricultural land and the division of holdings through inheritance. The large numbers of owners increases the necessity of keeping records of their location and the size of property they own. Policy makers should be aware of this information which could lead to an understanding of owners' (possibly changing) preferences and motivations with regard to ownership (further discussed in the part on socioeconomic observations below). Altogether, small-scale ownership represents a challenge, in terms of cost-effective and cost-competitive management of forests with the aim to access markets with their products. Reaching out to a larger number of owners requires giving support to local and regional associations, through which owners can establish contacts with others having similar concerns/preferences and receive information on suitable forest management practices. Associations facilitate access to professional management and access to markets for forests products.

Land fragmentation: The fragmentation of properties is explicitly recognized as a major problem by 12 countries: Bulgaria, Cyprus, Finland, France, Hungary, Iceland, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia[39]. Bulgaria, for example, states that fragmentation is the underlying reason for insufficient incentives for private owners to fulfill their legal ownership obligations. Latvia explains that fragmentation plays a significant role because the average forest property is only 7.5 ha. Poland states that fragmentation is the main problem of forest ownership, with an average size of forest property of 1.28 ha.

Several countries have reported on strategies and measures for dealing with the undesirable subdivision of forest land. Austrian forest policy attempts to make forest management of small lots in some areas less difficult, by encouraging association of small forest owners, e.g. through joint forest management ventures. In France, the Forest Law of 9 July 2001 established new tools for land reorganization. In Hungary, property consolidation is encouraged by the authorities. An incentive system allocates a special type of grant for creating large scale management units through contracts between licensed forest businesses and forest owners (forest management integration system). In Iceland, property fragmentation is to some degree controlled by special "land-laws". In Lithuania, according to the Forest Law, it is forbidden to split forest holdings smaller than 5 ha. In Norway, forestry and agricultural regulations have worked against fragmentation. In Romania, legislation has been developed to deal with fragmentation, obliging forest owners to ensure forest management by their own means or through contracting management services with public or private management

[39] Five countries indicated that it is "not a problem" or a "small problem": (Austria, Sweden, Netherlands, Norway, Switzerland), while seven countries stated not applicable (Belgium, Czech Republic, Germany, Ireland, Serbia, Turkey, United Kingdom).

structures. In Slovakia, the Forest Act requires approval from the State authority for subdivision of forest properties into areas of less than one hectare.

Game management in private and public forests: Information on differences between private and public forests concerning game management was provided by 20 national respondents. For nine countries (Austria, Bulgaria, Cyprus, Poland, Romania, Serbia, Slovakia, Slovenia and Sweden) there are no differences owing to uniform regulations for all forests. Finland reported that there is no significant difference, but divergent opinions may exist between hunters, foresters and forest owners. A similar observation was made for Norway, stating that in some public forests near cities hunting has been reduced, but that in practice, differences are marginal. The respondent from Hungary observed that the law on hunting and game management was the same for all categories of forests, but with regard to establishing hunting areas, State owned forest management units were in a more favourable position. In France the modalities of hunting rights differ, between public land (most often hunting rights leased by public auction) and private forests (use of hunting rights by the owner or leasing by agreement). The rules for hunting big game are settled by the Prefect of the department. In the Netherlands differences have been indicated between several groups of forest owners. The nature conservation organizations are especially reserved in allowing game management and hunting. However, this difference does not have negative effects on sustainable forest management, because the Netherlands have a very strict law based on the European Bird and Habitat directive. Iceland reported that there was no game management in public forests and that apart from older and larger forest estates, there is little game management in private forests. In Switzerland game is a public good and the Cantons are in charge of game management.

Another important issue in the context of hunting rights is the extent to which forest owners can freely exercise their hunting rights as an integral part of the property right on forest land. This issue has not been addressed by the respondents of the enquiry and the question was not explicitly posed in the enquiry. Forest owners can often only practice their hunting rights in associations and not individually. This issue is actually of particular importance in CEEC countries, because in many cases, hunting constitutes a basic motivation for keeping or obtaining property. This problem, and the regulation of respective hunting and/or forest laws deserves further investigation due to the close link between property rights and recent privatization processes in central and eastern European countries..

3.2 Forest owners' interests and profiles

General and country specific socioeconomic dimensions: Both the empirical data of the enquiry as well as the country comments indicate important factors and trends with regard to private forest owners' interests and profiles. The information suggests that there are considerable differences among the responding countries. Specific economic and social factors determine the direction and momentum of change at the country and sub-regional levels.

Age structure: In a number of responding countries, between 40% and 60% of private forest owners are over 60 years old and that, with the exception of Poland, forest owners below the age of 30 are only represented to a very minor extent. This has important consequences for management practices and work in the forest. Although no concrete information on the reason for this kind of age structure has come forward, one can assume that there are several possible explanations, including that people live longer. In some cases the older generation keep the responsibility for the forest due to a personal engagement and/or for material security; in other cases they may keep it because the younger generation has other professional opportunities and visions of life. The younger generation may show a lack of interest perhaps combined with a lack of knowledge and training. It is obvious that the trend of an ageing ownership structure already has and will have even more implications for the future prospects of utilizing and managing forest land in the private sector.

Gender distribution: A considerable gender imbalance can be observed with the share of female forest owners ranging only between 20% for the lowest and 40% for the highest in the countries having submitted information (figure 2.5.2). The reported age class distribution of female forest owners as compared to male forest owners shows a somewhat higher share of persons between 30 and 60, and even below 30. To sum it up one can conclude, that at least in the few countries for which information

from the enquiry is available, the average forest owner is a man over 60. If it happens to be a women forest owner she has a solid chance to be below this age. At the moment it is difficult to assess whether this tendency will expand.

Full-time and part-time employment of forest owners: Countries such as Austria, Finland, France, Romania and Switzerland reported that around 80% of forest owners are occupied full-time in agriculture and forestry, whereas Slovenia reported that only 20% of owners are full-time employed in this sector (see figure 2.5.5). Employment trends, thus either go towards a strong full-time employed professional labour force in the forest sector, or, in other cases, under different socioeconomic conditions, towards growing part-time employment and/or a shrinking labour force.

Urban forest owners: National correspondents reported that an increasing number of owners now live in urban areas, sometimes at a considerable distance from their property. The move of owners from rural to urban areas continues or is speeding up. Finland has indicated that the share of urban forest owners increased from 33% to 40% during the last 15 years, Lithuania reports that almost half of the forest owners are living in urban areas and Slovenia states that urban forest owners predominate and that they possess more than half of the forest area owned by individuals. In the Netherlands, the majority of the country can be considered as urban and it is difficult to distinguish between rural and urban forest owners. In Poland, the share of urban forest owners increased during the last years as a result of national and EU support enhancing afforestation of agricultural land. The share of urban forest owners is expected to increase, for instance, in Austria, Finland, Iceland, Norway and Sweden. On the other hand no significant changes in the process of owners becoming more urban are expected in the Czech Republic and France. On the whole, there is (too) little information available on this important trend as has been stated by several countries. As the increase in urban owners will have an impact on the managerial arrangements for forest uses, further research on the effects of this trend is needed.

Interest and involvement of youth in managing family forest: The question to what extent youth is interested in managing family forest in the future and to what extent it is currently involved in such management has found considerable attention among the respondents and produced valuable country information. The most concrete information has come forward from the respondent in Norway, where figures from a recent survey indicate that only 25% of the children said that they were not interested in forestry. Almost all (97%) believed that the property would remain in the family for the next 15 years, 50% believed that they themselves would remain as the owners, and 45% that one of the children would take over. A similar message comes from Austria, reporting that there are many good examples of young interested people involved and integrated into family forest management. For Iceland it has been stated that with increasing afforestation of private land more people in general are involved in forestry and that on the farm the whole family is actively taking part in the work of planting trees. Latvia points out that the evolving public education work contains many activities that address specifically young people. In Lithuania, young people living in the country and those having obtained education in forestry are more interested in family managed forestry than others.

Factors determining youth interest and involvement: The respondent of the Netherlands points to differences between the generations in as much as the older generation wants to pass the property on to the next generation in a traditional way of thinking, having difficulties with some of the new ideas of younger people. On the other hand, younger people attempt to make changes in their professional activities and look for new job opportunities helping them to find new sources of income. In Sweden, the children appear to be less interested than their parents in managing family forests. Reasons that could explain changed attitudes might be that they live to a lesser extent near the forest estate and receive income from other sources outside the forest. Similar socioeconomic arguments come from the Serbian and Slovenian respondents. Serbia stated that families and youth are interested on an average level and that the degree of interest depends largely on the size of the property. The Slovenian answer is that youth is not much interested in managing family forest in an urban environment but much more in rural areas where many field forest activities and positive trends are observed. Further research on the attractiveness of forestry activities to youth, on implications on changes in society as well as on different social patterns by countries would be valuable.

Increasing diversity of forest owners' interests: An important result of economic, social and political structural factors determining the conditions of the private forest sector within a country and at local levels is the growing diversity of private owner interest in keeping, using, managing and developing their property. A look at figure 2.5.7 is perhaps the best demonstration for this statement. Even if the available data only covers the situation in five countries, this figure shows the major categories of interest and astonishing differences in weight given to them in a particular country. Information on the variety of interests in private forest management appears in an indirect but well articulated manner, if one also considers the empirical findings on private forest management that has come forward from the respondents in the PFO enquiry. There are several other recent studies on attitudes and perceptions of forest owners confirming the findings of the PFO enquiry (e.g. Bieling 2004; Kvarda 2004; Ziegenspeck et al. 2004; Wild-Eck et al. 2006).

In general terms, wood production and marketing is of great importance as a source of income for private forest owners, and the economic value of wood production and wood processing remains the backbone of the sector. Its socioeconomic importance is assessed to grow in the future and to provide new opportunities. On the other hand, there are localities and regional settings in which wood production has lost some of its economic significance and where a growing number of forest owners draw diminishing, or no economic benefit from wood utilization and forest management. There are, depending on the forest ecosystem potential and on the societal conditions, a growing number of owners that draw economic benefits from, or are ready to engage in marketing of non-wood forest products and to a lesser extent of marketable environmental services. But there is also a group of forest owners with little or no interest in engaging in forestry at all. On the other hand, there are forest owner interests that relate to conservation and protection due to, for instance, family considerations and personal ethical values that may be complementary or contradictory to traditional forestry practices. And there may be owners or even owner groups altogether not having any interest any more in their forest property and sometimes not even knowing where it is located. These observations are supported by data collected through the private forest ownership enquiry indicating considerable differences between the production of roundwood, fuelwood and industrial wood among countries, as shown in section 2.5.

3.3 National organization and international representation of private forest owners

Different organizational levels

The data reported by 19 countries on the organizational level of forest owner associations show large differences in the share of organized owners. A comparatively high level of organization exists in countries that usually have one or several umbrella organizations at the national level, such as federations, and thus regroup different regional or local forest owner associations. Such a model appears to work well establishing multiple linkages between various operational and political levels.

Increasing international membership

In a considerable number of responding countries, national associations are members of an international private sector organization, mostly the Confederation of European Private Forest Owners (CEPF), in some cases the European Landowners' Organizations (ELO), or both. Such membership allows them to be aware of issues in countries with similar problems and to represent their interests for relevant framework policies at the international level, the MCPFE or the EU, through CEPF or ELO.

CEPF regroups the majority of private forest owners in Europe. Its mission is to "assist and strengthen national forest owners´ organizations in Europe to maintain and enhance an economical viable, social beneficial, cultural valuable and ecological responsible sustainable forest management.[40] CEPF's coverage is very broad, regrouping a large number of national associations. ELO represents the interests of landowners, land managers and rural entrepreneurs and aims at "promoting a prosperous

[40] http://www.cepf-eu.org/

countryside through the dynamism of private property". As such, ELO often regroups larger privately owned entities.

The organization of private forest owners in the countries responding to this issue of the enquiry, by MCPFE country groups, can be summarized as follows:

Forest Owners Associations

In *Finland* almost all family forest owners are members in the 154 local forest management associations which are regrouped in the umbrella organization of the Central Union of Agricultural Producers and Forest Owners. In *Latvia*, approximately 3,000 private forest owners are member in approximately 40 national associations. Some of these associations have been established using EU support from the rural development fund. Two are members of an international FOA. The national interest organization in *Lithuania* is the Forest Owners Association of Lithuania (FOAL) with over 5500 active members. There are a few other organizations among which a more significant one is the Private Forest Owners Association. In *Norway,* approximately 46 000 forest owners (of a total of 120,000 over 2.5 ha.) are members of the Norwegian Forest Owners Federation. In *Sweden* four national FOAs regroup 90 000 members, representing a total area of 6, 2 million ha. The four associations are connected with the Federation of Swedish Farmers and are members of international FOAs. In addition, a number of Swedish forest owners are co-owners of the company Södra, which enables access to information and participation in a complete supply chain.[41]

In *Belgium,* 3,000 members are organized in the Société Royale Forestière de Belgique. The main organization of private forest owners in *France* is the Fédération Forestiers Privés de France (FPF) (formerly Fédération Nationale des Syndicats de Propriétaires Forestiers Sylviculteurs). The FPF is a member of the CEPF. 60,000 owners are member of a professional forestry organization owning an area of 2,520,000 ha. In *Iceland,* one national forest owner organization acts as an umbrella organization of six regional forest owner associations in which 700 forest owners are members. In *Ireland* approx. 2,000 private forest owners are members in two national FOAs: the Irish Timber Growers Association and the Irish Farmers Association.

In the *Netherlands,* one National Forest Owner Association is associated with the Federation for Private Landownership. It is looking after the interests of four different categories of forest owners: private forest owners, State forest service, nature protecting organizations and local government. The National Forest Owner Association is member of the CEPF. The Netherlands has other organizations such as the Board for Forestry and Silviculture (Bosschap), four cooperatives of forest owners, and the Royal Dutch Forest Society. The Society is a union of professionals in the forestry sector, ranging from forestry practice, forest owners, advisors, and policy makers to forestry research. However, these organizations are not considered to be forest owner associations.

All owners in *Austria* are organized in the Austrian Chamber of Agriculture, which acts as an umbrella organization of nine provincial chambers of agriculture. Membership in these chambers is compulsory by law for owners of agricultural and forest land. In addition, there are the "Waldverband Österreich" and eight regional forest sector organizations/associations in the framework of the Chambers of Agriculture in which membership is voluntary. 52,100 forest owners are members of the "Waldverband," representing an area of 810,000 ha. "Land und Forstbetriebe Österreich," the Austrian Association of Farm and Forest Owners, has seven member organizations and is a representative body of larger private forest owners and farmers. With 600 members it represents 800,000 ha. In the *Czech Republic* there is at present one national level forest owner association for private and community forest owners.

In *Hungary,* the Association of Private Forest Owners (MEGOSZ) is the main organization of national importance dealing specifically with private forest ownership. In addition there are the National Forestry Association (OEE) and the Federation of Wood Industry (FAGOSZ) that have an interest in private forestry. In *Slovakia* 67% of private forest land is, through its owners, regrouped in one of the

[41] Information about the company Södra presented at the UNECE/FAO Workshop "Mobilizing Wood Resources", January 2007, Geneva.

4 national associations. In *Slovenia* there is one national Forest Owner Association with around 1,000 members. In *Switzerland*, membership in associations is estimated to cover roughly 10% of the private forest area. Numerous associations exist at the cantonal and communal and local level. At the Federal level there is one National Forest Association representing private and public owners of forest land.

There are two national associations in *Bulgaria*. The Bulgarian Forest Chamber has 170 members representing around 65,000 ha (2005). The National Association of Non-state Forest Owners "Gorovladeletz" has 35,000 members representing 27,800 ha altogether. It has undertaken steps to join CEPF. The Association of Private Forest Owners of *Romania* is the largest organization. There are a few other smaller associations. The Association of Private Forest Owners has 21 branches and subsidiaries and comprises about 670 legal entities and 190 individuals. Each legal person is in its turn an association of forest owners. It estimates a membership of about 1 million forest owners, a figure which is bigger than the estimate of the forest inspectorates. In *Serbia* there are ten local private forest owner associations but no organization at the national level exists yet (CEPF 2008).

Strengthening private sector associations

The organization in associations reveals considerable differences. Higher levels of organization can be found in countries such as Austria, France, Finland, the Netherlands, Norway, Sweden and Switzerland. Some levels of organization are evident in Belgium, Bulgaria, Iceland, Hungary, Ireland, Latvia, Romania, Slovakia and Slovenia. In Poland and Serbia, the levels of organization are notably low.

This comparison shows that in a considerable number of countries a potential for further organizational efforts remains. This is the case in particular in Central and Eastern European countries where the work of forest owners association is particularly crucial in view of the millions of small-scale forest owners, especially new owners that now exist due to restitution and privatization processes in countries in transition to market economies. As the process of restitution/privatization took place in a rather short period of time, their attitudes, motivations, and goals towards forestry appear to be uncertain. Providing information and educational programming to ("new") forest owners can enable them to take informed decisions about forest management. As further discussed below, associations can be a means to provide training to a larger number of owners.

3.4 Management information and training

Need for consistent marketing and management data

Industrial forest owners exist only in a limited number of countries (e. g. Sweden, Finland, Portugal) whereas in most other countries forests are owned by different public institutions and private land owners (UNECE/FAO 2007). In the latter case the wood processing industry has to negotiate roundwood delivery with the landowners and convince them to offer it at agreed prices on the log market. The income from the sale of wood is a major incentive and adequate information on market transparency and opportunities is an important factor in mobilizing additional market volumes. Similarly, information on new opportunities for marketing of non-wood forest products and services, particularly in the case of small scale family holdings, is of importance to allow private forest owners to draw the full possible economic benefit from their forest. A necessary step in helping forest owners to make entrepreneurial decisions is to provide information on the extent of their holdings and advise them on the economic potential that can be realized when following sustainable forest management practices.

Access to easily usable forest information systems about both forests and their owners is crucial for successful wood mobilization and the multifunctional use of private forest holdings. Such systems, using a GIS platform, and indicating every parcel of forest with its ownership already exist in some areas of Europe, as for instance in the Nordic countries. Because the system is GIS-based, environmental and other legal restrictions can be registered visually during the planning of management activities. Such a database could contain one data set with forest information (species or group of species, age class, height, standing volume, silvicultural reason to harvest, risks, forest access) and another data set with forest owner information. It should be installed on an aggregate regional level, preferably under the supervision of a forest owners association or a specialized public agency advising and supporting private forestry development. Access to data needs to be compatible with national regulations protecting personal information and controlled by representatives of the forest owners. Periodic data checks and updates are necessary.

Attendance of forestry training courses

Fifteen countries reported data showing strong variances as regards the percentage of owners attending forestry training courses. Increasing figures for the number of attendees during the last 15 years were reported for 4 countries (Iceland, Latvia, Lithuania, Slovakia) and a stable level of such courses in 11 other countries. Countries in which a high number of individual private forest owners were trained annually during the past 15 years are Finland (40,000) and France (14,000). In Ireland, between 550 and700 private forest owners attend courses every year, in Lithuania more than 3000, in Austria around 6000, and in Norway approximately 5,000. In Slovenia 3,500 forest owners were trained in the year 2005. A relatively small number of private forest owners were trained annually in Iceland, Bulgaria and Slovakia. The relatively low number of training courses in the reporting CEECs is noticeable, as it is particularly in these countries where new forest owners have the greatest need to be informed of forest management responsibilities and opportunities linked to conservation and wood harvesting.

Training courses are a means to facilitate networking and exchange between forest owners, as well as to communicate with them actively. This is particularly important in a period of change e.g. a revision of forest legislation, the introduction of new technologies and management systems or when seeking access to new markets with established or newly developed products. The numbers of training courses attended is generally important in countries with a high level of organization level of private forest organizations such as, for instance, in Finland, France, Austria, Sweden and Norway. The lower organizational level of association in some countries is likely to be a significant obstacle to training a higher number of forest owners. A first step to ensure reaching out with communications to forest owners could be establishing association frameworks with outreach at the local level. These associations could then be a means to inform owners of training possibilities, to draw their attention to the benefits of attending certain courses, and to encourage them to organize or host training courses themselves.

The specific interest profiles of the relevant forest owner groups need to be considered if the full range of owners is to be reached through training programmes. This means starting meetings between specialists and forest owners in order to identify individual demands. In this way, training programme design can develop more broadly as to correspond with the real needs of the clients. There is still a strong individual relationship of the owner with the forest property, and its use is often linked to more than just the economic aspects of timber production. Current socio-demographic developments indicate that the number of owners with a partly or entirely emotional and functional attachment to their forest is increasing (Wild-Eck et al. 2006). If they are appropriately approached in terms of their particular interests and forest management objectives they are likely to be open to new forms of training and extension.

3.5 Forest policy framework

Within the current forest policy framework, encompassing the EU as the major policy making institution with binding directives and non-binding recommendations (such as the EU Forest Action Plan), as well as other frameworks guiding forest policy making in Europe, a number of important

issues affecting the private forestry sector are being addressed. These relate to the setting of binding policy targets on renewable energy, including biomass, and to the mobilization of wood resources through facilitating the association of private forest owners and access to the forests. Outside of the EU, a number of countries also encourage the use of woody biomass through national action plans and voluntary measures.

More complex forest policy goals

National forest policies need to balance private and public interests in utilizing forest resources and are important statutory instruments determining the public framework for sustainable forest management. Public forest policy goals have become more ambitious, complex and interrelated, as they address the economic potential of forests for industrial wood production and processing, as well as their availability as multifunctional social resources in urban and rural areas, their importance as varied and complex ecosystems, and their essential role in maintaining the biodiversity of flora and fauna. The process of modernizing, updating and amending national forest policies and law has gained considerable momentum across Europe (Cirelli and Schmithüsen 2000; Schmithüsen et al. 2000; Mekouar and Castelein 2002; Bauer et al. 2004; Schmithüsen 2004; MCPFE 2007, 105 ff.). Institutions have been modernized, and revised political and legal frameworks addressing agriculture and forestry, nature preservation and environmental protection have been established.

The combined implication on these changes on forest management addresses strongly private forest owners and individual land users. The impacts on using the forest resource have to be assessed for individual ownership units, ecosystems and at the landscape level. Overall, a number of policies and measures influence increasingly the development of the forest-based sector. This is, in particular, the case for the directives and policy targets of the European Union in the realm of energy and climate change which influence increasingly the private and public forest sector. Recent reforms in EU agricultural policy focus on the promotion of wood biomass for energy generation and EU rural development policy also offers possibilities for farmers and forest owners to develop the use of forest resources for energy.[42]

European Union renewable energy and biomass targets

The 1997 the White Paper "Energy for the Future: Renewable Sources of Energy" established an initial target of 10% of energy to be derived from renewable sources by 2010. In January 2007 the European Commission formulated the new target of 20% by 2020. The EU 2003 Directive on Biofuels, the 2005 Biomass Action Plan and the 2006 Biofuels Strategy all have concrete goals for energy production from biomass, thus reinforcing the overall strategy of increasing the use of renewable fuels.[43] The European Commission acknowledged that there is a danger of missing the 2010 target for biomass set by the White Paper: in 2010, for the EU-15 was the target of 135 Mtoe biomass use, adjusted targets for the EU-25: 150 Mtoe biomass use in 2010. The current trend will result in 75-80 Mtoe by 2010.[44] A new Directive on the Promotion of the Use of Energy from renewable sources has been proposed by the European Commission in January 2008, confirming the overall binding target of 20% of renewable resources in energy consumption and a 10% binding minimum target for biofuels in transport, as well as binding national targets by 2020 in line with the overall EU target.[45] This directive covers electricity, heating & cooling, bio-fuels including national biomass action plans with sub-targets & measures. In this context, EU Member States are developing action plans on how to meet the biomass energy targets.

The Council of the EU endorsed in June 2006 the Biomass Action Plan of the Commission and called on Member States to develop or up-date nation action plans highlighting particular obstacles and bottlenecks. A significant number of Member States are preparing such plans and are including

[42] Hetsch, "Mobilizing Wood resources", page 4 http://www.unece.org/trade/timber/docs/dp/dp-48.pdf

[43] Forest Products Annual Market Review 2006-2007, Policy Chapter

[44] http://www.euroforenet.eu/wp-content/uploads/File/EUROFORENET_Biomass_Action_Plans.ppt; Presentation by Kyriakos Maniatis at the EUROFORENET Conference in Brussels, 20 November 2007:

[45] European Commission, 23.01.2008, http://ec.europa.eu/energy/climate_actions/index_en.htm

components on biomass as part of their of national energy plan. In this context, the question of the actual level of biomass supply from private forests needs to be examined and new strategies developed for additional supply potential as compatible with long term sustainable forest practices.[46]

In March 2007, the Council of the European Union decided that *"developed countries should continue to take the lead by committing to collectively reducing their emissions of greenhouse gases in the order of 30 % by 2020 compared to 1990. They should do so also with a view to collectively reducing their emissions by 60 % to 80 % by 2050 compared to 1990."* The European Council established the objective of a 30 % reduction in greenhouse gas emissions by 2020 compared to 1990 as a contribution to a global and comprehensive agreement for the period beyond 2012 when the present provisions of the Kyoto Protocol come to an end, if other countries follow the EU's ambitions. It requires that other developed countries commit themselves to comparable emission reductions and stipulates that more advanced developing countries should also contribute according to their responsibilities and capabilities[47].

These ambitious targets have a significant influence on the forest sector, linked with the question of wood resource availability to satisfy demands for meeting bioenergy needs, as well as the demands from the wood processing sector. First results of the UNECE/FAO study on Wood Availability and Demands reveal a significant gap between the actual level of mobilization and both the long term potential of wood resources and the necessary efforts to meet future demand in order to reach a high share of wood as a renewable source base. At present, biomass constitutes - with 66% - the largest source of renewable energy in the EU, and wood is the major source of biomass, with 80%.[48] This can present a major opportunity for forest owners to mobilize more of their resource and make wood from their forest available on the market, whilst, at the same time, respecting the principles of sustainable forest management.

EU Forest Action Plan

The EU Forest Action Plan, adopted in 2006, builds on the 1998 EU Forestry Strategy and provides a framework of interaction between Member States and the European Commission in the realm of forest production, wood processing, and environmental protection. It has four main objectives: (1) to improve long-term competitiveness; (2) to improve and protect the environment; (3) to contribute to the quality of life; and (4) to foster coordination and communication. Eighteen key actions have been identified by the Commission to be implemented jointly with the Member States during the current period of five years (2007–2011).[49] Key actions of the Plan of particular relevance to private forest owners are presented below.

Promotes the use of forest biomass as a renewable energy resource

The Action Plan stipulates the promotion of forest biomass use for energy generation (Key Action 4) through a number of measures such as an assessment of the possibilities for mobilizing an increased use of small dimension and low-value wood and harvesting residues for energy production; dissemination of good utilization practices for processing such material; assessment of the feasibility of using forest residues and tree biomass for energy in the context of sustainable forest management and in view of possible environmental limits; and possibilities to assist private forest owners, in particular, small scale owners, to cooperate for supplying biomass to energy generating units and to establish and manage cooperatives for this purpose.

Emphasis on forest owner education and training

Key action 5 of the Forestry Action Plan focuses on fostering cooperation between forest owners and enhancing education and training in forestry. This action centres on finding innovative solutions to problems that arise from: changing ownership structures and an increasing share of non-farmers

[46] Work on wood availability and demand is being conducted by UNECE/FAO, first results are available in the study on "Wood Availability and Demands".

[47] Presidency Conclusions, European Council 8/9 March 2007 http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/ec/93135.pdf

[48] http://ec.europa.eu/energy/res/index_en.htm

[49] DG Agriculture: The EU Forest Action Plan: http://ec.europa.eu/agriculture/fore/action_plan/index_en.htm

owning forests; lack of forest owners skills and capacities for sustainable forest management; and the fragmentation of private forest holdings. It places strong emphasis on the necessity to maintain a well-trained and adaptable workforce which requires substantive support by EU Member States to vocational training and the education of forest owners and forest workers. In order to strengthen the competitiveness and economic viability of forestry, and in the framework of their priorities, the Member States should consider the following measures: encouragement of cooperation between forest owners, industry and third parties in the development of new products, processes, technologies and efficient markets; encouragement of investments necessary for increasing the economic value of wood production, non-wood products and environmental services; and support to the establishment and development of forest-owner associations.

The Ministerial Conference on the Protection of Forests in Europe (MCPFE)

At the Pan-European level, the Ministerial Conference on the Protection of Forests in Europe (MCPFE), involving more than 40 countries, the European Union and international institutions, as well as numerous non-governmental organizations representing important stakeholders, is the political platform for addressing forests and forestry development at a continental scale. Significant concerns related to national and international forest policy have been the subject of Conference Declarations and Resolutions signed by the signatory states.

The first resolutions (Strasbourg 1990) focused on the impact of forest decay and appropriate protection measures. The resolutions from the following Conference in Helsinki (1993) set out a modern and comprehensive definition of sustainability in forestry, and established guidelines for forest management and maintaining biodiversity in all European forests (Helsinki 1993). The Lisbon Conference (1998) adopted six main criteria for judging the state of forests, supplemented by quantitative indicators that refer to forest resources and their contribution to global carbon cycles; forest ecosystem health and vitality; productive functions of forests; biological diversity in forest ecosystems; protective functions in forest management; and other socioeconomic functions and conditions. Operational guidelines for assessment have been formulated and accepted. The Vienna resolutions (2003) addressed in particular cross-sectoral cooperation, national forest programmes, economic viability of forest management, and social and cultural dimensions of forestry. The most recent 5th MCPFE Conference in Warsaw (2007) has agreed upon two resolutions on forests, wood and energy, and on forests and water.

Altogether, the sequence of the issues that have been addressed by the resolutions adopted by the MCPFE between 1990 and 2007 show the complex political dimensions of European forests, the evolving economic and societal demands, and the need for measures ensuring their protection, multifunctional use and sustainable management, and for building of common views on issues related to sustainable forest management. The MCPFE process has had a long term consciousness and capacity building effect on forest policy throughout Europe.

3.6 New demands for additional wood resources

In view of the ambitious targets for renewable energy adopted in the EU (by 2010, 12% of primary energy consumption should be derived from renewable resources, by 2020 20%) new demands arise for mobilizing additional wood resources. Within the limits set by sustainable forest management, forestry and, in particular, the private forest sector, can play a major role in supplying the resources needed for sustaining and expanding the raw material supply of the wood processing industries, facing at the same time an increasing competition for wood demand from bio-energy producers. In EU member countries, wood is the major source of biomass (80%), and the largest source (66%) of renewable energy in the EU.[50]

[50] http://ec.europa.eu/energy/res/index_en.htm

Differences between wood supply and demand

A study on *"wood availability and demands and implications of renewable energy policies*", conducted by UNECE/FAO together with the European Commission, the University of Hamburg and other partners assesses the foreseeable wood requirements for wood-based industries and energy on the basis of national and the EU policy targets. While the exact size of the supply margin – estimated to amount to 185 million m^3 wood by 2010 - is subject to discussion, the general direction is not.[51] A study by CEPI for 16 countries confirms that current EC expectations may create a significant shortage of supply of wood / forest biomass with an estimated gap of 200-260 million m^3, or 25% of forecasted demand.[52] The EEA also published a study[53] which analyzes how much bio-energy could be produced in Europe without harming the environment, showing a potential of 40-50 Mtoe of wood that could be made additionally available in Europe.

New opportunities for private forest owners

This situation presents new opportunities for forest owners. According to the Confederation of European Private Forest Owners (CEPF), there is potential for the private forestry sector to mobilize additional market supply and to increase the long term sustainable wood production potential. CEPF points out that, on average, in European countries only 60% or less of the annual increment is presently harvested and estimated that in European family forestry the sustainable cut could be increased by some 150 million m^3. It also anticipated a further increase of annual growth in the order of 25% by improving the silvicultural treatment of forest stands and improving utilization techniques. Afforestation of presently unused areas and of marginal agricultural land set free from production as well as improvement of energy efficiency in the forest-based sector are other factors for increasing the long term wood production potential.[54]

In this context the comparison of the utilization rate in private and public forest conducted in chapter 2.3 (figure 2.3.5) is of interest. It shows that in 8 of 11 reporting countries the utilization rate is higher on public forest land whereas it is only higher in private forest in three countries: Bulgaria, Finland and France. The 3 countries with a high utilization of private lands merit a closer consideration: In Finland and France, a large proportion of the overall ownership is private: in Finland, close to 70% and in France, 76%. In Finland, the holding structure is favourable to more intensive use of forests, as the majority of holdings are larger than 5 ha. In France, however, the majority of holdings are in the category below 1ha: 2,361,000 holdings (out of a total number of 3,483,000), that accounts for only 7% of the total private forest area. In both Finland and France, the intensive utilization of private forests may be due to the existing markets for industrial wood and wood energy supported by an active network of associations of private forest owners. Contrary to Finland and France, in Bulgaria, public forests predominate, private forest area accounting for only 11%. Of this percentage, 93% are made up of holdings larger than 500 ha, which clearly favours the more intensive utilization of the private forests. It may also be that in these countries, state owned forests include a high proportion of forests where wood production is not the priority management objective, which may be recreation, or conservation of biodiversity, or it could be that the state owns remote, economically less attractive forests.

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[51] By 2020, the difference between supply and demand is projected to amount to 448 million m^3, or to 321 million m^3, assuming a 75% scenario, on the basis that the importance of wood, as the currently most important renewable, will decrease. Mantau, Prins, Steierer, Hetsch "Wood resources availability and demands – implications for renewable energy policies. A first glance at 2005, 2010 and 2020 in European countries". http://www.unece.org/trade/timber/docs/tc-sessions/tc-65/policyforum/Wood_availability_and_demand.pdf

[52] Green-X model "Economic analysis of reaching 20% share of renewable energy sources in 2020", McKinsey/Pöyry

[53] EEA (2006): How much bioenergy can Europe produce without harming the environment? European Environment Agency, Report 7/06. 67pp.

[54] Statement of CEPF at the UNECE/FAO Policy Forum "Bio-energy Policies and Targets", 10 October 2007, Geneva: http://www.unece.org/trade/timber/docs/tc-sessions/tc-65/policyforum/presentations/PD_05_CEPF.pdf. Similar statements were made at the MCPFE 5th Ministerial Conference in Warsaw, November 2007.

Facilitating access to forest resources utilization through cooperation

Forest owners could take more advantage of market opportunities, if access to the forest is facilitated, not only physically through the right infrastructure investments but also through forest owners' associations and access to financial means for management. Building professional associations and cooperatives is a recognized means to encourage forest owners to harvest more wood and to act jointly on the market. In general it was found that economic incentives in addition to the creation and support of professional organizations are a means of encouraging the mobilization of additional wood resources from private forests. For instance, in two distinct regions of Germany, the Lausitz and Eiffel, action has been taken through a project initiated at the University of Freiburg together with the relevant associations, to identify forest owners, and to communicate with them. This has led to a substantial additional harvest.[55] Cooperation is, in many cases, also an instrument to overcome or at least to mitigate the effects of land fragmentation. In France, for instance, the Forest Law (2001) provides new tools for land reorganization supporting the establishment of forest cooperatives and services' groups.

Forming wood processing units owned jointly by forest owners is another approach to improve market access and efficient wood marketing and processing. A prominent example is the Swedish Company Södra which is owned by approximately 50,000 forest owners possessing on an average 50 ha. of forest and approximately 2.3 million ha. in total. The ownership of its own forest industry, including pulpmills, sawmills and a pellet factory establishes a direct link between roundwood production and wood processing as the next part of the forest-wood processing supply chain. Bio-energy is seen as an opportunity and Södra pulp mills are selling energy to the market and are interested in valorizing black liquor and biomass gasification. This efficient supply chain leads to a high level of utilization of the forest, together with the utilization of modern information technology increasing productivity. The system has led to improved profitability for forest owners and the wood processing companies. The utilization rate of Swedish forests, based on the difference between net annual increment (NAI) and annual fellings, amounts to almost 80%[56] for both private and public forests, which is much higher than the European average of 60%. Of the overall annual fellings in Sweden 90% occur in private forests.[57]

The role of associations is important in a number of countries: In Finland, almost all family forest owners are members of local forest management associations. French forest cooperatives and services' groupings have developed their activities to cover not only wood sales but also assistance to owners in their forest management activities. In Slovakia, which also shows a high utilization of its private (as well as its public) forests, the share of non-state forest owners which are not members of the four owner associations amounts to 33% only. These examples indicate that there appears to be a correlation between associations and forest utilization. Not only does association play a role, but also the strong tradition of private forestry in these countries. In other countries, there is the potential for the outreach of associations to play a more significant role.

Strengthening of forest owners associations at national and sub-national levels is thus one of the primary requirements to advance sustainable management, in particular sustainable use of small-scale private forests. Due to their organized structures, private forest owner associations have in many cases a range of effective possibilities to practice training, extension and demonstration activities. They facilitate an exchange of practical experiences among the owners and inform them of best practices in wood production, environmental protection requirements, contribute to new market developments for wood products, non-wood forest products, and social and environmental services. They have an important role in representing private forest interests in policy decision-making processes.

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[55] Presentation by Gero Becker at the UNECE/FAO Policy Forum "Bioenergy Policies and Targets": http://www.unece.org/trade/timber/docs/tc-sessions/tc-65/policyforum/presentations/05_Becker.pdf

[56] 21 million m^3, according to the data submitted through the Swedish national report for the period 1999-2003. A breakdown of the data for private and public ownership was not indicated.

[57] Presentation by Christian Sergerstéen, Södra, at the Workshop „Mobilizing Wood Resources", January 2007. Discussion Paper 48, Workshop proceedings, p. 10.

In addition to the organization of forest owners in associations, policies and financial means for dealing with land fragmentation are likely to contribute to creating a framework that facilitates the utilization of private forests. In France, a 2001 Forest Law established new tools for land reorganization. In Slovakia, the Forest Act requires approval of fragmentation of forest land with an area of less than 10 ha by the competent state authority.

Need for enabling measures for the private and public forestry sector

At the 5th Ministerial Conference for the Protection of Forests in Europe (MCPFE) held in Warsaw in November 2007, Signatory States committed themselves to enhancing the role of the forest sector with regard to the use of wood biomass, investment in the production and distribution of bio-energy, and efficient use of wood and energy. Warsaw Resolution 1 on "Forests, Wood and Energy" refers specifically to the need for developing partnerships among public and private forest owners, forest-based industries and energy producers in order to develop new markets for bio-energy.[58] The issue of mobilization of additional wood resources, in particular from small scale private forest ownership and from afforestation of marginal agricultural land, is prominently reflected in the Resolution in which the Signatory States commit themselves to:

- *"ensure enabling conditions for increased sustainable wood production through stronger interlinking of national forest policies with policies on sustainable development, agriculture, land use, rural development ,environment, energy and industry"*
- *"identify and remove unintended barriers to an increase of sustainable wood production and mobilization in forests of all types of ownership,*
- *" examine different practices under sustainable forest management and promote the use of a range of sustainable management systems including short rotation and coppice forestry in accordance with national law, to increase wood production and mobilization in order to effectively address a growing demand for wood,"*
- *"encourage capacity building of forest owners and their cooperatives and facilitate their cooperation and information exchange, inter alia, on access to wood markets, providing information, education, training and extension services, to empower and motivate proactive sustainable forest management in order to mobilize more wood"*
- *"promote development of the capacity of the forest workforce, entrepreneurs and managers in order to increase their ability to better respond to the needs of wood markets through education, training, and the use of innovative techniques,"*
- *"promote adequate forestry and logistical infrastructures in order to facilitate access to wood resources and flexibility in responding to market demands."*

Warsaw Resolution 1 is highly relevant for the forest and wood processing sector as it encourages governments to create or reinforce enabling conditions for private as well as public land owners to take advantage of the economic opportunities associated with wood harvesting and developing new markets for non-wood products and environmental services. It promotes expanding the network of private association and cooperation, better access to information and exchange of experiences, capacity building for family holdings, professional education, and training of the forest workforce.

While forest owners can directly benefit from the mobilization of their forest resources, in particular in a period of increasing and competing demand for wood raw materials, it is crucial that the principles of sustainability in forest management be reflected and respected, as determined in resolution H1 adopted at 2nd Ministerial Conference on the Protection of Forests in Europe, which took place in Helsinki in 1993. In the context of the ongoing discussion on mobilizing additional wood resources it is thus of highest importance to maintain and foster sustainable management practices. Effective and efficient policy measures, in line with national and international environmental law, need to be promoted. Criteria and indicators as much as forest certification systems are a strong means to maintain and expand economically and ecologically viable forestry management and sustainable wood production.

[58] http://www.mcpfe.org/conferences/warsaw

4. CONCLUSIONS AND OUTLOOK

Key role of the private forest sector

With at present 58% privately owned forests in the countries that were included in the private forest owner enquiry of the West,- Central and Eastern European regions, private forest owners play a key role in sustainable forest management, in utilizing this renewable resource, and in maintaining and developing the potential of the forest cover (*Chapter 2.1*).

For a number of reporting countries (figures 2.2.1 to 2.2.4,) a large proportion of private forest holdings are size classes below one hectare respectively between one and five hectares. This confirms that small-scale forestry management and support to these holding categories are and will remain a great challenge to the further development of the European private forest sector.

Due to restitution and privatization, as well as to afforestation of marginal agricultural and pastoral lands, the area of private forest holdings increased considerably during the last 15 years (*chapters 2.2 and 3.1).* Information from the UNECE/FAO enquiry 2006, which has been made available in the Private Forest Ownership Database, highlights significant differences within the European regions with regard to resource potential and utilization possibilities, availability of economic indicators of forest production, and demographic and socioeconomic data concerning forest owners *(chapters 2.3. to 2.5 and chapter 3.2).*

Overall, the results of the enquiry show that there are common issues to be addressed at the European level, as well as specific opportunities and challenges to be addressed at the national and/or at local levels, related to ownership structures and relevant laws and regulations (e.g. to encourage consolidation), encouraging association of private forest owners, and socioeconomic trends such as ageing of owners and increasing urbanization.

Data gaps and future information needs

Regular updates of the information and complementary consolidated data on private forestry are needed for monitoring of new and significant trends and identifying best practices in economically viable and environmentally acceptable forest management. More information on the changing interests and profiles of private forest owners is crucial as a basis for taking the right managerial and policy decisions.

While the enquiry revealed a large amount of information, data and information is missing e.g. on the number of owners in each country, in addition to the number of holdings which were provided. In some categories, information was particularly scarce, in particular on ownership objectives (only 5 countries provided comparable information) and other socioeconomic information. Data are also missing on the production and value of roundwood and non-wood forest products per ownership category, which would be an important indicator of the economic and socioeconomic benefits to be drawn from private forest land.

The qualitative descriptions in response to open questions provided additional information of particular usefulness: a format which could be maintained in further studies. In the future, another enquiry should be conducted in cooperation with relevant private forest ownership associations such as CEPF, to consolidate and update the information with different sources.

A future study should take into account the ownership information to become available through the FAO Forest Resources Assessment (FRA) 2010. Country coverage should be expanded, which may require capacity building efforts to obtain data in an appropriate format, e.g. with regard to the structure of holdings that is consistent with other reporting efforts e.g. the MCPFE quantitative indicators and the FRA, in view of validating this information.

Forest as a multifunctional renewable resource

Information on the use of private forests by their owners, as indicated by the objectives of ownership and through responses to specific questions *(Annex III)* indicates a significant part of private forests have multifunctional uses (multipurpose forestry, and various combinations with agriculture). However, it must be noted that only five countries have provided comparable information on the objectives of ownership (figure 2.5.7).

In particular, in the case of small scale forestry, acknowledgement of the multifunctionality of forest uses and values merits considerable attention in the design of suitable policy measures and implementation schemes supporting the private forestry sector. Sustainable and in many cases multifunctional forest management practices, involving alternative combinations of economic, social and environmental decisions, are in fact today a fundamental principle of sustainable forest management in private and public forest lands. This means acknowledging the role of forests as significant elements of the landscape and, particularly in mountainous regions, maintaining them as indispensable protective elements of public infrastructure and of the scarce living space in the valleys. It means protecting or preserving a variety of ecosystems of value for preserving biodiversity and protecting fauna and flora, as well as ensuring the provision of forest goods and services for livelihoods.

Strengthening owners' capacity to exercise use and management rights

The overall findings emerging from the rich material provided by the answers to the open questions of the enquiry (chapter 3.6 and annex III) concerning the institutional framework for forest owners decision making show remarkable contrasts between different regions. There are, for instance, the Scandinavian countries, Austria and France that have reported a strong private forest sector in which the owners have considerable rights and facilities to take decisions on the use and management of their forest land, subject to clearly regulated public responsibilities.

The activities of the private forestry sector need to be based on a clear and coherent forest policy acknowledging owners' rights to manage their forests according to their specific economic and social goals. Clear and well reasoned conditions need to be put in place to safeguard sustainable forest management in the short and long-term public interest. There is a need to devise and implement reliable and stable ownership regulations providing for a *de facto* (and not only *de jure*) empowerment of private forest owners. This implies not only further revisions of the forest and commercial laws and their subsidiary regulations, but above all public measures enabling forest owners to be competitive, to deliver goods and services to the market, and to exercise their use and management rights effectively.

Need for strong and effective private forest owners associations

Through associations, forest owners, and in particular those owning small-scale lands, can be reached and informed more easily about the opportunities and costs associated with the mobilization of their wood resources to make them available on the market place. Local and regional cooperation among owners e.g. in forest owner associations is instrumental in dealing with the problems posed by fragmentation and difficulties in market access. The information from the PFO enquiry *(Chapter 3.3)* reveals a clear distinction between countries with strong and effective private forest owners associations and those in which such associations are still weak or just in the stage of establishment. In countries with a more developed organizational structure, which can be found throughout the different regions, the proportion of wood utilization in relation to the sustainable annual production potential is usually higher, forest owners have a more proactive role in managing their holdings, and more owners participate in annual training programmes. They are better informed on the economic and managerial advantages in forming operational clusters, assisted in establishing cooperative structures and servicing professional units, or in concluding contractual supply and marketing arrangements. Since nothing is more instructive than success, there is a great potential to promote cooperation amongst private forest owners associations in different countries, thus supporting learning processes and transferring concrete, positive experiences.

New market opportunities for timber and non-wood forest products and services

The volume and value of roundwood harvested is particular important in Finland, France and Sweden (figure 2.4.1). This appears to be, on the one hand, due to a suitable structure of larger holdings, and on the other hand, due to a well-organized framework of associations among private forest owners enhancing market access options. Data from the enquiry, along with the present policy context indicate that there are significant opportunities to improve the conditions suitable to timber harvesting and marketing in a number of countries. Such opportunities encompass the creation of adequate legal frameworks, e.g. prohibiting the splitting of forest land and encouraging consolidation, establishing private forest owners associations, and providing education and training to forest owners.

The lack of data on private forests concerning the importance of and the future economic opportunities of non-wood forest products and services is a clear shortcoming of the present enquiry *(Chapter 2.4)*. In using the results of the COST Action E30 on economic integration of urban consumers demand and rural forestry production as complementary information, one can state that such products and services have gained considerable importance for private forest owners (Niskanen 2006, Niskanen et al. 2007). In fact, depending on the prevailing types of forest ecosystems and ownership income levels, there is a high diversity of small-scale forestry practices within different European regions. There is a need to be aware of the growing demand for environmentally friendly products and to gain a better understanding of the potential both for private forest owners as well as for small- and medium-sized companies. The factors affecting their competitiveness and promotion need to be known and substantive economic information on customer demands is required for shifting attitudes of forest owners into a more diversified consumer-oriented direction.

Diversification of forest owners' profiles and interests

Important findings have emerged from the survey with regard to the growing diversification and dynamic evolution of forest owner profiles (Chapters 2.5, 2.6 and 3.2). This refers in particular to age structure showing generally a large proportion of owners older than 60 years and to gender distribution showing a large predominance of male owners. The field of occupation of individual owners in agriculture and forestry shows considerable differences within countries varying from around 80% to as low as less than 20%. Significant differences exist also with regard to the rate of rural residents; in a number of countries there is a growing proportion of urban forest owners. Similar differences have come forward between countries reporting a solid interest and involvement of youth in managing family forests as compared to those reporting diminishing or little interest of the young generation in taking over forest management responsibilities.

However, information on the diversification of forest owner interests and management goals is scarce and difficult to interpret, as based on the responses from 5 countries only and on assessment categories that appear rather general (figure 2.5.7). The prevailing focus on multi-purpose use and production in comparison with the other mentioned management objectives indicated as being of specific private forest owner interest is notable. Further investigation of the interest profiles of different forest owner groups and an empirically based interpretation of the results of the changing socioeconomic situation is essential for any further analysis. It is important to know and understand the profiles and interest groups of owners as they are driving factors of present and foreseeable developments. Such information is the basis for policy design, elaboration of consistent and realistic strategic goals, and for selecting effective and applicable policy measures and instruments.

Strengthening entrepreneurial capabilities through training and extension

The replies from 15 countries (*Chapter 3.4*) indicate that training and extension activities, in particular in the case of small-scale private forest ownership, play an important role in strengthening the decision making and implementation capabilities of forest owners. Levels of training vary considerably among countries with regard to intensity, regularity and content, ranging from occasional courses to systematic yearly programmes offered either by private forest associations, agriculture chambers or the public forest administration. The congruency of training activities with the requirements and motives of the target group is of considerable importance in order to support the management practices of the land holders directly, especially if the addressees show little interest and do not come forward with an active demand for advisory and supporting services. Private forest associations play a crucial role in reinforcing or building up extension services and practical training in forest work. They can use their outreach by providing information on economic opportunities of wood selling and bio-energy generation and finding new markets for non-wood forest products and environmental services. They can also promote effectively sustainable forest management practices. There are indications that countries with higher levels of attendance at training courses and a more organized structure of associations use their forests more intensively for wood production. This raises the question as to what extent the private sector can assume a leading role in carrying out training and advisory tasks and/or to what extent combined approaches between private and public training and extension systems offer effective and efficient country-specific solutions.

Change and expansion in the European private forestry sector

The data on forest resources and ownership combined with quantitative and qualitative country information provided by the respondents, and available in the private forest ownership database, show the forestry sector in a situation of change and expansion. New opportunities for wood production and marketing in an integrated forestry, wood processing and bio-energy chain have been appearing (*chapter 3.6*).

In a number of countries, private forest owners are in a position to benefit from new developments and opportunities based on sustainable management practices and supported by well organized local and national associations and a policy framework that does not restrict entrepreneurial initiatives. Other countries are still trying to build up their own institutions and finding their way through a thicket of regulations dating from former times. At the same time, there are strong European trends emanating from European Union Directives that influence developments in forestry, wood processing and environment in general.

The role of the private forest sector was addressed by the Ministerial Conference for the Protection of Forest in Europe at its 2007 Warsaw Conference, encouraging the removal of barriers to the sustainable mobilization of additional resources, e.g. through promoting association of forest owners and adequate infrastructure to improve access to forest resources. It is in this context that one has to see the political role of European private forestry sector and of owner associations in supra-national and national policy processes.

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ANNEX I: PRIVATE FOREST OWNERSHIP ENQURY



UNECE **FAO** **MCPFE** **CEPF**

Enquiry on
Private Forest ownership in Europe [1/]

NATIONAL DATA REPORTING FORMS

COUNTRY:

Date of submission:

National correspondent:

Name:	
Organization:	
Address:	
Phone/Fax:	
E-mail:	

Other professionals involved in the reporting process:

Name:	
Organization:	
E-mail:	
Name:	
Organization:	
E-mail:	
Name:	
Organization:	
E-mail:	

[1/] "Europe" in this context stands for the European countries, signatories of the MCPFE documents.

The completed national questionnaires and overview spreadsheet with all responses are available at: http://timber.unece.org/index.php?id=90

Abbreviations

CEPF	Confederation of European Private Forest Owners
EEA	European Environmental Agency
EFSOS	European Forest Sector Outlook Study
ELO	European Landowners' Organization
EU	European Union
EUROSTAT	Statistical office of the European Communities
FAO	Food and Agriculture Organization of the United Nations
FAWS	Forests available for wood supply
FOA	Forest owners associations
FOWL	Forests and other wooded land
FRA	Forest Resources Assessment
ha	Hectares
IEA	International Energy Agency
IUCN	The World Conservation Union
IUFRO	International Union of Forest Research Organisations
m^3	Cubic metre
MCPFE	Ministerial Conference on the Protection of Forests in Europe
NWFPs	Non-Wood Forest Products
OWL	Other wooded land
PFO	Private forest ownership
Ref. Period	Reference period
SFM	Sustainable Forest Management
UNECE	United Nations Economic Commission for Europe

Introduction

The enquiry in hand comprises data reporting forms and related specifications for the assessment of the current state of the Private Forest Ownership in Europe. The Enquiry is prepared for the compilation of national data of European countries, signatories of the MCPFE documents, with a private forest sector, and it intends to contribute to reporting on Sustainable Forest Management to the next Ministerial Conference on the Protection of Forests in Europe (MCPFE-2007). The specification of each reporting table includes a template for the reporting table as well as reporting units and the reference period.

The UNECE/FAO Forestry and Timber Section together with the MCPFE Liaison Unit Warsaw and the Confederation of European Forest Owners (CEPF) have decided to elaborate and run this enquiry as there is a significant lack of knowledge concerning the private forest sector in Europe, despite its importance. In the process of the elaboration of the Enquiry, its draft was tested in Finland and Lithuania, and the input has also been received from a number of other stakeholders.

A significant share of the total forest area in Europe is owned privately and private forest owners and these forests play a key role in sustaining forest ecosystems and enhancing rural development. Moreover, the private forest sector in Europe is rapidly changing due to various reasons. The enquiry attempts to facilitate a better understanding of the European private forest owners and to develop policies for private forestry. This enquiry takes up one of the statements of the Fourth Ministerial Conference on the Protection of Forests in Europe (MCPFE) acknowledging that sustainable forest management in Europe relies on, *inter alia*, private owners.

Explanatory notes and instructions:
The National Data Reporting Forms are structured as follows for each of the 8 Reporting Forms where National Correspondents are requested to submit national data:

1. full text of the respective Private Forest Ownership issue
2. table that each National Correspondent of an MCPFE signatory state is requested to fill in
3. data sources from which the quantitative data is taken (except tables 4 and 5)
4. country specific specifications (thresholds, etc.) related to the data provided
5. data quality assessment, indicating the likely range of errors of the data provided
6. country comments that might be needed to clarify further aspects related to the data and its proper interpretation
7. reporting notes to further specify or clarify how to interpret certain aspects of the data requests

1. Private forest ownership issues
The authors of the enquiry consider the issues (see reporting forms) to be the currently most important as regards the European private forest ownership, and reasonably feasible to get country data/ information. The PFO issues included in the enquiry result from the intense communication of UNECE/FAO with CEPF, EFI, ELO, and MCPFE, and other stakeholders. These issues comprise important economic, social and ecological aspects of private forest ownership.
In particular, the enquiry targets to answer the following questions:

- How many private forest owners are there in Europe?
- How does intensity and structure of forest management vary with ownership category and social / demographic background of the private forest owners?
- How does wood production and sales revenue vary with ownership category?
- Which social / demographic trends will have an impact on the private forest sector and in what ways?
- Who are the individual private forest owners and how do they use their forest property?
- What (political) factors guide the private forest sector?

2. Tables
As regards filling out the enquiry tables, please note the following:
Based on the requirements of each specific table, the National Correspondents should identify the most appropriate data sources to fill in the data requested and fill in data for the respective year. In cases where no national data are available for a certain variable or are of substantively insufficient quality, please indicate:

n.a.	Not available – no national data collection
i.d.	Insufficient data (partly missing, weak, incomplete, incompatible)

For variables where "insufficient data" (i.d.) is reported, please provide more information under "Country comments", explaining in what sense data was considered to be insufficient.
If you have difficulty providing certain data, please try to provide at least estimates. Please describe the estimation process (and background for estimates) in the comments box provided below each table. You may also provide any additional information, remarks, etc.
Some of the tables overlap with the latest Forest Resources Assessment 2005 Enquiry. You do not need to provide these data again, which you can get from the FRA National Correspondents in your country, and find it on the FAO global FRA 2005 website (http://www.fao.org/forestry/fra2005).
Please do not fill out the grey-highlighted cells.

Adjustment of data to fit definitions:
In order to adjust data to fit definitions please consider Annex I. The reference documents for terms and definitions used for this document are UNECE/FAO TBFRA 2000 Database, FRA 2005 Terms and Definitions, EEA Glossary and UNECE Statistical Standards and Studies - No. 49.

Reference period:
Please specify the reference period for all tables. If available, please provide data for the year 2005.

3. Data sources
All directly relevant data sources for each of the variables where data is reported should be documented. In some cases this might require additional categories than those provided in the Reporting Forms.
Please specify reference documents as follows:
- Author or institution. Year of publication (if published). Title. Reference Number. Publisher.

4. Country specifications
For accurate interpretation of data reported, it is essential to know details of country specifications used for the collection or calculation of this data. These can be thresholds or other specifications. For a range of indicators, specific information on country specifications is asked from National Correspondents. However, national correspondents are invited to add further specifications as appropriate or necessary to interpret the data accurately.

5. Data quality
It is important to assess the likely range of error of the data reported. For the likely range please include errors due to measurement, sampling, adjustment and forecasting. If the range is derived statistically, and is symmetrical around the reported figure, then it should be +/- 1 standard error. If the range incorporates expert judgement, it should reflect a similar level of confidence, and should be chosen so that the true values are likely to be in the quoted ranges about two-thirds of the time.

6. Country comments
National Correspondents are invited to provide all further information, which is generally of interest to the matter or necessary for the accurate interpretation and use of the data provided. This can include information on different terms & definitions over time and adjustment procedures used, interpolation and extrapolation procedures and formulas, further country specifications or other.

List of reporting forms

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Reporting form 1: Private ownership categories by area and management status

Table 1: Private ownership categories by area and management status

Code	Ownership category	Total area [1000 ha]			Managed area [1000 ha]		
		Forest and OWL[1)]	Of which: Forest	Of which: FAWS[2)]	Forest and OWL	Of which: Forest	Of which: FAWS
		TT	TF	TW	MT	MF	MW
1	Grand total						
1.1	Private ownership, total						
1.1.1	Owned by individuals						
1.1.1.1	*Of which:* owned by families						
1.1.2	Owned by forest industries						
1.1.3	Owned by private institutions, total						
1.1.3.1	owned by cooperatives						
1.1.3.2	owned by religious institutions						
1.1.3.3	owned by educational institutions						
1.1.3.4	owned by other private institutions						
1.2	Public ownership, total						
1.2.1	State ownership						
1.2.2	Provincial ownership						
1.2.3	Communal ownership						
1.3	Other ownership, total						

Data sources:
Total area of Forest and OWL:
Total area of Forest:
Total area of FAWS:
Managed area of Forest and OWL:
Managed area of Forest:
Managed area of FAWS:

Country specifications:
Approach to calculation/specification for FAWS:

Data quality:
Likely range of true value of latest estimate reported (in 1000 ha):

Forest and OWL area:	from	to
Forest area:	from	to
FAWS area:	from	to
Forest and OWL area (managed):	from	to
Forest area (managed):	from	to
FAWS area (managed): :	from	to

Country comments:

Reporting notes:
1. Please give data sources separately for public, private and other ownership if sources differ

Reporting form 2: Total area and total number of Private Forest holdings according to size of holding

Table 2: Total area and total number of Private Forest holdings according to size of holding

	Ownership category	Size of private holdings [ha]	Total area of holdings [1000 ha]	Total number of holdings
Code			HA	HN
2	Private Ownership, total			
2.1	Private Ownership by size classes	< 1		
2.2		1 to 2		
2.3		3 to 5		
2.4		6 to 10		
2.5		11 to 20		
2.6		21 to 50		
2.7		51 to 100		
2.8		101 to 500		
2.9		> 500		

Data sources:
Total area of holdings:
Total number of holdings:

Country specifications:
Main categories included in "holdings":

Data quality:
Likely range of true value of latest estimate reported (in 1000 ha, range):
Total area of holdings: from to
Total number of holdings: from to

Country comments:

Reporting notes:
1. Reference area for reporting is “Total FOWL”, not further divided into sub-classes “Forest” and “Other wooded land”. If data is available for sub-class “Forest” only, please report on this sub-class with explicit reference to “Forest” and provide note under “Country comments”.
2. Please feel free to edit the breakdowns in the column “Size of Private Holdings” if you prefer a different breakdown.

Reporting form 3: Characteristics of forests and other wooded land by area and volume

Table 3: Characteristics of forest by volume and other wooded land by area and volume

	Ownership category	Growing stock		Gross Annual increment		Annual fellings		Certified area	Illegal logging
		1000 m^3	m^3/ha */	1000 m^3	m^3/ha */	1000 m^3	m^3/ha */	1000 ha	1000 m^3
Code		SV	SN	IV	IN	FV	FN	CA	IL
3	Grand total								
3.1	Private ownership, total								
3.1.1	Owned by individuals								
3.1.2	Owned by forest industries								
3.1.3	Owned by private institutions								
3.2	Public ownership, total								
3.2.1	State ownership								
3.2.2	Provincial ownership								
3.2.3	Communal ownership								
3.3	Other ownership, total								

Data sources:
Growing stock:
Gross annual increment:
Annual fellings:
Certified area:
Illegal logging:

Country specifications:
Method used to determine "fellings":
Approach to calculation/specification of "illegal logging":

Data quality:
Likely range of true value of latest estimate reported:

Growing stock:	from	to	(in 1000 m^3)
Gross annual increment:	from	to	(in 1000 m^3)
Annual fellings:	from	to	(in 1000 m^3)
Growing stock:	from	to	(m^3/ha)
Gross annual increment:	from	to	(m^3/ha)
Annual fellings:	from	to	(m^3/ha)
Certified area:	from	to	(in 1000 ha)
Illegal logging:	from	to	(in 1000 m^3)

Country comments:

Reporting notes:
1. Please give data sources separately for public, private and other ownership if sources differ.
2. As regards certified area, please indicate the share (in %) of the particular certification schemes in country comments.
3. If data on illegal logging do not exist, please give estimates.
*/ - average for each ownership category

Reporting form 4: Economic indicators of private ownership

Table 4: Economic indicators of private ownership

Code	Ownership category	Forest Products	Total	
			Volume [1000 m^3]	Value [currency]
			PV	PA
4.1	Private ownership, total	Roundwood		
4.2		Fuelwood		
4.3		Industrial wood		
4.4		NWFP 1))		
4.1.1	Owned by individuals	Roundwood		
4.2.1		Fuelwood		
4.3.1		Industrial wood		
4.4.1		NWFP		
4.1.2	Owned by forest industries	Roundwood		
4.2.2		Fuelwood		
4.3.2		Industrial wood		
4.4.2		NWFP		
4.1.3	Owned by private institutions	Roundwood		
4.2.3		Fuelwood		
4.3.3		Industrial wood		
4.4.3		NWFP		

1) NWFP Non-Wood Forest Product

Country specifications:

Main categories included in NWFP:

Data quality:

Likely range of true value of latest estimate reported:

Roundwood:	from	to	(1000 m^3)
Fuelwood:	from	to	(1000 m^3)
Industrial wood:	from	to	(1000 m^3)
NWFP:	from	to	(1000 m^3)
Roundwood:	from	to	(1000 [*please specify currency and unit*])
Fuelwood:	from	to	(1000 [*please specify currency and unit*])
Industrial wood:	from	to	(1000 [*please specify currency and unit*])
NWFP:	from	to	(1000 [*please specify currency and unit*])

Country comments:

Reporting notes:
1. Reference area for reporting is “Total FOWL”, not further divided into sub-classes “Forest” and “Other wooded land”. If data is available for sub-class “Forest” only, please report on this sub-class with explicit reference to “Forest” and provide note under “Country comments”.
2. Value of roundwood comprises all roundwood sold on markets. It excludes roundwood harvested for self-consumption (subsistence) and other forms of uses without market transaction.
3. Roundwood is to be reported “under bark”.
4. The value of roundwood reported should be the market value at the site of removal. If possible, felled (roadside) values should be reported. If a different basis is used (e.g. standing sales value), values should be converted to felled (roadside). In case where values are obtained from a point further down the production chain, transport costs and possible handling and/or processing costs should be discounted. Values and conversion factors used in the calculation should be provided in the country specifications.
5. Value of non-wood goods comprises all non-wood goods sold on markets. It excludes non-wood goods harvested for self-consumption (subsistence) and other forms of uses without market transaction.
6. Please give data sources separately for owned by individuals, owned by forest industries and owned by private institutions if sources differ.

Reporting form 5: Economic indicators of public ownership

Table 5: Economic indicators of public ownership

Code	Ownership category	Forest Products	Total	
			Volume	Value
			[1000 m^3]	[currency]
			PV	PA
5.1	Public ownership, total	Roundwood		
5.2		Fuelwood		
5.3		Industrial wood		
5.4		NWFP [4)]		
5.1.1	State ownership	Roundwood		
5.2.1		Fuelwood		
5.3.1		Industrial wood		
5.4.1		NWFP		
5.1.2	Provincial ownership	Roundwood		
5.2.2		Fuelwood		
5.3.2		Industrial wood		
5.4.2		NWFP		
5.1.3	Communal ownership	Roundwood		
5.2.3		Fuelwood		
5.3.3		Industrial wood		
5.4.3		NWFP		

Country specifications:
Main categories included in NWFP:

Data quality:
Likely range of true value of latest estimate reported:

Roundwood: from to (1000 m^3)
Fuelwood: from to (1000 m^3)
Industrial wood: from to (1000 m^3)
NWFP: from to (1000 m^3)
Roundwood: from to (1000 [*please specify currency and unit*])
Fuelwood: from to (1000 [*please specify currency and unit*])
Industrial wood: from to (1000 [*please specify currency and unit*])
NWFP: from to (1000 [*please specify currency and unit*])

Country comments:

Reporting notes:
1. Reference area for reporting is “Total FOWL”, not further divided into sub-classes “Forest” and “Other wooded land”. If data is available for sub-class “Forest” only, please report on this sub-class with explicit reference to “Forest” and provide note under “Country comments”.
2. Value of roundwood comprises all roundwood sold on markets. It excludes roundwood harvested for self-consumption (subsistence) and other forms of uses without market transaction.

3. Roundwood is to be reported “under bark”.
4. The value of roundwood reported should be the market value at the site of removal. If possible, felled (roadside) values should be reported. If a different basis is used (e.g. standing sales value), values should be converted to felled (roadside). In case where values are obtained from a point further down the production chain, transport costs and possible handling and/or processing costs should be discounted. Values and conversion factors used in the calculation should be provided in the country specifications.
5. Value of non-wood goods comprises all non-wood goods sold on markets. It excludes non-wood goods harvested for self-consumption (subsistence) and other forms of uses without market transaction.
6. Please give data sources separately for owned by individuals, owned by forest industries and owned by private institutions if sources differ.

Reporting form 6: Demographic information on individual private forest owners

Table 6: Demographic information on individual private forest owners

	Ownership category	Age classes [years]	Number of owners	Share of female owners [%]
Code			ON	FP
6	Individual owners, total			
6.1	Individual owners	< 30		
6.2		30 to 60		
6.3		> 60		

Data sources:
Number of owners:
Share of female owners:

Country specifications: *none*

Data quality:
Likely range of true value of latest estimate reported:

< 30:	from	to	(range)
30 to 60:	from	to	(range)
> 60:	from	to	(range)

Country comments:

Reporting notes:
1. Please feel free to edit the breakdowns in the column “Age classes [years]” if you prefer a different breakdown.

Reporting form 7: Social background of individual private forest owners

Table 7: Social background of individual private forest owners

1. Occupation

Code	Ownership category	Occupation		
		Field/Status of occupation	Number of owners	Share of owners [%]
			ON	OP
7.1	Individual owners, total			
7.1.1	Individual owners	Agriculture/Forestry, total		
7.1.1.1		Agriculture/Forestry (full-time)		
7.1.1.2		Agriculture/Forestry (part-time)		
7.1.2		Outside Agriculture/Forestry		
7.1.3		Pensioner		

2. Residence

Code	Ownership category	Residence		
		Location of residence	Number of owners	Share of owners [%]
			ON	OP
7.2	Individual owners, total			
7.2.1	Individual owners	Rural area		
7.2.2		Urban area, total		
7.2.2.1		City (< 20000 inhabitants)		
7.2.2.2		City (> 20000 inhabitants)		
7.2.3		Other		

3. Objectives

Code	Ownership category	Objectives of ownership		
		Main objective	Number of owners	Share of owners [%]
			ON	OP
7.3	Individual owners, total			
7.3.1	Individual owners	Conservation		
7.3.2		Multi-purpose		
7.3.3		Production		
7.3.4		Protection		
7.3.5		Social services		
7.3.6		None or unknown		

Data sources:
Field/status of occupation:
Location of residence:
Main objective:

Country specifications: *none*

Data quality:

Likely range of true value of latest estimate reported:

Field/status of occupation:	from	to	(range)
Location of residence:	from	to	(range)
Main objective:	from	to	(range)

Country comments:

Reporting notes:

1. "Objectives of ownership" are equivalent to the FRA 2005 definitions "Designated functions of Forest and Other wooded land" (see Annex I)

Reporting form 8: List of specific questions

List of specific questions:

1.	How has the private holding structure changed in your country within the last 15 years?
2.	Please describe recent political processes concerning privatization/restitution of forest land in your country.
3.	In the future, will there be more restitution/privatization of forest land in your country? Please describe.
4.	Is the number of private forest owners in your country increasing or decreasing?
5.	Are your country's private forests increasing/decreasing in forest area and growing stock? If yes, what are the reasons?
6.	How many National Forest Owner Associations are present in your country? How many of them are members of international Forest Owner Associations?
7.	How many of your country's private forest owners are members in national Forest Owner Associations? How many hectares do they represent?
8.	Are there differences between private and public forests concerning game management? If yes, how does it influence SFM?
9.	How many individual private forest owners attend forestry training courses each year? Has the figure altered in the last 15 years or is it expected to alter?
10.	How has the share of urban forest owners in your country altered in the last 15 years? How will it alter in the future?
11.	What role does property fragmentation play for your country's individual private forest owners?
12.	Are youth interested in managing family forests in the future? Are they involved and integrated into family forest management?

Data sources:
Change in private holding structure:
political processes concerning privatization / restitution:
restitution / privatization in future:
number of private forest owners:
change in private forest area and growing stock:
number of FOA*:
membership in FOA:
game management:
attendance in forestry training courses:
change in share of urban forest owners:
role of fragmentation of forest property:
youth and family forestry:

Country comments:

*/ FOA - Forest Owner Association

Letter codes used in the enquiry

Letter code	Signification
CA	Certified area (1000 ha)
FN	Annual fellings, net (m^3/ha)
FP	Share of female owners (%)
FV	Annual fellings, volume (1000 m^3)
HA	Area of holdings, total (1000 ha)
HN	Number of holdings, total
IN	Annual increment, net (m^3/ha)
IL	Illegal logging, volume (1000 m^3)
IV	Annual increment, volume (1000 m^3)
MF	Managed forest area (1000 ha)
MT	Managed area, total (1000 ha)
MW	Managed area of FAWS (1000 ha)
ON	Number of owners
OP	Share of owners (%)
PA	Forest products, value (currency)
PV	Forest products, volume (1000 m^3)
SN	Growing stock, net (m^3/ha)
SV	Growing stock, volume (1000 m^3)
TF	Forest area, total (1000 ha)
TT	Area of forest and OWL, total (1000 ha)
TW	Area of FAWS, total (1000 ha)

ANNEX II: TERMS AND DEFINITIONS

Source: Definitions are taken out of
* UNECE/FAO TBFRA 2000 Database
** FRA 2005 Terms and definitions
*** EEA Glossary
**** UNECE Statistical Standards and Studies- No. 49

Annual felling*
Average annual standing volume of all trees, living or dead, measured overbark to a minimum diameter of 0 cm (d.b.h.) that are felled during the given reference period, including the volume of trees or parts of trees that are not removed from the forest, other wooded land or other felling site. Includes: silvicultural and pre-commercial thinnings and cleanings left in the forest; and natural losses that are recovered (harvested).

Communal Ownership*
Forest/other wooded land owned by communes, cities and municipalities.

Cooperatives, owned by**
Forest owned by individuals joined in cooperatives or similar organizations.

Forest*
Land with tree crown cover (or equivalent stocking level) of more than 10 percent and area of more than 0.5 ha. The trees should be able to reach a minimum height of 5 m at maturity. May consist either of closed forest formations where trees of various storeys and undergrowth cover a high proportion of the ground; or of open forest formations with a continuous vegetation cover in which tree crown cover exceeds 10 percent. Young natural stands and all plantations established for forestry purposes which have yet to reach a crown density of 10 percent or tree height of 5m are included under forest, as are areas normally forming part of the forest area which are temporarily unstocked as a result of human intervention or natural causes but which are expected to revert to forest. Includes: Forest nurseries and seed orchards that constitute an integral part of the forest; forest roads, cleared tracts, firebreaks and other small open areas within the forest; forest in national parks, nature reserves and other protected areas such as those of special environmental, scientific, historical, cultural or spiritual interest; windbreaks and shelterbelts of trees with an area of more than 0.5 ha and a width of more than 20 m. Rubberwood plantations and cork oak stands are included. Excludes: Land predominantly used for agricultural practices.

Forest available for wood supply*
Forest where any legal, economic, or specific environmental restrictions do not have a significant impact on the supply of wood. Includes: areas where, although there are no such restrictions, harvesting is not taking place, for example areas included in long-term utilization plans or intentions.

Forest industries, owned by*
The definition includes forest and other wooded land owned by other private enterprises, companies or industries.)

Forest functions**
Conservation: Forest/Other wooded land designated for conservation of biological diversity.
Multiple purpose: Forest/Other wooded land designated to any combination of: production of goods, protection of soil and water, conservation of biodiversity and provision of socio-cultural services and where none of these alone can be considered as being significantly more important than the others.
Production: Forest/Other wooded land designated for production and extraction of forest goods, including both wood and non-wood forest products.
Protection: Forest/Other wooded land designated for protection of soil and water.
Social services: Forest/Other wooded land designated for the provision of social services. Includes: The services may include recreation, tourism, education and/or conservation of cultural/spiritual sites.

Fuelwood*
Roundwood that will be used as fuel for purposes such as cooking, heating or power production. It includes wood harvested from main stems, branches and other parts of trees (where these are harvested for fuel) and wood that will be used for charcoal production (e.g. in pit kilns and portable ovens). The volume of roundwood used in charcoal production is estimated by using a factor of 6.0 to convert from the weight (mt) of charcoal produced to the solid volume (m^3) of roundwood used in production. It also includes wood chips to be used for fuel that are made directly (i.e. in the forest) from roundwood. It excludes wood charcoal. It is reported in cubic metres solid volume underbark (i.e. excluding bark).

Gross annual increment*
Average annual volume of increment over the reference period of all trees, measured to a minimum diameter breast height (d.b.h.) of 0 centimetres (cm). Includes the increment on trees which have been felled or die during the reference period.

Growing stock*
The living tree component of the standing volume.

Holding*
One or more parcels of forest and other wooded land which constitute a single unit from the point of view of management or utilization. For State-owned forest and other wooded land a holding may be defined as the area forming a major management unit administered by a senior official, e.g. a Regional Forestry Officer. For forest and other wooded land that is owned publicly, other than by the State, or owned by large-scale forest owners, e.g. forest industries, a holding may constitute a number of separated properties which are, however, managed according to one corporate strategy. Under any category of ownership, other than State-owned, one holding may be the property of one or several owners.

Individuals, owned by*
Forest and other wooded land owned by individuals or families, including those who have formed themselves into companies. Includes: individuals and families who combine forestry with agriculture (farm forests), those who live in or near their forest holdings, and those who live elsewhere (absentee owners).

Industrial wood*
Includes all industrial wood in the rough (logs, sawlogs and veneerlogs, pulpwood and chips, poles, piling, pitprops, match blocks, etc...) but no fuelwood. It is reported in cubic metres solid volume underbark.

Managed area of forest/other wooded land*
Forest and other wooded land which is managed in accordance with a formal or an informal plan applied regularly over a sufficiently long period (five years or more). The management operations include the tasks to be accomplished in individual forest stands (e.g. compartments) during the given period.

State ownership*
Forest/other wooded land owned by national and state governments, or by government-owned corporations.

Non-wood forest products*
Non-wood forest products consist of goods of biological origin other than wood, derived from forests, other wooded land and trees outside forests. Includes: 1) products for human consumption such as food, beverages, medicinal plants, and extracts (e.g. fruits, berries, nuts, honey, game meats, mushrooms, etc.). 2) Fodder and forage (grazing, range). 3) Other non-wood products (e.g. cork, resin, tannins, industrial extracts, wool and skins, hunting trophies, Christmas trees, decorative foliage, mosses and ferns, essential and cosmetic oils, etc.). Excludes: wood in all its forms and non-material benefits, such as water and air sanitization or carbon storage.

Other ownership*
Land that is not classified either as "Public ownership" or as "Private ownership" including land where ownership is not defined, land that belongs to indigenous or tribal people.

Other wooded land (OWL)*
Land either with a tree crown cover (or equivalent stocking level) of 5-10 percent of trees able to reach a height of 5 m at maturity in situ; or a crown cover (or equivalent stocking level) of more than 10 percent of trees not able to reach a height of 5 m at maturity in situ (e.g. dwarf or stunted trees) and shrub or bush cover. Excludes: Areas having the tree, shrub or bush cover specified above but of less than 0.5 ha and width of 20 m, which are classed under "other land". Land predominantly used for agricultural practices.

Private Holding*
One or more parcels of privately owned forest and other wooded land which constitute a single unit from the point of view of management or utilization. Includes: Forest and other wooded land that is owned by large-scale forest owners, e.g. forest industries. A holding may constitute a number of separated properties which are, however, managed according to one corporate strategy. One holding may be the property of one or several owners.

Private institutions, owned by*
Forest/other wooded land owned by private corporations, cooperatives or institutions (religious, educational, pension or investment funds, nature conservation societies, etc).

Private ownership*
Forest/other wooded land owned by individuals, families, cooperatives and corporations which may be engaged in agriculture or other occupations as well as forestry; private forest enterprises and industries; private corporations and other institutions (religious and educational institutions, pension and investment funds, nature conservation societies, etc).

Provincial Ownership*
Forest/other wooded land owned by provincial governments, or by provincial government-owned corporations.

Public Forest Management Unit (PFMU)*
One or more parcels of publicly owned forest and other wooded land which constitute a single unit from the point of view of management or utilization. A PFMU may be defined as the area forming a major management unit administered by a senior official, e.g. a Regional Forestry Officer. For PFMUs that are owned publicly, other than by the State, a holding may constitute a number of separated properties which are, however, managed according to one corporate strategy. Under any category of ownership, other than State-owned, one holding may be the property of one or several owners.

Public ownership*
Forest/other wooded land belonging to the State or other public bodies. The definition includes publicly owned Forest/other wooded land that is reserved for restitution.

Reference period*
The year or years during which the national forest inventory or other method of collection of the data reported in the forest resources assessment was carried out.

Removals*
Fellings that are removed from the forest, other wooded land or other felling site during the given reference period. Includes: Removals during the given reference period of trees felled during an earlier period and removal of trees killed or damaged by natural causes (natural losses), e.g. fire, windblow, insects and diseases.

Residence****
Place of usual residence is the geographic place where the enumerated person usually resides; this may be the same as, or different from, the place where he/she actually is at the time of the Census; or it may be his/her legal residence. A person's usual residence should be that at which he/she spends most of his/her daily night-rest.

Roundwood*
All roundwood felled or otherwise harvested and removed. It comprises all wood obtained from removals, i.e. the quantities removed from forests and from trees outside the forest, including wood recovered from natural, felling and logging losses during the period, calendar year or forest year. Includes: all wood removed with or without bark, including wood removed in its round form, or split, roughly squared or in other form (e.g. branches, roots, stumps and burls (where these are harvested) and wood that is roughly shaped or pointed. It is an aggregate comprising wood fuel, including wood for charcoal and industrial roundwood (wood in the rough). It is reported in cubic metres solid volume underbark (i.e. excluding bark).

Rural area***
Geographical area where the population density of humans is low and the main economic activity is agriculture, forestry, or hunting.

Sawnwood*
Wood that has been produced from both domestic and imported roundwood, either by sawing lengthways or by a profile-chipping process and that exceeds 6 mm in thickness. Includes planks, beams, joists, boards, rafters, scantlings, laths, boxboards and "lumber", etc., in the following forms: unplaned, planed, end-jointed, etc. Excludes sleepers, wooden flooring, mouldings (sawnwood continuously shaped along any of its edges or faces, like tongued, grooved, rebated, V-jointed, beaded, moulded, rounded or the like) and sawnwood produced by resawing previously sawn pieces. It is reported in cubic metres solid volume.

Urban area***
Geographic area with a high density of people over a limited area. Homes and other types of buildings tend to be close together.

ANNEX III: INFORMATION FROM COUNTRY STATEMENTS

The annex presents the replies to the 12 questions of Data Frame F8 as submitted by the 23 responding countries answering the questionnaire of the PFO enquiry 2006.

1 How has the private holding structure changed in your country within the last 15 years?

2 Please describe recent political processes concerning privatization / restitution of forest land in your country?

3 In the future, will there be more restitution / privatization of forest land in your country?

4 Is the number of private forest owners in your country increasing or decreasing?

5 Are your country's private forests increasing / decreasing in forest area and growing stock? If yes, what are the reasons?

6 How many National Forest Owner Associations are present in your country?

7 How many of your country's private forest owners are members in national Forest Owners Associations? How many hectares do they represent?

8 Are there differences between private and public forests concerning game management? If yes, how does it influence SFM?

9 How many individual private forest owners attend forestry training courses each year? Has the figure altered in the last 15 years or is it expected to alter?

10 How has the share of urban forest owners in your country altered in the last 15 years? How will it alter in the future?

11 What role does property fragmentation play for your country's individual private forest owners?

12 Are youth interested in managing family forest in the future? Are they involved and integrated into family forest management?

UNECE/FAO/MCPFE/CEPF Private Forest Ownership Enquiry, Reporting Form F-8 (Answers to Specific Questions)

Questions 1-4	1. How has the private holding structure changed in your country within the last 15 years?	2. Please describe recent political processes concerning privatization/restitution of forest land in your country.	3. In the future, will there be more restitution/privatization of forest land in your country?	4. Is the number of private forest owners in your country increasing or decreasing?
Austria	There were no major changes in the private holding structure within the last 15 years in Austria. In fact, the forest owner structure is changing gradually. About 80% of forest area in Austria is privately owned. About 50% of the forest area is owned by small private forest owners (<200 ha), most of them also own agricultural land. Small private forest owners have traditionally managed their forests primarily with the help of family members. As a result of structural changes in the last decades, the number of full-time farmers is decreasing constantly, and the share of non-farming forest owners is increasing. In consequence, these owners either feel less closely linked to the forest or completely lose this connection, and are therefore less willing to work in forests themselves.	No political processes concerning privatization/restitution of forest land are ongoing in Austria.	No plans concerning restitution/privatization of forest land are known.	No major changes are observed. But there was a slight shift from 1980 to 1999 from smaller enterprises (5-20 ha forest area) to larger enterprises (20-50 ha, 50-200 ha, >200 ha).
Belgium	We can estimate that the number of individual owners increases by 10% every ten years, due to the division after inheritance of forest holdings. For larger holdings (more than 100 ha.), many holdings have been constituted in property companies. A part of them remains "family owned" after inheritance. Since a 1999 federal law, a few "forest groups" have been created, with special tax status. 12 groups of this kind exist in Wallonia, for 3420 ha. In Flanders, mixed groups (with both private and public owners) are also created. 19 groups of this kind exist in Flanders.	unjustified in Belgium.	unjustified in Belgium.	see Question 1
Bulgaria	After 1997, upon entry into force of the "Law for restitution of forests and lands within the forest fund", a process of restitution followed which led to establishment of small in size and fragmented private forest ownership. The private owners lack interest for an active process of association between themselves. The private forest associations are inheritors of the existing ones before the nationalization.	There is no privatization, the restitution is almost finished - there are still some unsolved cases in the Court and the application for ownership carries on through the Court.	Cannot talk about privatization, but the restitution is still carried on as the Court trials continue.	The number increases as there is a transfer of ownership from one person to his/her inheritor or execution of partition.

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Cyprus	Private forests consist of small, scatter holdings that have been acquired by inheritance from parents to children. A lot of these holdings were under small vineyards or other minor agricultural plantations on steep slopes or on poor in quality sites, scattered and far way from roads. Constituting uneconomic investments, these areas have been abandoned by their owners and have been forested naturally by nearby expanding forest vegetation. Because of this, the total number of private owners is not known and is very difficult to find.	Due to the lack of adequate infrastructure the private forests are vulnerable to forest fires. This causes problems even to the protection of State forests. Therefore, for the adequate protection of State forests, the Department of Forests purchases private forest lands that form either an enclave or a wedge into the State forests. A Rural Development Plan, which has been developed covering the three year period 2004 – 2006 and co-financed by the European Union, supports the afforestation of agricultural and non-agricultural land and investments for the conservation and improvement of the economic, ecological and social functions of forests.	No changes in the current situation or trends are expected in the future.	See answer of question 1.
Czech Republic	Area of state forest: in 1991: 95.8 %, agro-cooperatives 4.1 % and private forests 0.1 %; in 2006: 60.1 % (incl. public schools and universities); municipal 15.5; regional 0.2; forest cooperatives 1.0 %; private 23.2 %.	Main restitution law: No. 229/1991 Coll., restitution of municipal forest ownership: No. 172/1991 Coll. Majority of the public does not agree with further privatization of state forest.	Restitution is quite finished, except for some specific cases. Further privatization is not expected.	Stabilized, slight oscillations.
Finland	The main changes occurring in the structure of forest ownership within the last 15 years were a decline in the number of farmers; forest owners moving their residence to somewhere outside the forest holding; migration to urban areas; an ageing of the population of forest owners; and a growing proportion of female forest owners.	No action.	No.	The number of private forest owners is slightly increasing
France	There were no important changes in the ownership structure in France in the last 20 years. The ratio between public (26%) and private (74%) forests does not evolve significantly. The afforestation of agricultural land by natural colonization or by plantations is slightly more important in private than in public forests. The public forests expand as well, mainly in the mountainous areas where public ownership is dominant. The average size of private forest has slightly increased between 1980 (2,6 ha) and 2000 (3,0 ha).	Does not apply in France.	Does not apply in France.	The number of forest owners decreased from 3 677 000 in 1980 (ESSES 1976-1983) to 3 483 000 in 2000 (2 361 000 owning less than 1 ha according to the cadastre and 1 122 000 owning 1 ha or more according to the Scees SPF 1999 survey). There is therefore a slight decrease of 0.2% per year.
Germany	Through reunification, national area has changed and hence comparison is not meaningful feasible.	Forest expropriated within the scope of the land reform in the GDR and transferred into public ownership is now either privatized or about to be privatized.	No	Data n.a.

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Hungary	Privatization started in 1993 and ended in 1998. During that time around 200 000 ha formerly state owned forests and 500 000 ha forests formerly cooperatives' possessions were privatized. Since then the changes in the holding structure have been moderate. Development in the formation of the new management units - still being seriously hindered by common ownership - was important. According to estimations, only one third of the private forest area is owned by individual owners, the rest is owned by groups of owners. Privatization took place in the form of a voucher system. It was not a restitution but a compensation: instead of getting back their former properties the legitimated owners or their inheritors received vouchers with nominal value. The vouchers could have been used as currency on auctions where beside other properties forests were privatized. In addition to the compensation, another form of privatization was adopted: members of agricultural cooperatives had the right to claim for any of the assets including forest areas of the given cooperative up to the financial value of their membership in the specific cooperation.	ref. above	There is no official intention of further privatization of state owned forests.	The number of forest owners is increasing through inheritance.
Iceland	Since 1990, the part of private holdings in forestry has increased because of newly started regional afforestation projects which aim is to increase participation of farmers in forestry and afforestation.	The government did start special regional afforestation programs in all regions of Iceland in 1990-2000. These projects will in general favor afforestation of private land.	There is no indication of change in ownership of the present forest and woodland from private to public and vice versa; but on the other hand, the increasing participation of farmers in afforestation will lead to an increment in the private part of forested areas in Iceland.	Increasing with increasing afforestation on private holdings
Ireland	An estimated 15,000 farmers have switched their land use from agriculture to forestry since 1990, and has been the main contributory factor to a 220,000 ha increase in the forest area since 1990. Many of these areas are however relatively small (2-3 ha), compared with the larger average block size in the publicly owned forest, and the private estates in existence prior to the mid 1980s .	There have been no recent political processes concerning privatization of forest land in Ireland	Privatization of publicly-owned forest land is not envisaged.	Increasing – see 1

Questions 1-4	1. How has the private holding structure changed in your country within the last 15 years?	2. Please describe recent political processes concerning privatization/restitution of forest land in your country.	3. In the future, will there be more restitution/privatization of forest land in your country?	4. Is the number of private forest owners in your country increasing or decreasing?
Latvia	After the restoration of Latvia's independence in 1990, the ownership structure has changed significantly, as a result of privatization and the restoration of property rights. In the year 1990, practically all forests were managed by the state, but in the year 2005 private forests made up to 47% of all forests, 50% was owned by the state and the rest was owned by local governments. Changes in the private holding structure are mainly related to the land privatization and the restoration of property rights process. In recent years, the forest ownership structure has been more or less stable and it is expected that changes will be not be significant in the future. If changes in the private holding structure are analyzed for the recent five year period (2001 - 2005), area of properties and land assigned for the use of legal persons is increasing, while the area of properties and land assigned for the use of natural persons is decreasing.	Political decisions related to the land privatization/restitution process are fixed in laws. Special issues regarding forest land are covered by the Forest law. The Forest law states that State forest land shall be the land of the Forestry Department of the Ministry of Agriculture according to the situation on 21 July 1940, which has not been transferred, n the course of the land reform, to other natural or legal persons for permanent use, as well as such forest land which belongs to, or is within the jurisdiction of the State. State forest land shall be entered in the Land Register in the name of the State. State forest land shall not be granted for permanent use and shall not be alienated or privatized, except in the following cases: 1) in the performance of a land exchange in the cases specified and according to the procedures in the Law On the Rights of Landowners to Compensation for Restrictions on Economic Activities in Specially Protected Nature Territories and Micro-reserves; 2) if the State forest land is necessary for the performance of the following local government autonomous functions specified in the Law On Local Governments. Alienation or privatization of State forest land shall be permitted by an order of the Cabinet, issued each time, in the cases mentioned above.	No. Please see answers to questions 1 and 2.	It was increasing because of the restitution/privatization process.
Lithuania	The on-going land restitution process since 1992 led to a large number of private forest owners. On 1 January 2006, there were 213,000 forest owners and 717,000 ha. of private forests (or 34% of the total forest area). The average size of forestland holding in Lithuania is growing slowly. Presently, it is less then 5 ha.	After the re-establishment of independence on 11 March 1990, the Republic of Lithuania adopted the laws, which legalized private ownership in land, forest and other immovable property. Forest land restitution started in 1992. The restitution process is not completed in Lithuania yet. From 1 May 2005, companies are allowed to own forest land. Restitution should be finished in general in 2-3 years.	The privatization of state owned forest land is not foreseen in the near future. Even leasing of state owned forest land for forestry is forbidden by the Forest Act.	The number of private forest owners is increasing as a result of restitution.

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Netherlands	The structure stayed more or less the same during the last 15 years. The only change in the private holding structure is an increase in the number of forest owning foundations. In 2006, 129 foundations owning a forest area of more than 5 ha were registered in the Netherlands.	In the Netherlands, no political processes concerning privatization/restitution have been recently undertaken. In the past, the focus of the government was on nature management by the state forest service and large nature conservation organization. However, during the last decade, the government has been stimulating private nature management by subsidies that are specifically designed for this aim. This is a result of the fact that the government has become aware of the important role that private owners play in the conservation of nature in the Netherlands.	Privatization or restitution of forest land is not expected to happen during the upcoming years. However, due to the realization of the National Ecological Network, large areas of agricultural land are bought by the government. This agricultural land has to be transformed into nature areas to become part of the Network. For this reason, the management of the land is handed over to the State forest service or to large nature conservation organizations in the Netherlands. In this way, private soils are, in the case of the State forest service, directly resituated or, in the case of management by private nature conservation organizations, indirectly resituated, because these organizations are heavily subsidized by the Dutch government. The National Ecological Network is a connected network of valuable natural areas, woodlands and water areas and important landscape features which together form the backbone of the Dutch countryside in the Netherlands.	The number of private forest owners is stable in the Netherlands. The number of private forest owners owning a forest area of more than 5 ha has not changed since 1992.
Norway	The private holding structure has been practically stable. 90% of Norwegian forest holdings are family forestry, managed through generations. 97% of forest sales are done within the family. The forest owners' cooperatives make it possible to manage small holdings relatively efficient. For most of the owners, forest management is a part time activity and contributes partly to their income.	There have been no dramatic changes, but the official policy is supporting private ownership. Since 90% of the forest production is private, this is no big issue.	There is very limited state ownership, but local municipalities have some forest managed in the same way as private holdings. The restitution question in not applicable. In 2006, about 1.25 million ha of forest and other wooded land in the Finnmark county will be transferred from State ownership into a formal private ownership, under administration by a board consisting of representatives from regional and indigenous people's (Sami) authorities.	Stable

Questions 1-4	1. How has the private holding structure changed in your country within the last 15 years?	2. Please describe recent political processes concerning privatization/restitution of forest land in your country.	3. In the future, will there be more restitution/privatization of forest land in your country?	4. Is the number of private forest owners in your country increasing or decreasing?
Poland	Structural changes in the Polish rural area started several years ago and increased particularly after accessing to the EU in May 2004. The most characteristic results of these changes are a decrease in the number of private agricultural holdings, and an increase in their average size, mainly as the result of buying agricultural land from the state.	Privatization or restitution of forest land did not occur and there is no political will for such processes at present.	It is not expected in the nearest future.	This number has been increasing slowly during the last 3-4 years. It is the result of a balance between two processes: 1) the purchasing agricultural land for afforestation by inhabitants of towns, 2) a slow decrease of total number of agricultural land owners.
Romania	*please see table in the national report*	Law no. 18/1991 : about 356 000 ha of forest were restored to the private owners; Law no. 1/2000 : additional 1.8 million ha of forest were restored to the former forest owners; Law no. 247/2005 : an estimated area of about 2 million ha will be further restored to former owners	See above	It is slightly increasing
Serbia	In Serbia we did not have any significant changes in the structure of private forests within the last 15 years.	Forest land in Serbia is not part of the process of privatization. Forest land in Serbia is part of restitution to religion organization (church).	Until 2008, we will finish restitution of forest land to religion organization (church). Some estimations are that the state will give back about 45 000 ha of forest land. This is just an estimation and we are expecting precise information soon.	The number of private forest owners in Serbia is not changing.
Slovakia	The private holding structure has changed substantially in Slovakia within the last 15 years. Before the year 1991, when the act on restitutions entered into force, all forests were held and managed by state organizations (1 912 905 ha) and agricultural cooperatives (8 800 ha). The management of forests of Agricultural Cooperatives was also under the supervision of state forest enterprises. Comparing the ownership structure of forests with the status of use in 2005, it can be seen that the state organizations of forestry have 1 130 786 ha of forests in use, including "unknown" or "non-claimed" ownership. This is more than 323 033 ha of forests than the area of forests under the ownership of the state. Without "unknown" forest land, it is 210 237 ha. The return of forests to their original owners has stagnated since 1997 (on the average about 10 000 ha annually) because of the mainly small individual ownership of forest property. These cannot be identified in the terrain, as they are mainly in shared co-ownership. Owners refuse associating or they did not submit the documents relating to their property contrary to call. Completion of this process will be possible only after removing existing legislative, technical and economic barriers.	Intention of non-privatization of forest estates in state ownership is included in Program declaration of new government of the SR. Enforcement of radical amendment of legislation related to arrangement of ownership rights concerning forest estates with the objective of removal of existing stagnation in restitution process is one of the fundamental measures resulting from the proposal of "The Concept of Agriculture Development for 2007-2013 - Part Forestry".	Probably, there will not be more privatization in the future; but more progress in the completion of restitution process should be made. Through new legislation, issues related to the land of unknown owners should be solved, with the objective of forming assumptions for the development of markets with lands, in favour of entrepreneurial subjects managing such lands.	The forest area of private forests is slightly increasing due to the ongoing restitution process. Growing stock is also increasing, mainly due to the actual age structure of all forests, including private ones.

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Slovenia	The area of the private forests has increased because of the denationalization process which started in 1991, and because of abandoned agricultural activities in last decades. Forest holdings are continuously split between relatives during the heritage process.	Private forests, owned by individuals, have been the prevailing ownership category for more than 100 years. After World War II, private ownership was limited by area according to the socioeconomic status. The Denationalization law was adopted in 1991 and the process is not yet finished.	The process is quite close to the end and big changes are not expected.	The number is increasing permanently.
Sweden	The holding structure has not changed much the last 15 years in Sweden. Number, area and average area per holding are almost the same. The share of female owners has increased by 2 percent and the average age among the holders has also increased slightly.	There is no political process in Sweden regarding privatization/restitution. As mentioned in the country comments, a revision has been made in the category forest industries regarding the state owned company SveaSkog which used to be categorized as a "Forest industry" but are now categorized in the “State category”.	There is no indication that the share of private forest land will increase.	The number of private forest owners has increased by 2-3 percent during the last ten years. The main reason for this are children inheriting forest estates from parents. In the near future, the increase is expected to be the same (2-3 percent).
Switzerland	Number of holdings: 2004: 246415; 2000:246117; 1995: 257113; 1990: 256137; 1980: 250052 (Source: Swiss Forestry Statistics; www.agr.bfs.admin.ch, see timeline; no conclusive answer can be given concerning the reason for the variance of the data (methodological bias and/or real changes) n.a. for other aspects of ownership, such as size, category etc.	Currently, there are no political processes in relation to privatization/restitution going on in Switzerland.	The inertia of changes in ownership during the last decades (low volatility in the forest estate market), the minor importance of forest holdings regarding income (see below) and the stability of the institutional/legal framework are indicators for the preservation of the status quo.	see question 1
United Kingdom	The area of farm woodlands has increased substantially, but with less increase in the number of farm woodland holdings. No data are available for time trends for other types of woodland.	A disposals programme between 1980 and 1997 resulted in a net reduction of about 120,000 hectares in Forestry Commission forest land. The programme ended in 1997.	n.a.	Comprehensive data are not available, but the number is estimated to have increased since 1990 (see MCPFE 2006).

Questions 5-8	5. Are your country's private forests increasing/decreasing in forest area and growing stock? If yes, what are the reasons?	6. How many National Forest Owner Associations are present in your country? How many of them are members of international Forest Owner Associations?	7. How many of your country's private forest owners are members in national Forest Owner Associations? How many hectares do they represent?	8. Are there differences between private and public forests concerning game management? If yes, how does it influence SFM?
Austria	Forest area and growing stock are increasing in Austria mainly because of the decreasing agricultural area and low harvesting rates. Forest area: The Austrian balanced increase in forest cover of 5,100 hectares per annum is the difference between increases (9,700 ha p.a.) and decreases (4,600 ha p.a.). These dynamics cannot be explained solely by planned interventions, such as planned afforestations or officially approved clearing. The development of forest cover is influenced primarily by natural processes such as e.g. the overgrowth of areas formerly used for agriculture, or small-scale natural disasters. The slow natural reforestation of waste land and alpine pastures no longer managed following the total or partial abandonment of operations results in a marked increase in forest cover in the ownership category private forests (< 200 hectares), especially along the forest borders. However, the decision of many part-time farmers to afforest agricultural borderline areas also results in an increase in forest cover. Therefore it is not surprising that 90% of the total increase in forest cover takes place in the area of private forests. Stronger increases in forest cover can be observed not only in the higher alpine pasture regions, but also in the structurally weaker regions. As a result of farmers reducing their farming activities to part-time, as well as migration from rural areas and property sales, the number of full-time farmers is decreasing. This results in a decreasing interest in intensive agricultural use. Growing stock: With 1.095 billion m³ overbark, the growing stock in Austrians productive forest is higher than ever before. The increase results only partly from a change in forest area. The stands themselves have also increased their growing stock and trunk count. The average increase in stock from 1994 (Austrian Forest Inventory 1992/96) to 2001 (AFI 2000/02) was 30 m³ overbark/hectare. This is due to the increase in increment and a declining utilization. The private forest (<200 ha) has shown strongest increases with an increase by 44 m³ overbark/hectare. And with 333 m³ overbark/hectare it also has the highest average stock of all ownership types. In large forests with more than 1,000 hectares and at Österreichische Bundesforste AG (ÖBf AG), the increases by 10 m³ overbark/hectare are still considerable, albeit markedly lower.	There are three Forest Owner Associations on the federal level in Austria, two of them are members of international Forest Owner Associations.1. Austrian Chamber of Agriculture: Umbrella organization of the 9 Provincial Chambers of Agriculture. Membership in these Chambers of Agriculture is compulsory by law for owners of agricultural and/or forest land. Member of COPA.2. Waldverband Österreich (Austrian Farm Foresters´ Association) and 8 regional associations: Forest sector organizations in the framework of the Chambers of Agriculture. Membership is voluntary.3. Land & Forstbetriebe Österreich (Austrian Association of Farm and Forest Owners): 7 member organizations. Representative body of (large) private forest owners and farmers in Austria. Membership is voluntary. Member of CEPF.	Austrian Chamber of Agriculture: All forest owners. Waldverband Österreich: 52,100 forest owners, 810,000 ha. Land & Forstbetriebe Österreich: 600 members, 800,000 ha (85% forest area, 15% agricultural area).	There are no differences concerning game management between private and public forests.

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Belgium	Total private area is now quite stable, after an increase for the 40 last years (due to plantations in former agricultural land and marginal lands). So the mean area of the holdings is decreasing, as the number of owners is increasing (see question 1.)The growing stock increased due to age classes in conifers stands and transformation from coppice or coppice with standards to high forest in broadleaved stands. We think that this increase will stop in the next years, as for conifers, fellings are now equal or higher than increment.	The "Société Royale Forestière de Belgique" is the main forest owners association, member of CEPF. A few cooperatives exist for sales and forest operations.	About 3000 owners are members of SRFB, for about 30000 ha of forests.	n.a.
Bulgaria	There is increase in the forest area and respectively in the growing stock.	There are two national associations: one is the Bulgarian Forest Chamber (Association of the non-state forest owners) and the other is National Association of the non-state forest owners "Gorovladeletz". The first one is a member on CEPF and the second has undertaken steps to become a member of CEPF.	The National Association "Gorovladeletz" has 35 000 members, representing 27 800 ha altogether. The Bulgarian Forest Chamber represents 170 members, but there is no correct data for the size of the lands they own.	None
Cyprus	The private forest area is expected to increase slightly in the future, especially around existing forested areas, because of the continuing abandonment of unproductive agricultural plantations and the gradual expansion of native forest vegetation. The growing stock will increase in some forested areas where no thinnings and fellings are carried out.	None. Private forest owners are numerous but they are not organized into an association yet. Their total number is not currently known and is very difficult to find.	See answer of question 6.	There are no differences between private and public forests concerning game management.
Czech Republic	No significant changes seen because of the short period since the restitution. In the past (before World War II), some of the municipal and quite all the small private (farmer's) forests were of the lowest quality.	Four. None. Memberships in ELO, EOS, ENFE.	Data not available.	Data not available.
Finland	There will be no changes in private forest area but the growing stock will increase because annual fellings are lower than annual growth.	There are 154 local forest management associations, whose umbrella organization, the Central Union of Agricultural Producers and Forest Owners (MTK), is the member in the international organization. Local associations are not.	Almost all of the family forest owners are members in national FOAs.	No significant differences. Some differences in the opinions of hunters and foresters and forest owners.

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France	The area and growing stock increase regularly. The forest area is increasing because of the agricultural decline, mainly in mountainous areas where agriculture is little productive. The growing stock is increasing because the harvested volumes are much smaller than the increment, even when including self-consumption (cf. MCPFE table 6 and Indicateurs de gestion durable des forêts françaises 2005).	The main union of private forest owners is the Fédération Forestiers Privés de France (ex Fédération nationale des Syndicats de Propriétaires Forestiers Sylviculteurs).*Is it member of an international association?* The FPF is a member of the Confederation of European Forest Owners (CEPF).	60 000 owners are member of a professional forestry organization (syndicate, CETEF…). They own 2 520 000 ha.	Modalities of use of hunting right differ in public forests (most often renting through public auction) and private forests (use of hunting right by the owner or amicable renting). However, the rules for hunting big game are settled by the Prefect of the department. The problems of damage caused by the game are then posed in identical terms (cf. Indicateurs de gestion durable des forêts françaises 2005, indicateur national 2.1.1).
Germany	The area of private forests did not increase during the last inventory period (only 0,4 per cent), but growing stock increased during this period about 26 per cent.(Data Source: National Forest Inventory 2; only old Federal States of Germany)	Data n.a.	Data n.a.	No information available
Hungary	The private forestry sector is increasing both in area and growing stock. Due to afforestation processes, the increase in area is around 10 000 ha annually. Related to the growth of the recently afforested areas and the unmanaged forests the growing stock of private forests is increasing; however, spatial variation of this phenomena is high.	The Association of Private Forest Owners (MEGOSZ) is the main NGO of national importance dealing specifically with private forest ownership. (Some additional small associations exist) Besides this - as a fragment of their profile - the National Forestry Association (OEE) and the Federation of Wood Industry (FAGOSZ) also have an interest in private forestry.	The MEGOSZ has 1500 members among which 57 integrators can be found. Integrators indirectly represents approximately 20 000 forest owners. The total area of the members is about 100 000 ha. Unfortunately, there are no official records on other (mainly local or regional) forest owners' associations, their number can be estimated to 20.	The Law on hunting and game management makes no difference between the types of ownership. In this respect, private and public forests are under the same regulation. Concerning the establishment of hunting units, due to the trifling number of requirements, state owned forest management units have a better chance to establish their own hunting units, than the private forest owners mainly with small forest lots. (The minimum area for big game hunting is 3000 hectares.)
Iceland	Yes because of increasing participation of farmers in afforestation	There is a one National Forest Owner Association which is an umbrella organization for six regional FOA. It is not member of an international FOA.	They are about 700	There is no game management in Icelandic forests.

Ireland	See 1 and as result of government policy to increase forest cover to 17% (currently just over 10%).	The main forest owner associations are the Irish Timber Growers Association (ITGA) and the Irish Farmers Association. There are another 3-4 smaller groups. ITGA is a member of CEPF.	Approximately 2,200 private forest owners are members of national Forest Owner Associations. There are no data available on the area that they represent.	Apart from older, larger forest estates there is little game management in private forests. Deer are becoming an increasing problem. The state forestry company has an active game management plan, but it too is experiencing problems with deer
Questions 5-8	5. Are your country's private forests increasing/decreasing in forest area and growing stock? If yes, what are the reasons?	6. How many National Forest Owner Associations are present in your country? How many of them are members of international Forest Owner Associations?	7. How many of your country's private forest owners are members in national Forest Owner Associations? How many hectares do they represent?	8. Are there differences between private and public forests concerning game management? If yes, how does it influence SFM?
Latvia	Comparing the forest area in the years 1935 and 2005, it has almost doubled. The main expansion of forest area took place on private land especially in the years after World War II and in the 1960s, when natural afforestation took place or the abandoned agriculture lands were afforested. In table 1, forest area is given on the basis of State Forest Register information, but first results of National Forest Inventory shows that the actual forest area is bigger than registered in the register. The reason is natural afforestation of abandoned agricultural land.	There are approximately 40 national forest owner associations including those associations which are established using support for rural development from the European Agricultural Guidance and Guarantee Fund. Two of them are members of international Forest Owners Associations.	Approximately 3000 private forest owners are involved in national Forest Owner Associations. They represent approximately 25 000 ha. of forest.	Game management requirements in private and public forests are similar.
Lithuania	Both forest area and growing stock in private forests are increasing as result of restitution of land and afforestation of agricultural abandoned land. Growing stock is increasing in forests which are reserved for restitution, as result of forbidden fellings in these forests.	More than 3,000 private forest owners attended forestry training courses in recent years. This number is increasing on an annual basis. Every year, over 1,600 forest owners attend the forestry training courses, organized by the FOAL network. A similar number is served by State Forest Enterprises.	I.d.	There are no differences.

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Netherlands	The forest area is stable, but the growing stock is increasing due to reduced harvesting intensities, especially by small forest owners. 40% of the private forest owners in the Netherlands, owning a forest area of more than 5 ha, do not harvest wood. This percentage is higher (52%) for forest owners owning an area between 5 and 25 ha. The growing stock is also increasing, because the forests in the Netherlands are aging.	There is one National Forest Owner Associations in the Netherlands. This forest owner association is part of the Federation for private landownership in the Netherlands. The association is looking after the interests of four different categories of forest owners: 1. Private forest owners, 2. State forest service, 3. Nature protecting organizations and 4. (local) government. This National Forest Owner Association is a member of the Confédération Européenne des Propriétaires Forestiers (CEPF). Besides the National Forest Owner Association, there is the Bosschap, the board for Forestry and Silviculture in the Netherlands, there are four cooperatives of forest owners and there is the Royal Dutch Forest Society. The Royal Dutch Forest Society is a union of professionals in the forestry sector, ranging from forestry practice, forest owners, advisors, and policy makers to forestry research. These organizations are not considered as forest owner associations.	In total, 900 forest owners are members of the Dutch National Forest Owners Association. 400 of these owners are private forest owners who represent a forest area of 52,000 ha.	Yes, there are differences between different groups of forest owners. Nature conservation organizations are in particular reserved concerning game management and hunting. However, this difference does not have negative effects on sustainable forest management, because the Netherlands has a very strict law based on the European Bird and Habitat directive.
Norway	Both public and private forests are generally slowly increasing in forest area and more rapidly in growing stock. The main reasons are changed agricultural and grazing practices, significant silvicultural efforts over several decades and fellings that are lower than the annual increment.	The Norwegian Forest Owners Federation has 45.000 members, but represents 90 per cent of the private forest production. This organization is member of all relevant international organizations (CEPF, COGECA, IFFA (The International Family Forestry Alliance) and PEFC certification scheme. The other organization, NORSKOG, has about 200 members, mostly owners of larger holdings.	Approximately 46 000 forest owners (of a total of 120 000 over 2.5 ha.) are members of associations, but they represent 95% of the private forest production. We prefer to measure the importance of forestry by volume, since this is a better representation of the productivity of forests in a mountainous country such as Norway.	Very few differences. Some of the public forests near cities have reduced the hunting, and in some areas political influence tries to limit the price of hunting rights. In practice the differences are marginal.
Poland	The private forest area increases step by step as the result of enhancing afforestation of agricultural land. Growing stock increases slowly, because the area of younger classes still dominates in age structure of stands belonging to individuals	The Union of Forest Owners Associations of Republic of Poland is in the middle of registering at the court. Thereafter, only when the national Union will be strong enough, it will join CEPF.	Above 300 forest owners are members of 7 local FOAs and 2 associations being in the final stage of registration. Their forests occupy about 1000 ha. It is expected that all local FOAs will join the national Union in the near future.	There are no differences.

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Romania	No information available	The Association of Private Forest Owners from Romania is the largest and it is member of the Confederation of European Forest Owners. There are other few smaller associations.	The Association of Private Forest Owners from Romania has 21 branches and subsidiaries and comprises about 670 legal persons and 190 individuals. Each legal person is in turn an association of forest owners. One can estimate a number of about 1 million forest owners, which is larger than the total number estimated through our inspectorates. There is a lack of accurate information on this figure. This association is an associated member of the Confederation of European Forest Owners.	There are no differences
Serbia	According to some preliminary results of the national forest inventory, which has to be finished until the end of 2006, forest area is increasing. The reason is probably migration from rural to urban areas and natural changes where forest take space from agriculture land. According the same source, growing stock is larger than indicated by official statistics. One of the reasons are larger forests, but also the accuracy of data has a significant influence. In the past, the state just estimated the state of private forests without measurement.	We have not national forest owner association. In Serbia there is only one private forest owner association.	n.a.	There are no differences between private and public forest concerning game management.
Slovakia	Forest area of private forests is slightly increasing due to going on restitution process. Growing stock is also increasing mainly due to actual age structure of all forests including private ones.	There are these four (4) associations in Slovakia: Union of the regional associations of non-state forest owners in Slovakia, Association of Municipal Forests in Slovakia, Union of Diocesan Forests in Slovakia and Association of private and co-operative forests owners in Banská Bystrica county.	Forest land owners with total forest area of 536 132 ha (67%) are members of mentioned associations; 33% of non-state forest owners (264 727 ha) are not members.	The same system of game management is applicable in private and public forests, resulting from uniform legislation.
Slovenia	There is a positive trend in both categories: forest area and growing stock. The reasons for an increasing private forest area are: denationalization, the practice of splitting property between relatives during the heritage process and abandoned agricultural activities. The reasons for an increasing growing stock are: Conservative forestry management planning in last four decades, sufficient other energy sources for heating, decreased economic interest in wood harvesting.	There is one National Forest Owner Association in Slovenia, established in May 2006. It is not yet officially a member of an international FOA.	There are a little more than 1000 members in national FOA. The forest area is not known, but the members are owners of larger-than-average forests.	There are no differences in game management according to the forest ownership category.

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Sweden	There is no indication that the share of private forest land will increase.	There are four forest owners' associations within the country that are associated with the Federation of Swedish Farmers. They are all, more or less, members of international forest owner associations, since the Federation of Swedish Farmers is the focal point for international contacts and cooperation between Swedish and international forest owners. In addition to that, there are two small independent associations.	The four national forest owners' associations in Sweden have some 90 000 members with a total area of 6.2 million hectares.	No, in general there are no differences in game management.
Switzerland	Yes. Area: mainly in mountainous regions caused by the abandonment of agricultural land (15% of PFO say, that the parcel was agricultural land in the past, Source: ETH 2004; Growing stock: caused by the decrease in forest management activities (tending, cutting)	i.d.; numerous Forest Owner Associations (private, public, mixed with various organizational form and legal status) exist at the national, regional, cantonal, communal and local levels.	i.d.; the membership is estimated to be roughly 10% (Source: ETHZ 2004)	Game is a public good in Switzerland. The cantons are in charge of game management (legal base: Article 3 Swiss Federal Law on Hunting and the Protection of wild Mammals and Birds)
United Kingdom	Increasing in both area and growing stock. For area, new woodland creation, mostly grant-aided, and FC disposals until 1997. For growing stock, additional increase from maturing of conifer plantations newly created in 1950s to 1980s.	n.a.	n.a.	n.a.

Questions 9-12	9. How many individual private forest owners attend forestry training courses each year? Has the figure altered in the last 15 years or is it expected to alter?	10. How has the share of urban forest owners in your country altered in the last 15 years? How will it alter in the future?	11. What role does property fragmentation play for your country's individual private forest owners?	12. Are youth interested in managing family forests in the future? Are they involved and integrated into family forest management?
Austria	Estimation: 6000 (The figure is based on statistics of the two federal Forestry Training Centres. Share of private forest owner, multiple attendance of forestry training courses and attendance of forestry training courses in other training centres are estimated.) Over the past years the number was relatively constant.	In general, the share of urban forest owners is expected to increase. Since only two studies (2001 and 2006) have been conducted by today, no statement towards a significant change for the past 15 years and for the development in the future can be made by now.	In general, property fragmentation is no big issue in Austria and there is no worsening trend, but in some areas it is a problem. In such areas, very small lots of land make forest management difficult. Austria's forest policy tries to improve this situation by encouraging cooperatives of small forest owners (e.g. joint forest management ventures).	There are many good examples of young interested people involved and integrated into family forest management. However, no data or studies are available to quantify the present situation.
Belgium	n.a.	n.a.	n.a.	n.a.
Bulgaria	36 people (average) per year through the last 5 years. The is an interest towards education among them.	No data.	The high scale of the fragmentation hinders the sustainable forest management. It is a prerequisite for insufficient incentives for the individual private forest owners in fulfilling their fixed legal obligations towards their ownership.	No
Cyprus	Not applicable.	Not applicable.	Fragmentation is highly present in the private forests of the island. This is mainly because of the way that these areas were forested and also because of the absence of any legislation prohibiting land use change in private forests. Fragmentation and the lack of adequate infrastructure make these forests vulnerable to forests fire which is the greatest enemy of Cyprus forests. For the better protection and adequate management of the State forests, the Department of Forests purchases private forest lands that form either an enclave or a wedge into the State forests.	Private forestry in Cyprus cannot be a viable business for reasons like:• there are many private forest owners owning small pieces of land usually less than 1 ha and, • the productivity of the forests is very low (usually less than 1 m^3/ha/year) and this is because of the prevailing climatic conditions and the low forest soil productivity. Therefore neither the owners, nor their children are involved in forest management.
Czech Republic	No information. Any forest owner must have a licensed professional forest manager. For small forest owners, the expenses of such a manager are paid by the state.	No significant changes.	Data not available.	Data not available.
Finland	Some 40 000 forest owners. There are no substantial changes during 15 years. The number is expected to increase slightly.	The share of urban forest owners has increased from 1990 to 2003 from 33% to 40%, and it is expected to increase slowly.	Fragmentation is a kind of problem. The number of small holdings is increasing. However, also the number of large holdings (> 100 ha) is increasing.	Depends on the location and the size of the farm, among other things.

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France	14 000 owners participate every year in forest information meetings. They own 540 000 ha. A comparison with the ESSES 1976-1983 survey does not show whether this figure has changed since 1980. One can assume that the development of training offers by professional agencies induces an increase of owners' participation.	The comparison between the Scees ESSES 1976-1983 enquiry and the SPF 1999 enquiry does not show any significant change of owners' residence (rural areas, towns, cities) between 1980 and 2000.	Property fragmentation is a major economic hindrance to the competitiveness of wood mobilization; it enhances locally a lack of management. For this reason, the forestry law of 9 July 2001 has established new tools for land reorganization. Forest cooperatives and services' groupings have also developed their activities to cover not only the wood sales but also to assist owners in their forest management activities. There are 35 cooperative groupings that count 83 000 members and 1 800 000 ha forest.	The forest owners are aged : 59% are over 60 years old in 2000. Ageing increases : they were only 41% in 1980. As a comparison, this generation represents only 21% of French population according to the 1999 census.
Germany	Data n.a.	Data n.a.	No information available	No information available
Hungary	n.a.	n.a.	Property fragmentation is highly influencing private forestry. Fragmentation is mainly caused by inheritance leading to the deterioration of the fragmented ownership structure. Beside fragmentation, common private ownership is a wide spread phenomenon hindering the proper forest management of the concerned areas. Property concentration is encouraged by the authorities, but being a long process, no significant results have been achieved yet.	n.a.
Iceland	About 150 individuals are participating annually in training program offered by the state. The figure have been increasing and will probably do so in nearest future.	The share is most likely increasing because urban people are buying holdings in the countryside for leisure and are probably more active in afforestation than the farmers.	Property fragmentation is ongoing to some extent but is to some degree controlled by special "land-laws" It will probably lead to changes in the utilization of the land. It will not be linked to the need of income and be more secondary than before, when farmer families tried to have all their income from the land.	With increasing afforestation of private land more people in general are involved in forestry and on the farm the whole family is actively taking part in the work of planting trees which is the main work in Icelandic forestry at the moment.
Ireland	2002 51 Forestry Courses - 574 attended2004 19 Forestry Courses - 288 attended2005 47 Forestry Courses - 590 attended 2006 36 Forestry Courses - 893 attended	n.a.	n.a.	n.a.

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Latvia	To minimize the impact of the privatization/restitution process on this issue - only a five year period was analyzed (year 2000-2005). There are two main ways how private forest owners can receive information about forest management - consultations and seminars provided by respective institutions (state, private and other). More detailed information is available only through consultations provided by the State Forest Service. The figures show that the amount of consultations provided by the State Forest Service has doubled, comparing the years 2000 and 2005. The main reasons for this are changes of private forest owner's attitude to forest management, and the need for consultations on forest legislation. It is expected that in future, private owner's interest with regard to consultations and seminars on forest management will increase.	There is no information about changes. Information on the situation as of the year 2004 is available (table 7.2)	Property fragmentation plays a significant role in forest management in the country as a whole because the average forest property is only 7,5 hectares.	It is difficult to find an indicator on how to evaluate this issue. In general, from year to year, more and more attention is paid to public education work. Many activities in this process are pointed to educate youth about forests. Each year, Forest days are organized. In the year 2006, there were more than 500 events organized within this period. Many of these events provided for the participation of youth.
Lithuania	More than 3000 private forest owners attended forestry training courses in recent years. This number is increasing year after year. Every year over 1600 forest owners attend the forestry training courses, organized by FOAL network. The similar amount is served by State Forest Enterprises.	Almost half of forest owners are living in urban areas.	Fragmentation of forest properties is a big obstacle for achieving economically sustainable private forestry. According to the Forest law, it is forbidden to split forest holdings in size 5 ha and less.	There is no research conducted on this aspect. It was, however, noticed that young people living in the country site and those who had obtained education in the forestry are more interested in family managed forestry than others.

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Netherlands	The number of private forest owners attending forest training courses is not known. Due to a change in forest management during the last decades in the Netherlands, from a traditional system to a nature oriented way of forest management called "integrated forest management", a large number of private forest owners have been attending courses and workshops in which this type of forest management is taught. The attendance of these courses are stimulated by the national government and the forest owner cooperatives.	In the Netherlands, the majority of the country can be considered as urban. For this reason, making a distinction between urban and non urban forest owners might be doubtful. Besides this, no or little research has been conducted with regard to the characteristics of private forest owners in the Netherlands. For this reason, it is not possible to specify here the change in the share of urban forest owners.	Fragmentation of private forest holdings is of course happening in the Netherlands, for instance due to the splitting of property between different heirs. However, the extent of this fragmentation is not known.	Detailed information necessary to answer this question is not available. The Dutch federation for private land owners has, for instance, a youth department that tries to involve the next generation of land owners in the management of the family property. A problem seems to be that the old generation wants to pass the property on to the next generation in its current traditional way, having difficulties with some of the new ideas of the next generation. It is very difficult to earn money from forestry in the Netherlands; as it only costs money, the next generation has to search for new sources of income. In order to develop these new sources of income, some changes have to be made and a large number of the old generations have difficulties to cope with these.
Norway	Approximately 5,000, depending on the definition of training courses. Connected to changes in the certification system we had some years with a higher activity. Due to increased mechanization and decreased manual harvesting, the activity has been reduced. The training is changing towards management skills - away from practical skills. The Norwegian Extension Institute is developing computer based training to be able reach the modern owners in a better way.	Still 90% of Norwegian forest owners live closer than a 30 minutes drive from their property. The share of urban forest owners will, however, slowly increase.	So far, the Norwegian forestry and agricultural regulations have worked against fragmentation. Fragmentation does not impose a large problem in Norway, but the stable structure also works against the merging of properties.	In our most recent survey, only 25% answered that their children were not interested in forestry. 97% believed that the property would remain in the family for the next 15 years, 50% believed that they themselves still remained as owners and 45% that one of the children had taken over. Normally, the forest is a matter that involves the children. This may be reduced over time, but there are no indications so far.

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Poland	There are no systematic and continuous training courses for forest owners. Constant advisory tasks are fulfilled by the State Forests or district forestry officers as a part of supervision on private forests. In 2005-2006 short trainings supported by EU on afforestation and young-growth tending principles were organized by the State Forests for agricultural land owners. It is expected that such trainings will be continued.	The share of urban forest owners increased in the last years as the result of national and EU support to enhancing afforestation of agricultural land. No data is available. However, it is possible that this trend will not last, if new regulation changing the principles of purchasing agricultural land will take effect.	Fragmentation is the basic problem of private forest ownership in Poland, as the average size of forest property in agricultural holdings amounts to 1,28 ha only and furthermore the forest property consists approximately of 3 plots. The fragmentation significantly influences the forest quality.	Generally, there is no concept of family forests in Poland. The majority of private forests create a part of family agricultural holdings.
Romania	According to national legislation, forest owners are obliged to ensure forest management either by their own established forest structure, with staff formed by professional foresters, or by contracting management services with existing state or private management structures (forest districts). Private forest owners - individuals, with smaller areas, if not associated, are contracting such services.	n.a.	In order to eliminate the fragmentation of property of individual private owners' inconvenience concerning the SFM, appropriate legislation has been developed. Accordingly, forest owners are obliged to ensure forest management either by their own established forest structure or by contracting management services with existing state or private management structures (forest districts). Private forest owners - individuals, with smaller areas, if not associated, are contracting such services.	Not applicable
Serbia	n.a.	n.a.	n.a.	Families and youth are interested on an average level in forest management. It depends significantly on the size of the property.
Slovakia	Between 2000 and 2005, there were professional (average attendance: 356) and general (average attendance: 161) educational activities for non-state forest owners and forest workers. This number is increasing slightly.	There is not available information in this issue.	We consider the fragmentation of forest property an unfavourable phenomenon with regard to sustainable forest management. Therefore, through the act on forests, the issuance of the approval of the respective body by the state administration is required for forest land with area of less than 10 000 m2.	There are not any significant measures adopted so far in this field.

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Slovenia	In the year 2005, almost 200 courses were organized with 3500 participants (main topics: silviculture, forest protection, safety at work, harvesting). First courses in new organizational scheme of forestry in Slovenia were organized in 1995 by SFS. During the first five years, there was a boom of activities and participants. In the last five years, there has been a stagnation in the numbers indicated above. In the period 10 - 15 years ago, Slovenia and Slovenian forestry passed a process of transition and just a few activities in this field were organized.	According to general trends in society, urban forest owners predominate. They possess more than half of private forests owned by individuals.	Property fragmentation is a huge problem for the smallest private forest owners. They are less and less economically dependent on income from forests. The average private forest property in Slovenia is split between three different locations.	Youth are not very interested in managing family forests in urban areas, but in the rural areas, the results of many activities done by field foresters shows some positive trends amongst younger people. Generally speaking, much more should be done with this population with regard to the topic of active forest management in the future.
Sweden	We cannot answer this question since we do not have any statistics regarding this. The Swedish Forest Agency as well as the forest owners' associations are carrying out forestry training for forest owners. A guess is that the number of forest owners attending these activities has slightly increased since the new forest owners are coming from urban areas and do not have any experience in farming or forestry.	The share of urban forest owners has increased in the last 15 years and will continue to increase in the future.	Property fragmentation is just a problem in some small areas in Sweden.	It is still very common with transfer of forestry estates to children; but children tends be less interested in managing the family forest. They are to a lesser extent not living near the forest estate and get income from other sources than from the forest.
Switzerland	Attendance (Source: ETH 2004): more than once a year 1.3%, once a year 1.7%, every second year 1.3%, every 2-5 years 6.9%, less 18%, never 70.9%.An information campaign (including training courses) on occupational safety designed for Private Forest Owners was initiated in 2006.	n.a.	Characteristic of Private Forest Owners in Switzerland is the small-scale parcels of forested land (s. Table F2). A cost-efficient management by the individual Private Forest Owner is very difficult, if not impossible. In addition, the income from the forest has no or only a minor importance for the Private Forest Owner (<2% of PFO say the income from their forest is important (Source: ETHZ 2004).	n.a.
United Kingdom	n.a.	n.a.	n.a.	n.a.

Information about the Timber Committee

The Timber Committee is a principal subsidiary body of the UNECE (United Nations Economic Commission for Europe) which is based in Geneva. The Committee provides a forum for cooperation and consultation between UNECE member States on forestry, the forest industry and forest product matters. All the countries of Europe, the former USSR, the United States of America, Canada and Israel are UNECE member countries and participate in its work.

The UNECE Timber Committee, within the context of sustainable development, provides member countries with the information and services needed for policy- and decision-making regarding their forest and forest industry sector ("the sector"), including the trade and use of forest products and, when appropriate, formulates recommendations addressed to member Governments and interested organizations. To this end, it:

1. Undertakes with the active participation of member countries, short-, medium- and long-term analyses of developments in, and having an impact on, the sector, including those offering possibilities for the facilitation of international trade and for enhancing the protection of the environment;
2. In support of these analyses, collects, stores and disseminates statistics relating to the sector, and carries out activities to improve their quality and comparability;
3. Provides the framework for cooperation e.g. by organizing seminars, workshops and ad hoc meetings and setting up time-limited ad hoc groups, for the exchange of economic, environmental and technical information between Governments and other institutions of member countries that is needed for the development and implementation of policies leading to the sustainable development of the sector and to the protection of the environment in their respective countries;
4. Carries out tasks identified by the UNECE and/or the Timber Committee as being of priority, including the facilitation of subregional cooperation and activities in support of the economies in transition of central and eastern Europe and of countries of the region that are developing from an economic point of view;
5. Regularly reviews its structure and priorities and cooperates with other international and intergovernmental organizations active in the sector, in particular with the Food and Agriculture Organization of the United Nations (FAO) and its European Forestry Commission (EFC) and with the International Labour Organisation (ILO) in order to ensure complementarities and to avoid duplication, thereby optimizing the use of resources. The Timber Committee's work programme is fully integrated with that of the EFC. The integrated work programme of the Timber Committee and the EFC has five work areas: (a) Markets and statistics; (b) forest resource assessment and indicators of Sustainable forest management; (c) sector outlook studies; (d) social and cultural aspects of forestry; and (d) policy and cross-sectoral issues.

More information about the Committee's work may be obtained by writing to:

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Publications

Forest Products Annual Market Review, 2009-2010 **ECE/TIM/SP/25**

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UNECE/FAO GENEVA TIMBER AND FOREST STUDY PAPERS

The UNECE/FAO Geneva Timber and Forest Study Paper series contains annual and periodic analyses of the forest and forest industries sector. These studies are the official outputs of regular activities conducted within the Integrated Programme of Work of the UNECE Timber Committee and the FAO European Forestry Commission and as such should contribute to policy formation. Target audiences are Governments, industry, research institutions, universities, international organizations, non-governmental organizations as well as experts from other sectors. These publications often form the basis for discussions of the Timber Committee and the European Forestry Commission and their subsidiary bodies.

Study Papers are usually based on statistics, forecasts and information submitted by country correspondents in the UNECE region (Europe, North America and Commonwealth of Independent States). The basic information is often submitted via agreed questionnaires, and then complemented by expert analysis from outside and within the secretariat. Study papers are issued on the responsibility of the secretariat, although the studies most often are the work of many contributors outside the UNECE/FAO.

Study Papers are translated whenever possible into the three official languages of the UNECE: English, French and Russian. They are UN sales documents and are distributed accordingly via UN bookstores and their affiliates. They are automatically distributed to heads of delegation of the Committee and the Commission, as well as nominated repository libraries, information centres and official distribution lists. They are also available via the Sales and Marketing Sections in Geneva and New York via unpubli@unog.ch and publications@un.org respectively. Study papers are also available on the Timber Committee and European Forestry Commission website at: www.unece.org/trade/timber

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Private Forest Ownership In Europe

More than half of Europe's forests, not including Russia and other CIS countries, are owned privately. Private forest owners play a key role in sustaining forest ecosystems, enhancing rural development and supplying resources to markets. Nevertheless, a significant lack of knowledge on private forest ownership in Europe remains. A joint enquiry carried out by the United Nations Economic Commission for Europe, the Food and Agriculture Organization of the United Nations, the Ministerial Conference on the Protection of Forests in Europe (MCPFE) and the Confederation of European Forest Owners (CEPF) was elaborated and conducted during 2006-2007, in an attempt to contribute to closing this knowledge gap. A questionnaire was addressed to 38 MCPFE member countries with records of private forestry. 23 countries have participated through submitting national reports, mostly for the year 2005: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Finland, France, Germany, Hungary, Iceland, Ireland, Latvia, Lithuania, Netherlands, Norway, Poland, Romania, Serbia, Slovakia, Slovenia, Sweden, Switzerland and the United Kingdom. This study paper presents the main findings from the national country reports and draws conclusions on the state of private forestry in Europe in terms of ownership distribution, holding structure, socioeconomic findings and trends, with regard to restitution/privatization, changes of ownership patterns and association of private forest owners.

UNECE Timber Committee and FAO European Forestry Commission

Further information about the forest sector, as well as information about the UNECE Timber Committee and the FAO European Forestry Commission is available on the website www.unece.org/trade/timber. Information about the UNECE may be found at www.unece.org and information about FAO may be found at www.fao.org.

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Printed at United Nations Geneva
GE.06-21682 – March 2007

United Nations publication

ISSN 1020-2269

ECE/TIM/SP/26