

# ***CHAPTER II: OWNERSHIP AND MANAGEMENT STATUS OF FOREST AND OTHER WOODED LAND<sup>1</sup>***

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## **Overview**

Information on the ownership and management status of forest and other wooded land in the 55 countries covered by the TBFRA-2000 is contained in Main Tables 9 to 24. This type of information is important as an indicator of the authority determining the uses to which the land may be put and the intensity in the way it is managed and used. Designation of land ownership is dependent on a cadastral or legal system which clearly demarcates territory. Such a system exists in most of the countries of the boreal and temperate regions, although in some of them uncertainties about legal ownership still persist. For the purpose of the TBFRA-2000 enquiry ownership is divided into three broad categories:

- Public ownership
- Private ownership
- Owned by indigenous or tribal peoples

These categories are defined in Appendix I under items 60, 58 and 26 respectively. Earlier assessments recognized only two ownership categories: public and private. By the time the FAO Global Forest Assessment 2000 was being prepared, however, it had become evident that in a number of countries, mostly in tropical regions but including several in the TBFRA area, ownership by indigenous or tribal peoples needed to be distinguished separately. The results show that in the TBFRA area this category of ownership of forest and other wooded land occurs in four countries (Australia, Canada, New Zealand, USA), although in New Zealand it is not yet possible to state the area concerned because the legal processes of determining ownership are still taking place. A similar situation exists in Canada which has, however, provided preliminary data.

## **Ownership status**

The countries of the Commonwealth of Independent States (CIS) reported that all their forest and other wooded land came under public, in fact State, ownership (Main Tables 9 and 10). In some of them, however, as in most or all of the European countries with economies in transition, there is an on-going process of privatization or restitution. Figure 2.1 shows the sub-division of the area of forest and other wooded land in the TBFRA-2000 area, excluding the CIS countries, by type of ownership; and Figure 2.2 shows the same for forest and other wooded land separately.

For the TBFRA-2000 countries in aggregate, forest and other wooded land (FOWL) in public ownership amounted to 1.98 billion ha or 80 per cent of the total area. FOWL in private ownership amounted to about 437 million ha (18 per cent), while that owned by indigenous or tribal peoples covered, on the basis of incomplete information, about 62 million ha or between 2 and 3 per cent. As seen in Figure 2.1, when the CIS countries with their 100 per cent public ownership are excluded, the percentages become 68 per cent in public ownership, 28 per cent in private and 4 per cent owned by indigenous or tribal peoples. The percentages change slightly in favour of private ownership when forest is taken alone (Figure 2.2): 61 per cent, 37 per cent, 2 per cent respectively. On the other hand, public ownership of other wooded land is much more pronounced, the percentages being 76 per cent, 18 per cent and 6 per cent respectively. In Australia, which accounts for more than half of all other wooded land in the TBFRA area, public ownership accounts for 70 per cent of the total and ownership by indigenous or tribal peoples for 20 per cent.

The area of forest in private ownership in Europe amounted to 96 million ha or 55 per cent of the total (Main Table 11). In western European countries, i.e. excluding those with economies in transition, the proportion of private ownership rises to 66 per cent. Thus western Europe, together with the USA and Japan, differs from the rest of the countries in the TBFRA area where public ownership accounts for a larger share of the total. The relatively high proportion of forest in private ownership in western Europe is a consequence of the long standing pattern of land ownership established over the centuries.

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<sup>1</sup> This chapter was prepared by Mr. Tim Peck (see Appendix V).

FIGURE 2.1

Area of forest and other wooded land in the TBFRA area (excluding CIS) according to ownership

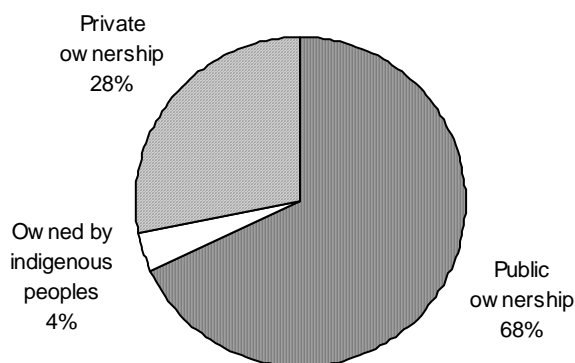


FIGURE 2.2

Area of forest and other wooded land in the TBFRA area (excluding CIS)

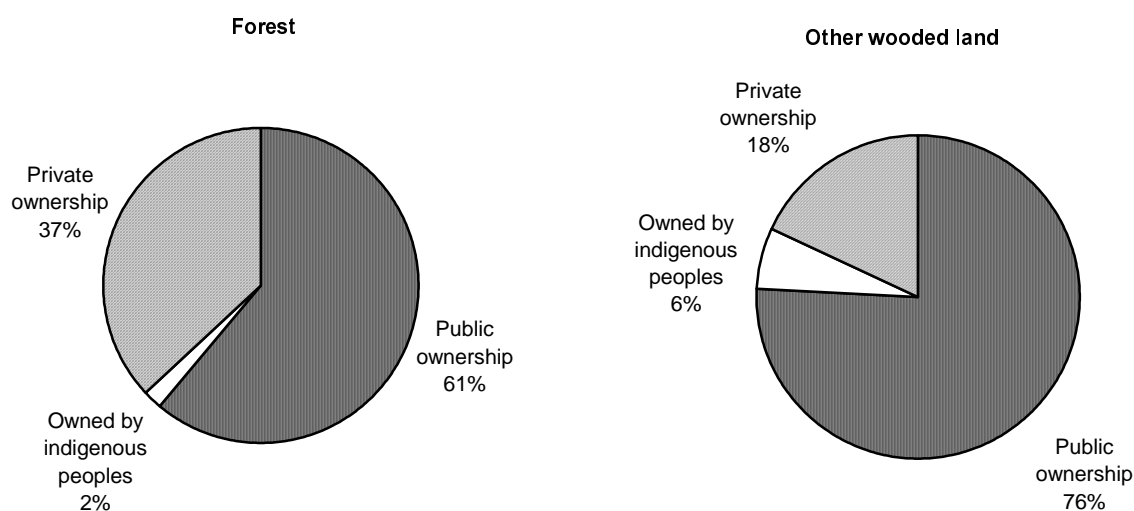


Figure 2.3 shows the proportions of the three ownership categories at the country group or country level. Canada, USA, Australia and New Zealand have forest owned by indigenous or tribal peoples, and these areas could increase in the future once the ownership of areas under claim is settled. In the case of New Zealand it is not yet possible to give any figures of ownership by indigenous or tribal peoples and the areas affected have been included under public ownership.

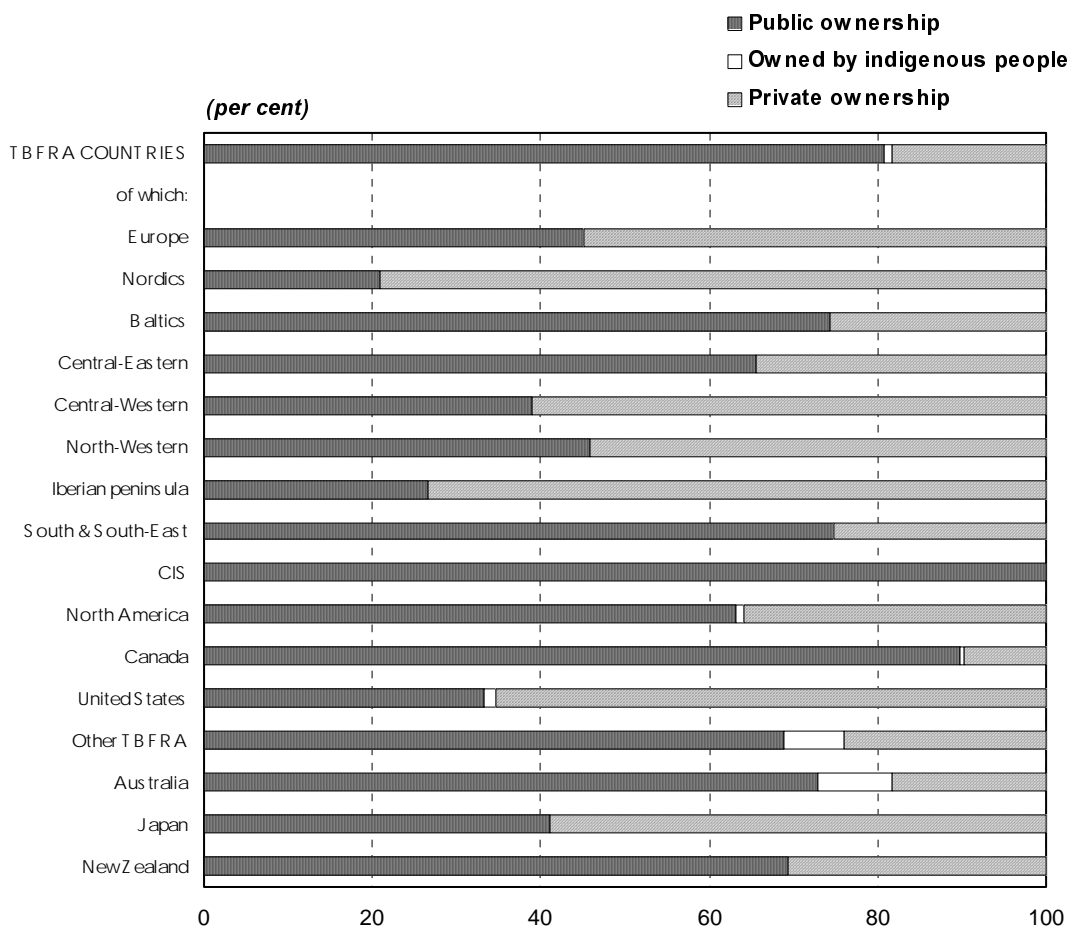
Canada's 90 per cent public ownership of forest is in contrast with its neighbour's, the USA, of 33 per cent. In the former most of the forest is owned by the Provinces and the situation varies considerably from one Province to another. In some countries, including Canada and Australia, publicly owned forest may be privately managed either for wood production or, in Australia's case, also for grazing.

In the countries of the CIS, forest was still all 100 per cent publicly owned in the period for which the information was reported. In several of them, as well as in most of the European countries in transition from centrally planned to forms of market economies, the privatization or restitution process is in evolution. While in some, such as Poland and Yugoslavia, some private ownership did exist in recent times, in others it did not (Albania, Bulgaria, Romania). It is noteworthy that in such countries as Hungary, Latvia and Slovakia private ownership has already grown to account for a third or more of the total (Figure 2.4).

Portugal has the highest proportion of private forest with nearly 93 per cent, followed by Norway, Sweden and Austria. Among other market economy countries, private ownership of forest is relatively low in Cyprus, Greece, Israel, Liechtenstein and above all Turkey. The marked variations in the relative importance of the three ownership categories have arisen as a result of historical and political influences.

FIGURE 2.3

**Forest in the TBFRA area by regional groupings, country groups or countries and main ownership categories**  
(per cent of total forest area)



In Australia the public ownership category contains a substantial area (66 million ha) of leasehold tenure, which is publicly owned but privately managed.

**Ownership of forest available for wood supply**

Information in greater detail on ownership was asked for in the TBFRA-2000 enquiry only for forest available for wood supply (FAWS) which, however, accounts for the major part (63 per cent) of the total forest area in the TBFRA countries in aggregate. The hierarchical structure in *Enquiry Table 5* and Main Table 12 of this review was as follows:

DIAGRAM 2.1

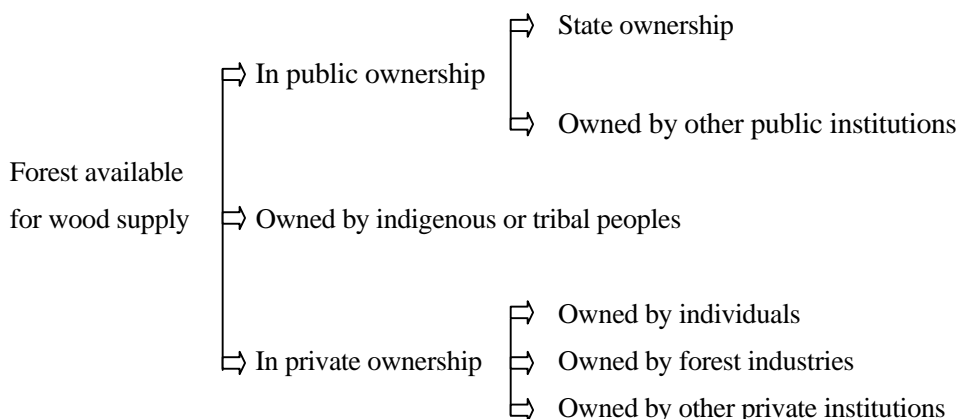
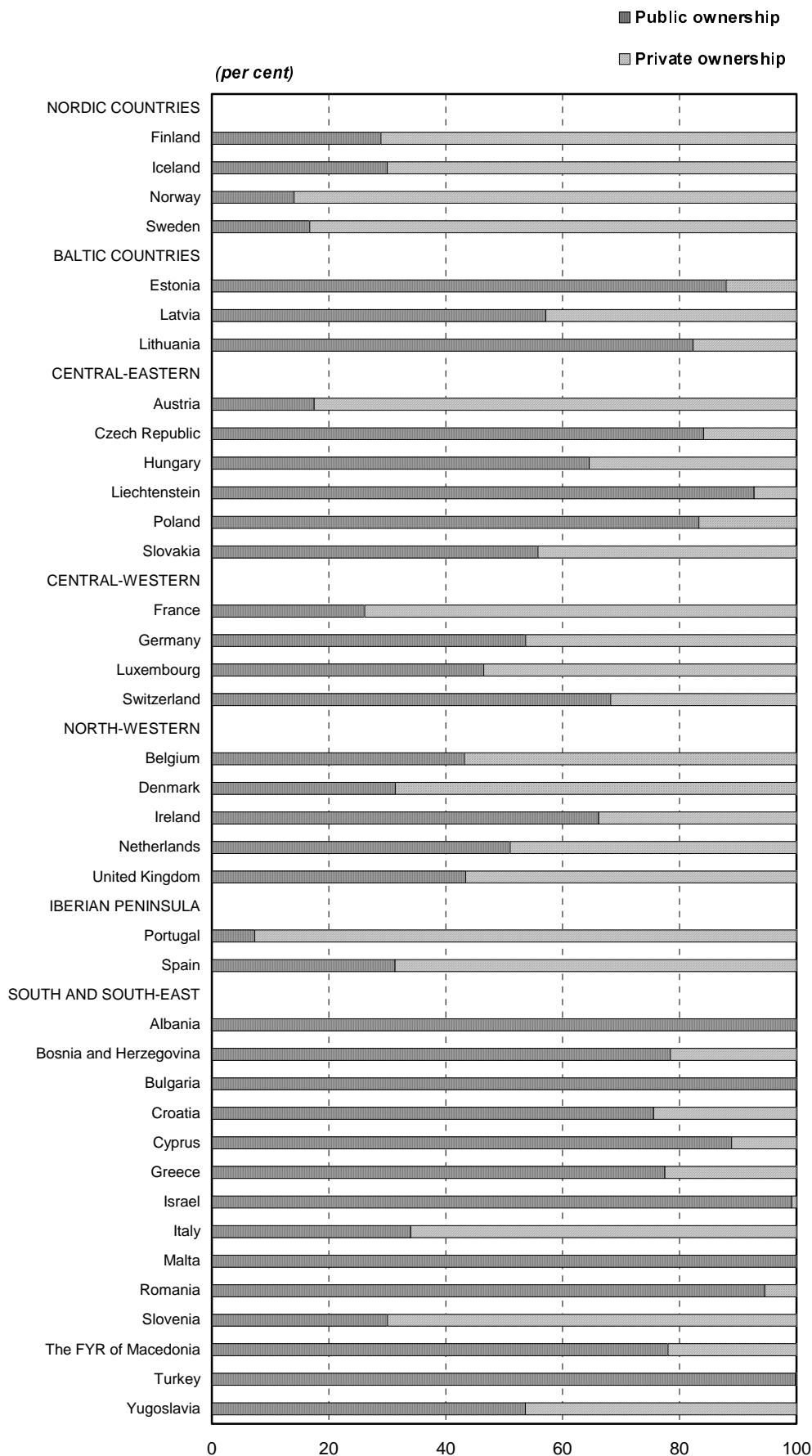


FIGURE 2.4

Share of forest in European countries by main ownership categories



The definitions used in the TBFRA-2000 enquiry for categories of ownership, as given in Appendix I, were basically the same as those in the previous enquiry, although in the case of ownership by individuals the definition made clear that this applied not only to individuals and families that combine forestry with agriculture (farm forests) or who live in or near their forest holdings, but also to the increasingly important category of owners who live elsewhere (absentee owners). A few countries experienced problems in fitting their data into the TBFRA framework. For example, Greece has areas that are co-owned by the State and individuals or that have other forms of co-ownership: these were included under private ownership. Slovakia included areas owned by churches under 'other public institutions', whereas the TBFRA definition places such areas under 'other private institutions'.

The results on ownership of forest available for wood supply are set out in Main Table 12 and show that most countries were able to provide the degree of detail called for. There is considerable variation in the pattern of ownership of FAWS within the TBFRA area. In the 55 countries in the area, State ownership accounts for over 750 million ha of the total area of FAWS or about 72 per cent, but this is heavily influenced by the 100 per cent State ownership in the CIS countries. Figure 2.5 shows the ownership pattern when the CIS countries, as well as Australia, for which data are not available, are excluded. State ownership and ownership by individuals both account for two fifths of the total and ownership by forest industries for not quite one tenth. The remaining one tenth is held by all other categories of ownership.

FIGURE 2.5

**Forest available for wood supply by ownership categories in the TBFRA area, excluding CIS countries and Australia**

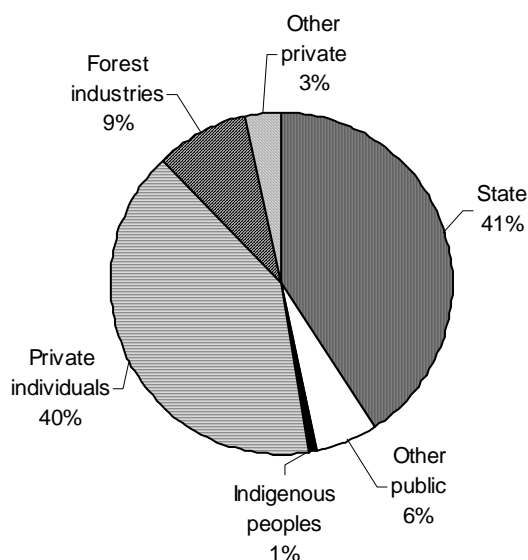


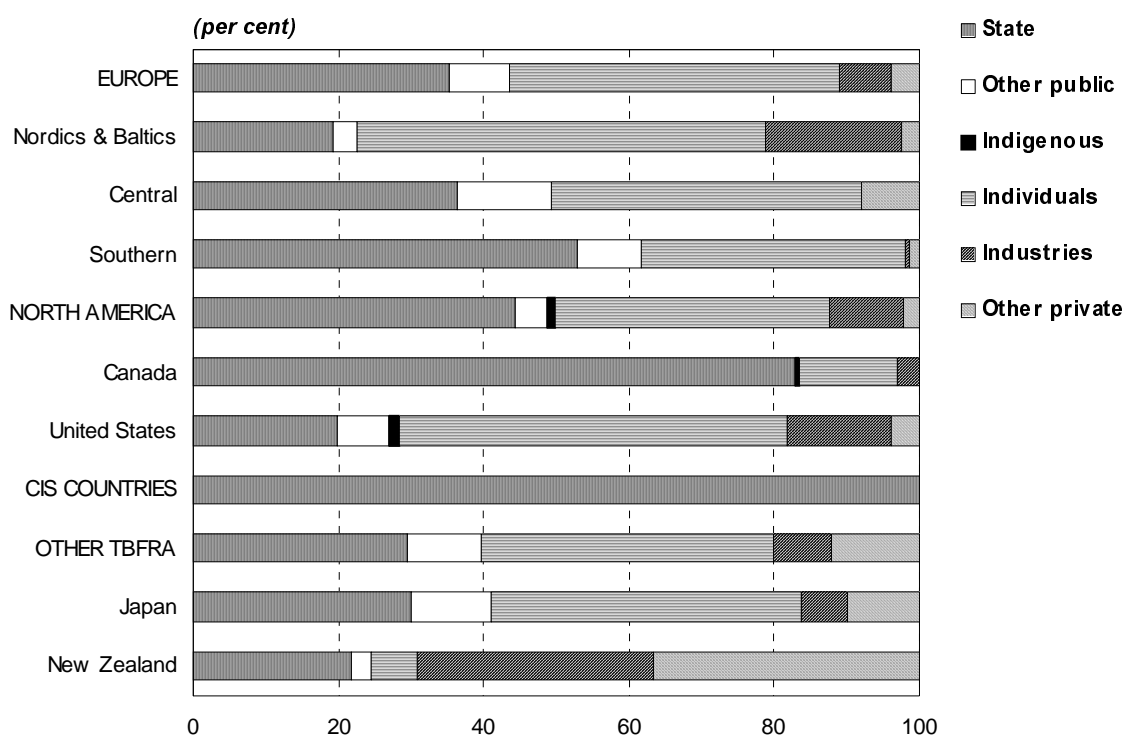
Figure 2.6 shows the distribution at the country group or country level. Apart from the CIS countries, State ownership is particularly important in Canada (83 per cent of the total) and southern Europe (53 per cent), and less important (less than one fifth) in the Nordic and Baltic countries and the USA. Ownership by private individuals accounts for more than half of the total in the Nordic and Baltic countries and the USA and is least important in New Zealand and Canada (6 per cent and 14 per cent respectively). Ownership by forest industries is relatively most important in New Zealand (33 per cent), followed by the Nordic and Baltic countries (19 per cent) and the USA (14 per cent). It is negligible in the countries of central and southern Europe in aggregate (Portugal is an exception), and not very important in Canada (3 per cent).

For the next most important category, ownership by public institutions other than the State, the countries of central Europe with 13 per cent and Japan with 11 per cent have the highest proportions of this type of ownership. In the category of ownership by other private institutions, only New Zealand has a high proportion of the total, 37 per cent, although the actual areas are quite large in the USA, central Europe and Japan.

With regard to public ownership of FAWS, it is estimated that 96 per cent of the total area in this category is in State ownership in the TBFRA countries in aggregate, Australia excluded, and that 4 per cent is owned by other public institutions. State ownership includes ownership by national or regional, e.g. provincial, bodies, the latter being notably the case in Canada, or State-owned commercial enterprises, as in Ireland. In several countries ownership by other public institutions, meaning cities, municipalities, communes and so on, is of considerable importance. Those where this type of ownership accounts for more than half of publicly owned FAWS include Belgium (75 per cent), France (61 per cent), Italy (82 per cent), Luxembourg (76 per cent), Portugal (88 per cent), Spain (98 per cent), Sweden

FIGURE 2.6

Share of forest available for wood supply in the TBFRA area by country groups or countries and ownership categories excluding Australia (per cent of total forest available for wood supply)



(79 per cent) and Switzerland (99 per cent) (see Figure 2.7). Nineteen per cent of Europe's FAWS in public ownership is owned by other (than State) public institutions.

For privately owned FAWS (Figure 2.8), in the TBFRA-2000 area as a whole (excluding Australia) individuals owned approximately 77 per cent, forest industries 17 per cent and other private institutions 6 per cent of the total. There are only a few countries where ownership by forest industries accounts for a sizeable share of the total of FAWS. These include Sweden and the USA, with 44 per cent and 20 per cent respectively of all privately owned FAWS, as well as Finland, Norway, Portugal, Canada, Japan and New Zealand. Ownership by other private institutions, for example religious and educational bodies and pension and investment funds, is of importance in terms of area in the USA, Japan, France, Finland and New Zealand.

In some, including the Netherlands and the United Kingdom, ownership by nature conservation societies has been increasing. In the USA, several private institutions and enterprises, such as mining companies, own large tracts of forest. As noted earlier, private ownership in any form had yet to appear in any of the CIS countries in the period to which their data refer, but in several that situation is changing.

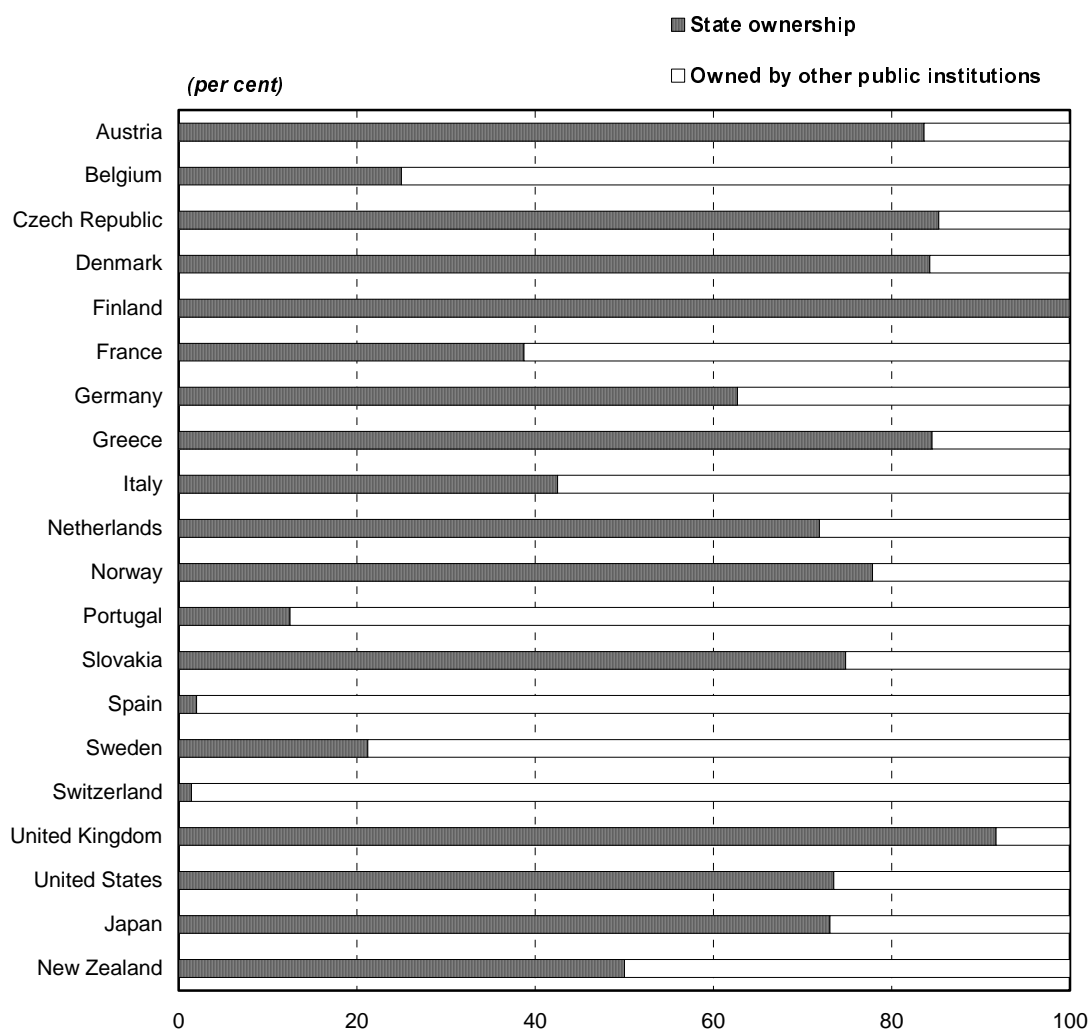
Among the countries not shown in Figures 2.7 and 2.8, it is recalled that ownership in the CIS countries is 100 per cent State. For Germany the breakdown of privately owned FAWS is not available, but it is reported that most is owned by individuals.

### Management status

Main Tables 9 to 10 contain information on the management status of forest and other wooded land in total, and Main Tables 15 to 17 that of forest. The term 'managed' as applied to forest and other wooded land is defined in Appendix I under item 35, but because of the complexity of this issue, it is worth repeating here: "Forest and other wooded land which is managed in accordance with a formal or an informal plan applied regularly over a sufficiently long period (5 years or more). The management operations include the tasks to be accomplished in individual forest stands (e.g. compartments) during the given period". It has to be stated that arriving at a commonly acceptable definition of 'managed' was difficult for the FAO/ECE Team of Specialists on the Temperate and Boreal Forest Resource Assessment 2000. In the past, it had usually been understood to mean 'managed for wood production', but in view of the increasing relative and absolute importance of other non-wood goods and services, it was considered necessary for this assessment to expand the definition to cover management for these as well. It had also to be

FIGURE 2.7

## Share of types of ownership in publicly owned forest available for wood supply in selected countries



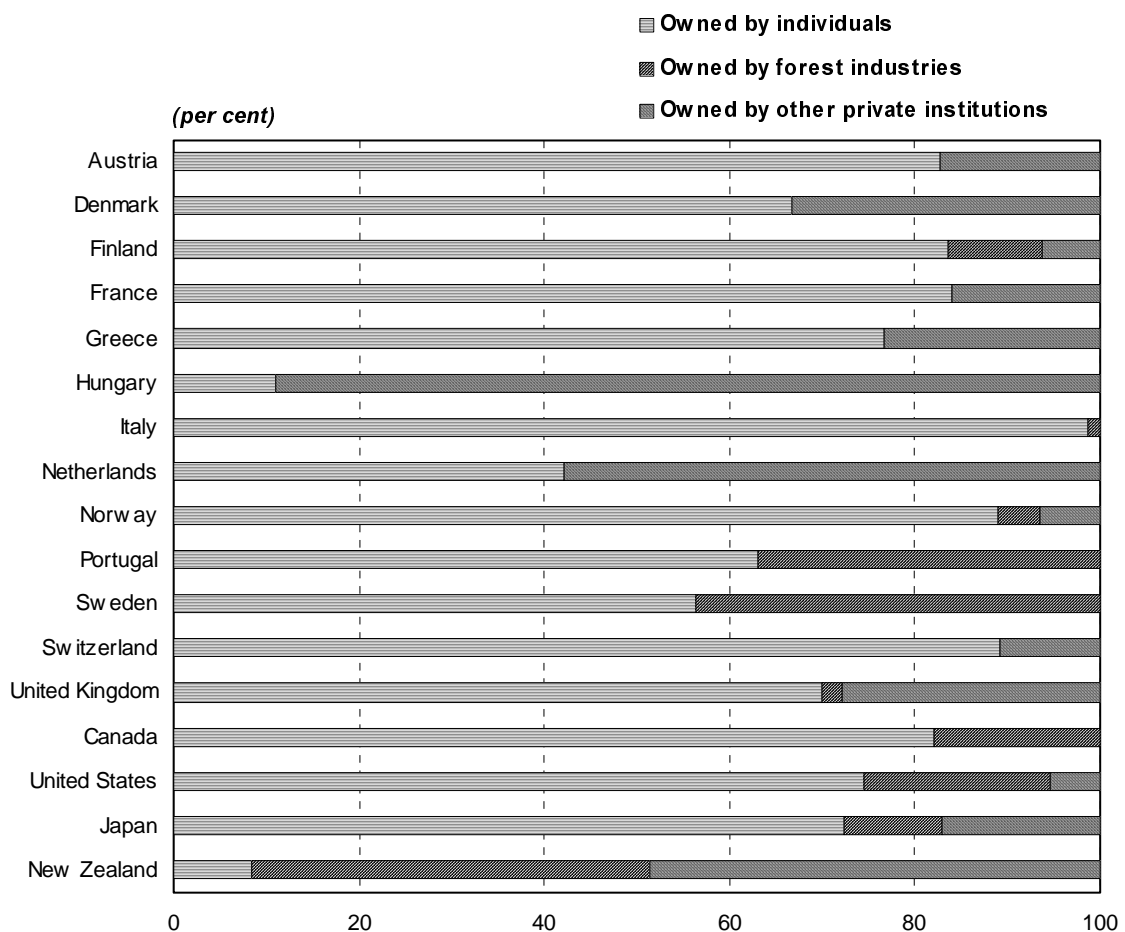
recognized that, although management was often carried out in accordance with an officially approved management plan, this was not always the case, especially in the private sector; the absence of such a plan did not necessarily mean lack of adequate management. On top of this, the Team of Specialists considered that a decision not to manage an area at all, for example to preserve it as a wilderness area or nature reserve, also qualified it as being “managed”.

Thus there were several different aspects or levels of management to be taken into account by National Correspondents in determining the extent of management of forest and other wooded land. Understandably, some found difficulties in applying the definition, and careful analysis is needed to assess the degree of comparability between countries’ data. Examples of possible deviations from the definition are found in Azerbaijan, where it is assumed that because all FOWL is State-owned, it is therefore managed. In Australia, the data on managed forest include areas managed for wood production, while in New Zealand they cover plantations. Norway found it difficult to estimate the area to put under ‘managed’; even if no written plans exist, owners may have their own ideas and concepts for managing their forests. Furthermore, certain areas regarded as not suitable for wood production may often be utilized (and managed) for other purposes such as hunting, fishing or recreation.

Main Table 9 shows countries’ total areas of forest and other wooded land that are managed according to ownership status. For the TBFR-2000 countries in aggregate the area under management is approximately 86 per cent of total FOWL; the proportion is higher (89 per cent) for FOWL in public ownership and less for that in private ownership (49 per cent). The CIS countries report all but 1.1 million ha (1.2 per cent) of their areas of FOWL as being managed. If they are excluded from the TBFR-2000 total, the proportion of FOWL being managed falls to 77 per cent and that of publicly owned FOWL to 80 per cent.

FIGURE 2.8

## Share of types of ownership in privately owned forest available for wood supply in selected countries



Data on management are separated for forest and for other wooded land in Main Table 14. This shows, not surprisingly, that the proportion of managed forest is on average in the TBFR countries appreciably higher (94 per cent) than of managed other wooded land (78 per cent). The proportions of forest and OWL that are managed in European countries average 88 per cent and 63 per cent respectively and in North America 65 per cent and 42 per cent respectively, while those of the CIS and "Other TBFR" countries are almost 100 per cent for both. The marked difference between the data for the Russian Federation and Canada, both with extensive areas of remote FOWL, calls into question whether there is consistency in the way in which the definition of 'managed' has been interpreted and highlights the problem, alluded to earlier, of finding a meaningful and workable international definition.

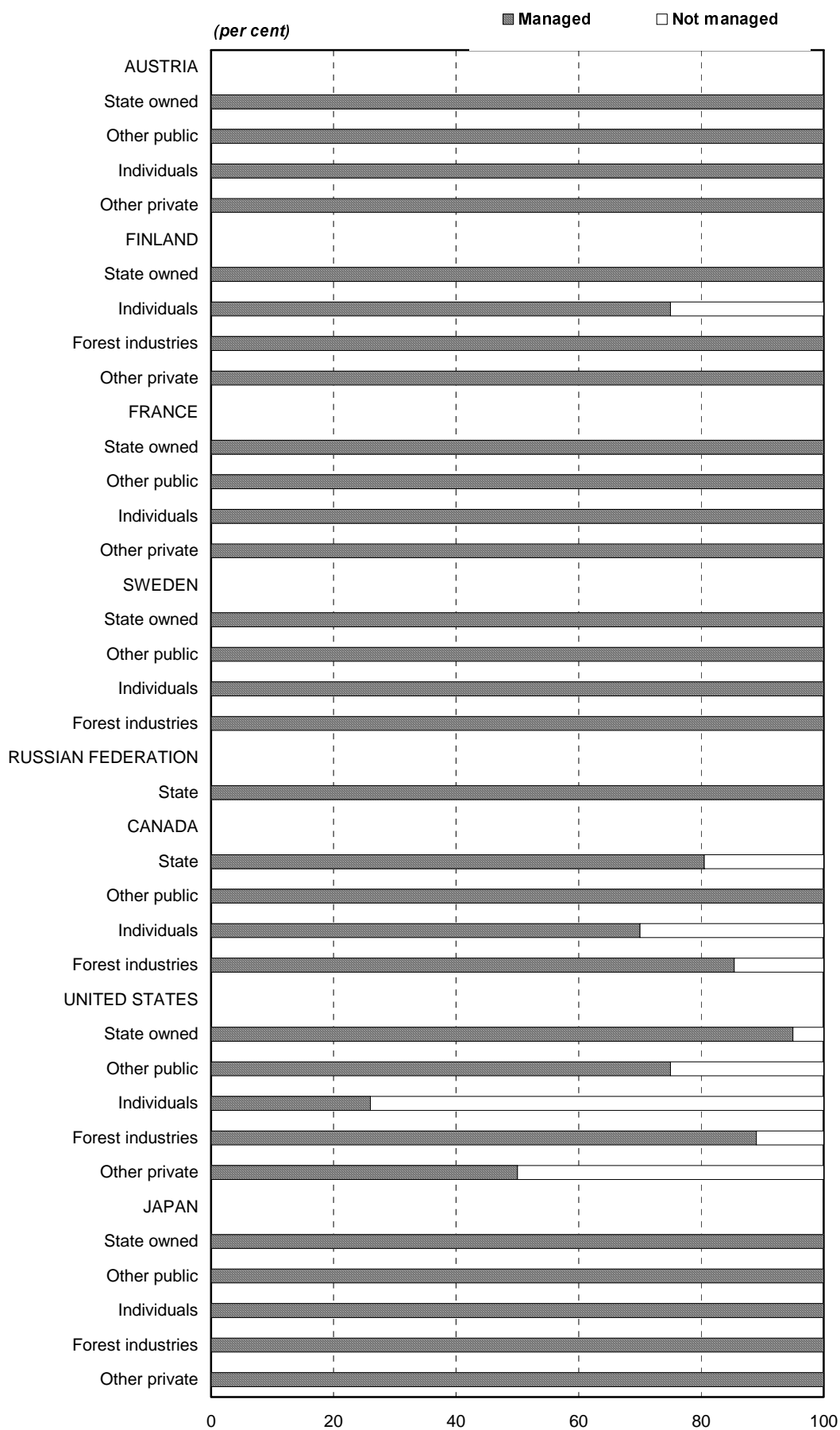
Main Table 15 shows the proportion of forest available for wood supply that is managed under the different ownership categories. On average for the 55 TBFR countries the proportion of FAWS in public ownership that is managed is considerably higher (96 per cent) than that in private ownership (62 per cent). This is the result of, on the one hand, the almost 100 per cent management of public FAWS in the CIS countries and, on the other hand, the relatively low proportion of privately owned FAWS under management in the USA (40 per cent), which is the country with by far the largest area of this category. Within the private sector in the USA there is also a marked contrast between the proportion of managed FAWS owned by the forest industries (89 per cent) and that owned by individuals (26 per cent). Figure 2.9 shows the proportion of managed FAWS in total FAWS by ownership category in some of the major wood-producing countries. It is interesting to note that the majority of these countries consider that their FAWS in all ownership categories, even ownership by individuals, are managed, the main exceptions being Canada and the USA.

Main Table 16 provides data on the ownership of forest not available for wood supply and the proportion of that which is managed. As a general observation, it would seem that the proportion of FNAWS that countries consider to be under management is about as high as that of FAWS. However, because the area of FNAWS in most countries is low compared to that of FAWS, the area under management of the former is correspondingly small, roughly 560 million ha, of which the Russian Federation accounts for more than half.



FIGURE 2.9

Proportion of forest available for wood supply that is managed by ownership categories in selected countries



## Holdings of forest and other wooded land

Information about the area and number of holdings by size classes is contained in Main Tables 18 to 24. The definition of 'holding' has to cover the rather different concepts relating to public and private holdings. The basic concept is that a holding consists of one or more parcels of forest and other wooded land which constitute a single unit from the point of view of management or utilization (Appendix I, item 24). The concept is generally easier to apply for ownership by individuals (or families), although the problems of collecting information on this ownership category are very great, given the large numbers of private owners in many of the countries of the TBFRA area. When applied to other categories of holdings, the definition may become more difficult to apply in a way that is consistent between countries. In the case of State holdings, one could argue that there is only one holding per country even if the parts of it are scattered. The definition indicated that in such cases a holding should be defined as an area forming a major management unit administered by a senior official, e.g. a Regional Forestry Officer. As administrative structures differ between countries, however, consistency is probably lacking in the understanding of what is a major management unit or a senior official. Similar difficulties may arise with regard to the holdings of other corporate bodies, public or private, and of forest industries. In the case of the latter the definition indicates that a holding may constitute a number of separated properties which are, however, managed according to one corporate strategy. Only a few countries have given explanations of how they have interpreted, or deviated from, the definition. Armenia, for example, indicates that its reported (State) holdings are forest districts, which are the smallest unit for decision making. Austria and Germany do not have information on private holdings of less than one ha. Spain has included information on public holdings with private ones.

The breakdown chosen for the enquiry into size classes of holdings is similar to that used in previous assessments, although the presentation of countries' data in the tables has been simplified by grouping all public holdings of less than 10 ha into one class and all private holdings of more than 10,000 ha also into one class. A number of countries reported that they either did not have information on holdings by size class or that their size class categories were different from those of the TBFRA. Despite these limitations, Main Tables 18 to 24 contain much information that is useful for the analysis of forest ownership structures and hence of the social and economic importance of FOWL within the broader land use context.

Taking into account that a few countries' data are missing, it is estimated that in Europe there are approximately 87,000 holdings of FOWL in public ownership and 10.7 million in private ownership. In parenthesis, it may be noted that the number of private holdings in Europe reported in the present assessment is considerably lower than reported previously. To some extent this may be due to an actual reduction in the number of holdings but it seems probable that in some countries holdings of less than one hectare have been excluded from the present assessment, which could make a difference of several million in the total number in Europe. The average size of public holdings in Europe is about 1,200 ha and that of private ones 10.6 ha. Details for individual countries are given in Main Table 18, which shows that there is considerable variation in the average size of holdings. In the USA the number of public holdings is reported as 64, giving an average size of 1.99 million ha, and the number of private holdings, which includes those of forest industries, as 9.94 million with an average size of 17.2 ha. Corresponding figures for Japan are 3,467 public holdings with an average size of nearly 3,050 ha and 2.86 million private holdings with an average size of 5 ha.

Particularly from the point of view of assessing the economic viability of holdings for wood production, the size class distribution is of interest. As a generalization it may be assumed that the smaller the size of a holding, the more problematic it is to operate it as a profitable wood-producing (or other type of) enterprise. This does not mean that the owners do not benefit from the property in other ways, such as hunting, recreation or the gathering of mushrooms, nuts and berries. Figures 2.10, 2.11, 2.12 and 2.13 show for four European countries the size class distribution for public and private holdings. The figures for the Czech Republic, France and Italy are probably rather typical, so far as private holdings are concerned, of the many European countries in central and southern Europe with large numbers of small owners. In the Czech Republic less than 3 per cent of the private owners own more than half of the area of forest and other wooded land, or put the other way round, 83 per cent of them own less than half (47 per cent) of the area. For France the situation is quite similar: 96 per cent of the private owners own 41 per cent of the area; and in Italy 89 per cent of them own 29 per cent of the area. In Norway the ownership is more evenly distributed over the size classes, but still 40 per cent of private owners hold only 3 per cent of the area. The distribution is somewhat similar in Finland and Sweden.

For all countries, in almost all cases, the distribution curves (for both area and number of holdings) for public forests are to the right of those for private forests. As would be expected, the average size of public holdings is considerably larger than the average size of private holdings, in the four countries, and in the TBFRA-2000 countries as a whole.

FIGURE 2.10

CZECH REPUBLIC: Size-class distribution of area and number of holdings of forest and other wooded land

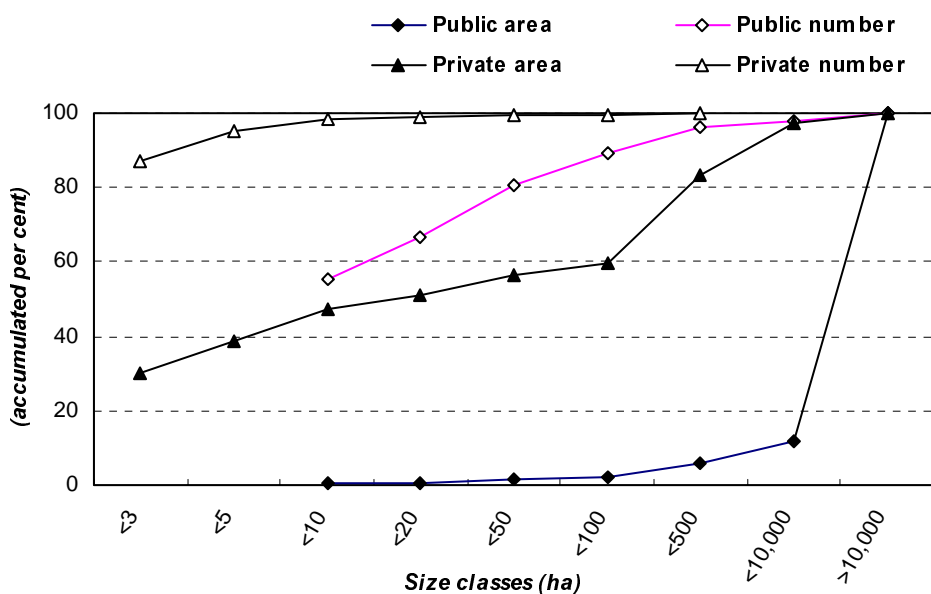
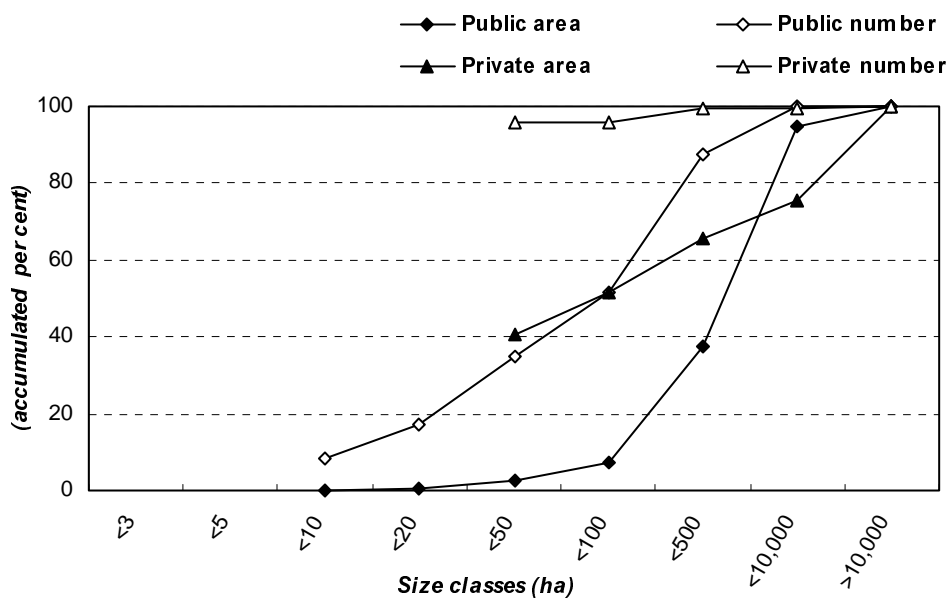


FIGURE 2.11

FRANCE: Size-class distribution of area and number of holdings of forest and other wooded land



Note: Data on private owners hip relate to forest only and not FOML.

FIGURE 2.12

## ITALY: Size-class distribution of area and number of holdings of forest and other wooded land

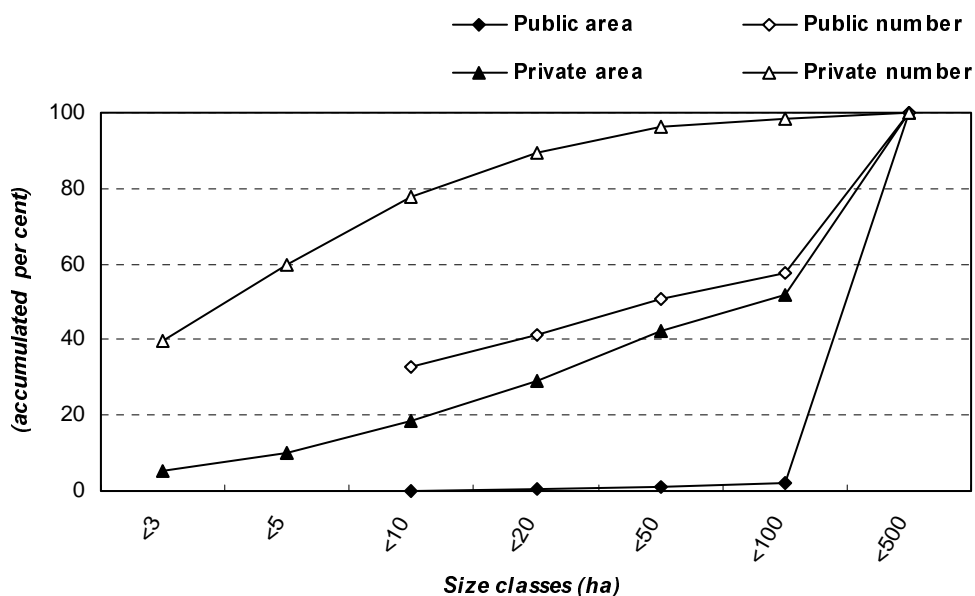
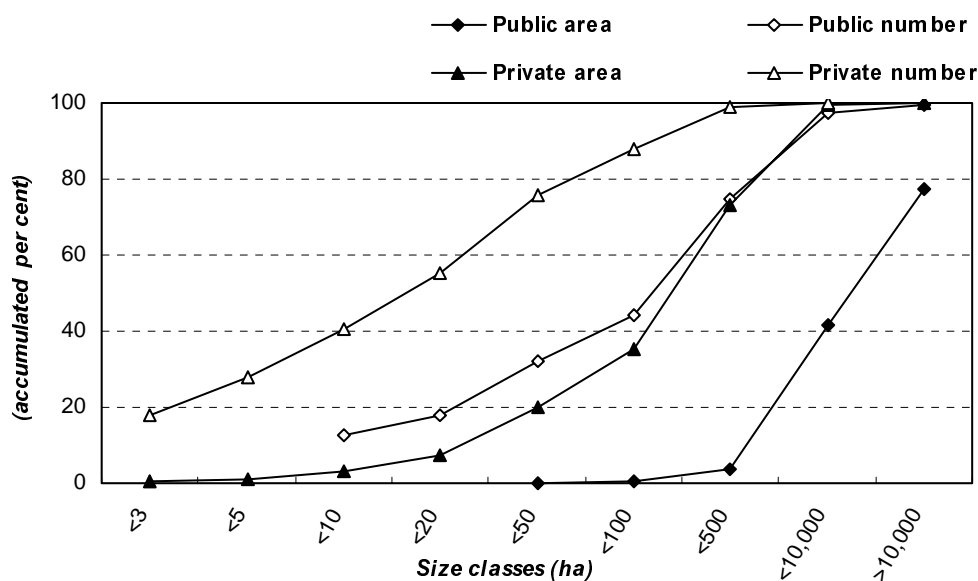


FIGURE 2.13

## NORWAY: Size-class distribution of area and number of holdings of forest and other wooded land



## Summary and conclusions

### A. Main findings

- General.** Public ownership accounted for nearly 80 per cent of the total area of forest and other wooded land in the TBFR-2000 countries in aggregate: 100 per cent in the CIS countries and 68 per cent in the others. For forest available for wood supply in countries other than the CIS; State ownership and ownership by individuals each accounted for two fifths of the total and ownership by forest industries for nearly one tenth. Between 80 and 90 per cent of the area of forest and other wooded land in the TBFR-2000 countries in aggregate is under management. More specifically:
- Ownership status.** Information about the ownership status of forest and other wooded land was available from virtually all TBFR-2000 countries, apart from some missing data on ownership by indigenous or tribal peoples in a few countries, where claims are in process. It is contained in Main Tables 9 to 17. The ownership pattern is

changing in many of the countries of Europe and the Commonwealth of Independent States (CIS) whose economies are in transition to forms of market economy, where the process of privatization or restitution is continuing and where therefore the information provided may be partly out of date. For the 55 TBFRA countries in aggregate, approximately 1.97 billion ha or 80 per cent of the area of FOWL was in public ownership, 435 million ha or 18 per cent in private ownership and approximately 62 million ha (between 2 and 3 per cent) owned by indigenous or tribal peoples. All FOWL in the CIS countries was still in public ownership in the periods for which the data were reported. If these countries are excluded, the proportions for the rest of the TBFRA area are 68 per cent in public ownership, 28 per cent private and 4 per cent owned by indigenous or tribal peoples. In western Europe, i.e. excluding countries with economies in transition, the proportion in private ownership is 66 per cent and this part of Europe together with the USA, to an even greater extent than the USA and Japan, differs from the rest of the TBFRA area where public ownership predominates. Canada, USA, Australia and New Zealand have FOWL owned by indigenous or tribal peoples, but New Zealand has included these areas with public ownership pending completion of the claims processes.

3. **Ownership of forest available for wood supply.** Most countries could provide information on ownership of FAWS broken down into a number of categories. For the TBFRA countries in aggregate it is estimated that State ownership and ownership by individuals each account for two fifths of the total and ownership by forest industries for not quite one tenth. The remaining one tenth is held by all other categories of ownership. 96 per cent of FAWS in public ownership is owned by the State. In several European countries ownership by other public bodies, such as municipalities and communes, accounted for more than half the publicly owned area; this was the case in France, Italy, Spain and Sweden among the larger forest countries. Under private ownership, it is estimated that about 77 per cent of FAWS is owned by individuals, 17 per cent by forest industries and 6 per cent by other private institutions. Ownership by forest industries occurs mainly in North America, the Nordic countries, Portugal, Japan and New Zealand. Ownership by other private institutions is important in terms of area in the USA, Japan, France, Finland and New Zealand.
4. **Management status.** It is estimated that about 86 per cent of FOWL in the TBFRA countries in aggregate is managed; the proportion is higher for FOWL in public ownership (89 per cent) than in private (49 per cent). The CIS and "Other TBFRA" countries report that virtually all of their FOWL is being managed. In Canada 52 per cent of FOWL is managed. On average in the TBFRA countries the proportion of FAWS in public ownership that is managed is considerably higher (96 per cent) than that in private ownership (62 per cent). This is a result of, on the one hand, the almost 100 per cent management of public FAWS in the CIS countries and, on the other hand, the relatively low proportion of privately owned FAWS under management in the USA (40 per cent), which is the country with by far the largest area in this category. It would seem that the proportion of FNAWS that countries consider to be under management is about as high as that of FAWS.
5. **Holdings of forest and other wooded land.** Although most countries were able to provide data of the area and number of holdings by size class, there are enough gaps to make it impossible to estimate figures for the TBFRA area as a whole (Main Tables 18 to 24). For Europe, it is estimated that there were about 77,000 holdings in public ownership and 10.7 million in private ownership. The average size of public holdings was 1,200 ha and that of private holdings 10.6 ha. In the USA the number of public holdings was 64, giving an average size of 1.99 million ha; the number of private holdings was 9.94 million with an average size of 17.2 ha. In most countries the size class distribution of private holdings results in a high proportion of owners owning a small proportion of the total area. There are several million private owners in Europe with holdings of less than 3 ha.

## Conclusions

1. The information contained in Main Tables 9 to 17 on the ownership and management status of forest and other wooded land is important as an indicator of the authority determining the uses to which the land may be put and the intensity in the way it is managed and used. Most TBFRA countries have a cadastral or legal system that clearly demarcates ownership; in a few, doubts about legal ownership still persist. In others, notably those with economies in transition and those with indigenous or tribal peoples, important changes in the ownership structure of FOWL are currently taking place, which the currently available data are not able to reflect.
2. With regard to ownership by individuals, which is the most important ownership category after State ownership in the TBFRA countries in aggregate, significant changes in the pattern are occurring, notably the increasing proportion of absentee owners. The classification of ownership followed in TBFRA-2000 does not allow such changes to be monitored.
3. The sometimes wide disparities in countries' replies on the proportion of FOWL that is managed, which are not entirely explainable by differences in national situations, suggest that there is a lack of uniformity in the way in which the TBFRA definition has been interpreted and applied, notably the distinction between managed for wood supply only and for all forest functions, and between management according to approved working plans and less formal forms of management. There is also uncertainty as to whether the recommendation that areas where a

decision has been made not to manage them at all should be included in the 'managed' category could be followed in all cases.

4. Judging by the information contained in Main Tables 18 to 24 on holdings of forest and other wooded land, countries sometimes seem to have applied the definition of 'holdings' of FOWL in different ways, especially as applied to State holdings and those of forest industries. Also with regard to holdings by individuals, consistency is sometimes lacking on whether holdings of less than one hectare have been included or excluded. The present classification does not allow for the ownership of FOWL by absentee owners to be distinguished separately.
5. The above findings suggest that, while there is no need for substantial changes in the definitions of ownership and management, which would be undesirable anyway as discussed in the conclusions of Chapter I, some refinements might be introduced for use in future assessments that would make it easier for National Correspondents to provide consistent and comparable data.
6. Information on the ownership and management of FOWL is important as a basis for policies related to the social and economic elements of sustainable forest management as well as environmental ones. Especially for small private properties, it is costly, difficult and sometimes sensitive to collect. Future work on the collection and dissemination of information on ownership and management could benefit from increased co-operation between the public and private sectors and non-governmental organizations at national and international level.

TABLE 9  
Ownership and management of forest and other wooded land in total

Country	Reference period	Forest and other wooded land			of which: Managed			
		In public ownership	owned by indigenous or tribal peoples	In private ownership	Total	In public ownership	Owned by indigenous or tribal peoples	In private ownership
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1000 ha)								
Albania ©	1995	1,030	0	0	406	406	0	0
Austria ©	1992-96	712	0	3,212	3,924	712	0	3,212
Belgium	1997	289	0	383	672	289	0	383
Bosnia and Herzegovina ©	1995	2,125	0	584	2,007 ①	1,709 ①	0	298 ①
Bulgaria	1995	3,903	0	0	3,590	3,590	0	0
Croatia	1996	1,651	0	454	1,560	1,328	0	232
Cyprus	1996	162	0	118	280	162	0	118
Czech Republic	1996	2,212	0	418	2,630	2,212	0	418
Denmark ©	1990	153	0	386	538	153	0	386
Estonia ©	1996	1,978	0	184	1,129	952	0	177
Finland	1991-96	6,772	0	15,996	19,494	6,772	0	12,722
France ©	1995-97	4,228	0	12,761	15,419	4,228	0	11,191
Germany ©	1987	5,762	0	4,978	10,740	5,762	0	4,978
Greece ©	1992	5,331	0	1,182	2,539	2,125	0	414
Hungary ©	1996	1,169	0	642	1,811	1,169	0	642
Iceland ©	1985	39	0	91	13	8	0	5
Ireland	1996	391	0	200	551	385	0	166
Israel ©	1996	168	0	2	122	121	0	1
Italy ©	1995	3,687	0	7,155	1,117 ①	1,110 ①	0	7 ①
Latvia ©	1997	1,678	0	1,317	2,995	1,678	0	1,317
Liechtenstein ©	1995	6.9	0	0.5	7.4	6.9	0	0.5
Lithuania ©	1997	1,683	0	367	1,958	1,593	0	365
Luxembourg	1994-97	41	0	47	10	10	0	0
Malta	1996	0.347	0	0	0.347	0.347	0	0
Netherlands ©	1992-96	173	0	166	339	173	0	166
Norway ©	1989	2,936	0	9,064	9,292	2,248	0	7,044
Poland ©	1992-96	7,449	0	1,493	8,942	7,449	0	1,493
Portugal ©	1995	267	0	3,200	1,206	247	0	959
Romania ©	1990	6,320	0	360	6,680	6,320	0	360
Slovakia ©	1996	1,133	0	898	1,988	1,117	0	871
Slovenia ©	1996	347	0	819	1,099	330	0	769
Spain ©	1985-95	5,608	0	20,376	17,682	5,296	0	12,386
Sweden ©	1992-96	6,147	0	24,112	30,259	6,147	0	24,112
Switzerland ©	1993-95	850	0	384	1,153 ①	784 ①	0	369 ①
The FYR of Macedonia ©	1995	707 ①	0	199 ①	948	707 ①	0	199 ①
Turkey ©	1996	20,695	0	18	20,713	20,695	0	18
United Kingdom ©	1995	1,072	0	1,417	2,319	1,072	0	1,247
Yugoslavia ©	1995	1,982	0	1,498	3,309	1,982	0	1,327
<b>Total: Europe</b>		<b>100,858</b>	<b>0</b>	<b>114,482</b>	<b>179,442</b>	<b>91,048</b>	<b>0</b>	<b>88,352</b>
<b>of which: EU 15</b>		<b>40,633</b>	<b>0</b>	<b>95,571</b>	<b>106,810</b>	<b>34,481</b>	<b>0</b>	<b>72,328</b>
Armenia	1996	392	0	0	392	392	0	0
Azerbaijan ©	1988	990	0	0	990	990	0	0
Belarus ©	1997	8,936	0	0	8,368	8,368	0	0
Georgia ©	1995	2,988	0	0	2,438	2,438	0	0
Kazakhstan	1993	16,673	0	0	16,673	16,673	0	0
Kyrgyzstan ©	1988	797	0	0	797	797	0	0
Republic of Moldova	1997	355	0	0	355	355	0	0
Russian Federation ©	1993	886,538	0	0	886,538	886,538	0	0
Tajikistan ©	1995	730	0	0	730	730	0	0
Turkmenistan ©	1995	3,754	0	0	3,754	3,754	0	0
Ukraine	1996	9,494	0	0	9,494	9,494	0	0
Uzbekistan	1998	2,170	0	0	2,170	2,170	0	0
<b>Total: CIS</b>		<b>933,817</b>	<b>0</b>	<b>0</b>	<b>932,699</b>	<b>932,699</b>	<b>0</b>	<b>0</b>
Canada ©	1994	388,927	1,451	27,206	224,546	203,611	909	20,026
United States of America ©	1992	127,120	6,922	164,093	180,571	113,435	4,707	62,429
<b>Total: North America</b>		<b>516,047</b>	<b>8,373</b>	<b>191,299</b>	<b>405,117</b>	<b>317,046</b>	<b>5,616</b>	<b>82,455</b>
Australia ©	1990-94	410,342	53,517	114,609	578,467	410,342	53,517	114,609
Japan ©	1995	10,573	0	14,573	25,146	10,573	0	14,573
New Zealand ©	1996	5,514 ①	0 ①	2,426 ①	6,912	5,514 ①	0	1,398 ①
<b>Total: Other TBFRA</b>		<b>426,429</b>	<b>53,517</b>	<b>131,608</b>	<b>610,525</b>	<b>426,429</b>	<b>53,517</b>	<b>130,580</b>
<b>Grand total</b>		<b>1,977,152</b>	<b>61,890</b>	<b>437,389</b>	<b>2,127,783</b>	<b>1,767,222</b>	<b>59,133</b>	<b>301,387</b>

© See notes and comments in Chapter II

① Only Forests.

TABLE 10

## Ownership and management of forest and other wooded land in total: comparative data

Country	Reference period	Forest and other wooded land			of which: Managed			
		In public ownership	Owned by indigenous or tribal peoples	In private ownership	Total	In public ownership	Owned by indigenous or tribal peoples	In private ownership
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Albania ©	1995	100.0	0.0	0.0	39.4	39.4		
Austria ©	1992-96	18.1	0.0	81.9	100.0	100.0		100.0
Belgium	1997	43.0	0.0	57.0	100.0	100.0		100.0
Bosnia and Herzegovina ©	1995	78.4	0.0	21.6	74.1 ④	80.4 ⑤		51.0 ⑦
Bulgaria	1995	100.0	0.0	0.0	92.0			
Croatia	1996	78.4	0.0	21.6	74.1	80.4		51.1
Cyprus	1996	57.9	0.0	42.1	100.0	100.0		100.0
Czech Republic	1996	84.1	0.0	15.9	100.0	100.0		100.0
Denmark ©	1990	28.4	0.0	71.6	100.0	100.0		100.0
Estonia ©	1996	91.5	0.0	8.5	52.2	48.1		96.2
Finland	1991-96	29.7	0.0	70.3	85.6	100.0		79.5
France ©	1995-97	24.9	0.0	75.1	90.8	100.0		87.7
Germany ©	1987	53.6	0.0	46.4	100.0	100.0		100.0
Greece ©	1992	81.9	0.0	18.1	39.0	39.9		35.0
Hungary ©	1996	64.5	0.0	35.5	100.0	100.0		100.0
Iceland ©	1985	30.0	0.0	70.0	10.0	20.5		5.5
Ireland	1996	66.2	0.0	33.8	93.2	98.5		83.0
Israel ©	1996	98.8	0.0	1.2	71.8	72.0		50.0
Italy ©	1995	34.0	0.0	66.0	10.3 ④	30.1 ⑤		0.1 ⑦
Latvia ©	1997	56.0	0.0	44.0	100.0	100.0		100.0
Liechtenstein ©	1995	93.2	0.0	6.8	100.0	100.0		100.0
Lithuania ©	1997	82.1	0.0	17.9	95.5	94.7		99.5
Luxembourg	1994-97	46.7	0.0	53.3	11.6	24.9		0.0
Malta	1996	100.0	0.0	0.0	100.0	100.0		
Netherlands ©	1992-96	51.0	0.0	49.0	100.0	100.0		100.0
Norway ©	1989	24.5	0.0	75.5	77.4	76.6		77.7
Poland ©	1992-96	83.3	0.0	16.7	100.0	100.0		100.0
Portugal ©	1995	7.7	0.0	92.3	34.8	92.5		30.0
Romania ©	1990	94.6	0.0	5.4	100.0	100.0		100.0
Slovakia ©	1996	55.8	0.0	44.2	97.9	98.6		97.0
Slovenia ©	1996	29.8	0.0	70.2	94.3	95.1		93.9
Spain ©	1985-95	21.6	0.0	78.4	68.0	94.4		60.8
Sweden ©	1992-96	20.3	0.0	79.7	100.0	100.0		100.0
Switzerland ©	1993-95	68.9	0.0	31.1	93.4 ④	92.2 ⑤		96.1 ⑦
The FYR of Macedonia ©	1995	71.6 ①	0.0	20.1 ③	96.0	100.0 ⑤		100.0 ⑦
Turkey ©	1996	99.9	0.0	0.1	100.0	100.0		100.0
United Kingdom ©	1995	43.1	0.0	56.9	93.2	100.0		88.0
Yugoslavia ©	1995	57.0	0.0	43.0	95.1	100.0		88.6
<b>Total: Europe</b>		<b>46.8</b>	<b>0.0</b>	<b>53.1</b>	<b>83.3</b>	<b>90.3</b>		
<b>of which: EU 15</b>		<b>29.8</b>	<b>0.0</b>	<b>70.2</b>	<b>78.4</b>	<b>84.9</b>		<b>75.7</b>
Armenia	1996	100.0	0.0	0.0	100.0	100.0		0.0
Azerbaijan ©	1988	100.0	0.0	0.0	100.0	100.0		0.0
Belarus ©	1997	100.0	0.0	0.0	93.6	93.6		0.0
Georgia ©	1995	100.0	0.0	0.0	81.6	81.6		0.0
Kazakhstan	1993	100.0	0.0	0.0	100.0	100.0		0.0
Kyrgyzstan ©	1988	100.0	0.0	0.0	100.0	100.0		0.0
Republic of Moldova	1997	100.0	0.0	0.0	100.0	100.0		0.0
Russian Federation ©	1993	100.0	0.0	0.0	100.0	100.0		0.0
Tajikistan ©	1995	100.0	0.0	0.0	100.0	100.0		0.0
Turkmenistan ©	1995	100.0	0.0	0.0	100.0	100.0		0.0
Ukraine	1996	100.0	0.0	0.0	100.0	100.0		0.0
Uzbekistan	1998	100.0	0.0	0.0	100.0	100.0		0.0
<b>Total: CIS</b>		<b>100.0</b>	<b>0.0</b>	<b>0.0</b>	<b>99.9</b>	<b>99.9</b>		<b>0.0</b>
Canada ©	1994	93.1	0.3	6.5	53.8	52.4	62.6	73.6
United States of America ©	1992	42.6	2.3	55.0	60.6	89.2	68.0	38.0
<b>Total: North America</b>		<b>72.1</b>	<b>1.2</b>	<b>26.7</b>	<b>56.6</b>	<b>61.4</b>	<b>67.1</b>	<b>43.1</b>
Australia ©	1990-94	70.9	9.3	19.8	100.0	100.0	100.0	100.0
Japan ©	1995	42.0	0.0	58.0	100.0	100.0		100.0
New Zealand ©	1996	61.0 ①	0.0 ②	26.8 ③	76.5	100.0 ⑤		57.6 ⑦
<b>Total: Other TBFA</b>		<b>69.6</b>	<b>8.7</b>	<b>21.5</b>	<b>99.7</b>	<b>100.0</b>		<b>99.2</b>
<b>Grand total</b>		<b>79.8</b>	<b>2.5</b>	<b>17.7</b>	<b>85.9</b>	<b>89.4</b>		

© See notes and comments in Chapter II.

① Public forest in per cent of total forest and other wooded land

② Tribal forest in per cent of total forest and other wooded land

③ Private forest in per cent of total forest and other wooded land

④ Managed forest in per cent of total forest and other wooded land

⑤ Managed public forest in per cent of total public forest

⑥ Managed tribal forest in per cent of total tribal forest

⑦ Managed private forest in per cent of total private forest



TABLE 11  
Ownership of forest and of other wooded land

Country	Reference period	Forest			Other wooded land		
		In public ownership	Owned by indigenous or tribal peoples	In private ownership	In public ownership	Owned by indigenous or tribal peoples	In private ownership
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1000 ha)							
Albania ©	1995	1,030	0	0	0	0	0
Austria ©	1992-96	672	0	3,168	40	0	44
Belgium	1997	279	0	367	10	0	16
Bosnia and Herzegovina ©	1995	1,785	0	491	340	0	93
Bulgaria	1995	3,590	0	0	314	0	0
Croatia	1996	1,341	0	434	310	0	20
Cyprus	1996	104	0	13	58	0	105
Czech Republic	1996	2,212	0	418	0	0	0
Denmark ©	1990	140	0	306 ①	13	0	80
Estonia ©	1996	1,841	0	175	137	0	9
Finland	1991-96	6,332 ①	0 ①	15,551 ①	440	0	445
France ©	1995-97	3,965	0	11,191	263	0	1,570
Germany ©	1987	5,762	0	4,978	0	0	0
Greece ©	1992	2,603	0	756	2,728	0	426
Hungary ©	1996	1,169 ①	0	642 ①	0	0	0
Iceland ©	1985	9	0	21	30	0	70
Ireland	1996	391	0	200	0	0	0
Israel ©	1996	121	0	1	47	0	1
Italy ©	1995	3,352 ①	0 ①	6,505 ①	335	0	650
Latvia ©	1997	1,647	0	1,237	31	0	80
Liechtenstein ©	1995	6	0	1	1	0	0
Lithuania ©	1997	1,628	0	350	55	0	17
Luxembourg	1994-97	40	0	46	1	0	2
Malta	1996	0.347	0	0	0	0	0
Netherlands ©	1992-96	173	0	166 ①	0	0	0
Norway ©	1989	1,226 ①	0	7,484 ①	1,710	0	1,580
Poland ©	1992-96	7,449 ①	0	1,493 ①	0	0	0
Portugal ©	1995	248	0	3,135	19	0	65
Romania ©	1990	5,961	0	340	359	0	20
Slovakia ©	1996	1,124 ①	0	892 ①	9	0	6
Slovenia ©	1996	330 ①	0	769 ①	17	0	50
Spain ©	1985-95	4,235	0	9,274	1,373	0	11,102
Sweden ©	1992-96	4,565	0	22,699	1,582	0	1,413
Switzerland ©	1993-95	800	0	373	50	0	11
The FYR of Macedonia ©	1995	707	0	199	0	0	0
Turkey ©	1996	9,939	0	15	10,756	0	3
United Kingdom ©	1995	1,072 ①	0	1,397 ①	0	0	20
Yugoslavia ©	1995	1,552	0	1,342	430	0	156
<b>Total: Europe</b>		<b>79,401</b>	<b>0</b>	<b>96,428</b>		<b>0</b>	
<b>of which: EU 15</b>		<b>33,829</b>	<b>0</b>	<b>79,738</b>	<b>6,804</b>	<b>0</b>	<b>15,833</b>
Armenia	1996	334	0	0	58	0	0
Azerbaijan ©	1988	936	0	0	54	0	0
Belarus ©	1997	7,865	0	0	1,071	0	0
Georgia ©	1995	2,988	0	0	0	0	0
Kazakhstan	1993	10,504	0	0	6,169	0	0
Kyrgyzstan ©	1988	729	0	0	68	0	0
Republic of Moldova	1997	324 ①	0	0	31	0	0
Russian Federation ©	1993	816,538	0	0	70,000	0	0
Tajikistan ©	1995	400	0	0	330	0	0
Turkmenistan ©	1995	3,754	0	0	0	0	0
Ukraine	1996	9,458	0	0	36	0	0
Uzbekistan	1998	1,909	0	0	261	0	0
<b>Total: CIS</b>		<b>855,739</b>	<b>0</b>	<b>0</b>	<b>78,078</b>	<b>0</b>	<b>0</b>
Canada ©	1994	219,399 ①	1,076 ①	24,096 ①	169,528	375	3,110
United States of America ©	1992	72,425	3,147	141,761	54,695	3,775	22,332
<b>Total: North America</b>		<b>291,824</b>	<b>4,223</b>	<b>165,857</b>	<b>224,223</b>	<b>4,150</b>	<b>25,442</b>
Australia ©	1990-94	114,568	13,627	28,683	295,774	39,890	85,926
Japan ©	1995	9,863 ①	0	14,201 ①	710	0	372
New Zealand ©	1996	5,514	0	2,426			
<b>Total: Other TBFA</b>		<b>129,945</b>	<b>13,627</b>	<b>45,310</b>			
<b>Grand total</b>		<b>1,356,909</b>	<b>17,850</b>	<b>307,595</b>			

© See notes and comments in Chapter II.

① Adjustment to achieve conformity with TBFA definitions carried out by the National Correspondent .

TABLE 12  
Ownership of forest available for wood supply

Country	Reference period	In public ownership			Owned by indigenous or tribal peoples	In private ownership				
		Total	State ownership	Other public institutions	Total	Owned by individuals	Owned by forest industries	Owned by other private institutions		
(1000 ha)										
(1)	(2)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
Albania ©	1995	902	902	0	0	0	0	0	0	0
Austria ©	1992-96	550	460	90	0	2,802	2,315	0	487	
Belgium	1997	276	69	207	0	364	352	1	10	
Bosnia and Herzegovina ©	1995	1,023	1,023	0	0	282	282	0	0	
Bulgaria	1995	3,124	3,124	0	0	0	0	0	0	
Croatia	1996	1,257	1,255	2	0	433	433	0	0	
Cyprus	1996	43	43	0	0	0	0	0	0	
Czech Republic	1996	2,141	1,826	315	0	418	418	0	0	
Denmark ©	1990	140	118	22	0	301	200	0	100	
Estonia ©	1996	1,757	1,752	5	0	175	170	0	5	
Finland	1991-96	5,164	5,164	0	0	15,511	12,936	1,613	962	
France ©	1995-97	3,787	1,467	2,320	0	10,683	8,983	0	1,700	
Germany ©	1987	5,406	3,390	2,016	0	4,736	4,736	0	0	
Greece ©	1992	2,404	2,032	372	0	690	529	0	161	
Hungary ©	1996	1,079	1,070	9	0	623	69	0	554	
Iceland ©	1985	4	4	0	0	10	10	0	0	
Ireland	1996	380	380	0	0	200	200	0	0	
Israel ©	1996	69	69	0	0	1	1	0	0	
Italy ©	1995	2,044	372	1,672	0	3,969	3,917	52	0	
Latvia ©	1997	1,333	1,237	96	0	1,080	1,080	0	0	
Liechtenstein ©	1995	4	0	4	0	1	1	0	0	
Lithuania ©	1997	1,391	1,386	5	0	295	295	0	0	
Luxembourg	1994-97	40	10	31	0	46		0		
Malta	1996	0	0	0	0	0	0	0	0	
Netherlands ©	1992-96	160	115	45	0	154	65	0	89	
Norway ©	1989	853	664	189	0	5,756	5,123	261	372	
Poland ©	1992-96	6,806	6,730	76	0	1,493	1,460	0	33	
Portugal ©	1995	200	25	175	0	1,697	1,497	200	0	
Romania ©	1990	5,283	5,283	0	0	334	334	0	0	
Slovakia ©	1996	969	725	244	0	737	308	0	429	
Slovenia ©	1996	310	285	25	0	725	725	0	0	
Spain ©	1985-95	1,931	39	1,892	0	8,548	8,000	48	500	
Sweden ©	1992-96	1,904	404	1,500	0	19,332	10,916	8,416	0	
Switzerland ©	1993-95	700	10	690	0	360	321	0	39	
The FYR of Macedonia ©	1995	581	581	0	0	164	164	0	0	
Turkey ©	1996	8,620	8,620	0	0	15	14	0	1	
United Kingdom ©	1995	965	885	80	0	1,143	800	25	318	
Yugoslavia ©	1995	1,208	1,185	23	0	1,171	1,171	0	0	
<b>Total: Europe</b>		<b>64,807</b>	<b>52,704</b>	<b>12,104</b>	<b>0</b>	<b>84,247</b>		<b>10,616</b>		
<b>of which: EU 15</b>		<b>25,351</b>	<b>14,930</b>	<b>10,421</b>	<b>0</b>	<b>70,175</b>		<b>10,355</b>		
Armenia	1996	21	21	0	0	0	0	0	0	
Azerbaijan ©	1988	153	153	0	0	0	0	0	0	
Belarus ©	1997	5,966	5,966	0	0	0	0	0	0	
Georgia ©	1995	591	591	0	0	0	0	0	0	
Kazakhstan	1993	4,933	4,933	0	0	0	0	0	0	
Kyrgyzstan ©	1988	0	0	0	0	0	0	0	0	
Republic of Moldova	1997	211	211	0	0	0	0	0	0	
Russian Federation ©	1993	525,191	525,191	0	0	0	0	0	0	
Tajikistan ©	1995	0	0	0	0	0	0	0	0	
Turkmenistan ©	1995	3,650	3,650	0	0	0	0	0	0	
Ukraine	1996	5,999	5,999	0	0	0	0	0	0	
Uzbekistan	1998	0	0	0	0	0	0	0	0	
<b>Total: CIS</b>		<b>546,714</b>	<b>546,714</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
Canada ©	1994	104,370	104,215	155	640	20,853	17,126	3,727	0	
United States of America ©	1992	53,215	39,115	14,100	3,147	141,761	105,745	28,513	7,503	
<b>Total: North America</b>		<b>157,585</b>	<b>143,330</b>	<b>14,255</b>	<b>3,787</b>	<b>162,614</b>	<b>122,871</b>	<b>32,240</b>	<b>7,503</b>	
Australia ©	1990-94	9,413			4	7,020				
Japan ©	1995	9,540	6,975	2,565	0	13,736	9,931	1,470	2,335	
New Zealand ©	1996	453	403	50	0	1,398	117	603	678	
<b>Total: Other TBFRA</b>		<b>19,406</b>			<b>4</b>	<b>22,154</b>				
<b>Grand total</b>		<b>788,513</b>			<b>3,791</b>	<b>269,015</b>				

TABLE 13

## Ownership of forest and of forest available for wood supply: comparative data

Country	Forest			Forest available for wood supply (FAWS)		
	In public ownership	Owned by indigenous or tribal peoples	In private ownership	In public ownership	Owned by indigenous or tribal peoples	In private ownership
	(Per cent of total forest)			(Per cent of FAWS)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Albania	100.0	0.0	0.0	100.0	0.0	0.0
Austria	17.5	0.0	82.5	16.4	0.0	83.6
Belgium	43.2	0.0	56.8	43.1	0.0	56.9
Bosnia and Herzegovina	78.4	0.0	21.6	78.4	0.0	21.6
Bulgaria	100.0	0.0	0.0	100.0	0.0	0.0
Croatia	75.5	0.0	24.5	74.4	0.0	25.6
Cyprus	88.9	0.0	11.1	100.0	0.0	0.0
Czech Republic	84.1	0.0	15.9	83.7	0.0	16.3
Denmark	31.4	0.0	68.6	31.7	0.0	68.2
Estonia	91.3	0.0	8.7	90.9	0.0	9.1
Finland	28.9	0.0	71.1	25.0	0.0	75.0
France	26.2	0.0	73.8	26.2	0.0	73.8
Germany	53.6	0.0	46.4	53.3	0.0	46.7
Greece	77.5	0.0	22.5	77.7	0.0	22.3
Hungary	64.5	0.0	35.5	63.4	0.0	36.6
Iceland	30.0	0.0	70.0	28.6	0.0	71.4
Ireland	66.2	0.0	33.8	65.5	0.0	34.5
Israel	99.2	0.0	0.8	98.6	0.0	1.4
Italy	34.0	0.0	66.0	34.0	0.0	66.0
Latvia	57.1	0.0	42.9	55.2	0.0	44.8
Liechtenstein	92.8	0.0	7.2	87.5	0.0	12.5
Lithuania	82.3	0.0	17.7	82.5	0.0	17.5
Luxembourg	46.7	0.0	53.3	46.7	0.0	53.3
Malta	100.0	0.0	0.0	0.0	0.0	0.0
Netherlands	51.0	0.0	49.0	51.0	0.0	49.0
Norway	14.1	0.0	85.9	12.9	0.0	87.1
Poland	83.3	0.0	16.7	82.0	0.0	18.0
Portugal	7.3	0.0	92.7	10.5	0.0	89.5
Romania	94.6	0.0	5.4	94.1	0.0	5.9
Slovakia	55.8	0.0	44.2	56.8	0.0	43.2
Slovenia	30.0	0.0	70.0	30.0	0.0	70.0
Spain	31.3	0.0	68.7	18.4	0.0	81.6
Sweden	16.7	0.0	83.3	9.0	0.0	91.0
Switzerland	68.2	0.0	31.8	66.0	0.0	34.0
The FYR of Macedonia	78.0	0.0	22.0	78.0	0.0	22.0
Turkey	99.8	0.0	0.2	99.8	0.0	0.2
United Kingdom	43.4	0.0	56.6	45.8	0.0	54.2
Yugoslavia	53.6	0.0	46.4	50.8	0.0	49.2
<b>Total: Europe of which: EU 15</b>	<b>45.2</b>	<b>0.0</b>	<b>54.8</b>	<b>43.5</b>	<b>0.0</b>	<b>56.5</b>
Armenia	100.0	0.0	0.0	100.0	0.0	0.0
Azerbaijan	100.0	0.0	0.0	100.0	0.0	0.0
Belarus	100.0	0.0	0.0	100.0	0.0	0.0
Georgia	100.0	0.0	0.0	100.0	0.0	0.0
Kazakhstan	100.0	0.0	0.0	100.0	0.0	0.0
Kyrgyzstan	100.0	0.0	0.0	0.0	0.0	0.0
Republic of Moldova	100.0	0.0	0.0	100.0	0.0	0.0
Russian Federation	100.0	0.0	0.0	100.0	0.0	0.0
Tajikistan	100.0	0.0	0.0	0.0	0.0	0.0
Turkmenistan	100.0	0.0	0.0	100.0	0.0	0.0
Ukraine	100.0	0.0	0.0	100.0	0.0	0.0
Uzbekistan	100.0	0.0	0.0	0.0	0.0	0.0
<b>Total: CIS</b>	<b>100.0</b>	<b>0.0</b>	<b>0.0</b>	<b>100.0</b>	<b>0.0</b>	<b>0.0</b>
Canada	89.7	0.4	9.9	82.9	0.5	16.6
United States of America	33.3	1.4	65.2	26.9	1.6	71.6
<b>Total: North America</b>	<b>63.2</b>	<b>0.9</b>	<b>35.9</b>	<b>48.6</b>	<b>1.2</b>	<b>50.2</b>
Australia	73.0	8.7	18.3	57.3	0.02	42.7
Japan	41.0	0.0	59.0	41.0	0.0	59.0
New Zealand	69.4	0.0	30.6	24.5	0.0	75.5
<b>Total: Other TBFRA</b>	<b>68.8</b>	<b>7.2</b>	<b>24.0</b>	<b>46.7</b>	<b>0.0</b>	<b>53.3</b>
<b>Grand total</b>	<b>80.7</b>	<b>1.1</b>	<b>18.3</b>	<b>74.3</b>	<b>0.4</b>	<b>25.3</b>

TABLE 14  
Managed forest and other wooded land by ownership categories

Country	Forest				Other wooded land			
	Total	In public ownership	Owned by indigenous or tribal peoples	In private ownership	Total	In public ownership	Owned by indigenous or tribal peoples	In private ownership
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Albania ©	406	406	0	0	0	0	0	0
Austria ©	3,840	672	0	3,168	84	40	0	44
Belgium	646	279	0	367	26	10	0	16
Bosnia and Herzegovina ©	2,007	1,709	0	298			0	
Bulgaria	3,590	3,590	0	0	0	0	0	0
Croatia	1,531	1,299	0	232	29	29	0	0
Cyprus	117	104	0	13	163	58	0	105
Czech Republic	2,630	2,212	0	418	0	0	0	0
Denmark ©	445	140	0	306	93	13	0	80
Estonia ©	1,125	950	0	175	4	2	0	2
Finland	18,609	6,332	0	12,277	885	440	0	445
France ©	15,156	3,965	0	11,191	263	263	0	0
Germany ©	10,740	5,762	0	4,978	0	0	0	0
Greece ©	2,009	1,691	0	318	530	434	0	96
Hungary ©	1,811	1,169	0	642	0	0	0	0
Iceland ©	13	8	0	5	0	0	0	0
Ireland	551	385	0	166	0	0	0	0
Israel ©	122	121	0	1	0	0	0	0
Italy ©	1,117	1,110	0	7			0	
Latvia ©	2,884	1,647	0	1,237	111	31	0	80
Liechtenstein ©	6.9	6.4	0	0.5	0.5	0.5	0	0
Lithuania ©	1,938	1,588	0	350	20	5	0	15
Luxembourg	10	10	0	0	0	0	0	0
Malta	0.347	0.347	0	0	0	0	0	0
Netherlands ©	339	173	0	166	0	0	0	0
Norway ©	7,147	1,051	0	6,096	2,145	1,197	0	948
Poland ©	8,942	7,449	0	1,493	0	0	0	0
Portugal ©	1,201	242	0	959	5	5	0	0
Romania ©	6,301	5,961	0	340	379	359	0	20
Slovakia ©	1,988	1,117	0	871	0	0	0	0
Slovenia ©	1,099	330	0	769	0	0	0	0
Spain ©	11,694	4,193	0	7,501	5,988	1,103	0	4,885
Sweden ©	27,264	4,565	0	22,699	2,995	1,582	0	1,413
Switzerland ©	1,153	784	0	369			0	
The FYR of Macedonia ©	906	707	0	199	42		0	
Turkey ©	9,954	9,939	0	15	10,759	10,756	0	3
United Kingdom ©	2,319	1,072	0	1,247	0	0	0	0
Yugoslavia ©	2,723	1,552	0	1,171	586	430	0	156
<b>Total: Europe</b>	<b>154,335</b>	<b>74,291</b>	<b>0</b>	<b>80,044</b>			<b>0</b>	
<b>of which: EU 15</b>	<b>95,941</b>	<b>30,591</b>	<b>0</b>	<b>65,349</b>			<b>0</b>	
Armenia	334	334	0	0	58	58	0	0
Azerbaijan ©	936	936	0	0	54	54	0	0
Belarus ©	7,577	7,577	0	0	791	791	0	0
Georgia ©	2,438	2,438	0	0	0	0	0	0
Kazakhstan	10,504	10,504	0	0	6,169	6,169	0	0
Kyrgyzstan ©	729	729	0	0	68	68	0	0
Republic of Moldova	324	324	0	0	31	31	0	0
Russian Federation ©	816,538	816,538	0	0	70,000	70,000	0	0
Tajikistan ©	400	400	0	0	330	330	0	0
Turkmenistan ©	3,754	3,754	0	0	0	0	0	0
Ukraine	9,458	9,458	0	0	36	36	0	0
Uzbekistan	1,909	1,909	0	0	261	261	0	0
<b>Total: CIS</b>	<b>854,901</b>	<b>854,901</b>	<b>0</b>	<b>0</b>	<b>77,798</b>	<b>77,798</b>	<b>0</b>	<b>0</b>
Canada ©	173,400	154,921	585	17,894	51,146	48,690	324	2,132
United States of America ©	125,707	66,944	2,140	56,623	54,864	46,491	2,567	5,806
<b>Total: North America</b>	<b>299,107</b>	<b>221,865</b>	<b>2,725</b>	<b>74,517</b>	<b>106,010</b>	<b>95,181</b>	<b>2,891</b>	<b>7,938</b>
Australia ©	156,877	114,568	13,627	28,683	421,590	295,774	39,890	85,926
Japan ©	24,064	9,863	0	14,201	1,082	710	0	372
New Zealand ©	6,912	5,514	0	1,398	0			
<b>Total: Other TBFRA</b>	<b>187,853</b>	<b>129,945</b>	<b>13,627</b>	<b>44,282</b>	<b>422,672</b>			
<b>Grand total</b>	<b>1,496,196</b>	<b>1,281,002</b>	<b>16,352</b>	<b>198,843</b>				

TABLE 15  
Managed forest available for wood supply by ownership categories

Country	Total	In public ownership			Owned by indigenous or tribal peoples	In private ownership			
		Total	State ownership	Owned by other public institutions		Total	Owned by individuals	Owned by forest industries	Owned by other private institutions
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Albania ©	157	157	157	0	0	0	0	0	0
Austria ©	3,352	550	460	90	0	2,802	2,315	0	487
Belgium	639	276	69	207	0	364	352	1	10
Bosnia and Herzegovina ©	712	671	671	0	0	41	41	0	0
Bulgaria	3,124	3,124	3,124	0	0	0	0	0	0
Croatia	1,446	1,215	1,213	2	0	231	231	0	0
Cyprus	43	43	43	0	0	0	0	0	0
Czech Republic	2,559	2,141	1,826	315	0	418	418	0	0
Denmark ©	440	140	118	22	0	301	200	0	100
Estonia ©	1,045	870	866	4	0	175	170	0	5
Finland	17,441	5,164	5,164	0	0	12,277	9,702	1,613	962
France ©	14,470	3,787	1,467	2,320	0	10,683	8,983	0	1,700
Germany ©	10,142	5,406	3,390	2,016	0	4,736	4,736	0	0
Greece ©	1,765	1,476	1,320	156	0	289	188	0	101
Hungary ©	1,702	1,079	1,070	9	0	623	69	0	554
Iceland ©	13	4	4	0	0	5	5	0	0
Ireland	540	374	374	0	0	166	166	0	0
Israel ©	70	69	69	0	0	1	1	0	0
Italy ©	1,117	1,110	57	1,053	0	7	7	0	0
Latvia ©	2,413	1,333	1,237	96	0	1,080	1,080	0	0
Liechtenstein ©	4.0	3.5	0.0	3.5	0	0.5	0.5	0.0	0.0
Lithuania ©	1,674	1,293	1,288	5	0	295	295	0	0
Luxembourg	10	10	5	5	0	0	0	0	0
Malta	0	0	0	0	0	0	0	0	0
Netherlands ©	314	160	115	45	0	154	65	0	89
Norway ©	5,570	770	600	170	0	4,800	4,200	250	350
Poland ©	8,300	6,806	6,730	76	0	1,493	1,460	0	33
Portugal ©	428	200	25	175	0	228	28	200	0
Romania ©	5,617	5,283	5,283	0	0	334	334	0	0
Slovakia ©	1,622	933	725	208	0	689	291	0	398
Slovenia ©	1,035	310	285	25	0	725	725	0	0
Spain ©	9,431	1,931	39	1,892	0	7,501			
Sweden ©	21,236	1,904	404	1,500	0	19,332	10,916	8,416	0
Switzerland ©	1,042	686	10	676	0	356	318	0	38
The FYR of Macedonia ©	745	581	581	0	0	164	164	0	0
Turkey ©	8,635	8,620	8,620	0	0	15	14	0	1
United Kingdom ©	2,108	965	885	80	0	1,143	800	25	318
Yugoslavia ©	2,379	1,208	1,185	23	0	1,171	1,171	0	0
<b>Total: Europe</b>	<b>133,340</b>	<b>60,652</b>	<b>49,478</b>	<b>11,174</b>	<b>0</b>	<b>72,598</b>			
<b>of which: EU 15</b>	<b>83,434</b>	<b>23,453</b>	<b>13,892</b>	<b>9,561</b>	<b>0</b>	<b>59,982</b>			
Armenia	21	21	21	0	0	0	0	0	0
Azerbaijan ©	153	153	153	0	0	0	0	0	0
Belarus ©	5,745	5,745	5,745	0	0	0	0	0	0
Georgia ©	591	591	591	0	0	0	0	0	0
Kazakhstan	4,933	4,933	4,933	0	0	0	0	0	0
Kyrgyzstan ©	0	0	0	0	0	0	0	0	0
Republic of Moldova	211	211	211	0	0	0	0	0	0
Russian Federation ©	525,191	525,191	525,191	0	0	0	0	0	0
Tajikistan ©	0	0	0	0	0	0	0	0	0
Turkmenistan ©	3,650	3,650	3,650	0	0	0	0	0	0
Ukraine	5,999	5,999	5,999	0	0	0	0	0	0
Uzbekistan	0	0	0	0	0	0	0	0	0
<b>Total: CIS</b>	<b>546,494</b>	<b>546,494</b>	<b>546,494</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Canada ©	99,582	84,086	83,931	155	433	15,063	11,880	3,182	0
United States of America ©	106,497	47,734	37,159	10,575	2,140	56,623	27,494	25,377	3,752
<b>Total: North America</b>	<b>206,079</b>	<b>131,820</b>	<b>121,090</b>	<b>10,730</b>	<b>2,573</b>	<b>71,686</b>	<b>39,374</b>	<b>28,559</b>	<b>3,752</b>
Australia ©	16,438	9,413			4	7,020			
Japan ©	23,276	9,540	6,975	2,565	0	13,736	9,931	1,470	2,335
New Zealand ©	1,851	453	403	50	0	1,398	117	603	678
<b>Total: Other TBFA</b>	<b>41,565</b>	<b>19,406</b>			<b>4</b>	<b>22,154</b>			
<b>Grand total</b>	<b>927,478</b>	<b>758,371</b>			<b>2,577</b>	<b>166,438</b>			

TABLE 16

## Managed forest (total) and forest available for wood supply by ownership categories: comparative data

Country	Managed forest (total)				Managed forest available for wood supply (FAWS)			
	Total	In public ownership	Owned by indigenous or tribal peoples	In private ownership	Total	In public ownership	Owned by indigenous or tribal peoples	In private ownership
	(Per cent of total forest)				(Per cent of total FAWS)			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Albania	39.4	39.4	0.0	0.0	17.3	17.3	0.0	0.0
Austria	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0
Belgium	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0
Bosnia and Herzegovina	88.2	95.7	0.0	60.7	54.5	65.6	0.0	14.5
Bulgaria	100.0	100.0	0.0	0.0	100.0	100.0	0.0	0.0
Croatia	86.3	96.9	0.0	53.5	85.6	96.7	0.0	53.3
Cyprus	100.0	100.0	0.0	100.0	100.0	100.0	0.0	0.0
Czech Republic	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0
Denmark	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0
Estonia	55.8	51.6	0.0	100.0	54.1	49.5	0.0	100.0
Finland	85.0	100.0	0.0	78.9	84.4	100.0	0.0	79.2
France	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0
Germany	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0
Greece	59.8	65.0	0.0	42.1	57.0	61.4	0.0	41.9
Hungary	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0
Iceland	43.3	88.9	0.0	23.8	92.9	100.0	0.0	50.0
Ireland	93.2	98.5	0.0	83.0	93.1	98.4	0.0	83.0
Israel	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0
Italy	11.3	33.1	0.0	0.1	18.6	54.3	0.0	0.2
Latvia	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0
Liechtenstein	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0
Lithuania	98.0	97.5	0.0	100.0	99.3	93.0	0.0	100.0
Luxembourg	12.0	25.7	0.0	0.0	12.0	25.7	0.0	0.0
Malta	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Netherlands	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0
Norway	82.1	85.7	0.0	81.5	84.3	90.3	0.0	83.4
Poland	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0
Portugal	35.5	97.6	0.0	30.6	22.6	100.0	0.0	13.4
Romania	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0
Slovakia	98.6	99.4	0.0	97.6	95.1	96.3	0.0	93.5
Slovenia	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0
Spain	86.6	99.0	0.0	80.9	90.0	100.0	0.0	87.8
Sweden	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0
Switzerland	98.3	98.0	0.0	98.9	98.3	98.0	0.0	98.9
The FYR of Macedonia	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0
Turkey	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0
United Kingdom	93.9	100.0	0.0	89.3	100.0	100.0	0.0	100.0
Yugoslavia	94.1	100.0	0.0	87.3	100.0	100.0	0.0	100.0
<b>Total: Europe</b>	<b>87.8</b>	<b>93.6</b>	<b>0.0</b>	<b>83.0</b>	<b>89.5</b>	<b>93.6</b>	<b>0.0</b>	<b>86.2</b>
<b>of which: EU 15</b>	<b>84.5</b>	<b>90.4</b>	<b>0.0</b>	<b>82.0</b>	<b>87.3</b>	<b>92.5</b>	<b>0.0</b>	<b>85.5</b>
Armenia	100.0	100.0	0.0	0.0	100.0	100.0	0.0	0.0
Azerbaijan	100.0	100.0	0.0	0.0	100.0	100.0	0.0	0.0
Belarus	96.3	96.3	0.0	0.0	96.3	96.3	0.0	0.0
Georgia	81.6	81.6	0.0	0.0	100.0	100.0	0.0	0.0
Kazakhstan	100.0	100.0	0.0	0.0	100.0	100.0	0.0	0.0
Kyrgyzstan	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Republic of Moldova	100.0	100.0	0.0	0.0	100.0	100.0	0.0	0.0
Russian Federation	100.0	100.0	0.0	0.0	100.0	100.0	0.0	0.0
Tajikistan	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Turkmenistan	100.0	100.0	0.0	0.0	100.0	100.0	0.0	0.0
Ukraine	100.0	100.0	0.0	0.0	100.0	100.0	0.0	0.0
Uzbekistan	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total: CIS</b>	<b>99.9</b>	<b>99.9</b>	<b>0.0</b>	<b>0.0</b>	<b>100.0</b>	<b>100.0</b>	<b>0.0</b>	<b>0.0</b>
Canada	70.9	70.6	54.4	74.3	79.1	80.6	67.7	72.2
United States of America	57.8	92.4	68.0	39.9	53.8	89.7	68.0	39.9
<b>Total: North America</b>	<b>64.8</b>	<b>76.0</b>	<b>64.5</b>	<b>44.9</b>	<b>63.6</b>	<b>83.7</b>	<b>67.9</b>	<b>44.1</b>
Australia	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Japan	100.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0
New Zealand	87.1	100.0	0.0	57.6	100.0	100.0	0.0	100.0
<b>Total: Other TBFA</b>	<b>99.5</b>	<b>100.0</b>	<b>100.0</b>	<b>97.7</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Grand total</b>	<b>88.9</b>	<b>94.4</b>	<b>91.6</b>	<b>64.6</b>	<b>87.4</b>	<b>96.2</b>	<b>68.0</b>	<b>61.9</b>

TABLE 17  
Ownership and management of forest not available for wood supply

Country	Ownership of forest not available for wood supply				of which: Managed			
	Total	In public ownership	Owned by indigenous or tribal peoples	In private ownership	Total	In public ownership	Owned by indigenous or tribal peoples	In private ownership
	(1000 ha)							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Albania	128	128	0	0	250	250		0
Austria	488	122	0	366	488	122		366
Belgium	7	3	0	3	7	3		3
Bosnia and Herzegovina	971	762	0	209	1,295	1,038		257
Bulgaria	466	466	0	0	466	466		0
Croatia	85	84	0	1	85	84		1
Cyprus	74	61	0	13	74	61		13
Czech Republic	71	71	0	0	71	71		0
Denmark	5	0	0	5	5	0		5
Estonia	84	84	0	0	80	80		0
Finland	1,208	1,168	0	40	1,168	1,168		0
France	686	178	0	508	686	178		508
Germany	598	356	0	242	598	356		242
Greece	265	199	0	66	244	215		29
Hungary	109	90	0	19	109	90		19
Iceland	16	5	0	11	0	4		0
Ireland	11	11	0	0	11	11		0
Israel	52	52	0	0	52	52		0
Italy	3,844	1,308	0	2,536	0	0		0
Latvia	471	314	0	157	471	314		157
Liechtenstein	3	3	0	0	3	3		0
Lithuania	292	237	0	55	264	295		55
Luxembourg	0	0	0	0	0	0		0
Malta	0	0	0	0	0	0		0
Netherlands	25	13	0	12	25	13		12
Norway	2,101	373	0	1,728	1,577	281		1,296
Poland	642	643	0	0	642	643		0
Portugal	1,486	48	0	1,438	773	42		731
Romania	684	678	0	7	684	678		7
Slovakia	310	155	0	155	366	184		182
Slovenia	64	20	0	44	64	20		44
Spain	3,030	2,304	0	726	2,262	2,262		0
Sweden	6,028	2,661	0	3,367	6,028	2,661		3,367
Switzerland	113	100	0	13	111	98		13
The FYR of Macedonia	161	126	0	35	161	126		35
Turkey	1,319	1,319	0	0	1,319	1,319		0
United Kingdom	361	107	0	254	211	107		104
Yugoslavia	515	344	0	171	344	344		0
<b>Total: Europe</b>	<b>26,773</b>	<b>14,593</b>	<b>0</b>	<b>12,181</b>	<b>20,994</b>	<b>13,639</b>		<b>7,446</b>
<b>of which: EU 15</b>	<b>18,042</b>	<b>8,478</b>	<b>0</b>	<b>9,563</b>	<b>12,506</b>	<b>7,138</b>		<b>5,367</b>
Armenia	313	313	0	0	313	313		0
Azerbaijan	783	783	0	0	783	783		0
Belarus	1,899	1,899	0	0	1,832	1,832		0
Georgia	2,398	2,398	0	0	1,848	1,848		0
Kazakhstan	5,571	5,571	0	0	5,571	5,571		0
Kyrgyzstan	729	729	0	0	729	729		0
Republic of Moldova	113	113	0	0	113	113		0
Russian Federation	291,347	291,347	0	0	291,347	291,347		0
Tajikistan	400	400	0	0	400	400		0
Turkmenistan	104	104	0	0	104	104		0
Ukraine	3,459	3,459	0	0	3,459	3,459		0
Uzbekistan	1,909	1,909	0	0	1,909	1,909		0
<b>Total: CIS</b>	<b>309,025</b>	<b>309,025</b>	<b>0</b>	<b>0</b>	<b>308,408</b>	<b>308,408</b>		<b>0</b>
Canada	118,708	115,029	436	3,243	73,818	70,835	152	2,831
United States of America	19,210	19,210	0	0	19,210	19,210		0
<b>Total: North America</b>	<b>137,918</b>	<b>134,239</b>	<b>436</b>	<b>3,243</b>	<b>93,028</b>	<b>90,045</b>		<b>2,831</b>
Australia	140,439	105,155	13,623	21,663	140,439	105,155	13,623	21,663
Japan	788	323	0	465	788	323		465
New Zealand	6,089	5,061	0	1,028	5,061	5,061		0
<b>Total: Other TBFA</b>	<b>147,316</b>	<b>110,539</b>	<b>13,623</b>	<b>23,156</b>	<b>146,288</b>	<b>110,539</b>		<b>22,128</b>
<b>Grand total</b>	<b>621,032</b>	<b>568,396</b>	<b>14,059</b>	<b>38,580</b>	<b>568,718</b>	<b>522,631</b>		<b>46,087</b>

TABLE 18  
Areas and number of holdings of forest and other wooded land

Country	Reference period	Area of forest and other wooded land		Area of forest *		Number of holdings		Average size of holdings of forest and other wooded land	
		In public ownership	In private ownership	In public ownership	In private ownership	In public ownership	In private ownership	In public ownership	In private ownership
		(1000 ha)				(Number)		(ha)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Albania ©	1995	1,030	0	1,030	0	36	0	28,611	0
Austria ©	1995	1,502	1,790	1,502	1,790	7,286	227,307	206	8
Belgium ©	1997	289	383	279	367	877	155,110	330	2
Bosnia and Herzegovina	1995	2,125	584	1,785	491				
Bulgaria	1995	3,903		3,590	0	177	0	22,053	0
Croatia ©	1996	1,651	454	1,341	434	672		2,457	
Cyprus ©	1996	162	118	104	13	423		383	
Czech Republic ©	1996	2,212	418	2,212	418	4,566	137,260	484	3
Denmark ©	1990	153	359	140	306	616	20,005	248	18
Estonia ©	1996	1,978	184	1,841	175	180	17,000	10,989	11
Finland ©	1996	6,720	15,885	6,280	15,440				
France ©	1995-96	4,228	12,761	3,965	11,191	15,926		265	
Germany ©	1996	6,107	3,334			13,040	349,361	468	10
Greece ©	1992	5,331	1,182	2,603	318	2,190	1,265	2,434	934
Hungary ©	1996	1,169	642	1,169	667	962	74,047	1,215	9
Iceland ©	1998								
Ireland	1996	391	200	391	200	148	15,264	2,642	13
Israel ©	1997	168	1	121	1	0		0	
Italy ©	1995	3,686	7,156	3,352	6,505	2,241	815,586	1,645	9
Latvia	1997	1,678	1,317	1,647	1,237	575	117,645	2,918	11
Liechtenstein	1995	6.90	0.50	6.40	0.50	15	584	460	1
Lithuania ©	1996	1,683	367	1,628	350	134	139,000	12,560	3
Luxembourg	1997	41	47			295	13,785	140	3
Malta ©	1996	0.347	0	0.347	0	21	0	17	0
Netherlands ©	1995	173	166	173	166	2,558	28,870	68	6
Norway ©	1989	2,936	9,064	1,226	7,484	1,302	171,079	2,255	53
Poland ©	1992-96	7,448	1,493	7,448	1,493	461	843,802	16,156	2
Portugal ©	1995	267	3,200	248	3,135	1,140	409,524	234	8
Romania ©	1997	6,320	360	5,961	340				
Slovakia ©	1996	1,133	898	1,124	892	573	28,659	1,977	31
Slovenia ©	1996	347	819	330	769	253	290,000	1,372	3
Spain ©	1990	5,608	20,376	4,235	9,274	8,718	661,992	643	31
Sweden ©	1992-96	6,151	24,121	4,567	22,712	13,557	260,386	454	93
Switzerland ©	1996	878	326	736	326	3,503	257,700	251	1
The FYR of Macedonia	1995	775	213	707	199				
Turkey ©	1996	20,695	18	9,939	15	1,614	145	12,822	124
United Kingdom ©	1995	1,072	1,417	1,072	1,397	646	106,000	1,659	13
Yugoslavia ©	1995	1,982	1,498	1,552	1,342		3,627		413
<b>Total: Europe</b>									
<b>of which: EU 15</b>		<b>40,217</b>	<b>90,587</b>						
Armenia ©	1996	392	0	334	0	32	0	12,250	0
Azerbaijan ©	1988	990	0	936	0				
Belarus	1994	8,936	0	7,865	0	1,971	0	4,534	0
Georgia	1995	2,988	0	2,988	0				
Kazakhstan	1993	16,673	0	10,504	0				
Kyrgyzstan	1988		0		0				
Republic of Moldova ©	1997	355	0	324	0	1,690	0	210	0
Russian Federation ©	1993	886,538	0	816,538	0	1,811	0	489,530	0
Tajikistan	1995	730	0	400	0				
Turkmenistan	1995	3,754	0	3,754	0				
Ukraine	1996	9,494	0	9,458	0	10,515	0	903	0
Uzbekistan ©	1988		0		0	60	0		0
<b>Total: CIS</b>			<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>
Canada ©	1994	388,927	27,206	219,399	24,096		425,000		64
United States of America ©	1994	127,120	171,015	72,425	144,908	64	9,938,000	1,986,250	17
<b>Total: North America</b>		<b>516,047</b>	<b>198,221</b>	<b>291,824</b>	<b>169,004</b>		<b>10,363,000</b>		<b>19</b>
Australia ©	1990-94		114,609	13,351	28,683				
Japan ©	1990	10,573	14,573	9,863	14,201	3,467	2,859,492	3,050	5
New Zealand ©	1996	5,514	2,426	5,514	2,426				
<b>Total: Other TBFA</b>			<b>131,608</b>	<b>28,728</b>	<b>45,310</b>				
<b>Grand total</b>									

© See notes and comments in Chapter II.

\* Area corresponding to the data on number and size of holdings may not coincide with figures elsewhere.



TABLE 19

## Area of holdings of forest and other wooded land in public ownership by size classes

Country	Reference period	Size classes in hectares							
		< 10	11 - 20	21 - 50	51 - 100	101 - 500	501 - 10000	10001 - 100000	> 100000
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1000 ha)									
Albania ©	1995						42	988	
Austria ©	1995	9.0	11.0	29.0	36.0	72.0	0	1,345	0
Belgium ©	1997	1.2	1.0	1.9	4.5	36.1	244	0	0
Bosnia and Herzegovina	1995								
Bulgaria	1995						238	3,665	
Croatia ©	1996					10.0	1,631	10	
Cyprus ©	1996	0.6	0.8	2.1	3.5	12.7	58	84	0
Czech Republic ©	1996	6.0	6.0	17.0	21.0	77.0	134	1,951	0
Denmark ©	1990	15.4	0.8	1.7	3.0	13.0	134	0	0
Estonia ©	1996			1.0	1.0	1.0	466	1,509	
Finland ©	1996								
France ©	1995-96	7.0	20.2	92.0	188.9	1,272.6	2,437	210	
Germany ©	1996		88.9		254.7	412.0		5,352	
Greece ©	1992			2.0	2.0	5,408.0			
Hungary ©	1996	1.3	1.2	3.5	5.0	25.2	931	202	0
Iceland ©	1998								
Ireland	1996			1.0	2.0	2.0	386	0	0
Israel ©	1997	0.0	0.0	0.0	0.0				0
Italy ©	1995	9.0	9.0	21.0	35.0	3,612.0	0	0	0
Latvia	1997	0.1	0.2	1.3	24.2	99.5	80	1,473	
Liechtenstein	1995	0.0	0.0	0.0	0.15	4.10	2.7	0	0
Lithuania ©	1996	0.3	0.3	0.8	1.8	1.7	31	1,647	0
Luxembourg	1997	0.3	0.2	0.6	1.4	25.3	14	0	0
Malta ©	1996	0.16	0.04	0.15	0.0	0.0	0	0	0
Netherlands ©	1995	5.0	6.0	12.0	14.0	48.0	88	0	0
Norway ©	1989	0.0	1.0	6.0	12.0	94.0	1,105	1,053	665
Poland ©	1992-96				0.1		473	6,812	163
Portugal ©	1995	0.0	4.0	24.0	6.0	5.0	228	0	0
Romania ©	1997		5,283.3						
Slovakia ©	1996	1.0	3.0	5.0	6.0	29.0	182	169	738
Slovenia ©	1996	0.0	0.0	0.0	0.2	15.0	332	0	0
Spain ©	1990								
Sweden ©	1992-96	18.0	25.0	101.0	137.0	645.0	1,140	1,521	2,564
Switzerland ©	1996	3.0	5.0	22.0	43.0	311.0	210	274	10
The FYR of Macedonia	1995								0
Turkey ©	1996					5.0	4,396	16,035	259
United Kingdom ©	1995	0.0	2.0	4.0	9.0	25.0	164	868	0
Yugoslavia ©	1995	0.0	0.0	0.0	8.5	17.3	58	1,898	0
<b>Total: Europe</b>									
<b>of which: EU 15</b>									
Armenia ©	1996	0.0	0.0	0.0	0.0	0.0	73	319	0
Azerbaijan ©	1988	0.0							
Belarus	1994	0.0	0.0	0.0	2,530.6	4,405.2	256	1,109	635
Georgia	1995	0.0	0.0	0.0	0.0				
Kazakhstan	1993	0.0	0.0	0.0					16,673
Kyrgyzstan	1988								
Republic of Moldova ©	1997	2.6	3.0	11.2	13.5	39.3	30	255	0
Russian Federation ©	1993	0.0	0.0	0.0	0.0	0.0			
Tajikistan	1995	0.0	0.0	0.0	0.0				
Turkmenistan	1995	0.0	0.0	0.0					
Ukraine	1996	6.0	8.0	35.0	81.0	1,159.0	1,505	6,556	144
Uzbekistan ©	1988	0.0	0.0	0.0					
<b>Total: CIS</b>									
Canada ©	1994								
United States of America ©	1994						56	2,111	124,953
<b>Total: North America</b>									
Australia ©	1990-94								
Japan ©	1990	3.0	3.0	13.0	25.0	245.0	10,301		
New Zealand ©	1996								
<b>Total: Other TBFRA</b>									
<b>Grand total</b>									

TABLE 20

## Area of holdings of forest and other wooded land in private ownership by size classes

Country	Reference period	Size classes in hectares								
		< 3	3 - 5	6 - 10	11 - 20	21 - 50	51 - 100	101 - 500	501 - 10000	> 10000
		(1000 ha)								
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Albania ©	1995	0.0	0.0	0.0						
Austria ©	1995	0.0	87.0	110.0	214.0	516.0	263.0	189	0	411
Belgium ©	1997	84.3	26.4	35.4	43.6	50.6	51.8	69	21	0
Bosnia and Herzegovina	1995									
Bulgaria	1995									
Croatia ©	1996	454.0								
Cyprus ©	1996									
Czech Republic ©	1996	125.0	36.0	36.0	17.0	23.0	13.0	99	57	12
Denmark ©	1990	27.3	23.2	40.8	30.3	41.5	23.0	77	102	0
Estonia ©	1996	8.0	13.0	32.0	59.0	57.0	14.0		1	
Finland ©	1996		532.0		2,717.0	3,580.0	2,515.0	1,659	376	
France ©	1995-96									
Germany ©	1996					1,764.9	404.3	287.3	197	680
Greece ©	1992			3.0	3.0	7.0	8.0	51.0	351	
Hungary ©	1996									
Iceland ©	1998									
Ireland	1996	6.0	12.0	30.0	60.0	61.0	15.0	10.0	6	0
Israel ©	1997	0.0	0.7	0.0	0.0	0.0	0.0	0.3	0	0
Italy ©	1995	365.0	340.0	626.0	735.0	959.0	666.0	3,465.0	0	0
Latvia	1997	48.0	117.0	227.0	376.0	437.0	100.0	12.0		
Liechtenstein	1995	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0	0
Lithuania ©	1996	83.2	133.2	69.5	53.2	24.4	3.5	0.0	0	0
Luxembourg	1997	6.2	7.8	7.8	7.5	8.2	3.3	4.3	2	0
Malta ©	1996									
Netherlands ©	1995	38.0	13.0	6.0	11.0	20.0	15.0	40.0	23	0
Norway ©	1989	34.0	71.0	168.0	378.0	1,137.0	1,419.0	3,425.0	2,015	417
Poland ©	1992-96	823.0	262.0	234.0	110.0	65.0				
Portugal ©	1995	396.0	245.0	110.0	197.0	256.0	225.0	953.0	818	0
Romania ©	1997									
Slovakia ©	1996	81.0	76.0	60.0	50.0	65.0	60.0	258.0	72	176
Slovenia ©	1996	246.0	114.0	182.0	152.0	92.0	33.0	0.0	0	0
Spain ©	1990									
Sweden ©	1992-96	32.0	109.0	259.0	665.0	2,132.0	2,825.0	6,133.0	3,811	8,155
Switzerland ©	1996									
The FYR of Macedonia	1995									0
Turkey ©	1996					1.0	1.0	4.0	12	
United Kingdom ©	1995	83.0	61.0	104.0	119.0	198.0	188.0	364.0	300	0
Yugoslavia ©	1995	1,498.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0
<b>Total: Europe</b>										
<b>of which: EU 15</b>										
Armenia ©	1996	0	0	0	0	0	0	0	0	0
Azerbaijan ©	1988	0	0	0	0	0	0	0	0	0
Belarus	1994	0	0	0	0	0	0	0	0	0
Georgia	1995	0	0	0	0	0	0	0	0	0
Kazakhstan	1993	0	0	0	0	0	0	0	0	0
Kyrgyzstan	1988	0	0	0	0	0	0	0	0	0
Republic of Moldova ©	1997	0	0	0	0	0	0	0	0	0
Russian Federation ©	1993	0	0	0	0	0	0	0	0	0
Tajikistan	1995	0	0	0	0	0	0	0	0	0
Turkmenistan	1995	0	0	0	0	0	0	0	0	0
Ukraine	1996	0	0	0	0	0	0	0	0	0
Uzbekistan ©	1988	0	0	0	0	0	0	0	0	0
Total: CIS		0	0	0	0	0	0	0	0	0
Canada ©	1994									
United States of America ©	1994	5,884.0	3,920.0	9,224.0	12,866.0	27,309.0	16,877.0	26,663	17,445	50,827
<b>Total: North America</b>										
Australia ©	1990-94									
Japan ©	1990		3,238.0	1,508.0	1,634.0	1,880.0	1,086.0	2,001	2,814	
New Zealand ©	1996									
<b>Total: Other TBFR</b>										
<b>Grand total</b>										

TABLE 21  
Area of holdings of forest in public ownership by size classes

Country	Reference period	Size classes in hectares							
		< 10	11 - 20	21 - 50	51 - 100	101 - 500	501 - 10000	10001 - 100000	> 100000
		(1000 ha)							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Albania ©	1995						42	988	
Austria ©	1995	9.0	11.0	29.0	36.0	72	0	1,345	0
Belgium ©	1997	1.2	1.0	1.9	4.4	35	236	0	0
Bosnia and Herzegovina	1995								
Bulgaria	1995	0.0	0.0	0.0	0.0	0	219	3,371	0
Croatia ©	1996					10	1,321	10	
Cyprus ©	1996								0
Czech Republic ©	1996	6.0	6.0	17.0	21.0	77	134	1,951	0
Denmark ©	1990	0.4	0.8	1.7	3.0	13	121	0	0
Estonia ©	1996			1.0	1.0	1	450	1,388	
Finland ©	1996								
France ©	1995-96	7.0	19.5	89.4	185.3	1,236	2,235	193	
Germany ©	1996								
Greece ©	1992								
Hungary ©	1996	1.3	1.2	3.5	5.0	25	931	202	0
Iceland ©	1998								
Ireland	1996			1.0	2.0	2	386	0	0
Israel ©	1997	0.0	0.0	0.0	0.0				0
Italy ©	1995	8.0	8.0	20.0	32.0	3,284	0	0	0
Latvia	1997	0.0	0.2	1.1	22.9	89	79	1,455	
Liechtenstein	1995	0.0	0.0	0.0	0.2	4	2	0	0
Lithuania ©	1996	0.2	0.2	0.5	1.4	1	29	1,594	0
Luxembourg	1997								
Malta ©	1996								
Netherlands ©	1995	5.0	6.0	12.0	14.0	48	88	0	0
Norway ©	1989	0.0	1.0	5.0	11.0	81	505	436	187
Poland ©	1992-96				0.1		473	6,812	163
Portugal ©	1995	0.0	4.0	12.0	4.0	5	223	0	0
Romania ©	1997		5,283.3						
Slovakia ©	1996	1.0	2.0	4.0	4.0	26	177	171	739
Slovenia ©	1996	0.0	0.0	0.0	0.2	15	315	0	0
Spain ©	1990								
Sweden ©	1992-96	17.0	23.0	91.0	124.0	579	971	1,089	1,673
Switzerland ©	1996	3.0	5.0	21.0	39.0	267	171	222	8
The FYR of Macedonia	1995								0
Turkey ©	1996					2	2,375	7,464	98
United Kingdom ©	1995	0.0	2.0	4.0	9.0	25	164	868	0
Yugoslavia ©	1995	0.0	0.0	0.0					0
<b>Total: Europe</b>									
<b>of which: EU 15</b>									
Armenia ©	1996	0.0	0.0	0.0	0.0	0	51	283	0
Azerbaijan ©	1988	0.0							
Belarus	1994	0.0	0.0	0.0	2,486.0	3,674	227	929	550
Georgia	1995	0.0	0.0	0.0	0.0				
Kazakhstan	1993	0.0	0.0	0.0					10,504
Kyrgyzstan	1988								
Republic of Moldova ©	1997	0.0	0.0	6.0	10.8	27	25	255	0
Russian Federation ©	1993	0.0	0.0	0.0	0.0	0			
Tajikistan	1995	0.0	0.0	0.0	0.0				
Turkmenistan	1995	0.0	0.0	0.0					
Ukraine	1996	6.0	7.0	31.0	79.0	1,150	1,497	6,544	144
Uzbekistan ©	1988	0.0	0.0	0.0					
<b>Total: CIS</b>									
Canada ©	1994								
United States of America ©	1994						32	1,203	71,191
<b>Total: North America</b>									
Australia ©	1990-94	4.0	4.0	17.0	28.0	284	4,116	7,419	1,479
Japan ©	1990								
New Zealand ©	1996								
<b>Total: Other TBFRA</b>									
<b>Grand total</b>									

TABLE 22  
Area of holdings of forest in private ownership by size classes

Country	Reference period	Size classes in hectares								
		< 3	3 - 5	6 - 10	11 - 20	21 - 50	51 - 100	101 - 500	501 - 10000	> 10000
		(1000 ha)								
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Albania ©	1995									
Austria ©	1995	0.0	87.0	110.0	214.0	516	263	189	0	411
Belgium ©	1997	80.8	25.3	33.9	41.8	48	50	67	20	0
Bosnia and Herzegovina	1995									
Bulgaria	1995									
Croatia ©	1996	434.0								
Cyprus ©	1996									
Czech Republic ©	1996	125.0	36.0	36.0	17.0	23	13	99	57	12
Denmark ©	1990	7.3	3.2	21.8	25.3	31	23	77	102	0
Estonia ©	1996	8.0	12.0	30.0	56.0	54	14		1	
Finland ©	1996									
France ©	1995-96									
Germany ©	1996									
Greece ©	1992									
Hungary ©	1996									
Iceland ©	1998									
Ireland	1996	6.0	12.0	30.0	60.0	61	15	10	6	0
Israel ©	1997	0.0	0.7	0.0	0.0	0	0	0	0	0
Italy ©	1995	332.0	309.0	569.0	668.0	872	605	3,150	0	0
Latvia	1997	45.0	110.0	213.0	354.0	410	94	11		
Liechtenstein	1995		0.0	0.0	0.0	0	0		0	0
Lithuania ©	1996	79.0	127.8	65.1	50.7	24	3	0	0	0
Luxembourg	1997									
Malta ©	1996	0.0	0.0	0.0	0.0	0	0	0	0	0
Netherlands ©	1995	38.0	13.0	6.0	11.0	20	15	40	23	0
Norway ©	1989	28.0	63.0	149.0	334.0	992	1,205	2,771	1,618	324
Poland ©	1992-96	823.0	262.0	234.0	110.0	65				
Portugal ©	1995	376.0	239.0	105.0	197.0	256	225	953	784	0
Romania ©	1997									
Slovakia ©	1996	76.0	75.0	60.0	50.0	65	60	258	72	176
Slovenia ©	1996	231.0	107.0	171.0	143.0	86	31	0	0	0
Spain ©	1990	251.0	366.0	369.0	412.0	610	677	3,053	8,167	
Sweden ©	1992-96	32.0	106.0	251.0	639.0	2,043	2,689	5,738	3,565	7,649
Switzerland ©	1996									
The FYR of Macedonia	1995									0
Turkey ©	1996					1	1	3	10	
United Kingdom ©	1995	73.0	51.0	104.0	119.0	198	188	364	300	0
Yugoslavia ©	1995	1,342.0	0.0	0.0	0.0	0	0	0	0	0
<b>Total: Europe</b>										
<b>of which: EU 15</b>										
Armenia ©	1996	0	0	0	0	0	0	0	0	0
Azerbaijan ©	1988	0	0	0	0	0	0	0	0	0
Belarus	1994	0	0	0	0	0	0	0	0	0
Georgia	1995	0	0	0	0	0	0	0	0	0
Kazakhstan	1993	0	0	0	0	0	0	0	0	0
Kyrgyzstan	1988	0	0	0	0	0	0	0	0	0
Republic of Moldova ©	1997	0	0	0	0	0	0	0	0	0
Russian Federation ©	1993	0	0	0	0	0	0	0	0	0
Tajikistan	1995	0	0	0	0	0	0	0	0	0
Turkmenistan	1995	0	0	0	0	0	0	0	0	0
Ukraine	1996	0	0	0	0	0	0	0	0	0
Uzbekistan ©	1988	0	0	0	0	0	0	0	0	0
<b>Total: CIS</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Canada ©	1994									
United States of America ©	1994	4,986.0	3,321.0	7,815.0	10,901.0	23,139	14,300	22,592	14,781	43,072
<b>Total: North America</b>										
Australia ©	1990-94									
Japan ©	1990									
New Zealand ©	1996									
<b>Total: Other TBFRA</b>										
<b>Grand total</b>										

TABLE 23

## Number of holdings of forest and other wooded land in public ownership by size classes

Country	Reference period	Size classes in hectares							
		< 10	11 - 20	21 - 50	51 - 100	101 - 500	501 - 10000	10001 - 100000	> 100000
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Albania ©	1995						8	28	
Austria ©	1995	2353	906	1,155	736	803	0	1,333	0
Belgium ©	1997	415	75	58	64	135	130	0	0
Bosnia and Herzegovina	1995								
Bulgaria	1995	0	0	0	0	0	32	145	0
Croatia ©	1996					34	637	1	
Cyprus ©	1996	162	52	66	50	56	34	3	0
Czech Republic ©	1996	2522	511	651	388	327	65	102	0
Denmark ©	1990	374	56	53	37	60	36	0	0
Estonia ©	1996	24	18	12	10	2	50	64	
Finland ©	1996								
France ©	1995-96	1358	1,410	2,809	2,637	5,759	1,938	15	
Germany ©	1996		7,402		2,334	1,283	691		1,330
Greece ©	1992			147	83	1,960			
Hungary ©	1996	396	80	107	70	106	186	17	0
Iceland ©	1998								
Ireland	1996	9	6	8	14	8	103	0	0
Israel ©	1997	0	0	0	0	1	9	2	0
Italy ©	1995	733	194	211	154	949	0	0	0
Latvia	1997	12	15	28	256	223	8	33	
Liechtenstein	1995	0	0	0	2	11	2	0	0
Lithuania ©	1996	36	11	13	16	6	5	47	0
Luxembourg	1997	123	17	19	21	97	20	0	0
Malta ©	1996	16	2	3	0	0	0	0	0
Netherlands ©	1995	1227	422	403	195	224	87	0	0
Norway ©	1989	167	69	180	163	392	301	27	3
Poland ©	1992-96				1		60	400	
Portugal ©	1995	0	266	685	81	39	69	0	0
Romania ©	1997		400						
Slovakia ©	1996	78	100	116	58	104	104	9	4
Slovenia ©	1996	0	1	0	3	59	190	0	0
Spain ©	1990								
Sweden ©	1992-96	3600	1,600	2,810	1,740	2,780	960	60	7
Switzerland ©	1996	523	340	593	539	1,128	247	132	1
The FYR of Macedonia	1995								0
Turkey ©	1996	41		3	4	19	727	818	2
United Kingdom ©	1995	0	120	120	140	101	128	37	0
Yugoslavia ©	1995	0	0	0					0
<b>Total: Europe</b>									
<b>of which: EU 15</b>									
Armenia ©	1996	0	0	0	0	0	19	13	0
Azerbaijan ©	1988								
Belarus	1994	0	0	0	666	1,198	13	82	12
Georgia	1995	0	0	0	0				
Kazakhstan	1993	0	0	0					
Kyrgyzstan	1988								
Republic of Moldova ©	1997	730	200	320	180	212	30	18	0
Russian Federation ©	1993	0	0	0	0	0	124	760	927
Tajikistan	1995	0	0	0	0				
Turkmenistan	1995	0	0	0					
Ukraine	1996	1375	555	1,039	1,094	5,175	1,032	244	1
Uzbekistan ©	1988	0	0	0					
<b>Total: CIS</b>									
Canada ©	1994								
United States of America ©	1994						13	45	6
<b>Total: North America</b>									
Australia ©	1990-94								
Japan ©	1990	791	227	392	339	990	728		
New Zealand ©	1996								
<b>Total: Other TBFRA</b>									
<b>Grand total</b>									

TABLE 24

## Number of holdings of forest and other wooded land in private ownership by size classes

Country	Reference period	Size classes in hectares								
		< 3	3 - 5	6 - 10	11 - 20	21 - 50	51 - 100	101 - 500	501 - 10000	> 10000
(Number)										
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Albania ©	1995									
Austria ©	1995	0	58,115	35,649	42,542	77,869	9,565	2,442	0	1,125
Belgium ©	1997	136,799	7,007	5,214	3,258	1,647	759	420	26	0
Bosnia and Herzegovina	1995									
Bulgaria	1995									
Croatia ©	1996	500,000								
Cyprus ©	1996									
Czech Republic ©	1996	119,443	10,954	4,530	1,124	660	132	389	27	1
Denmark ©	1990	6,875	6,134	3,302	1,892	1,025	336	347	94	0
Estonia ©	1996	3,983	3,240	4,160	3,840	1,760	16		1	
Finland ©	1996		147,141		131,965	99,718	43,209	16,627	529	
France ©	1995-96									
Germany ©	1996					343,496	4,456	927	286	196
Greece ©	1992			613	139	146	77	151	139	
Hungary ©	1996									
Iceland ©	1998									
Ireland	1996	3,000	3,000	4,000	3,500	1,500	200	60	4	0
Israel ©	1997	0		0	0	0	0	1	0	0
Italy ©	1995	322,164	163,560	150,151	91,802	55,831	17,455	14,623	0	0
Latvia	1997	27,997	25,300	25,948	23,365	13,490	1,458	87		
Liechtenstein	1995	583	0	0	0	0	0	1	0	0
Lithuania ©	1996	84,473	39,715	10,236	3,832	738	6	0	0	0
Luxembourg	1997	9,304	2,467	1,118	544	278	51	22	1	0
Malta ©	1996									
Netherlands ©	1995	22,344	3,822	869	739	647	222	204	21	0
Norway ©	1989	30,498	17,505	21,295	25,398	35,538	20,592	18,362	1,866	25
Poland ©	1992-96	755,203	53,160	27,002	6,750	1,688				
Portugal ©	1995	347,277	5,866	28,730	12,705	7,473	2,989	3,737	747	0
Romania ©	1997									
Slovakia ©	1996	10,000	14,620	489	474	892	785	1,222	100	77
Slovenia ©	1996	232,870	24,070	20,880	8,990	2,700	490	0	0	0
Spain ©	1990	405,346	126,198	56,364	31,732	20,570	9,910	14,901	5,689	
Sweden ©	1992-96	21,280	27,560	32,720	42,810	62,890	39,220	32,340	1,350	216
Switzerland ©	1996									
The FYR of Macedonia	1995									0
Turkey ©	1996	9	49	18	16	18	12	16	7	
United Kingdom ©	1995	59,000	13,200	14,500	8,400	6,200	2,500	1,800	400	0
Yugoslavia ©	1995	3,627	0	0	0	0	0	0	0	0
<b>Total: Europe</b>										
<b>of which: EU 15</b>										
Armenia ©	1996	0	0	0	0	0	0	0	0	0
Azerbaijan ©	1988	0	0	0	0	0	0	0	0	0
Belarus	1994	0	0	0	0	0	0	0	0	0
Georgia	1995	0	0	0	0	0	0	0	0	0
Kazakhstan	1993	0	0	0	0	0	0	0	0	0
Kyrgyzstan	1988	0	0	0	0	0	0	0	0	0
Republic of Moldova ©	1997	0	0	0	0	0	0	0	0	0
Russian Federation ©	1993	0	0	0	0	0	0	0	0	0
Tajikistan	1995	0	0	0	0	0	0	0	0	0
Turkmenistan	1995	0	0	0	0	0	0	0	0	0
Ukraine	1996	0	0	0	0	0	0	0	0	0
Uzbekistan ©	1988	0	0	0	0	0	0	0	0	0
<b>Total: CIS</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Canada ©	1994									
United States of America ©	1994	5,484,400	1,007,400	1,202,800	884,500	913,700	260,000	166,700	17,300	1,200
<b>Total: North America</b>										
Australia ©	1990-94									
Japan ©	1990		2,693,255	94,909	49,916	12,401	7,821	1,190		
New Zealand ©	1996									
<b>Total: Other TBFR</b>										
<b>Grand total</b>										

## NOTES AND COMMENTS RELATING TO CHAPTER II

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### Main Tables

### Comments

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**Note: For comments on this chapter please consult also the comments for Chapter I.**

#### Albania

##### 9-17

*Enquiry Table 5:* The forests for wood supply compose 87.6 per cent (or 902,000 ha) and all belong in public ownership or state ownership.

For forest total, about 39.4 per cent (or 406,100 ha) are managed, while for forests available for wood supply, 17.3 per cent (or 156,500 ha) are managed, all included in public ownership-state ownership.

The trend of managed forests area is increasing but there is a need for improvements in methodology of management plan preparation, permanent sample plots and monitoring, using modern equipment, also after changes that may occur in forest ownership.

Changes of forest ownership are in process. According to previsions the forest ownership structure would eventually be as follows:

Private: 63,000 ha or 6.1 per cent; Communal: 215,000 ha or 20.9 per cent; State: 751,960 ha or 73.0 per cent.

##### 18-24

*Enquiry Table 6:* The public forests according to ownership classes are as follows:

501 to 10,000 ha: 41,600 ha or 4 per cent.

10,000 to 100,000 ha: 988,400 ha or 96 per cent.

The total number of holdings is 36, so for each district there is one Forest Service Directorate. There are 8 or 22.2 per cent of the Forest Service Directorates in the class 501 to 10,000 ha and 28 or 77.8 per cent in the class 10,000 to 100,000 ha. Each Forest Service Directorate manages the forest in the area of each district.

According to the World Bank Project on development of forestry in Albania it is foreseen to separate the policy body from the economy body so that General Directorate of Forest and Pastures inside of Ministry of Agriculture and Food would be the policy body, which would prepare the Forestry Development Policy of Albania, with financial support by the state budget, and the Forest Corporation as the economy body, which would realize the economic activity and be self-financing.

#### Armenia

##### 18-24

*Enquiry Table 6:* "Holdings" = forest districts, which are the smallest units for decision-making in Armenian Forestry. Every Forest Enterprise consists of 3-5 forest districts, depending on the entire size of the enterprise's forest area.

#### Australia

##### 9-17

*Enquiry Table 5:* For the purposes of this table the following assumptions have been made:

###### 1. Definitions :

- "managed" is defined as any land under tenure.
- Aboriginal ownership is defined as Aboriginal freehold i.e. does not include Aboriginal Leasehold or Reserve.

###### 2. Totals for forest in public, indigenous and private ownership are derived from the above sources in the following manner:

Forest, total–In public ownership: The total forest in public ownership includes public plantation, State Forest, Nature Conservation Reserves, Leasehold Land and Other Crown Land. It also includes over 1.1 million ha of unresolved tenure.

Forest, total–Owned by indigenous or tribal peoples: The total area owned by indigenous people includes Aboriginal freehold and Aboriginal plantation.

Forest, total–In private ownership: The total area in private ownership (non-aboriginal) includes native private forest and plantation.

3. For areas available for wood supply, the total and managed columns contain indicative figures only:

Forest available for wood supply--In public ownership: Public forest estate which is available for wood supply includes public plantation, net harvestable area of State Forest and over 54 per cent of commercial forest types in Leasehold Land and Other Crown Land (see also *Enquiry Table 3* comments).

Over 1 million ha of public forest available for wood supply is leasehold land. These leases are publicly owned but privately managed, mainly for the purposes of grazing. Commercial timber rights are largely unused by the state forest management agencies.

Forest available for wood supply--State ownership: Figures are available for forest owned by public institutions (851,565 ha) but not for the areas available for wood supply. The 54.47 per cent proportion is not appropriate to apply to these areas.

Forest available for wood supply--Owned by indigenous or tribal peoples: It is unknown how much of Aboriginal freehold is available for wood supply or managed; only Aboriginal plantation is included in each total (available for wood supply and managed).

Forest available for wood supply--In private ownership: The private forest estate which is available for wood supply includes private plantation and over 54 per cent of commercial forest types on Private Land.

An area of 461,300 ha of other wooded land under "other" ownership (than public, private or by indigenous peoples) has been included under public ownership.

#### 18-24

*Enquiry Table 6:* The definition of "holding" used in this table is different from the FAO definition.

The area of forest in each of the nominated parcel size classes within all State Forest tenures has been provided.

The figure of 13,351 for "In public ownership" refers to State Forest holdings only.

Data source: National Forest Inventory, 1997.

#### Austria

##### 9-17

*Enquiry Table 5:* Forest available for wood supply includes productive forests and protection forests available for wood supply. However, the area of "unproductive" protection forests cannot be taken into account. Therefore the data seemed to be out of likely range. To clarify that, see table below:

	<i>Total area</i>		<i>Total area</i>
1. Forest total	3,840	3. Forest not available for wood supply	488
public	672	public	122
private	3,168	private	366
2. Forest available for wood supply	3,352	4. Other wooded land	84
public	550	public	40
private	2,802	private	44

"Owned by forest industries": No forest owned by forest industries in Austria.

#### 18-24

*Enquiry Table 6:* The "Survey of the Agricultural Structure 1995" of the Austrian Statistical Office covers only holdings up from a minimum size of 1 ha, irrespective of the use of the land area. The assessment of forests is without any classification.

The Austrian Forest Inventory covers 3 ownership classes (forests <200 ha, forests >200 ha and state [public] forests), but there is no assessment of the number of holdings as the Austrian Forest Inventory is a sample plot based survey. Therefore any estimate of forest and other wooded land in the various ownership categories and holding size classes is not reliable. To avoid any misinterpretation, column "forest and other wooded land" will not be filled in; the sum of (In public ownership + In private ownership = 3,292,000 ha) in column "of which: forest" corresponds to the forest area available for wood supply in table 3 "Forest and other wooded land according to availability for wood supply" and table 4 "High forest and coppice" etc. The figures of average size of holdings in Main Table 18 are of forest available for wood supply.

(Source: Austrian Forest Inventory).

#### Azerbaijan

##### 9-17

*Enquiry Table 5:* All forests are State property and therefore managed. Data unadjusted.

#### 18-24

*Enquiry Table 6:* All forests are publicly (State-) owned.

#### Belarus

##### 9-17

*Enquiry Table 5:* Publicly-owned forests and other wooded land in Belarus are State property.



**Belgium****18-24**

*Enquiry Table 6:* Private forests: extrapolation of data between 1959 and 1970. Public forests: internal statistics.

**Bosnia and Herzegovina****9-17**

*Enquiry Table 5:* Data on ownership categories on managed other wooded land are not available.

**Canada****9-17**

*Enquiry Table 5:* Reference source for Total area (a), and source for Managed area (b):

“Forest, total”: (a) Source: From *Enquiry Table 1* (item 1.5), Timber productive forest; (b) Timber productive forest (from Management type source inventories) (The source inventories for Canada's Forest Inventory are classified as to type). Management inventories are detailed, intensive forest inventories for management purposes of areas to be managed as a unit. The forest types are usually mapped in detail with estimates given for each type.

“In public ownership” on Forest, total: (a) Timber productive forest of ownership classes Crown–other federal (1), Crown–provincial/territorial (3), and missing value (8) with adjustment downward for land claims settlement in the Northwest Territories; (b) Timber productive forest (from Management type source inventories) and ownership classes 1, 3, and 8.

“Owned by indigenous or tribal people” on Forest, total: (a) Timber productive forest of ownership class Native (2) with adjustment upward for land claims settlements in the Northwest Territories; (b) Timber productive forest (from Management type source inventories) and ownership class 2.

“In private ownership” on Forest, total: Timber productive forest of ownership classes industrial private (4), non-industrial private (5), municipal (6), and unspecified private (7); (b) Timber productive forest (from Management type source inventories) and ownership classes 4, 5, 6, and 7.

“Forest available for wood supply”: (a) From *Enquiry Table 3*, Accessed non-reserved timber productive forest, adjusted as described in *Table 3*; (b) Accessed non-reserved timber productive forest (from Management type source inventories), adjusted as described in *Enquiry Table 3*.

“In public ownership” on Forest available for wood supply: (a) Accessed non-reserved timber productive forest of ownership classes 1, 3, and 8, adjusted as described in *Enquiry Table 3*; (b) Accessed non-reserved timber productive forest (from Management type source inventories) and ownership classes 1, 3, and 8, adjusted as described in *Enquiry Table 3*.

“State ownership” on Forest available for wood supply: (a) Accessed non-reserved timber productive forest of ownership class 1, 3, and 8, adjusted as described in *Enquiry Table 3*; (b) Accessed non-reserved timber productive forest (from Management type source inventories) and ownership classes 1, 3, and 8, adjusted as described in *Enquiry Table 3*.

“Owned by indigenous or tribal peoples”: (a) Accessed non-reserved timber productive forest of ownership class 2, adjusted as described in *Enquiry Table 3*; (b) Accessed non-reserved timber productive forest (from Management type source inventories) and ownership class 2, adjusted as described in *Enquiry Table 3*.

“In private ownership”: (a) Accessed non-reserved timber productive forest of ownership class 4, 5, 6, and 7, adjusted as described in *Enquiry Table 3*; (b) Accessed non-reserved timber productive forest (from Management type source inventories) and ownership classes 4, 5, 6, and 7, adjusted as described in *Enquiry Table 3*.

“Owned by individuals” in private ownership: (a) Accessed non-reserved timber productive forest of ownership class 5, 6, and 7, adjusted as described in *Enquiry Table 3*; (b) Accessed non-reserved timber productive forest (from Management type source inventories) and ownership classes 5, 6, and 7, adjusted as described in *Enquiry Table 3*.

“Owned by forest industries” in private ownership: (a) Accessed non-reserved timber productive forest of ownership class 4; (b) Accessed non-reserved timber productive forest (from Management type source inventories) and ownership class 4.

“Owned by other private institutions” in private ownership: (a) Not available; (b) Not available.

“Other wooded land”: (a) From *Enquiry Table 1* (item 1.6), Forest land + timber unproductive forest; (b) Forest land + timber unproductive forest (from Management type source inventories).

“In public ownership” on other wooded land”: (a) Forest land + timber unproductive forest of ownership class 1, 3, and 8; (b) Forest land + timber unproductive forest (from Management type source inventories) and ownership classes 1, 3, and 8.

“Owned by indigenous or tribal peoples” on other wooded land”: (a) Forest land + timber unproductive forest of ownership class 2; (b) Forest land + timber unproductive forest (from Management type source inventories) and ownership class 2.

“In private ownership on other wooded land”: (a) Forest land + timber unproductive forest of ownership class 4, 5, 6, and 7; (b) Forest land + timber unproductive forest (from Management type source inventories) and ownership classes 4, 5, 6, and 7.

**18-24**

*Enquiry Table 6:*

Reference Source for Forest and other wooded land (a); and Source for Forest (b)

“In public ownership”: (a) (Forest land + timber productive forest + timber unproductive forest) of ownership classes 1, 3, and 8 (“In public ownership” on forest total + “In public ownership” on other wooded land 5.15) See *Table 5* for names of ownership classes; (b) Timber productive forest of ownership classes 1, 3, and 8 (In public ownership).

“In private ownership”: (a) (Forest land + timber productive forest + timber unproductive forest) of ownership classes 4, 5, 6, and 7 (“In private ownership” on forest total + “In private ownership” on other wooded land); (b) Timber productive forest of ownership classes 4, 5, 6, and 7 (In private ownership).

Supplementary information on number and size of holdings of forest and other wooded land:

The following information, provided by the Ontario Ministry of Natural Resources, is illustrative of the situation in Canada:

As of May 1997, the number of designated management units in Ontario was 70, excluding southern Ontario. The size of management units ranges from as small as 60,000 hectares to as large as approximately 2 million hectares. These management units occur on Crown land and are primarily managed by forest industry through a sustainable forest licence (SFL). These management units occupy a land base known as the Area of Undertaking (AOU) for a Class Environmental Assessment by the Ministry of Natural Resources for Timber Management on Crown Lands in Ontario (EA-87-02). Within the AOU, two private holdings also exist and occupy less than 300,000 hectares combined. The land base north of the AOU is primarily Crown land and consists mostly of unsurveyed land; however, eight non-designated, undeveloped, management units exist and occupy approximately 7,500,000 hectares.

The designated area defined as the Southern Ontario management unit encompasses approximately ten million hectares. Private land accounts for approximately 78 per cent of the total area while Crown land makes up the balance or 22 per cent. Federal lands, which make up 2 per cent of the total area in the Southern Ontario management unit, are included in the private land figures. Within Southern Ontario, the size of private holdings range from a couple of hectares to thousands of hectares.

## Croatia

18-24

*Enquiry Table 6:* Number of holdings of forests in private ownership unknown. Probably, it is not less than 500,000.

## Cyprus

18-24

*Enquiry Table 6:* The total area of the forest and other wooded land was estimated at 280,000 ha (Table 1), however only the State Forest and other wooded land (161 824 ha) can be classified in area classes. The forest area cannot be estimated in each class. The private forest and other wooded land (118,176 ha) cannot be classified in area classes (figures not available). The area of the most parcels range from 1 to 20 ha. The term “holding” means a single parcel of the forest and other wooded land which constitutes a single unit.

## Czech Republic

18-24

*Enquiry Table 6:* Size categories of ownership used in the Czech Republic differ from the TBFRA 2000. Assessment is based on the data from the Report on Forestry in the CR, Dec. 31.1996.

Estimates are based on special data processing made by the State forests company [LCR]: numbers of individuals claiming forest ownership restitution by the size in forest area claimed. Some of them claimed the same cadastral lot [parcela] as co-owners. A number of that individuals in the TBFRA-2000 classes gives a portion of forest and forest holdings from original Czech classes. 96 forest holdings [lesni sprava] exist in the state forests. In 1990, about 1000 individuals owned 1336 ha of forest.

## Denmark

9-17

*Enquiry Table 5:* Only other wooded land consisting of plantings along roads etc. is considered as publicly owned. Most of the rest of the other wooded lands described under *Enquiry Table 1* is more or less based on public subsidies to private land-owners and are therefore considered in this table as privately owned.

18-24

*Enquiry Table 6:* No concrete information on ownership of other wooded land exists. It is the general opinion that many of these areas belong to ownership with mainly agriculture. Therefore, these areas are distributed to private ownership less than 50 ha on a rough estimate. Some of these areas—especially Christmas trees and different kinds of unplanned afforestation etc.—may also occur on bigger holdings, but more or less not on public ownership. All other wooded land in the group ‘plantings along major roads’ etc. (13,000 ha) has been distributed into the two smallest categories of public ownership.

## Estonia

9-17

*Enquiry Table 5:* The Land Reform started in 1993. The land owned by private owners before the second world war will be restituted or privatized. The land area owned by private owners will increase rapidly. The land area under restitution and privatization is classified as state-owned land until the land is registered in the Land Catastre and Property Book.

18-24

*Enquiry Table 6:* The land area under restitution and privatization is classified as public land. The County Board is classified as the holder for land under restitution and privatization.

**Finland****18-24**

*Enquiry Table 6:* Size classes are as follows in private ownership:

The data for “3 to 5 ha” refer to data for size class “0-5 ha”.

The data for “11 to 20 ha” refer to data for size class “6 - 20 ha”.

The data for “501 to 10,000 ha” refer to data for size class “more than 500 ha”.

Statistics do not exactly cover all private forests; no information on the area by size classes available.

**France****9-17**

*Enquiry Table 5:* Data source for “In public ownership”: Office National des Forêts (ONF), 1995/1996.

Data for “In public ownership, state ownership, owned by other public institutions”, “Owned by indigenous or tribal peoples”, and “In private ownership” on forest available for wood supply: Breakdown of area of forest available for wood production follows the national forest inventory figures available as at 31 December 1997.

Date for “owned by other private institutions” on forest available for wood supply: “Les indicateurs de gestion durable des forêts françaises”, 1995, Ministry of Agriculture and Fisheries, Countryside and Forests Directorate. These forests encompass forestry groups (including many family groupings), companies and other corporate bodies. Financial institutions own a little under 2 per cent of the wooded land in France.

Known divergences from TBFRA 2000 definitions for forests belonging to other public institutions: these are forests subject to the forestry regulations but not belonging to the State and managed by the ONF. They include forests belonging to institutions enjoying charitable status, mutual benefit societies and savings banks, which TBFRA 2000 regards as private forests.

The figure in “owned by other public institutions” on forest available for wood supply, by contrast, does not include forests belonging to other public institutions not subject to the forestry regulations, which are put at around 430,000 hectares (source: SCEES/ESSES 1976-1983, Statistical survey of economic structures in forestry). These are shown under private forests.

Other wooded land in public ownership: the National Correspondent has taken half the difference between the area managed by the ONF and the area of public forest to be other wooded land in public ownership.

Managed forest: Data for “state ownership” on forest available for wood supply: data: including 1,370,000 hectares of State forest currently under development (source: ONF, 1995/1996).

Data for “owned by other public institution” on forest available for wood supply: including 1,845,000 hectares of forest belonging to other public institutions that is currently under development (source: ONF, 1995/1996).

Data for “in private ownership” on forest available for wood supply: including 3,342,000 hectares of private forest subject to a simple management scheme in force or awaiting approval (source: National Association of Regional Centres of Forest Ownership, situation as at 31 December 1996). A negligible quantity of forest in France belongs to forestry industries.

The area of other, private, managed wooded land is probably quite small. Such land generally consists of abandoned farmland.

**18-24**

*Enquiry Table 6:* Sources: All data for public ownership: ONF, 1995/1996, including national forests, military forests assigned to the ONF by the Ministry of Defence, and other forests subject to the forestry regulations (regional, departmental, communal, sectional, and those owned by public institutions). The ONF data have been made consistent with the figures in *Enquiry Table 5* “Ownership and management of forest”, rows “In public ownership” and “Other wooded land”.

The National Correspondent has taken half the difference between the area managed by the ONF and the area of public forest to be other public wooded land.

Private ownership: SCEES/ESSES 1976-1983, (Statistical survey of economic structures in forestry). The size categories in this survey differ from those asked about in the TBFRA-2000 questionnaire. The ESSES findings are therefore shown in the table below. The next survey is scheduled for 1999.

There exists supportive information on “private ownership” in tabular form in the reply to the enquiry, which is available at the secretariat.

**Georgia****9-17**

*Enquiry Table 5:* It is assumed that the forest area which is “undisturbed by man” is not managed.

**Germany****9-17**

*Enquiry Table 5:* Forests owned by individuals/forest industries/other private institutions: These categories are not distinguished in Germany, as private forests are by far largely owned by natural persons.

The break-up data under Private ownership on Forest available for wood supply are secretariat estimates.

**18-24**

*Enquiry Table 6:* The representation of data for the size classes are as follows:

Public ownership:

Data for "11 to 20 ha" for FOWL area and number of holdings represent also data for "1 to 50 ha".

Data for "51 to 100 ha" for FOWL area represent data for "51 to 200 ha".

Data for "101 to 500 ha" for FOWL area represent data for "201 to 500 ha".

Data for "10,000 to 100,000 ha" for FOWL area represent data for "501 to >100,000 ha".

Private ownership: Data for "21-50" for area and number of holdings represent also data for classes <3, 3-5 ha, 6-10 ha, 11-20 ha.

Private ownership: Does not cover very small forest ownership under 1 ha, which covers more than 1 million ha of forest land in total.

**Greece****9-17**

*Enquiry Table 5:* Forest and other wooded land co-owned by the State and individuals or other forms of co-ownership such as monasteries, are included under private ownership.

**18-24**

*Enquiry Table 6:* In public ownership: The data for "21-50" include all data "less than 50 ha"; and data for "101-500 ha" include all data for "more than 100 ha".

In private ownership: The data for "6-10 h" include all data for "less than 10"; and data for "501-10000 ha" include all data for "more than 500".

**Hungary****9-17**

*Enquiry Table 5:* The total of 277,000 ha of forest area released from public domain, where the privatisation process has yet to be finished is recorded as "owned by other private institutions". These areas are included in the regional forest management plans, even if the real owners are absent temporarily. Forest authorities are responsible for emergency action on these areas.

Area of forest released from public domain for restitutional purposes, where the restitution process has yet to be finished is displayed as private. In fact, there are no real owners of these forests, but they are included in the forest management plans. Emergency measures to protect forest health and vitality should be initiated and financed by the forest authorities.

Please refer to comments in *Enquiry Table 1* "Total area by main classes" for the definition of "Forest" and "Other wooded land" and *Enquiry Table 3* "Forest and OWL according to availability of wood supply" for the definition of "Forest not available for wood supply".

**18-24**

*Enquiry Table 6:* "In private ownership" includes areas where privatisation has yet to be finished (277,000 ha), therefore the number of private forest holdings relates to 390,000 ha of forest area.

**Iceland****9-17**

*Enquiry Table 5:* Based on 1985 data. New data on forest ownership are not available.

The break-up data for Forest available for wood supply by ownership categories are secretariat estimates.

**18-24**

*Enquiry Table 6:* Data on size of FOWL holdings not available.

**Israel****9-17**

*Enquiry Table 5:* State ownership and owned by other public institutions on forest available for wood supply: Data can't be filled because of no differentiation between the two.

The break-up data for Forest available for wood supply by ownership categories are secretariat estimates.

**18-24**

*Enquiry Table 6:*

- 1) The data have been created by estimation only.
- 2) Data not available for some columns above is because no natural other wooded land data available to each holding.

**Italy****9-17**

*Enquiry Table 5:* Source for “Managed”: Enquiry about “State of forest management in Italy, 1985”.

The break-up data for Forest available for wood supply by ownership categories are secretariat estimates.

These data on the managed areas of forests in tables 9 to 17 refer only to forest managed with specific plans. Nevertheless, all other Italian forests are submitted to general silvicultural prescriptions (Prescrizioni di massima e di polizia forestale). These prescriptions are adopted at Provincial level and determine the practical forms of management to be applied.

The data on ownership categories on managed other wooded land are not available.

**18-24**

*Enquiry Table 6:* Class “101 to 500 ha” consists of forest holdings with area of more than 100 ha.

**Japan****9-17**

*Enquiry Table 5:* The break-up data for ownership categories for Forest available for wood supply are secretariat estimates.

**18-24**

*Enquiry Table 6:* The data size class and number of holdings for “6 to 10 ha” includes classes “3 to 5 ha” and “less than 3 ha”. The data indicated for “501 to 1000 ha” includes data for all holdings of more than 500 ha.

The number and size of holdings of forest and other wooded land were collected by the Department of Statistics and Data Analysis, Ministry of Agriculture, Forestry and Fishery. This data were reported on Forestry Census.

The gap between the two figures is 3,519,000 ha. Then forest area of private ownership 14,201,000 is divided into each classes of holding size in proportion to the figure which was collected by Forest Census 1995. We modified Forest Census 1995 data to adjust data set of Forestry Statistics 1995 by proportional distribution of difference of the two data.

Forest Census data do not provide detailed figures separated into forest and other wooded land.

**Kyrgyzstan****9-17**

*Enquiry Table 5:* Source: Secretariat estimate based on the information from different literature sources, including the article “Forest biodiversity and forest genetic resources in the Kyrgyz Republic”, T. S. Mussuraliev, FAO, 1997.

**Latvia****9-17**

*Enquiry Table 5:* The land reform process is not yet finished and therefore it is expected that the area of privately owned forests will increase.

**Liechtenstein****9-17**

*Enquiry Table 5:* In principle, the whole forested area in Liechtenstein is managed according to a strictly binding management plan. The objective of forest management embraces all activities intended to preserve multiple use forest ecosystems which are able to sustainably satisfy certain human needs as regards forest goods and non-material forest services on the one hand and the needs of plant and fauna species as regards conservation and amelioration of living conditions on the other. According to the multiple functions plan, the predominance of functions is as follows: protection function 40 per cent; wood production 32 per cent; nature protection 20 per cent; recreational function 8 per cent.

**Lithuania****9-17**

*Enquiry Table 5:* The forest area in private ownership has increased since the 1992 ongoing land reform.

**18-24**

*Enquiry Table 6:* Average size of a private forest holding is 2.64 ha.

In “Public ownership”--“501 to 10,000 ha” and “10,000 to 100,000 ha” State Forest Enterprises, National parks and Nature Reserves are represented.

Data in “Public ownership”--“3 to 5” to “501 to 10,000 ha”, small holdings of other public institutions.

**Malta****18-24**

*Enquiry Table 6:* The data provided under area of holdings and number of holdings for <10 in public ownership for forest and other wooded land also represent data for area of holdings for “less than 3” and “3 to 5 ha”.

## Netherlands

### 9-17

*Enquiry Table 5:* No data are available for the subdivision of privately owned forest into individuals and private institutions of all forest area. A tendency is occurring for individuals to establish jointly private institutions with a legal status.

Detailed information exists on "Division of 152,000 ha privately owned forest into 42 per cent individuals and 58 per cent private institutions according to the database of 'BOSSCHAP'", in tabular form in the reply to the enquiry.

All forest areas in the Netherlands have some sort of management plan so the column 'of which managed' is equal to the column 'total area'.

### 18-24

*Enquiry Table 6:* Sources: Bosschap database, 4th National Forest Area Survey.

No up to date figures are available on the number and size of holdings and total forest area. The database of Bosschap is up-to-date but covers about 250,000 ha. The data of BOSSCHAP are used to update the figures from the 4th National Forest Area Survey (1980-1983).

## New Zealand

### 9-17

*Enquiry Table 5:* Data on the forest management are the estimates by the National Correspondent made to the Table of Essential Data and the secretariat estimates.

Data on ownership on other wooded land are not available.

The National Correspondent had a problem with the indigenous ownership category because some of what is in "public" ought to be shown in "indigenous". But it is not clear how much—hence what is in "public" is really ("public + indigenous"). This means that "indigenous" has to equal "0" to balance the table. This is why the National Correspondent wanted to use "not available" for "indigenous" but could not see how to consequently reduce the "public" to a realistic quantity.

The category owned by indigenous or tribal peoples is evolving as settlements to former grievances made under the Waitangi Commission are being worked through. It was not considered sufficiently meaningful to use this category during a period of intensive claim settlements, some of which may be retrospective. For this reason forest areas shown under "in public ownership" may change as land again becomes vested in Maori tribal ownership. In the case of the former State-owned plantation forests which have been sold over the last decade, these forests are now regarded as being in private ownership for management purposes even though the title to the land on which the forests is growing remains with the State. The last sales of these forests took effect after 31 March 1996 – hence the statistics in this table are at a point where the State still managed a considerable plantation forest resource. Within the context outlined above no adjustments were made to bring the parameters within the TBFRA2000 definitions. The error ranges are estimates of the likely range and are not based on statistical sample error ranges.

To give an indication of the forest area under claim by indigenous people (the New Zealand Maori) is very difficult.

Potentially, nearly all the forest on Crown land (i.e. land in public ownership) could come within various claims—i.e. 5.5 million hectares—but this is unlikely to be the outcome of the Treaty of Waitangi settlements. A more likely scenario would see—possibly over the next 30 to 60 years—the land on which the former State-owned plantation forests were established—being vested back into Maori tribal ownership. This provision exists within the Crown Forestry Licences which were the legal instruments actually sold during the disposal of the State-owned plantation forests. In total this could mean about 600,000 hectares of forest land could come within the category of item 5.9 in *Enquiry Table 5*.

The difficulty with "managed" is appreciated. "Managed" has been interpreted in the New Zealand context as being forest managed primarily for wood supply, not for conservation or protection purposes. Where wood supply is the main purpose there is no difficulty but for conservation forests (such as the forests in national parks) there are management plans for the way in which the forests will be protected, pests and weeds minimized, tracks cut, etc.

### 18-24

*Enquiry Table 6:* No comprehensive statistics in the format of this table were available. A restricted set - for plantation forests but without the ownership parameter - has been supplied in a supplementary table (see below). The source for this was Statistics New Zealand and the agricultural survey conducted by that department in 1994.

The reason for the difference is primarily because of the different time periods but also because of two different agencies compiling the statistics, with each having slightly different methodologies. The figures in the table have come from a postal agricultural survey conducted by Statistics New Zealand (the official government statistical agency). This survey was primarily intended to cover agricultural production on farms but also collected some limited details on plantations from which the distribution was derived.

<i>Plantation forest size group</i>	<i>Area (ha)</i>	<i>Number of farms with plantation forests</i>
– 0-9 ha	28868	9380
– 10-39 ha	66805	3759
– 40-99 ha	50656	874
– 100-499 ha	129755	622
– 500 -999 ha	117925	174
– 1000 ha and more	1093971	196
<b>Total</b>	<b>1487980</b>	<b>15005</b>

The data for Public ownership and Private ownership are secretariat estimates.

**Norway****9-17**

*Enquiry Table 5:* As shown in the comments on *Enquiry Table 1*, “forest, total” is estimated by adjustment of data from the NFI and additional sources. The NFI database does not contain information on ownership groups. Distributions of “forest” (national definition), “other area below the productive forest line”, “wooded area above the productive forest line” by ownership groups and size of holdings are available from the Census of Agriculture and Forestry 1989 (Statistics Norway). Forest area according to FAO definition is considerably larger than forest area according to national definition. The difference between “FAO forest” and “national definition forest” is assumed to have the same distribution by ownership groups and size of holdings as “other area below the productive forest line”. Other wooded land is defined partly as “other area below the productive forest line” and partly as “wooded area above the productive forest line”.

It is very difficult to estimate how much of the forest and other wooded land should be regarded as “managed” or not. Even though in many cases there may be no written formal plan, the forest owner is likely to apply his own ideas and concepts when doing any harvest or silvicultural treatment. Other wooded land is in general not regarded as suitable for wood production and will not be managed in this respect. However, it is very often utilized (and managed) for hunting, fishing, recreation etc. The same may also apply to “forest not available for wood supply”.

The data provided for “of which: managed” are therefore rough estimates.

**18-24**

*Enquiry Table 6:* As shown in the comments to table 1, “forest, total” is estimated by adjustment of data from the NFI and additional sources. The NFI database does not contain information on ownership groups. Distributions of “forest” (national definition), “other area below the productive forest line”, “wooded area above the productive forest line” by ownership groups, and size of holdings are available from the Census of Agriculture and Forestry 1989 (Statistics Norway), according to the national definitions. The difference between “forest” (FAO) and “forest” (national definition) is distributed as “other area below the productive forest line”, while “other wooded land” (FAO) is distributed partly as “other area below the productive forest line” and partly as “wooded area above the productive forest line”.

It is very difficult to estimate how much of the forest and other wooded land should be regarded as “managed” or not. Even though in many cases there may be no written formal plan, the forest owner is likely to apply his own ideas and concepts when doing any harvest or silvicultural treatment. Some very rough estimates of managed area have been made for “forest available for wood supply”. Other wooded land is in general not regarded as suitable for wood production and will not be managed in this respect. However, it is very often utilized (and managed) for hunting, fishing, recreation etc. The same may also apply to “forest not available for wood supply”.

**Poland****9-17**

*Enquiry Table 5:* Ownership data is the average of 1992 and 1996 information.

It was assumed that all private forests are available for wood supply (in fact, there are some exceptions).

Another assumption was that all Polish forests are managed. According to the law in force, all Polish forests should be managed on the basis of management plan. In practice a small part of primarily private forests do not have such regulations, or the plans for them are outdated, but there is no information about the area of those forests (according to the experts, their total amount is negligible).

**18-24**

*Enquiry Table 6:* The ownership structure data relate to 1996, therefore forest acreage in every class have been proportionally changed for be conformable with the data presented in the previous tables.

Data were not available on the holding structure of forests owned by communes or managed by other Ministries than the Ministry of Environmental Protection, Natural Resources and Forestry. The total area of those forests is reported in the class “More than 100 ha”, without the number of holders.

Within the “public forests” class—Forest Districts and National Parks are shown as holdings. Being state-owned they are individual units from the management point of view.

Polish property size classes are different from the classes proposed in *Enquiry Table 5*; therefore they were brought into conformity with the TBFRA ones.

**Portugal****9-17**

*Enquiry Table 5:* This table refers to ownership, which may differ from use, especially in the case of indigenous and tribal peoples. For forest use by indigenous and tribal peoples, see *Enquiry Table 22* “Indigenous and tribal peoples”.

**18-24**

*Enquiry Table 6:* Estimates based on percentage distribution of holdings size classes, according to available official data.

**Republic of Moldova****18-24**

*Enquiry Table 6:* All forests of the country are in public ownership (clause 127 and clause 6 of the Constitution of the Forest Code).

**Romania****9-17**

*Enquiry Table 5:* The data for Public ownership and Private ownership on Forest and on Other wooded land are secretariat estimates.

**18-24**

*Enquiry Table 6:* The data for Public ownership and Private ownership are secretariat estimates.

The holding in public ownership is the administrative area managed by a Regional Forestry Officer—as a Forest District. The private ownership structure is going to be changed. For now, the total area is owned by more than 1 million individuals.

Data for “11 to 20 ha” of public ownership include data for “6 to 10 ha” also.

**Russian Federation****9-17**

*Enquiry Table 5:* Under the Forestry Code (article 19), all forests belong to the Federation (Federal ownership).

**18-24**

*Enquiry Table 6:* The number of holdings is the figure given for forestry enterprises, the smallest entities concerned with forest management. Source: “Handbook of USSR State Committee on Forestry and other ministry- and government-department-controlled enterprises managing forests (as of 1 January 1988)”, USSR State Committee on Forestry, Moscow, 1989.

**Slovakia****9-17**

*Enquiry Table 5:* The sources of information for filling in this table were as follows:

Permanent Forest Inventory 1996 (PIL 1996), Lesoprojekt Zvolen.

Database of forestry:

- data of Forest Management Plan (LHP)
- register of owners and managers of forests

Report on Forestry in SR 1997 (Green Report 1997)

The category of state forests includes the state-owned forests (managed by the Ministry of Agriculture, the Ministry of Economy, the Ministry of Education, the Ministry of Defence), communal forests (municipal and urban forests) and church forests with a total area of 1,124,000 hectares.

The category of private forests includes private (forests owned by individuals), urban, and compossessory forests, cottier and agricultural co-operatives, totally 892,000 hectares.

Forest available for wood supply includes the commercial and special purpose forests reduced by 16,000 hectares of the subcategory U/H. The reduction was realized proportionately for state and private forests.

**18-24**

*Enquiry Table 6:* Data sources for table 6 “Number and size of holdings of forest and other wooded land” were as follows:

Database of Lesoprojekt, part Register of forest owners and managers, Green Report of Ministry of Agriculture of SR 1997, Final reports: Optimization of spacing out the forest and agricultural lands based on the ecological and economic quantifications of the production and public-beneficial forest functions and damages of anthropogenic origin, as well as logical and expert estimates.

The classification of forest area, other wooded area and forest according to size categories of ownership in state ownership, has a high accuracy (95-100 *per cent*) with regard to the possibility to identify the ownership.

In category of private ownership, the classification into the size categories is only approximate (30 *per cent*) considering the fact that 254,000 hectares of forests in the ownership of non-state bodies have not been passed yet to former owners.

Also owner numbers (numbers of managing bodies) of forests in private ownership were estimated 10,000 owners) according to the presented area of forests (254,000 hectares).

**Slovenia****9-17**

*Enquiry Table 5:* The process of denationalization is still in continuing. It is expected that the area in private ownership will increase.

**18-24**

*Enquiry Table 6:* The structure of holdings is changing (due to the process of denationalization). The share of the area in private ownership is increasing and some private owners will own more than 100 ha in future.



**Spain****9-17**

*Enquiry Table 5:* Data for the area in private ownership are not collected. The data provided is the difference between total area and public ownership.

The break-up data for Forest available for wood supply for Private ownership are the secretariat estimates.

**18-24**

*Enquiry Table 6:* The breakdown figures for private ownership include figures for public ownership.

Data shown in this table are for forest only. Data for other wooded land are not available.

Data for “501-10000 ha” represent data for “501 and above”.

**Sweden****9-17**

*Enquiry Table 5:* See *Enquiry Table 1* “Total area by main classes” for the definition of “Forest” and “Other wooded land”.

“Owned by indigenous or tribal people”: Sweden's indigenous people “the Saami nation”, more popularly named “the Lapplanders” do not own forest because they are Saami, and because of that Sweden has not specifically stated any areas in this column. However, Saami people in Sweden do own forest estates as private persons.

The column “of which: Managed”: It is considered that all areas in Sweden to have either a formal or an informal management plan (as written in the definitions) and that is the reason why the areas in this column are the same as “Total area”. The formal or informal plan might also mean that no treatments are allowed - which is also a management plan.

**18-24**

*Enquiry Table 6:* Source: National Board of Forestry.

Tilllägg: SLU/Resgeom.

Arealfördelning “Forest and Other Wooded Land”.

Fördelning på status “wood supply” och detaljerade ägargrupper. 1994 -1996. 1000 ha.

Obs Exkl del : Fridlysta områden, Mil. imp och Fjäll.

There exists supportive information on “Land type: Forest and other wooded land” in tabular form in the reply to the enquiry, which is available at the secretariat.

**Switzerland****9-17**

*Enquiry Tables 3 and 5:* Forest area available for wood supply: Generally the total forest area of Switzerland is available for wood supply if one follows the definition of TBFRA. Exceptions are protected areas which amount to 7,000 ha in Switzerland. The amount of 103,000 ha which was estimated not to be available for wood supply for economic reasons are based on expert opinions from WSL and ETHZ researchers. There is a broad consensus that from the economic point of view, it is not meaningful to harvest those stands regularly or even at all. However logging actually was, is and will be done to some extent with cable crane and helicopter in those “remote areas”.

The data on ownership categories on managed other wooded land are not available.

**18-24**

*Enquiry Table 6:* Source: Statistique forestière suisse.

These data originate from Swiss Forest Statistics, and refer to 1996. The term surface or productive is the French expression to distinguish between “forest and other wooded land” and “forest”.

The detailed data concerning private ownership are not available.

**Tajikistan****9-17**

*Enquiry Table 5:* Source for Public ownership on forest: Information from the TBFRA-2000 National Correspondent Mr. G. A. Avsalov, Director General of the Forest Association “Tajikles”, in reply to the Table of the TBFRA Essential Data, 20.11.1998.

Source for Public ownership on other wooded land: Secretariat estimates based on different literature sources of information.

**The FYR of Macedonia****9-17**

*Enquiry Table 5:* The data for the following are secretariat estimates based on the information from different literature sources:

Forest, total; In public ownership; In private ownership; Forest available for wood supply.

Data on ownership categories on managed other wooded land are not available.

**Turkey****9-17**

*Enquiry Table 5:* Either private or public, for the management of any forest area, forest management plan is mandatory. Forest management plans are strong institutional tools empowered by the Forest Act.

**18-24**

*Enquiry Table 6:* For the term “holding” it is an independent entity or owner for private forests, and forest management planning unit for public forests.

**Turkmenistan****9-17**

*Enquiry Table 5:* Data on the ownership and management status are secretariat estimates.

**United Kingdom****9-17**

*Enquiry Table 5:* Source: FC & NIFS databases, other estimates based on grants.

Public except FC+Northern Ireland FS, estimated 150,000 ha, moved from private to public.

It is assumed that 130/150 thousand ha of other public is available for wood supply, all managed except 150 thousand ha private.

**18-24**

*Enquiry Table 6:* All estimates from analysis in October 1997.

Based on estimates for private woodland owners in 1977, extrapolated to 1995, and on latest farm census results for farm woodlands. OWL added to area but numbers of holdings not changed.

**United States of America****9-17**

*Enquiry Table 5:* General - For this table, within “public ownership”, “state ownership” includes all federally owned lands and “other public institutions” includes all state, county, and municipally owned lands. “Forest industry” includes only those owners having wood processing facilities and does not include private corporations owning forest land that do not have wood processing facilities.

Area - Area of forest and other wooded land (available and unavailable for wood supply) in public ownership was obtained from the 1992 national forest inventory database. Areas for “indigenous or tribal peoples” were derived from data reported in “Private forest-land owners of the United States, 1994”. The remaining forest and other wooded land area comprises “private ownership” data.

Management - Most (85-95 per cent) of publicly owned forest and other wooded land was assumed to have some form of management plan. Management proportions for all other owners were derived from data provided in “Private forest-land owners of the United States, 1994”. This report indicated that, on average, 68 per cent of forest and other wooded land for “indigenous or tribal peoples” had some form of management plan as well as 89 per cent for “forest industries”, 75 per cent for “other public institutions”, 50 per cent for “other private institutions”, and 26-50 per cent for other private land owners. Generally, management plans were deemed less likely on “other wooded land” than on “forest land”.

**18-24**

*Enquiry Table 6:* Private owners – Proportions to allocate 1992 national inventory forest and other wooded land areas were derived from “Birch, Thomas W. 1994. Private Forest-land Owners of the United States, 1994. Resource Bul. NE-134: USDA Forest Service, Radnor, PA. 183p.”

Public owners – Forest Service, National Park Service, Fish & Wildlife Service, Bureau of Land Management, Department of Energy, and Defence Department are 6 primary public owners along with holdings of 37 large State, County, and Municipal owners. States, countries, and municipalities are primary owners.

Data for indigenous peoples are included in the private ownership section of *Enquiry Table 6*. Estimates for numbers of owners and area of forest and other wooded land by size class are provided in the table below. Also see supplemental table attached to TBFRA *Enquiry Table 22* “Indigenous and tribal peoples”, which is available in the secretariat.

There exists supportive information on “Estimate of number of owners and area of forest and OWL by size class for Indian ownership” in the reply to the enquiry, which is available in the secretariat.

**Uzbekistan****18-24**

*Enquiry Table 6:* Source: A. A. Khanazarov, Magazin “Lesnoye Khozjaistvo” (“Forestry”), No. 12, 1990, pp. 13-15.

**Yugoslavia**

**9-17**

*Enquiry Table 5:* “Forest available for wood supply—owned by other public institutions”: The area of 23,415 ha is owned by Agricultural and Water Resources Enterprises. State owned forests are managed by State Enterprises “Serbia Sume” and “Cosa Gora Sume”.

**18-24**

*Enquiry Table 6:* The average parcel in private ownership is 0.37 ha.

