



Europe's forests: a renewable resource

Forests are growing

EU forest cover approaching 50%

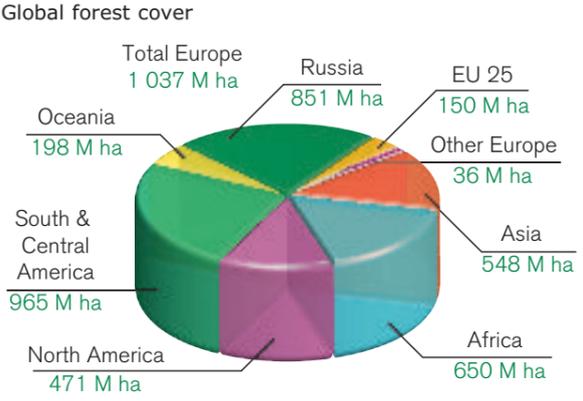
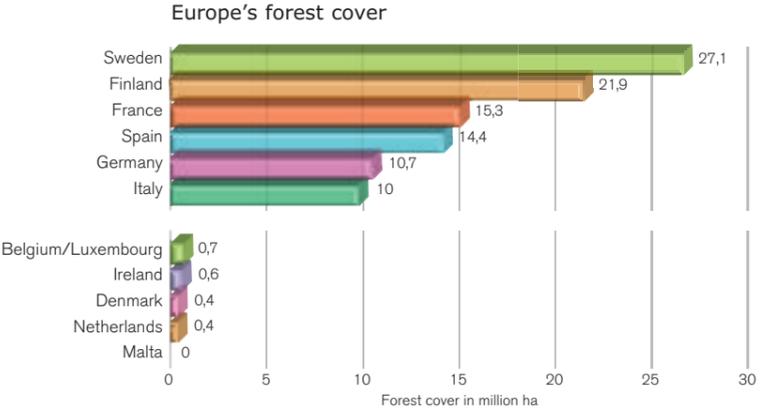
Potential to increase annual harvest

Sustainably managed

Leading the way in certification

One of Europe's success stories

Europe's forests are growing



Opposite above
Europe's forest cover
VTT Technical Research Centre of Finland

Above left
The most and least forested countries within the EU 25
FAO 2003

Above right
Forest cover by continent (total 3 869 million ha)

Below right
Europe's forests are expanding annually by 510 000 ha

The global context
Globally, forests are an immense resource, accounting for 29,6% of the Earth's total land base⁸.

Although European forests, excluding Russia, account for just 5% of that area, they are the most intensively managed in the world, providing 12% of current global round wood fellings and 23% of industrial round wood¹⁰.

The European forest sector's output is about 25% of current world industrial production of forest products, accounting for almost 30% of wood-based panels, paper and paperboard¹¹. Despite the increasing demand for forest resources, the EU has become a net exporter of forest products, while at the same time expanding Europe's forests.

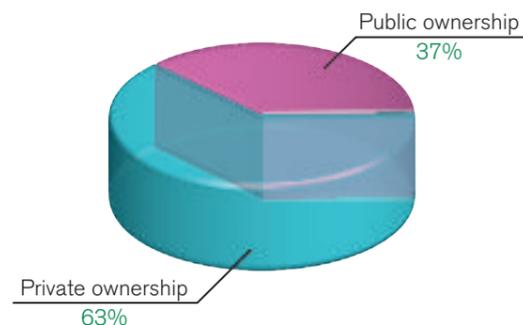
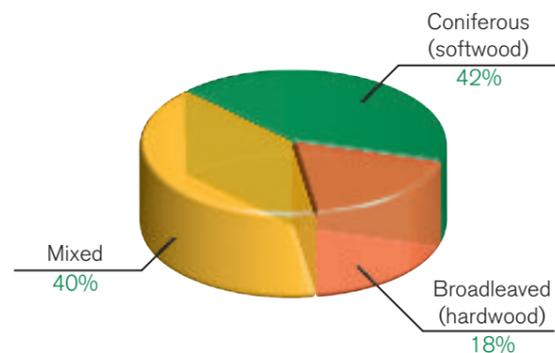
Europe's forest cover
Europe has over 1 000 million ha of forest spread over 44 countries¹², equivalent to 1,42 ha (more than two football pitches) per capita.

Although the Russian Federation accounts for over 80% of this forest area, EU forest cover averages 47% per country¹², while EU 25 countries have an average forest cover of 36%, amounting to 149,5 million ha of forest.

Europe's forest growth
Europe's forests are expanding at an annual net rate of 510 000 ha. The total standing volume is 20 000 million cubic metres¹³, producing an estimated 346 million cubic metres¹⁴ of industrial round wood a year.

The net annual increment of EU 25 forests is estimated at 645 million cubic metres⁹. In practice just 64% of the net annual increment is harvested, with growth exceeding harvest by such a large margin that, unless timber removals are increased, the region's forests may suffer reduced vigour and greater susceptibility to insect, disease, storm and fire damage¹⁴.





Forest types

70% of Europe's forest cover is 'semi-natural' (some human intervention, but generally natural characteristics), while only 8% is plantation forest¹⁴, mainly to be found in countries like Denmark, Ireland, the Netherlands, Portugal and the United Kingdom. In addition, there are more than 8 million ha of forest, excluding the Russian Federation, untouched by man, which can be found in Sweden, Finland and Norway, as well as in Slovakia¹².

Species

Within climate constraints, forests are diversified by social needs and customs; Austria, Germany and Poland having a relatively high portion of coniferous forests, while mixed forests predominate in, for example, the Czech Republic.

Europe has a considerable area dominated by broadleaved (hardwood) species. It is not necessarily the case that hardwoods originate from (sub) tropical forests.

Nordic forests are mostly coniferous (softwood) due to the climate.

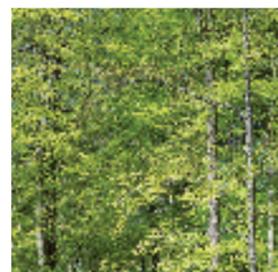
Ownership

Some 63% of the EU 25 forest is managed by 9,2 million family owners, with an average family forest holding of 13 ha, and 37% by 5,5 million public institutions¹².

Most public, and many private, forests in Europe are freely accessible, providing the opportunity to enjoy nature and natural products, like mushrooms, berries, honey and medicinal plants.

Functions

European forests fulfil many functions, from amelioration (improving the landscape and helping the local economy), to nature conservation, the preservation of biodiversity, recreation, CO₂ sequestration and commercial wood production.



Above left

The composition of EU 25 forests
MCPFE 2003

Above right

The ownership of EU 25 forests
MCPFE 2003

Below left

A coniferous plantation

Below right

A broadleaved forest

Above left

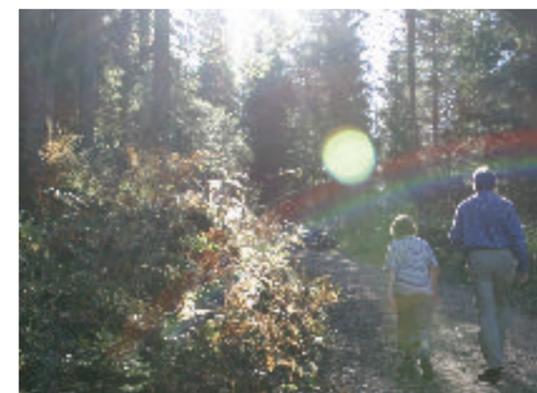
The public has access to 94% of European forest area

Above right

42% of Europe's forest cover is coniferous

Below

Data on EU 25 forests by country
FAO, State of the World's Forests, Rome, 2003



	Land area (x 1000 ha)	Forest area (x 1000 ha)	Forested land (%)	Population (1999) (x 1000)	Forest cover per capita (ha)	Volume (x M cubic metre)	Growing stock (cubic metre per ha)	Industrial roundwood production (x 1000 cubic metre)	Harvest roundwood (Average cubic metre per ha)	Carbon Stock in Wood Biomass (TgC)
Austria	8 273	3 886	46,97	8 177	0,48	1 110	286	10 416	2,7	580,36
Belgium/Luxembourg	3 282	728	22,18	10 579	0,07	159	218	4 202	5,8	47,80
Czech Republic	7 728	2 632	34,06	10 262	0,26	684	260	13 501	5,1	209,11
Denmark	4 243	455	10,72	5 282	0,09	56	123	2 768	6,1	26,80
Estonia	4 227	2 060	48,73	1 412	1,46	321	156	7 270	3,5	101,25
Finland	30 459	21 935	72,01	5 165	4,25	1 945	89	50 147	2,3	662,59
France	55 010	15 341	27,89	58 886	0,26	2 927	191	43 440	2,8	838,55
Germany	34 927	10 740	30,75	82 178	0,13	2 880	268	51 088	4,8	920,00
Greece	12 890	3 599	27,92	10 626	0,34	163	45	796	0,2	52,04
Hungary	9 234	1 840	19,93	10 076	0,18	320	174	3 305	1,8	132,13
Ireland	6 889	659	9,57	3 705	0,18	49	74	2 600	3,9	11,74
Italy	29 406	10 003	34,02	57 343	0,17	1 450	145	3 649	0,4	409,28
Latvia	6 205	2 923	47,11	2 389	1,22	509	174	12 624	4,3	177,60
Lithuania	6 258	1 994	31,86	3 682	0,54	366	184	4 050	2,0	0,51
Malta	32	0,32	1,00	386	0,00	0	0	0	0,0	0,06
Netherlands	3 392	375	11,06	15 735	0,02	60	160	879	2,3	29,29
Norway	30 683	8 868	28,90	4 442	2,00	785	89	7 478	0,8	265,61
Poland	30 442	9 047	29,72	38 740	0,23	1 930	213	24 489	2,7	550,03
Portugal	9 150	3 666	40,07	9 873	0,37	299	82	10 231	2,8	79,21
Slovakia	4 808	2 177	45,28	5 382	0,40	552	254	5 046	2,3	181,16
Slovenia	2 112	1 107	52,41	1 989	0,56	313	283	1 721	1,6	117,46
Spain	49 945	14 370	28,77	39 634	0,36	632	44	13 160	0,9	186,69
Sweden	41 162	27 134	65,92	8 892	3,05	2 914	107	58 920	2,2	1 077,00
Switzerland	3 955	1 199	30,32	7 344	0,16	404	337	7 612	6,3	140,14
United Kingdom	24 160	2 794	11,56	58 974	0,05	359	128	7 051	2,5	148,00
Total	418 872	149 532	35,70	461 153	0,32	21 187	142	346 443	Average 2,3	6 944,00

Europe's forests are sustainable

Managed forests

Left entirely to nature, forests will achieve a climax stage, where the site is supporting the maximum amount of biomass soil fertility, rainfall and temperature conditions will allow. At this point the forest only grows as trees fall from age, wind, landslip, disease or fire.

Although natural regeneration will occur, the dead and dying trees will decay or burn, emitting CO₂ from the stored carbon. Growth is matched by decay and, with no forest management, there is no net increase in carbon storage.

Harvesting trees as they mature allows much of their carbon to be stored throughout the life of the resulting wood products, while at the same time giving the industry an incentive to plant new trees in their place.

With the coming into force of the Kyoto Protocol in 2005, the forest sector is about to receive credit for managing this specific environmental quality of the forest, while the development and trade of carbon emission credits enhances the significance of the forest sector within the global economy.

Increasing oil prices mean the forest sector not only provides alternative materials but also a sustainable source of (bio) energy. As present harvesting levels in the EU are well below sustainable limits, woody biomass energy has considerable potential to help sustain the future global economy.

Reforestation

The European forest industry recognizes that its future is inextricably linked to the protection and expansion of its forests. This, coupled with strong and effectively enforced laws, ensures more trees are planted than are harvested.

All European countries have policies and practices requiring reforestation. Although the number of trees planted per hectare will vary depending upon the species, site and management system, it will always be more than the number cut, in order to allow for natural losses and for the forest to be well stocked. Therefore there need be no confusion between deforestation in tropical regions – e.g. due to poverty or forest conversion for agricultural purposes – and forest management practices in Europe.

As stated earlier, only 64% of the annual increment of European forests is harvested and the forest area is ever-increasing.

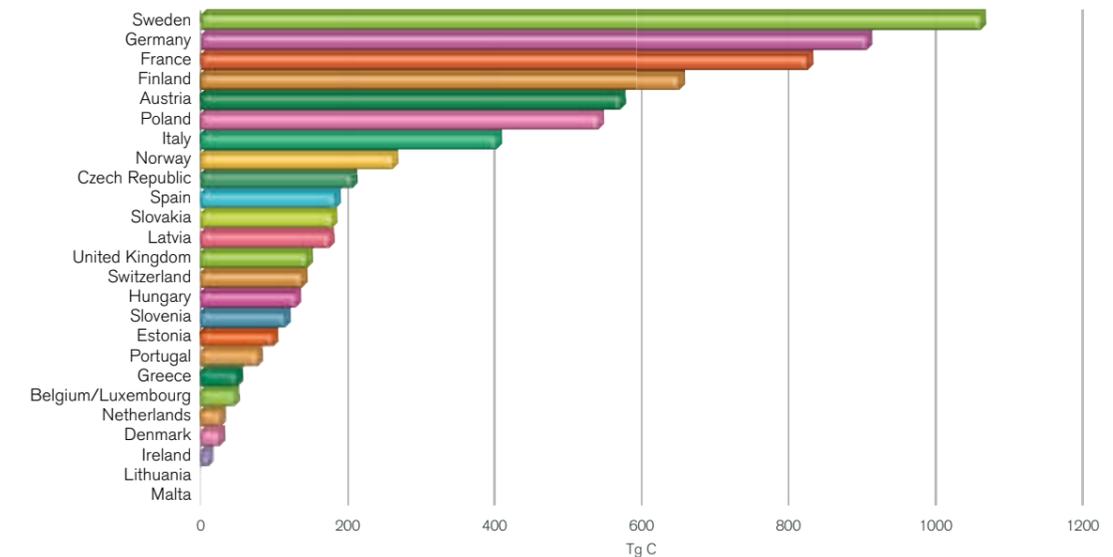


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Only 64% of the annual increment of Europe's forests is harvested



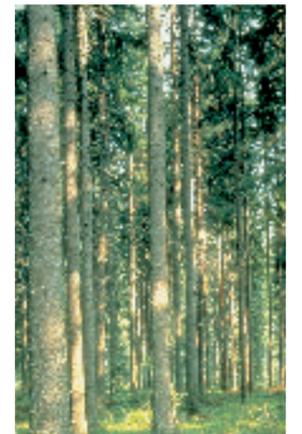
Carbon stock in wood biomass in EU forests

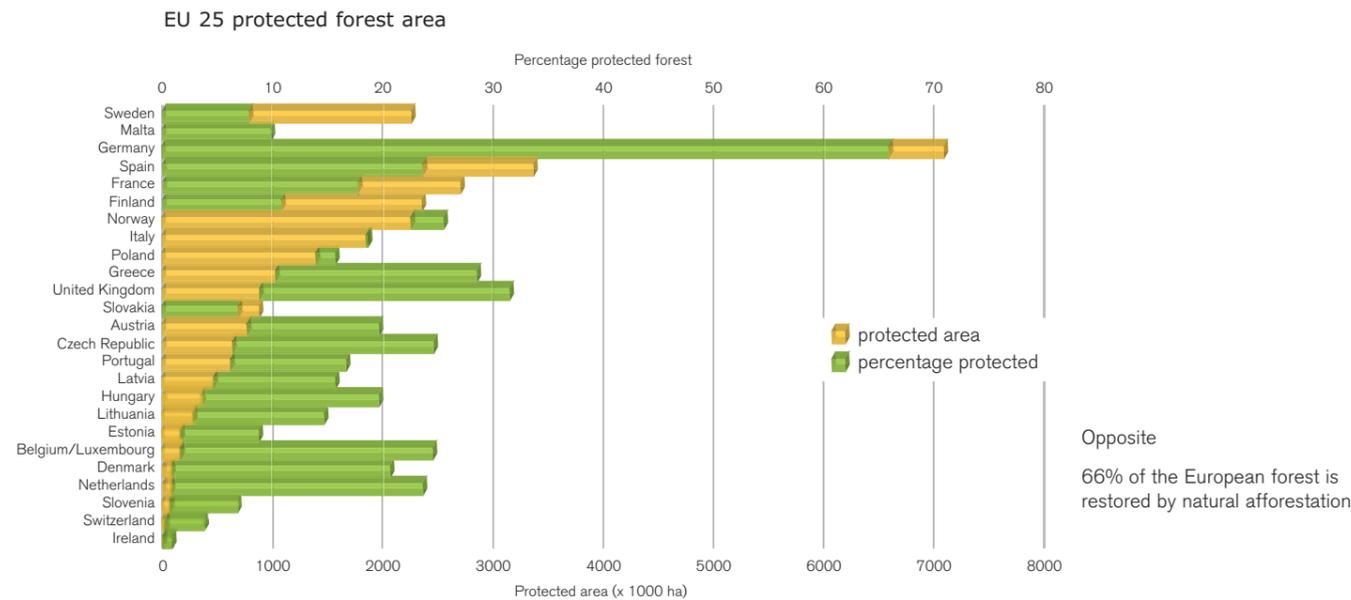


Forest vitality

Air pollutants, drought stress, acidification of forest soils, forest fires, damage by insects and game, and severe climatic events like storms, are major factors stressing European forest vitality. In 1999 nearly 10,8 million ha of forest or other wooded land were reported to be damaged¹². Overall, storms and insects cause most damage, while forest fire is most damaging in the Mediterranean countries.

Good forest management, together with proper (inter)national legislation and enforcement, is the only way to improve and sustain healthy forest vitality.





Sustainable forest management

Due to the wide variety of historical, demographic, economic, climatic and ecological circumstances, different management and regeneration methods are used across Europe - from large scale regeneration felling in uniform coniferous monocultures, to group, or even single tree, selection systems in mixed or broadleaved forests.

European forest management is moving towards methods that enhance natural processes and produce authentic forest structures which are environmentally appropriate, socially beneficial and economically viable.

Protected forests

Europe enjoys high levels of forest protection, with almost 12% of its forest area set aside to conserve ecological and landscape diversity¹².

More than 1,6 million ha are strict forest reserves¹⁵, while there are large tracts of protected forests in Northern and Eastern Europe which are actively managed for biological biodiversity.

85-90% of the European forest serves multifunctional purposes and also helps to protect the soil, water, and other ecosystem functions like biodiversity, air quality, climate change and land stability.

Nature dominates forest regrowth

Although there are many different ways to rejuvenate the forest and approaches vary by country, 66% of the European forest is restored by natural regeneration.

This is important, as it contributes to the diversity and a healthy (genotype) rich species composition, structure and ecological dynamic. As this method is not always possible or appropriate from an economic or ecological perspective, natural regeneration is often complemented, or fully replaced, by planting.

30% of European forest regeneration occurs through planting or seeding and little more than 1% by coppicing¹².

Indigenous tree species

Many European forests have seen the introduction of non-indigenous species. For example, in the Netherlands, the fast growing species Larch, Douglas fir and American oak produce large volumes of quality timber.

With the increasing implementation of integrated forest management designed to respect natural ecosystems, these sometimes invasive species are being phased out in favour of indigenous species, at the expense of some reduction in the volume of quality logs.

European guidelines

After the Environmental Conference of Rio de Janeiro (1992), international and regional platforms defined internally accepted sustainable forest management guidelines. Currently the official body dealing with sustainability and protection of the European forest is the Ministerial Conference on Protection of Forests in Europe (MCPFE).



Certification

Europe leads the way

Since the early 1990s, forest certification has grown rapidly. By mid-2005, certified forests accounted for more than 246 million ha worldwide (or 36% of the world's 700 million ha of forest actively managed for wood and non-wood products).

Originally designed to halt tropical deforestation, it has developed most rapidly in Europe, due to high forest management standards and performance.

35% of the world's certified forests (almost 87 million ha) are in Europe and 92% of Europe's certified forests are in EU 25 countries, representing 80 million ha – more than half of all EU 25 forests.

As only a low proportion of wood is traded internationally (15-20% of the total logging volume – with the rest used domestically), certification and labelling alone cannot lead to sustainability in forest management. Effective government control and policy guidance on forest utilization is still imperative for sustaining resources¹⁶.

More than 80% of the European forest is already under written management plans or guidelines contributing to sustainable management¹².

The debate on the use of certified wood and wood products in Europe has become focused on two schemes 'The Programme for the Endorsement of Forest Certification Schemes' (PEFC), originally developed to answer the needs of European forest owners, and the 'Forest Stewardship Council' (FSC), set up with the co-operation of WWF.

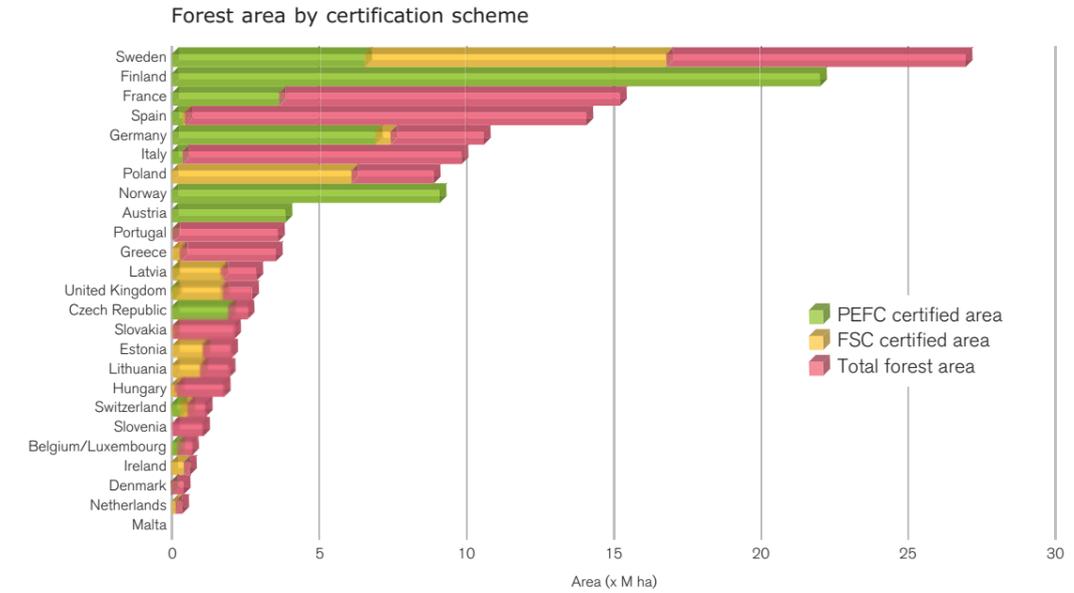
It is important to appreciate that over 90% of European wood consumption is sourced from European forests which are characterized as 'generally stable, well managed and in surplus production'. The consumer can therefore have a high degree of confidence in the environmental credentials of their product¹³.

Opposite above

Forest area by certification scheme as at September 2005

Opposite below

Over 80% of European wood is used domestically



Forest Law and Enforcement, Governance and Trade (FLEGT)

The issue of illegal logging and of trade in illegally harvested wood has become the focus of attention both at a European and international level. The EC FLEGT action plan is a key element in this discussion.

The European forest and wood based industries strongly oppose illegal logging practices and trade in illegally sourced timber. Although the vast majority of industrial logging and trade in wood and wood products within the EU 25 countries is fully legal, the sector pro-actively supports effective and voluntary actions that will eliminate any nonconformity.

