14 Changes in the Forest Sector in Europe and Russia

Coordinating convening lead author: Andreas Ottitsch
Convening lead authors: Bruce Michie, Marc Palahi and Philip Wardle
Contributing authors: Gerben Janse, Alexander Moiseyev, Lauma Kazuša and Max Krott

Abstract: Europe has undergone several social and political changes over the past two decades. Some of these changes are dramatic and revolutionary, such as the demise of communism in Eastern Europe and the former USSR; some are more evolutionary, such as the enlargement of the European Union; and some are more long term and general, such as the change of societies’ main attitudes and values from agricultural or industrial to post-industrial and urban. The chapter describes the impacts of these changes on forests and forestry in Europe. While the major trend towards increased demand for forest products and the related increase of production and trade activities have continued unhindered, major political events, such as the complete overturn of the political system in the area of the former USSR, have had major impacts on the sector. The close link between forests and the environment is inevitably affected by environmental developments and policies. This has become evident in the context of EU policies, with the formation of large scale networks of conservation areas (e.g. Natura 2000) and the increased future focus on renewable energies; both of these are the result of an increasing dominance of urban values in Europe. The major paradigm change which has occurred in Europe is considered to consist of the acceptance of the idea of sustainable management of forest resources as the new definition of forest sustainability; this has also found its way into the major Pan-European process of the Ministerial Conference for the Protection of Forests in Europe.

Keywords: European Forestry; forest ecosystem management; paradigm change; urbanisation; European societies; European environment; Europe; Russia.

14.1 Introduction

Political Changes in Europe and the Former USSR

The political and social developments in Europe and Russia during the past decade have had far reaching influence on the forest sector in this region. The most dramatic changes are the demise of communism in Eastern European countries and the former USSR (The Union of Soviet Socialist Republics), and the transition of these countries from “centrally planned” to market economies. The extension of the European Union (EU), first to 5 members in 1995 and then to 25 members in 2005 (EU 25) is another important development. It has increased the EU’s forest resources and the importance of forestry at the EU, as well as the role of the EU as a major player in the global forest sector.

The transition of the former USSR countries and Eastern Europe from “centrally planned” to market economies has had major social and economic ramifications in these societies, with major social, economic and market impacts on the forest sector. While the volume of production and consumption of forest products has generally increased, this has been at a rate much below the general growth of these economies, and the relative economic importance of these products has diminished. Services and communications have been the areas of predominant growth.

Increased urbanisation in most European societies has contributed to the change in values and attitudes from agricultural or industrial to post-industrial and urban. The change in values has emphasised the importance of amenity outputs from forest resources.
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Forest Resource

The area of forests and other wooded land in Europe and in the countries of the Commonwealth of Independent States (CIS) amounts to some 1.1 billion ha, about one fifth of the world area. Russia accounts for 0.9 billion ha. A characteristic of this area is that it is generally stable, but with a slight tendency to increase. The harvest from these forests is less than the increment, and there is a tendency to growing stock accumulation and increasing age. The accumulation in Russia and other CIS countries increased in the past decade with the sharp reduction in harvesting since 1990.

Production and Consumption of Forest Products

Over the past four decades the volume and value of forest product production and consumption has increased substantially. This development has, however, been different for each of the three main products. The production and consumption of sawnwood was at a high level in the 1960s and peaked in the early 1970s, after which it was rather stable through the 70s and 80s. In the 90s, production and consumption in the EU grew significantly while the very high Russian and CIS production and consumption collapsed to less than one third of the earlier levels. Wood based panels production grew six-fold over the four decades and paper production grew four-fold. Growth in production and consumption was high in all regions up to 1990, but while it continued in other areas of Europe, it declined in Russia and the CIS countries after 1990. By 2002, the consumption of panels and paper in that region had recovered to about half the level of 1989. These regions are mainly net exporters of forest products, the exception being the EU, which has been a net importer of sawnwood over the past four decades. (UNECE-FAO 2000).

Trade and Trade Flows

The value of forest product exports increased fivefold in real terms over the past four decades. EU exports reached a peak in 1990 and have fluctuated around that value in real terms in more recent years. After a recession in the early 1990s, the exports of Russia and the CIS countries have expanded rapidly.

The quantity of goods traded has also increased fivefold over the past four decades; however, the increase in volume since 1990 has been much greater than the increase in real value. This has resulted in a sharp decline in the average unit value during the latter period in real terms.

The original 15 EU members (EU 15) are the dominant trading partners in these regions, accounting in 2002 for 78% of exports and 85% of imports. Around 70% of both EU imports and exports originate or are directed to other countries in the EU. The proportion of EU total imports from EU partners has increased slightly, while the proportion of EU total exports destined to EU partners has decreased slightly.

Information on trade by Russia and the CIS countries is distorted by the fact that before 1990 the trade between these countries (when they were included in the USSR) was not reported. This also affects the
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record for the Baltic countries, at that time included in the USSR and the Eastern European countries, which formed part of COMICOM – the inter-trade between COMICOM members was not reported. The recorded exports of the USSR were predominantly to the EU and to the rest of the world, in about equal amounts. By 2002, though these two areas remained predominant partners for Russia and the CIS countries, trade with CIS countries now made up 15% of the total. Up to 1990, the EU accounted for 80% of the USSR’s recorded imports. In 2002, trade between Russia and CIS partners was the source of 40% of their total imports, while EU and the rest of Europe accounted for most of the rest.
I4.2 New EU Countries, CEECs and the Forest Sector

Amongst the newly accessed countries, there are several highly relevant for the forest sector, especially in the Central European context. It is therefore worthwhile to consider the implications that these developments might have for forestry and forest industries throughout Europe.

Implications for Forest Products Trade

In principle there will not be too many direct implications for forest products trade, as currently there are only very few limitations to timber trade globally. The trade in forest products between several of the new member states and the then EU 15 countries was already quite intensive before, but as this trade is now considered “EU-internal trade”, the formalities have decreased considerably. This can also affect transport costs. Overall, this will mean a more reliable supply of raw material.

In addition, it will become easier for companies to operate in other EU member states. As a result, it may be possible and attractive for companies located in one EU country to organise their material supply from other EU countries, not only by subcontracting but also by founding subsidiary-companies. This will also ensure a higher level of “certainty about the supply”, thus countering suspicions of imports’ originating from dubious or illegal sources. Together with better possibilities to enforce contract-obligations within the EU, this will result in a higher amount of reliability in forest products trade throughout the EU 25. In addition, the fact that sooner or later most new member states will adopt the “Common Currency”, the Euro, will remove the risks involved with exchange-rate-variations in longer-term trade-relationships.

As the developments of the last years have shown, however, one of the major objectives of forest sector policies in CEECs (Central and Eastern European Countries) is to restructure their forest sector industries towards improved value added production, and especially to lower raw or semi-processed material exports. In addition to the abundant raw material source in several CEECs, a well educated workforce, productivity (i.e. low labour costs and tax-rates and a more or less equally well educated workforce). This will also mean that these differences will decrease, resulting in more even “competition conditions”.

Developments in CEECs

The CEECs include not only the majority of the ten new members of the European Union, but also other countries which were part of the former Eastern Block or the Soviet Union (i.e. today’s CIS-states). Also, for the new EU members the consequences of their special transformation-process are still being felt today; it is therefore worthwhile to focus on this group of countries and their issues separately.

Over the past one and a half decades, Central and Eastern European countries have undergone a period of change and transformation with considerable impacts on their national forest sectors. Due to the actual as well as potential importance of these countries for the forest sector in Europe, these impacts have consequences for the forest sector at European as well as global levels.

Some of the most important changes include:

- Transformation from communist state-planned economy to market economy.
- Structural change in trade relationships after the collapse of Soviet hegemony in Central and Eastern Europe.
- Need for new investments in processing capacities to keep pace with technological state of the art and higher quality requirements of new trading partners.
- Change in the ownership structure of forest industries and (albeit at a limited level) of forest resources.
- Involvement of international companies in the national forest sector through joint ventures, mergers, and other forms of co-operation.
New conditions for cooperation between state forest enterprises and forest sector industries (possible implications of stricter implementation of EU competition legislation).

For some countries in the region:
- Due to failures in forest law enforcement (and ill-adapted legislation), illegal logging constitutes a problem. Upcoming measures to curb the share of timber of doubtful origin on national and international markets may result in short-term reduction of available raw material (but initial results of scenario-models in this context indicate that supply will be at normal levels within a reasonably short time).
- Structural change in agriculture will result in increased forest resources in the future (but in most areas long rotation periods of 60 to 100 years mean that any such change will not have an immediate impact on resource availability).
- Recent reforms in tax legislation (income and corporate) may increase attractiveness for foreign investments.

14.3 Developments in the Forest Sector of the Russian Federation

A series of dynamic developments have taken place in the Russian forest sector over the past years. The sector is high on the government’s reform agenda, and further institutional as well as legal changes are to be implemented in the near future.

The Russian Federation’s present forest policy consists of several legislative acts, target programs, strategy documents, and relevant aspects of international agreements that have not yet been completely unified into a comprehensive policy framework.

The Basics of Forest Legislation were created in 1993. The present Forest Code of the Russian Federation was adopted by the State Duma in 1997. Changes to the forest Code in 2003 allow exclusive federal authority over forests, taking away the authority from regional governments. This removes any power the regions had to establish protected territories or collect taxes on forest products. It also allows the elimination of protected forest status that prohibits industrial cutting.

In November 2002, the Government launched the World Bank-financed Sustainable Forestry Pilot Project and requested further support through non-lending advisory services. The key strategic goal of the new forest policy is to convert the huge biological resources of wood into economic values (gross domestic product, added value, and profit).

In February 2004 the new Forest Code draft that proposed privatisation of forests was released. In response, a nation-wide campaign erupted. Environmental activists became active in opposing the privatisation scheme. Environmentalists charged that the government is giving in to the timber industry, which is accused of pressuring the government to allow clear-cutting of up to 90% of Russian forests.

Following this and other criticism an intensive discussion between environmental NGOs and governmental authorities ensued. Eventually the privatisation proposition was withdrawn. In August 2004, the Duma reviewed the legal changes that will establish exclusive federal authority over forests.

The latest Forest Code draft foresees two types of leasing agreements: 1) leasing agreements with responsibility only to cut a forest for a period of one to ten years, and 2) leasing agreements with responsibilities to cut and regenerate the forest, for periods from 10 to 99 years. For agreements under the first option the costs of regeneration are intended to be covered from higher license fees, whereas agreements under the second option would put the lessee in a position similar to that of a private owner under strict supervision of forest authorities, as is usual in many “Western” European countries.

Experts consider the main problems of the sector to be non-transparent timber flows, corruption, low income from regular forest usage due to the current tax and license systems, and significant amounts of illegal logging. These factors are all interrelated and require a comprehensive approach to forest sector policy, as well as a general change in public policies (Petrov 2003).

The move towards more centralisation in the sector is in line with current general political developments in the Russian Federation, and it constitutes a change of paradigm from earlier developments towards decentralisation. The proposed introduction of long-term lease agreements – if introduced in the spirit of free competition, private entrepreneurship, and secure contract relationships – carries potential for introducing the element of more long-term planning of private activity in the sector; this would constitute a paradigm change away from governmental planning towards more private responsibility. As can be seen, there is a certain element of tension between the tendencies towards more central control and more private activity in the sector. However, there are examples from around the world demonstrating that these seemingly contradictory developments can co-exist.
### 14.4 Paradigm Shifts in the Forest Sector

**From Sustainable Raw Material Production to Ecosystem Management**

In practically all European countries, the last one and a half decades have been a period in which the major objective in forest management has become defined as the sustainable management of forest ecosystems, rather than the sustainable production of raw materials. Thus, what was once a constraint—the preservation of the forest resource base in order to safeguard future production—has now become the main objective. This shift in orientation constitutes the major paradigm shift in the European forest sector. This has also become the accepted paradigm in forest science. In international processes—with the MCPFE (Ministerial Conference for the Protection of Forests in Europe) process being the most important one at the Pan-European level—this shift has become accepted and has already been cast into the MCPFE’s resolutions.

At national levels, too, this new paradigm has become the guiding principle in the definition of new standards and practices for forestry professionals, as well as for the revision of forestry legislation. Most new forest acts and other forest relevant laws throughout Europe are now based on the commonly accepted definition of forest sustainability, consisting of the sustainable management of forest ecosystems for all social, ecological, and economic benefits. Yet, while “sustainable ecosystem management” is basically formulated as a “win for all” concept, its actual implementation “in the field” is not possible without addressing the inherent conflicts of interest between different groups of beneficiaries of forest products and services. Consequently, modern conflict management approaches have become increasingly important tools for forestry activities, and also a challenge for forest research (Burley et al. 2001).

**From National Domain to International Discussion**

Forests were traditionally seen as a national strategic resource and forest policy as an object of national interest. The past decades have, however, brought upon an internationalization of forest policy processes.

*The Ministerial Conference for the Protection of Forests in Europe (MCPFE) – a Pan-European effort*

In Europe, the MCPFE process (Ministerial Conference for the Protection of Forests in Europe) forms a common political platform for forest policy issues for the 40 represented countries and the EU. This activity has resulted in a number of resolutions that have defined sustainable forest management in the European context. The history of these resolutions also shows how this process has become increasingly more policy relevant (MCPFE 2004).

*Strasbourg 1990*

The six resolutions of the Ministerial Conference in Strasbourg in 1990 focussed mainly on cross-border co-operation on technical issues, such as data exchange, joint initiatives towards data-collection, and increased scientific co-operation. Already the need to provide the best possible scientific information as a basis for policy decisions was stressed.

*Helsinki 1993*

The following Ministerial Conference in 1993 in Helsinki was dedicated to the implementation of the outcome of Rio 1992, as well as to the political and economic transitions going on in Eastern European countries at that time. The four resolutions focussed on “sustainable forest management”, the conservation of biodiversity, climate change, and co-operation with countries with economies in transition (CET). With several of the CET countries being rich in forest resources, their importance in the context of Pan-European forest policies was thus recognised. The follow-up to the Helsinki Ministerial Conference aimed at the development of Pan-European indicators for sustainable forest management (at the operational level), as well as increased co-operation with CET countries, implementing the Helsinki resolutions, and preparing for the next Ministerial Conference in 1998 in Lisbon.

*Lisbon 1998*

This meeting was dedicated to the relationship between forestry and society, and the new role which forestry would assume in the wake of societal change throughout Europe. The two resolutions resulting from the Lisbon conference focussed on the enhancement of socio-economic aspects of forestry, bearing in mind the full range of benefits for societies and – as an outcome of the follow-up to the Helsinki resolution – a set of Pan-European Criteria and Indicators for Sustainable Forest Management at an operational level. The latter – essentially an adaptation of the idea of “forest ecosystem management” to the specific conditions in the European forest sector – has become an important basis for further political and legislative initiatives at national levels as well as in the EU.

The follow-up work programme to the Lisbon Conference focussed on climate change, biodiversity, rural development, a further discussion on criteria and indicators, and the needs of CEECs.

*Vienna 2003*

The Vienna Conference, under the title “The Living Forests Summit”, was dedicated to the conservation and sustainable management of forest resources in
Europe. It also took up the “forestry-society relationship” theme in the resulting declaration, “Common Benefits – Shared Responsibilities”. The relationship between forestry and other political and economic spheres in society was also the topic of most of the five resolutions, which focused on cross-sectoral cooperation and national forest programmes (NFPs), the economic viability of sustainable forest management, social and cultural aspects, forests and biological diversity, and forestry and climate change.

In line with this general theme, a multi-stakeholder dialogue process at the pan-European level has been established, creating a forum for representatives of forest owners, forest industries, social and environmental NGOs, as well as the scientific community. The inclusion of the latter can be seen as a “return to the origins” of the MCPFE process, namely, the integration of science into sound policy decisions.

**Forestry and the European Union**

In the EU, the relevance of forestry has been steadily increasing over the past one and a half decades. Relevant Community policies and documents have integrated the new paradigm of sustainable management of forest ecosystem into the EU’s policy framework. These have included the European Forest Strategy on a general level, as well as more concrete manifestations like the Community’s policies in support of rural areas (e.g. EU-Reg. 2080/92 for the afforestation of agricultural lands or EU Reg. 1257/99 on Rural Development) and related implementation regulations. While opinions are still divided on whether there is a need for a common EU forest policy, the relevance of EU decisions for national forest policies is undisputed today. One of the most contested issues in the implementation of EU policies of relevance for forest land use has been the implementation of the EU’s “NATURA 2000” network. The implementation of the EU’s Birds and Habitats Directives, aimed at the establishment of a network of protected areas in which traditional land-use is not excluded but is subject to special guidelines and management plans, faced fierce criticism and resistance from private forest owners across Europe, who felt left out of the decision making process. It has also raised the awareness of national forest owner associations in Europe and increased their efforts towards representation and presence at processes in Brussels (Julien et al. 2000).

The increasing importance of EU-related policies, including the availability of additional funding opportunities, especially in remote rural regions, has led to a power shift within national policy networks. Within national ministries in charge of forestry related matters, “international departments” have gained increasing importance – amongst other reasons due to their relevance in gaining access to EU funds. On the other hand, NGOs with better access to decision makers at EU levels have actively tried to shift issues from national to EU levels, thus compensating for their weaker power in forest politics at domestic levels (Hogl 2000).

**Forestry and Rural Development – Between Tradition and Innovation**

Rural areas across Europe are facing more rapid emigration than ever before. Due to the diminishing prospects for financially feasible agriculture and the lack of supplementary sources of income, rural areas are characterised by high unemployment, narrow occupational base, and poor job creation. The result is a loss of attractiveness of rural regions.

The main challenge for the forest sector in supporting rural development is to find counter-measures to break the vicious circle. Higher and especially more innovative utilisation of existing wood and non-wood forest resources would contribute to rural development by increasing employment opportunities and raising the economic benefits obtained from the forests.

Low local demand and long distances to the main markets seem to be the major hindrances. The strategies aimed at increasing the forest sector’s potential cannot concentrate on regional consumption alone; instead the main task lies in connecting rural producers and urban consumers. In wood processing, small and medium-scale mechanical wood industries are seen as a promising option (Hyttinen et al. 2000).

Research has also shown that in many countries “society at large” is emphasising amenity outputs from forest resources rather than raw material production. The fact that in rural areas in Europe the majority of the population is nowadays employed in “urban” professions (i.e. production and services) contributes to this general attitude. In line with the general change in population structure, the socio-demographic characteristics of private forest owners are also changing. There are an ever increasing number of urban and/or absentee forest owners, who pose an increasing challenge to traditional forest sector actors, as their needs cannot be addressed with the same arguments, policy instruments, and institutions which were designed for a predominantly rural, farm-dwelling clientele. Empirical research also shows the need for a redesign of policies to address this new socio-cultural constellation (Elands and Wiersum 2003).

**Challenges Ahead – Growing Demand for New Services and Products**

While the important role of environmental and recreational services has long been recognised, their real potential still needs to be realised. To some degree the traditional view of environmental services as
“functions” (e.g. recreation, protection, conservation “functions”) is at the heart of the entrepreneurial view of forestry which is necessary, not only to provide these “services” to society but also to market them as products. Whether the provision of such services is to be achieved through public or private financing is a question distinct from how and by whom they are provided. Examples from other fields – such as health services – show that the state as provider of services is not necessarily the only possible solution for achieving a high level of service standard and supply.

There exist a number of interesting examples of how even those services once considered the exclusive domain of the state, such as nature conservation, can be provided in the form of private contract arrangements with forest owners, regardless of whether they are public or private. Biodiversity protection networks in Austria or Finland, to name but two of many examples, have been established by inviting private forest owners to “offer” suitable sites. This allowed the relevant authorities to choose those sites for participation in the program which were considered the best “value for money” from the point of view of conservation objectives.

Carbon sequestration, too, is a good example for how a “function” which has always been provided by forests, is becoming recognised as a service, which is increasingly in high demand by countries introducing carbon management regimes. What is currently being developed in some countries constitutes the proper transfer institutions and mechanisms to bring supply and demand together. Thus, what has once been considered an “externality” has become the management objective, with wood eventually resulting as an externality in the process.

In many if not most European countries however, the use or appropriation of some of the most important services and non-wood forest products is regulated in the form of “everyman’s rights”. This allows the public at large recreational access or the collection of “household quantities” of non-wood forest products (e.g. mushrooms or berries) free of charge on all forest land, regardless of the ownership situation. Research results (Janse and Ottitsch 2005) have surprisingly shown that the existence of such rights does not necessarily hinder forest owners from gaining financial profit from the increasing demand for these services and products. Rather than “charging entrance fees” it is possible to sell additional services to tourists attracted by the possibility of enjoying nature free of restrictions. The potential for such services is of course different in a rural recreation area, where longer-term stays of clients require the provision of accommodation and other services. By comparison, in an urban or peri-urban zone, visits tend to be shorter and often do not result in any local consumption, and thus the negative externalities of increased traffic may be the only tangible input into the area. The special conditions of urban areas are thus explored in depth below.

**Urban Forestry – an Emerging Concept**

All across Europe the role of forests and forestry is taking a different shape in and around urban areas. The past decade has seen the evolution of a specific European concept of Urban Forestry, especially in countries like the UK, the Netherlands, and Belgium; but there are also famous examples of urban forestry in the North (e.g. Sweden, Finland) and in the South (e.g. Italy). In addition, forests in rural areas are increasingly owned by absentee forest owners, who have interests and objectives other than their farm forester ancestors. These developments provide challenges to public as well as private actors in the forest sector (Krott and Ottitsch 2005).

In many cases, urban green space policy in Europe still constitutes a patchwork of segmented policies. This is mainly due to the fact that present structures originated in specific historical contexts. Today’s urban green spaces originate from the representation purposes of feudal courts (parks, urban gardens, urban forests), from traditional public forest domains, and from representation-related activities of the 19th century bourgeoisie (private gardens, boulevards, alleys). They also have their roots in the concept of “peoples’ gardens” from the late 19th century, partly instituted by rededication of the former categories. This development has to be regarded within the context of rising labour interests across Europe, related to industrialisation and its consequences in changing the social fabric of urban agglomerations. Moreover, green spaces and green space policy need to be seen in relation to more recent concepts of urban planning, resulting in new forms of “community forestry”, and as a most current development the implementation of local Agenda 21 projects.

In those cases where urban green space management is based upon a long tradition, management institutions and organisations within municipal administration also have such a tradition. As a result, different types of urban green space within the same municipality, for example forests and parks, are administered by different organisations. The insistence on traditional spheres of influence can be seen as hindering the introduction of new, comprehensive green space concepts (such as urban forestry, for example). On the other hand this competition between different administrative units can also be used at the political decision-making level as an instrument to reach cost-efficient solutions, for example by allocating newly created areas to that institution offering the “best price” for delivering specific objectives.

Urban green space policy is mostly a policy of public property. In most cases, existing policy instruments are focussing on areas of public property. Urban green space policies can be characterised as the policies of specific branches of the public administration. Most municipal administrations prefer property strategies when it comes to selecting instruments for
realising public objectives in the field of urban green space policies. This means that while some regulative instruments relevant for private properties may exist, municipal administrations prefer to transfer land into public property if areas are needed for realising larger scale objectives, especially in the context of urban green space strategies. This development can be seen as slightly in contradiction with general forest or green space policies at national levels. In realising public objectives on a wider scale on private lands, a trend towards the development of innovative financial policy instruments (e.g. conservation contracts, agro-environmental tools, and taxation-related instruments) can be seen.

In this context, it is also interesting to note that NGOs, which are well organised and especially active in urban regions, put relatively little pressure on private areas, which are not used for agriculture or forestry, when it comes to realising public objectives. While there is some criticism regarding freely accessible green space in urban regions, mainly in countries without everyman’s rights of access regimes, this criticism does not lead to a demand for changing the legal framework. It is voiced in demands for allocation of more resources to enable municipal authorities to buy more land from private owners.

**Plantations in Europe – from Tree Farming to Cultivated Forests**

In the UN-ECE/FAO *Forests resources Assessment 2000*, plantations are defined as forest stands established by planting or/and seeding in the process of afforestation or reforestation. They consist of either introduced species or intensively managed stands of indigenous species which meet all the following criteria: one or two species at a plantation, even-aged, and regular spacing (UNECE-FAO 2000).

However, especially in the European context, the distinction between plantation and natural forests is not always clear. Intensively managed mono-crops of exotic eucalypts on former agricultural fields are easily identified as plantations, but enrichment planting of indigenous species on cut-over forests is more difficult to classify. In slow-growing Mediterranean, temperate, or boreal forests, a planted and a natural stand may be virtually indistinguishable after several decades (Evans 1992).

In addition, the definition of plantation forests covers different types of forests according to their main function or management strategy: forests for wood production, but also for soil protection, wind control, agro-forestry, etc. Arbez (2001) proposed the term “cultivated forest” to avoid the reduction of plantation forests to industrial forests, where the idea of cultivated forests would involve society driven management, multidimensional objectives, and a sustainable management approach (Arbez 2001).

Plantation forests’ share of the forest resources is relatively small in Europe (only 3%). They amount to 17% of the global plantation area (FAO 2001). Given the rapid development in other regions of the world, especially Asia and South America, however, the relative importance of plantation or cultivated forests in an overall European context is not likely to increase dramatically. In some European regions, however, cultivated forests have gained increasing importance over the past decade, namely in the Medi-
terrestrial region in the South and the Atlantic region in the West. In both regions growing conditions are better than the European average.

Vast regions of Portugal and northern Spain, as well as South-Western France, where suitable edaphic and climatic conditions for cultivation forestry can be found, are undoubtedly the “El Dorado” of intensive forest plantation in Europe. This can be exemplified by the 5 million ha of fast growing species located in that part of Europe (Arbez 2001). The transition to plantation forestry has benefited from recently abandoned agricultural lands and a very dynamic wood industry sector in the region. The trend towards tree planting is expected to continue in the Mediterranean region, driven by different needs and demands in different sub-regions and within each country.

Promising economic returns on tree planting have been realized in some locations for several decades, especially in the advantageous areas of northern Portugal and Spain and the South-East of France, where biological growth rates are high (10 to 20 m³/ha) and large areas of abandoned agricultural land have been available to plant new forests. In these areas, the general trend to high-yielding planted forests might receive additional momentum from environmental concerns, which have resulted in harvesting prohibitions in some old-growth and secondary forests and regulations that make such harvesting more expensive. As the environmental movement continues to exert pressure for the protection and setting aside of more native and natural forest areas, less of this type of forest is available for logging, and the costs of obtaining wood from these sources are rising.

While the majority of societies have developed away from ideas of production-dominated management, the demand for traditional wood-based forest products has increased and production has followed. One of the most recent developments, the trend towards a higher share of renewable energy in Europe’s energy-supply portfolio, is just an example of the trend to a more sustainable society creating even more potential demand for “traditional” forest products.

At the same time, post-industrial societies are demanding amenity services from forest resources and have also questioned the legitimacy of once traditional forest management practices and regimes in the light of the new paradigm of sustainable use of forest resources. For European societies forests are one of the most essential elements of “the Environment”, with a high potential for symbolism and emotional bonds, especially for the politically dominant majority of urban minded citizens. The influence of urban values on European forestry is also increasing because a growing number of private forest owners live in urban rather than rural areas.

Demands for Participation

European societies are linked in a general trend towards more open and more democratic modes of governance in all aspects of life (see Chapter 4 for change in the governance of forest resources). In the European context, the role of environmental and social NGOs in determining forest policies is ever increasing. Even in countries currently dominated by more authoritarian trends in public policy, the power of international NGOs can be felt in the multitude of co-operative initiatives in the context of forest policy.

Major Environmental Changes Affecting Forestry

While the details of magnitude and consequences are still being discussed, global warming is one of the main accepted “paradigms” determining national and international environmental policies. In the forest sector, this has resulted in new demands for seemingly “old” products (bio-energy) as well as an upcoming demand for the new service of carbon-sequestration; both of these are intrinsically linked to policies fighting global warming. The fact that the demand for these two specific services has developed only over the past two decades (traditional use of bio-energy in the form of fuelwood is left aside in this observation), demonstrates how rapid environmental developments and the related social and economic factors can have impact on the forest sector. On the other hand, climate changes also pose formidable challenges to future forest management,

14.5 Forests, Society and the Environment in the European Context

In the past decades the forests, societies, and environment of Europe have undergone considerable changes. Practically none of these changes were foreseeable when the management plans for today’s existing forest resources were initially devised, or when the majority of today’s forests were planted or replanted after previous harvesting.

Increasing Demand for Forest Products and Services

Societies have developed from agricultural to industrial, to today’s post-industrial stages, yet examples of all three main forms can still be found across the continent. In the general political framework the values of post-industrial and urban societies are clearly dominating.

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when traditional approaches to species selection and stand treatment may have to be reconsidered in the light of assumed climate change scenarios.

**Changes in Forestry Affecting Societies and the Environment**

While the major technological changes in the forest sector over the past decades were the consequence of general social and economic developments, they have resulted in changes in societies and their environment in many European countries. The widespread rationalisation of all phases of production, from the forest to bulk-processing mills and consumer product production, has resulted in a decreased number of employees in the forest sector, but has simultaneously increased the labour safety and quality as well as professional status of new jobs created by these technologies. The most drastic example would probably be to compare a logger of the early 20th century with a harvester-operator of the early 21st century.

Technological changes have also new approaches to forest management, resulting in different impacts on the environment. While high levels of automation allow for large scale operations in short time, they are also the prerequisite for many of the small scale approaches favoured in more “adaptive” approaches of forest management. An important factor in this context is the prerequisite of appropriate infrastructure not only for the use of modern technology, but also for the use of small scale approaches. And like technology, infrastructure, in the form of forest roads for example, may have positive as well as negative impacts on the environment. Infrastructure can function either as an access route for further forest destruction and land-use change, especially in areas suitable for agglomeration, or as a lifeline for remote rural communities, which in many areas of Europe are facing the problem of depopulation and abandonment.

**Forests, Society and the Environment in Europe – Eternally Linked**

As this chapter shows, it is not possible to analyse the developments of forests, society, and the environment in Europe separately; they are linked and will continue to be so. Forests are a major element of the environment in Europe, covering some 30% of its territory. Forestry as the set of society’s institutions devised to deal with the conflicting interests in forest resources, their use and protection, is constantly forced to adapt to changing developments in society. The turbulent political history of 20th century Europe has resulted in several major changes. With Europe’s forests being largely in temperate and boreal areas, with a comparatively long succession as well as economically determined rotation periods, the institutional framework for the management of the forest area has changed a number of times, sometimes even within one human generation. The latest change in the main paradigm of forestry in Europe towards “sustainable management of forest resources” has been more evolutionary than the more revolutionary political developments of the last two decades. However, the change is of such magnitude that it will still take considerably more time for its consequences to be read in international declarations and new legislation, and realised throughout the vast diversity of different forest ecosystems in Europe.

**References**


Map 14.1 Forest cover in Europe (percent of land area) and total forest area per country (countries over 50,000 ha) (Data: FAO FAOSTAT 2005; map designed by Samuel Chopo)

Forest cover %
(number of countries)
- 65 to 72 (2)
- 50 to 64 (2)
- 44 to 49 (7)
- 33 to 43 (6)
- 28 to 32 (9)
- 15 to 27 (6)
- 9 to 14 (5)
- 0.3 (1)

36. Iceland
35. Moldova
34. Netherlands
33. Denmark
32. Ireland
31. Belgium and Luxembourg
30. The FYR of Macedonia
29. Albania
28. Slovenia
27. Switzerland
26. Croatia
25. Hungary
24. Lithuania
23. Estonia
22. Slovakia
21. Bosnia and Herzegovina
20. Czech Republic
19. United Kingdom
18. Yugoslavia
17. Latvia
16. Greece
15. Portugal
14. Bulgaria
13. Austria
12. Romania
11. Norway
10. Poland
9. Belarus
8. Ukraine
7. Italy
6. Germany
5. Spain
4. France
3. Finland
2. Sweden
1. Russian Federation