The expanding framework of law and public policies governing sustainable uses and management in European forests

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The Expanding Framework of Law and Public Policies
Governing Sustainable Uses and Management in European Forests

Franz Schmithüsen


Zurich 1999
1 Forest Law as a Regulatory Framework for Protection and Utilization of Forests

*Economic and Social Context:* The evolution of forest legislation in the European Countries shows that the understanding of how natural resources are to be used in a sustainable manner depends on a given economic and social context. The options that should remain open for the future, result from the changing perspectives and possibilities of different generations. The meaning of sustainable forestry is determined by local circumstances and their significance has considerably changed over time. Today sustainable management is understood as forestry practices which respect the naturally given potentials of the ecosystems and maintain the diversity of forests in their typical landscapes. They leave multiple options for an increasing production of wood, for protection of the environment and for recreation.1

*Regulation of Forest Uses:* Public provisions referring to forest uses over more than one generation are probably among the oldest forms of long-term environmental policies. Customary law, codified already in the 14th century, regulated forest uses in accordance with the demands and options of their times. An increasing number of forest and timber ordinances, issued from the 16th century onward, followed. Meeting local needs, long-term availability of raw materials and energy, and increased outputs through better forestry practices were the issues at stake. Legislation established the requirement of a continuous flow of wood production, which meant stopping mere exploitation of what was available. It recognised the long-term nature of forests, and promoted the involvement of several generations in forestry activities. Increasingly it provided for planning and management, and for measures of regeneration and reforestation. Step-by-step forest laws introduced

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1 There is a considerable number of recent research publications and case studies which analyse the evolution of forest uses and sustainable resources utilization at national and local levels. For several European countries see for instance Arnould et al., 1997, and Cavaciocchi 1996; for Germany, Austria and Switzerland Schmithüsen 1998; for France Corvol 1987, Corvol et al. 1997, and Centre Historique des Archives Nationales, 1997.
principles of renewable natural resources utilisation as a requirement for sustainability as we understand it today.

Regulation of Property Rights and Forest Tenures: Just as important is the fact that forest laws define ownership rights and access to forests for different user groups. With the favourable conditions of an expanding wood production and an expansion of the timber trade continuity and increase of supply required investment in forestry and this could not be achieved without security of forest tenures. Especially during the 19th century many forest laws had a tendency to restrict or abolish usufruct rights, and to transform collective tenure into clearly defined land ownership. In some areas, this has favoured the constitution of communal forests, whereas in others state forests were maintained. Private property rights were formally registered and forests still under collective tenure were divided among the users. Quite often a combination of tenures developed which is characteristic for the present ownership of forests in European countries. On the whole, the laws distinguished between use and management rights according to which forests were a productive asset for generating profit and income, and other uses which were important to the population or certain user groups. Increasingly they recognised resource management aspects of public interests which primarily concerned protective values in mountainous areas.²

To establish a legal basis for uses and ownership has been a tedious, difficult and often conflictual process. Sovereigns and nobility claimed wood resources for operating mining industries, commercial salt production, glass-making factories and for ship building. They obtained juridical control over vast areas and created forest administrations in order to impose close supervision on communal and, to a lesser degree, on private lands. The growing influence of the state created tensions with peasants and villagers. To them, local uses were more important than government-promoted commercial wood production.

Regulation of Wood Production and Management: Forest laws have moved from local restrictions and usage rules to comprehensive provisions that organise and regulate sustainable wood production. The change was initiated by a new understanding of forests which could be used in competitive markets for industrial activities. Forestry and wood processing became production sectors for which a

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² The regulation of ownership and usage rights, and the conflicts between public and private interests determining the adoption of the Austrian forest law of 1852 are analyzed in Feichter 1992, 1996. The development of forest tenure in Spain is summerized by Rojas 1996.
sustainable raw material flow was the prerequisite, and at the same time, the condition of business. This lead to a system of management which, yet unknown in other sectors, has kept its exemplary value. It is based on scientific models adjusting harvesting intensities to the long-term potential of forest sites, species, and age structure. The principle of sustainable wood production is implemented by applying these models over large areas in different forest tenure systems. In view of the public utility of forests, their uses and management are regulated to an extent which is uncommon in other economic activities. Legal requirements relate primarily to the protection of the forest cover, to minimum standards for management, and to measures contributing to increased productivity.3

Principal Elements of Forest Legislation: Many European countries have thus long standing experiences in sustainable forestry based on public policies and regulations. Forest laws balance private land ownership rights against the public interests associated with multiple forest uses as well as they determine specific management standards for communal and state forest tenure (Schmithüsen 1996). With regard to conservation and sustainable utilization of forests legislation provides different types of regulations (Figure 1). Protection regulations refer to measures on environment and biodiversity, nature and landscape protection, and restrictions associated with cultural and spiritual values. Land use regulations include zoning of the forest land, control of forest clearing, protection of the permanent forest estate, and the creation of new forests through afforestation. Utilization and management regulations determine responsibilities of forest owners with regard to sustainable production of wood and non-wood products, the protection of soil and water resources as well as public access to forests and recreational uses.

3 An overview of management issues that may be subject to regulatory measures is provided in FAO 1994.
2 Examples of New Forest Legislation in the European Region

The last years have seen a rapid evolution leading to a revision of forest laws in all parts of Europe. The process of adapting legislation to new political, economic and social developments has gained considerable momentum. Countries with new and

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4 Section 2 and 3 are a revised and updated version of a paper published in: I Forum de Politicas Forestal 1996: 125-137; Centre Tecnologic Forestal del Solsones, Solsona / Spain.

5 A useful source providing information on current revisions of forest laws as well as on forestry related environmental and nature conservation legislation is the Internet Access to the Development Law Service of FAO: http://faolex.fao.org/faolex_eng/index.html This service provides the full text of laws and regulations that are relevant in the present context.
amended laws range from Albania and Finland to Sweden and Ukraine \textit{(Figure 2)}. They include Denmark, France, Germany, Great Britain, Portugal and Spain.

\textit{Figure 2: Revision or Major Amendments of Forest Legislation 1990-1998}

<table>
<thead>
<tr>
<th>Year</th>
<th>Country</th>
<th>Action</th>
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<tr>
<td>1990</td>
<td>Belgium</td>
<td>Flemish Forest Decree</td>
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<td></td>
<td>Croatia</td>
<td>Forest Act</td>
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<tr>
<td>1991</td>
<td>Poland</td>
<td>Act on Forests</td>
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<td></td>
<td>Lichtenstein</td>
<td>Forest Law</td>
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<td>1992</td>
<td>Albania</td>
<td>Law on Forestry and Forest Police</td>
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<td></td>
<td>Spain</td>
<td>Forest Law (Andalucia)</td>
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<td></td>
<td>Switzerland</td>
<td>Federal Law on Forests</td>
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<td>1993</td>
<td>Finland</td>
<td>Forest and Park Service Act</td>
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<td></td>
<td>Sweden</td>
<td>Forest Act</td>
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<td></td>
<td>Estonia</td>
<td>Forest Law</td>
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<td></td>
<td>Slovenia</td>
<td>Forest Law</td>
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<tr>
<td>1994</td>
<td>Spain</td>
<td>Forest Development Law (Castilla y Leon)</td>
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<td></td>
<td>Latvia</td>
<td>Law on Management and Utilization of Forests</td>
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<td></td>
<td>Lithuania</td>
<td>Forest Law</td>
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<td></td>
<td>Ukraine</td>
<td>Forest Code</td>
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<td></td>
<td>Norway</td>
<td>Forest Law</td>
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<tr>
<td>1990-1994</td>
<td>United Kingdom</td>
<td>Guidelines and Rules</td>
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<tr>
<td>1992-1994</td>
<td>Germany</td>
<td>New Forest Acts in the 5 States on the territory of the former German Democratic Republic</td>
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<tr>
<td>1996</td>
<td>Czech Republic</td>
<td>Forest Act</td>
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<td></td>
<td>Denmark</td>
<td>Forest Law</td>
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<td>Finland</td>
<td>Forest Act</td>
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<td></td>
<td>Hungary</td>
<td>Act on Forest and the Protection of Forests</td>
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<td></td>
<td>Portugal</td>
<td>Forest Law</td>
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<td></td>
<td>Romania</td>
<td>Forestry Code</td>
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<tr>
<td>1997</td>
<td>Bulgaria</td>
<td>Law for the Restoration of Property of Forests and Forest Lands</td>
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<td></td>
<td>Poland</td>
<td>Law on Forests</td>
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<td></td>
<td>Russia</td>
<td>Forest Code of the Russian Federation</td>
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<td>1998</td>
<td>France</td>
<td>Revision of Forest Law</td>
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<td></td>
<td>Norway</td>
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<td></td>
<td>Poland</td>
<td>Revision of Forest Act</td>
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Source: Conference of European Forest Ministers, Lisboa 1998; National Reports. Other Country Information.
Major changes occur in the Central and Eastern European countries which are in the process of promulgating a profoundly modified legal network of forest, nature conservation and environmental protection regulations. The following examples show the variety of conditions under which the process of adapting the legal framework to the changing conditions of forest resources utilization occurs.6

Belgium: The long process of preparing the Flemish Forest Decree, finally issued in 1990, stands for two tendencies in adapting forest laws to new realities (Lust 1996). It takes advantage of the possibility to formulate different forest policies for the regions of Belgium (Flanders, Wallonia and Brussels), as enacted by the Specific Act on institutional reforms of 1980. It is also an interesting piece of legislation in as much as its preparation involved a large number of stakeholders and, in particular, local authorities, rural planning entities and nature conservation groups.

Finland: Recent changes in legislation refer to a significant reorganisation of administration (Tikkanen and Vehkamaki 1996). The Forest and Park Service Act of 1993 establishes a state enterprise working under the Ministry of Agriculture and Forestry and, in matters of nature protection, under the supervision of the Ministry of Environment. The Forest and Park Service manages natural resources and other property under its competence in a sustainable and profitable way by taking into account protection and appropriate increase of biological biodiversity. Nature protection measures are carried out in accordance with the Nature Protection Act of 1971 and with determined operational and financial targets. Other duties refer to competences under the Fisheries Act of 1982, the Terrain Traffic Act of 1991, the Hunting Act of 1993 and the Outdoor Recreation Act of 1973. In addition to timber production, nature protection and national parks, the tasks of the new service relate to recreational use of public lands, to unemployment relief in Northern rural areas, and to caring for local traditions and cultural heritage.

France: The law Nr. 85-1273 on management, valorisation and protection of forests recognises formally production, protection and social utility as the principal objectives of national forest policy (Humbert 1996). The law is an important precision to the National Forestry Code of 1979 and consolidates previous legislation as in particular Law Nr. 63-819 adopted in 1963. It is also complementary to the French Nature Conservation Law of 1976 and its subsequent regulations. Following a recent

6 The IUFRO Research Group Forest Law and Environmental Legislation (6.13.00) has published a considerable number of case studies on legal developments and regulatory issues at national and sub-national levels. For an overview on available contributions see Schmithüsen and Iselin, 1999: http://www.waho.ethz.ch/ppo
governmental report on the national forest policy with important strategic proposals to valorise the forest resources potential (Bianco 1998) a revision of the forest law is in preparation.

**Germany:** The Federal Forest Act is a frame law and has not experienced major changes since its promulgation in 1975. Issues of resources protection and management are regulated by member state (Länder) forest laws and regulations. In the former Federal Republic of Germany most of the state forest laws have been adopted during the 1970's with subsequent amendments and modifications. After reunification new forest legislation has been prepared in the 5 states which had belonged to the territory of the former German Democratic Republic (Weber 1994). This process involved in particular a repartition of constitutional competencies, regulations with regard to the organisation of state forest services, determination rights and obligations of private and public forest owners, regulations referring to forest practices and sustainable management, and legal provisions dealing with applicable forest subsidies and compensations (Niesslein 1992). An important aspect in reorganising forest utilization has been the process of reconstitution of forest tenures by recognising private, communal and state forests as well as through privatisation of land held previously under cooperative forest properties (Sasse, 1996).

**Great Britain:** Changes in forestry activities are largely based on ministerial statements, policy declarations, combined with a system of legal restrictions, tax advantages, grants and extension. The presently relevant forest policy statement of the Government was written in 1991 and followed by a UK. programme on sustainable forestry, published in 1994 (Miller 1996). The Forestry Commission, established in 1919 by Act of Parliament, exerts considerable control over management decisions in both the private and state sectors. A set of guidelines drawn up by the Forestry Authority between 1990 and 1994 refers to forests and water, forest nature conservation, forest recreation, forest landscape design and to community woodland design. They contain prescriptive statements, that detail, for instance, forest design and management in order to minimise impact on water, or they are more of an advisory nature in connection with grant aid applications. The possibility to claim the cost of planting trees against tax relief has been abolished in 1988. It was the intention to offer an equivalent through grants to which conditions can be attached more readily than in the case of tax relief. The Woodland Grant Scheme provides for the possibility that farmers can get annual payments for 10, respectively, 15 years in order to compensate for loss of agricultural earnings. An interesting aspect is the role of forestry consultants many of which have passed
examinations to become Members or Fellows of the Institute of Chartered Foresters. This implies that they are bound by the ethics and codes of behaviour of this professional institute and appear on the approval list of members in consultant practice.

**Italy:** Forest legislation is still determined to a large extent by regulations based on the Serpieri Forest Law of 1923 with subsequent amendments. There are, however, new developments in fields like nature and landscape legislation, rural development and special programmes for mountainous regions which have a considerable impact on forest management (Merlo and Petenella 1990). This refers, in particular, to the Nature and Landscape Law of 1985 (Legge Galasso) which provides for regional landscape plans with consequences for the role of forest land and its management. Another interesting development results from the growing impact of European Community regulations related to agriculture and from measures in favour of selected regions which are translated in specific plans and projects (Gajo and Marone 1996). Italy offers an example of a country in which forestry becomes more and more integrated into general land development schemes based on integrated planning and joint financial commitments under different programmes. Relevant regulations for forest resources management result increasingly from a broad range of environmental and primary sector regulations.

**Spain:** The Spanish basic law on the conservation of natural areas and of forest flora and fauna of 1989 has had an important impact in establishing state authority for the declaration and management of national parks (Rojas Briales 1992). It is also part of the process for redefining constitutional competences both between forest and nature conservation legislation as well as between national and regional entities. Several forest laws for autonomous regional entities are in the process of preparation or have already been adopted.

**Sweden:** In 1993 a new Forst Act has been promulgated (Svensson 1994, Thelander 1996). It replaces the act of 1979 which was in force with slight amendments during the 1980's. The new law is of considerable interest and the result of important changes in forest policy direction. An important aspect of the country's new forest policy results from the fact that environment and wood production are now considered as policy objectives of the same priority and of equal weight in managing forest resources. Forest owners are responsible for environmental measures required on land used for timber production and have to bear the related costs. Costs for national parks and nature reserves are to be borne by the State. Extension services and the transfer of knowledge and know-how receive strong emphasis since
forest owners have now greater responsibilities in forest resources management. Subsidies are restricted to improvements of the forest environment. On the whole the new law has been simplified in comparison with the previous one, is less restrictive and gives more freedom of action in land management.

Switzerland: After a long process of review a new Federal Law on Forests was adopted by the two chambers of parliament in 1991 (Schmithüsen 1995). As the previous law, which had been in force since 1902, it is based on a joint constitutional competence for forestry matters. The federal level has a frame competence, focusing on the protection of forest lands and on the protective role of forests in mountainous areas. The cantons are responsible for the implementation of federal regulations. They have also a fairly large domain of own competences, which include forest management planning, support to public and private forest owners, and organisation of the cantonal forest services. At present the cantons are in a process of revising their legislation and several cantonal forest laws have already been adopted.

Central and Eastern European Countries: As of 1994 new forest legislation had already been enacted in Croatia, Poland, Slovenia, the tree Baltic States and Ukraine (FAO 1995, country reports). Since 1995 the Czech Republic, Hungary, Romania and Russia have adopted new forest laws. The principal issues that have been dealt with in the new legislation are sustainable development of forests, privatisation and private forestry, forest management and utilisation, community forestry and law enforcement (Cirelli, 1999)

The task to create a new legal framework for forestry and environmental protection is undertaken within a fundamentally changed constitutional environment. It is determined by democratic decisions, by constitutional rights of the citizens and by a state of law which legitimises governmental intervention. Experiences are to be gained with regard to the implementation of the new laws and, at least in some countries, with the additional revisions in order to make legislation more workable. Economies in transition imply that wood production as well as services are subject to the rules of demands and supply and that sustainable forestry practices are only viable if they are determined by considerations of economic efficiency and profitable management.

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7 A recent overview on forest law developments in European Countries in transition to market economies is available in FAO Legal Papers Online Nr. 2 (Cirelli 1999) under http://www.fao.org/Legal/default.htm . For other country information and analysis of relevant issues relating to the process of adapting the forestry sector to a market economy see IUFRO 1992; FAO 1995; Ljungman, 1995; Schmithüsen ed. 1996
Public regulations will be operable if the forest owners are able to obtain immediate benefits from their activities and if they are compensated by for additional costs from user groups and the community. The new forest laws reflect to a considerable extent these frame conditions of forestry in a market economy.

Poland: Among the countries in transition to a market economy, Poland has been among the first ones to adopt a fundamentally revised forest law. It replaced the former law on state forestry of 1949 and the law of 1973 regulating management of non-state properties. Both laws had been subject to numerous amendments and a project of a consolidated legislation had already been launched during the 80's (Partyka et al. 1990). The new law on forests, enacted by parliament in May 1991, refers to all forms of forest ownership and defines the principles of maintenance, protection and increase of forest resources as well as of forest utilization in the overall perspective of environmental protection and national economic development (Strykowski and Lonkiewics 1995). A key element in the new legislation are management plans, to be prepared for all types of property with the objectives to increase the productivity of forest resources, to ensure economic profitability and to provide environmental benefits. State forests have been maintained and should be managed under a regime of financial self-dependence. A forest fund has been established in order to compensate for variations in cost/revenue structures among different forest districts. A critical point in the law are provisions related to privately owned forests for which regulative measures are in force but not sufficient support in implementation is available. The Act on Forests has important relations to the nature protection law which has also been promulgated in 1991. A revision of the forest law has been undertaken in 1997.

3 Significant Trends in Recent Forest Legislation Developments

Evaluating Changes in Forest Legislation: The tendencies that become apparent from recent changes in forest laws and regulations in several European countries show a variety of approaches and may be judged from different point of views. Criteria which are relevant for an analysis on the advancement of legislation are in particular the following ones:

- **Consistency**: requires the compatibility of forest regulations with constitutional values and democratic rules, with national policies addressing land-use, economic development and environmental protection, and with international commitments and multilateral agreements.
- **Comprehensiveness** refers to the objectives of forest legislation with regard to forest protection and forestry development, to different types of forest tenures, and to the rights and responsibilities of various categories of forest owners.

- **Subsidiarity**: relates to the role of forests as national, regional and local resources. It also relates to the double nature of forests as private production means that may be used according to the decisions of land owners and as resources that yield numerous benefits to the community. Subsidiarity indicates to what extent public programmes support the activities of land owners.

- **Applicability**: refers in particular to the organisational framework of public forest administrations in relation to changing responsibilities and tasks, and to appropriate forms of participation of forest owners and interest groups in regulating forest uses and management practices. Coordination of competences among public entities is an important aspect in evaluating the applicability of new or amended regulations.

**Adaptation of Legislation to Changing Social Demands**: Changes in social demands towards forests are in itself nothing new. In addition to the production of wood and many other products, forests have always had great importance with respect to protective and sociocultural values. The actual demands are of a much diversified nature and specific within countries and at a given locality. They involve the production of goods and services of a distributive character. And they refer to interests in the very existence of forests, which have their foundation in the perception and the personal conviction of people. The potential for alternative uses, the variety of actual outputs as well as the values associated with their existence make the forests an important element of the rural and urban space. The capacity to satisfy present needs, but also those of future generations determine their social relevance and the objectives of sustainable management. It is this aspect, which gives a new dimension to the political debate on forests and forestry and to forest law developments.

**Multifunctional Policy Objectives**: The objectives of new laws are more diversified and comprehensive. Moving from a perspective which focused on wood as a sustainable resource, forest laws are now addressing a wider range of private and public goods and values. They acknowledge the equal importance of production and conservation. Their goals refer to the role of forests as multifunctional resources, to their economic potential, and to their importance in the environment. Increasingly they address the variety of ecosystems, the need to maintain biodiversity, and the preservation of forest lands for reasons of nature and landscape protection.
Regulations on the management and utilisation stipulate the need to balance timber production, recreational uses and the protection of forests for soil and water conservation and against impacts from natural disasters. In accordance with the variety of ecosystems and local conditions management objectives refer explicitly to the role of forests as multifunctional renewable resources.

Transfer or Delegation of Constitutional Competencies in Forestry Matters: An important aspect in recent forest law developments are changes in the role of national, regional and local authorities. This refers foremost to constitutional competences in forestry matters. There is a trend to shift or delegate forestry competences to regional governments or to newly created autonomous state entities. Where the national level remains responsible for forest conservation and development sub-national entities become more strongly involved in policy formulation and implementation. A similar process occurs with regard to the relationships between governmental entities and local communities and associations by expanding their competences in forest management and land-use planning. These developments provide, all together, more opportunities for multi-level political decisions and for the negotiation of locally adapted solutions. They acknowledge the fact, that forests are of national concern as well as they are renewable resources of the rural and urban space. Transfer or delegation of competences allows for more participation of people in democratic decision-making processes in which they can express their specific interests and values associated with forest management and utilisation.

Regulative and Incentive Instruments: Regulative instruments keep their importance in particular with regard to protecting forest areas from uncontrolled clearings and from devastative exploitation. Regulations, which so far have restricted forest management decisions, are gradually replaced by joint management systems which engage forest owners and public authorities on a negotiated and increasingly on a contractual basis. A critical review of existing incentives for afforestation, forest roads and cooperation of forest owners takes place with the aim to develop more output oriented systems and to develop more precise performance and impact criteria. New categories of incentives for silvicultural practices close to nature, multiple use management and promoting measures which sustain biodiversity gain importance. Compensatory payments to forest owners for the performance of specific tasks in the public interest became an important issue. On the whole, legislation on forest incentives is increasingly concerned with the determination of specific targets, more precise commitments of the beneficiaries and accountability on proven results in relation to the committed financial means.
**Information and Process-Steering Instruments:** With a shift to a more collaborative forest policy informational and persuasive instruments gain considerable weight in forest legislation. This refers to information and debate in parliament and in other political entities, to information and arbitration processes among different interest groups, and foremost to a continuous dialogue between forest owners and public authorities. New legislation thus provides for monitoring and evaluation systems which produce information on forest health, composition of forest stands, and on the impact of uses affecting forest ecosystems and biodiversity. There is also demand for information on the economic performance of forest enterprises and on the financing of services rendered to the public.

Process steering instruments regulate in particular organisational structures and competences, as well as communication between governmental services and non-governmental organisations. This implies, for instance a legal framework for decision making procedures among public agencies, the designation of lead agencies, the organisation of public hearings, and for environmental assessment and evaluation procedures. It also calls for a distinction between competences related to investment and development versus those related to resources protection. There is an increasing tendency to separate more clearly the regulatory function of public forest services from their role as managers of forest lands.

**Strategies to Support Forest Owners:** New and amended forest laws show less regulation and control of communal and private forest owners in management planning, forestry operations and commercialisation of forest products. The shift to joint management responsibilities is probably favoured by constitutional emphasis on local government and strengthened institutional and financial capabilities of municipalities. New legislation focuses on setting frame conditions by defining minimum requirements and performance standards. It confirms forest owner rights in using services offered by the private sector and promotes contractual arrangements with third parties that benefit from sustainable forest management. Guidelines for best management practices and approvals by exception are increasingly used. In addition to incentives in order to increase forest production, new ones related to maintaining biodiversity and to nature conservation. Strategies of support consider more strongly measures in order to overcome structural deficiencies by stimulating research and technology transfer, more integration between forestry and other sectors of primary production, and more investment which increases the competitiveness of the wood industry sector in national and international markets.
Promotion of Silvicultural Practices Close to Nature: Legislation favours measures of silviculture close to nature and limits clear cutting. It provides for special authorisation of planting non-stocked areas with high potential for nature conservation. It requires information of how forest owners take care of conservation in felling plans. It stipulates environmental impact assessment of alternative silviculture and logging methods and the supply of monitoring information which demonstrates, that biodiversity is maintained. Public financial measures favour the conservation of broad-leaved forests and promote silvicultural measures for regeneration, tending and thinning in broad-leaved stands. There is a trend to promote a flexible form of resources management, which is not too intensive, relies on the site specific production potential and leaves options for future demands and values. Silvicultural practices close to nature are a modern form of management which safeguards the natural diversity and stability of the forests, and maintain at the same time future options.

Proactive Legislation and new Approaches in Implementation: On the whole new forest legislation becomes proactive in the sense that it relies more systematically on incentive and monitoring measures. This implies more opportunities for forest owners and interest groups to get involved in decision-making and implementation. On the side of forest authorities it leads to greater importance of process-steering and to a shift from individual decisions and projects to comprehensive forestry programmes. Parliamentary and governmental decisions focus on broad objectives and on allocating the necessary resources. In accordance with the principles of new public management this leads to a new approach in implementing forest regulations. It implies precise demands on the tasks and services to be performed by administrations and public entities with more operational flexibility in managing human and financial resources. The allocation of financial resources in relation to specific targets based on global budgeting and/or service contracts is a new feature in public process-steering. It requires the development of criteria of financial controlling which measure efficiency (output/ input), effectiveness (attainment of objectives) and economy (real costs/ standard costs) based on best practices.

4  Linkages between Forest, Economic Development and Environmental Policies and Legislation

Forestry Related Public Policies and Legislation: The use of forests and forest land as well as the management of timber stands are subject to a network of public policies and legal provisions, which has expanded considerably during the last 20 years. A general matrix assessing the influence of external policies on the
contribution of forests to sustainable development and environmental stability has been elaborated by de Montalembert 1995. It identifies broad cross-sectoral linkages and possible impacts on sustainable forest management with emphasis on macro-economic, social and industrial sector policies. An analysis of the policy context for the development of the forest and forest industries sector in Europe as seen from an international perspective has been undertaken by Peck and Descargues in 1995/1997. Emphasis is put on policies that influence access to intermediate and end-use markets for wood and processed forest products. The prospects for access to raw-material supply, and possible impacts on the relationship between major competitors and alternative materials and products are examined.

The development potential of forestry and wood processing industry is influenced by factors such as population growth, economic growth, liberalisation of trade, new markets for forest products and the short and long term production potential of the large forest regions. An important factor is the price of energy which influences the relationship between processed wood products and competing materials. Public policies and laws determining macro-economic trends are of considerable importance. This refers for instance to economic growth and employment, public finances, public infrastructure and communications, energy, research and technology development (Figure 3).

*Figure 3: Public Policies with Important Impacts on Forestry and Wood Processing*
Most European countries have created an increasingly complex network of public policies and legislation that address directly and indirectly forest conservation and sustainable forest resources utilization. This refers to cross-sectoral policies and laws that have emerged during the past 30 years such as on environmental protection, nature- and landscape conservation, land-use planning and regional development. It also refers to sectoral policies and laws that were adopted at an earlier stage but have been modified and amended considerably in the mean-time. This includes for instance regulations on agricultural development, water protection and use regulations, fishery, hunting and wildlife conservation and, of course, forest policy and legislation (Figure 4):

*Figure 4: Public Policies with Important Impacts on Sustainable Forest Resources Utilization*

![Diagram of Public Policies and their Intersections]

**Policy and Legislation Networks:** The complexity of public policy networks (Figure 5) leads to an increasing interdependence between forest laws, economic development laws and natural resources and environmental legislation (de Montalember and Schmithüsen, 1993). It requires a thorough analysis of the compatibility of laws and regulations. The following aspects need attention:

- the implications of the expanding system of environmental and nature protection legislation on forest management;
- the degree to which the respective provisions support, or neutralise and obstruct each other;
- the scope for inserting in environmental protection laws specific provisions related to forest conservation and management;
- the impact of natural resources and rural development legislation on sustainable forest management;
- the need for modifications of forest management regulations in order to be compatible and to support such legislation.

A centre piece of the expanding network of environmental and natural resources legislation is nature and landscape protection. Nature conservation is not limited any more to protecting endangered species and biotopes. It aims at the integration of nature and landscape protection in all aspects of resources development. It has immediate and in many cases far reaching consequences for the status and use of various categories of forest lands as well as for current forestry practices. Whereas protecting of forests from clearing and maintaining biodiversity are common objectives of nature conservation and forest laws there may be considerable difference in regulating uses and management requirements. Legislation provides increasingly that forest management is subject to review and assessment with regard to nature conservation. It establishes a de facto, and in some countries a formal participation of conservation and user groups in decisional processes. Ecological and landscape inventories become an important source of information for public and private nature conservation organisations. The forest authorities are obliged to consider ecological and protection aspects with the same attention as they examine long and short term forest production, silvicultural and economic development objectives. This again requires a process of consultation among governmental agencies that have competencies in regulating forestry matters, environmental protection, land-use planning and rural development. Without institutionalised co-ordination processes lengthy and costly delays in project planning and implementation will occur.

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8 The research proceedings edited by Glück er al. In 1999 contain general papers and a large amount of country information on the implications of public policy networks on national forest programmes and forest management planning.
Figure 5: Linkages Between Forest Policy Programmes and Other Public Policies

Cross-sectoral and Sectoral Public Policies

- Environmental Protection
- Nature and Landscape Protection
- Soil and Water Resources Protection
- Land-Use Planning, Regional Development
- Agriculture, Wildlife Management, Fisheries

Sustainable Use of Natural Resources
Development of Rural Areas

- Protection of Forest Areas
- Protection of Biodiversity
- Maintaining Sustainable Forest Uses
- Support to Forest Sector Development

Forest Policy Programmes

Source: Schmithüsen 1995, p.47 (modified)

5 Forestry Related International Instruments

A substantial expansion of international law on the environment and development has taken place during the last twenty years. Several agreements have been adopted to encourage countries to accept commitments towards a more sustainable use of natural resources. This has enabled governments to institutionalise worldwide and regional co-operation, and to establish confidence-building processes. The

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following overview considers legal instruments which are multilateral and refer, with one exception, to all types of forests.¹⁰

**Legal Instruments Adopted Prior to UNCED:** Some international instruments were adopted prior to the Rio Conference in 1992 (*Figure 6*). A common feature is that they focus on particular issues and problems and that most of them originated within specialised agencies of the UN. They refer to specific aspects of protecting biodiversity such as CITES, the Convention on International Trade in Endangered Species, and the Ramsar Convention which protects wetlands of international importance. Other agreements address cultural and social issues needing attention on a world wide scale such as the UNESCO Convention on the World Cultural and Natural Heritage and the ILO Convention concerning Indigenous and Tribal People. The International Tropical Timber Agreement refers to trade and forest resources utilisation and operates under the UN Trade and Development Conference.

CITES is intended to control or limit international trade on endangered species of wild fauna and flora. With very cumbersome and sophisticated procedures, endangered species of trees may fall under the regulations of this convention. Two problems with CITES are it addresses only those species that are endangered, and even then its approach is not comprehensive since it only refers to import and export of such species. The Ramsar Convention imposes on contracting parties the obligation to formulate and implement their planning so as to promote the conservation and wise use of wetlands within their boundaries. The biological relation between wetlands and forestry ecosystems is well known. And it is possible to think that by protecting wetlands, some forestry ecosystems will also be protected. But for practical purposes, this link is only implicit, and there is nothing in this legal instrument that addresses forestry issues directly.

¹⁰ A collection of texts of the legal instruments indicated in Figure 6 and 7 is available in Schmithüsen and Ponce eds. 1996.
Figure 6: Forest Related International Instruments Adopted Prior to UNCED 1992

- Convention on Wetlands of International Importance, Especially as Waterfowl Habitat, Ramsar Convention, 1971/1982/1987
- Convention for the Protection of the World Cultural and Natural Heritage, UNESCO, 1972
- Convention Concerning Indigenous and Tribal Peoples in Independent Countries, ILO, 1989

The emphasis of the UNESCO Convention is on the protection of natural and cultural heritage of outstanding universal value from the historical, aesthetic, ethnological, anthropological, scientific, geological or natural point of view. This instrument has a mechanism that enables the establishment of "recognised sites", which may receive support under the convention. As in the previous case, it is possible to think that by protecting sites of universal value, the international community may have the chance to protect some forest sites, but there is nothing in this legal instrument that addresses forestry issues in particular. The ILO Convention establishes the obligation for state organisations to develop jointly with interested peoples, a coordinated and systematic action to protect the rights of indigenous peoples, and to ensure their integrity. The ILO Convention contains provisions for the protection of land-use rights of indigenous peoples as well as their traditional knowledge base. Such protection is an important action and an indispensable prerequisite for sustainable uses of forests owned by indigenous communities.

Legal Instruments Adopted During UNCED: The 1992 UNCED Conference dealt with the environment and development from a global perspective and includes forests and forestry (Figure 7). Three legally binding instruments (conventions) were agreed to during UNCED. In addition the conference adopted two instruments specifically related to forests that are comprehensive by intention but not legally binding. There is at present a gap between the non-binding legal instruments on forest protection
and management and the formal obligations from conventions with broader objectives. This situation makes it difficult to translate global objectives into consistent national policies on forests and to develop international collaborative efforts in the forestry sector.

**Figure 7: Forest Related International Instruments Adopted by the United Nations Conference on Environment and Development, UNCED, in 1992**

- Rio Declaration on Environment and Development
- Framework Convention on Climate Change
- Convention on Biological Diversity
- Convention to Combat Desertification
- The Forest Principles
- Agenda 21, Chapter 11: Combating Deforestation

**UNCED Conventions with Implications for Forests and Forestry:** The Convention on Biological Diversity establishes as objectives: “the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding”. Among the obligations of the Convention we can find many provisions, that are of relevance to forests: to develop national strategies, to undertake identification and monitoring of components of biological diversity, to establish systems of protected areas, to facilitate access to genetic resources, to provide access to technology and biotechnology, to protect the knowledge of traditional and indigenous communities, and to provide financial resources for developing countries. The fulfilment of these obligations is in many respects relevant to forests and forestry. The Convention does not address forestry-related issues in terms required by Chapter 11 and The Forest Principles. It does not take into account the multiple roles and values of forests, and in particular their productive development potential as renewable resources.
The objective of the Framework Convention on Climate Change is "the stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system". The Convention recognises the ecological role of forests as carbon sinks. In implementing greenhouse gas reductions, countries are encouraged to improve the conditions, either by increasing the amount of land under forest cover, or at least by conserving existing forest areas. The Convention to Combat Desertification puts emphasis on land uses, with special provisions for the problems of African countries. It refers in particular to the protection of traditional knowledge, and to trade practices that may cause desertification. As in the case of other conventions, forests are implicitly addressed by several provisions of the Convention, but there is no systematic consideration of them.

The three conventions contain provisions which recognise the need of financial resources to support activities under each convention. They emphasise the need to undertake research and development in order to understand the processes that lead to the achievement of their various objectives. At several occasions they recognise the interaction between trade activities and their objectives.

Non-Legally Binding Instruments on Forests Adopted at UNCED: During the preparatory phase and, even more, during the deliberations of the Rio Conference, it became evident that the problems related to the promotion of sustainable forest management and to stopping of the degradation of forests involve complex subjects and divergent interests. The causes of deforestation are many, and they occur at very different levels. They extend from small fractions of land, at individual localities, to macro-economic levels, where certain patterns of consumption and trade practices lead to increased deforestation. Also, the consequences are many, and occur at different levels. Some phenomena are both the causes and consequences of land degradation.

Chapter 11 of Agenda 21, and The Forest Principles (a set of non-legally binding statement of principles for a global consensus on management, conservation and sustainable development of all types of forests) recognise the environmental, social and economic importance of forests and forestry, and recommend dealing with them in a comprehensive manner. Both texts show, that the weight given by the international community to the forest has changed in qualitative and quantitative terms. They reflect the political will to approach issues in an integral manner which recognises the many uses, as well as the multiple values associated with forests. The principal limitations of Chapter 11 and the Forest Principles are they lack
mechanisms to address the problems. They mention frequently the need for additional financial resources and technologies to support countries in their efforts to implement the recommendations. But there are no commitments to provide for financial transfers or to facilitate access to appropriate technologies. International coordination is advocated, but its implementation is left to the good will of governments and multilateral or bilateral agencies. There is a strong emphasis on exchange of information on global or regional forest developments, but again, adequate mechanisms, such as a conference of the parties, are missing.

International legal arrangements have to balance a wide range of divergent interests of governments and multilateral institutions. This is particularly true when dealing with forests and forestry, which involve environmental protection problems at a global scale, and at the same time, issues of economic and social development that are of considerable importance at national and local levels. The present state of affairs with regard to forest conservation and development indicates that the international community has not been in a position to provide consistent and operational arrangements to address global problems and to organise institutionalised cooperative efforts. Much will depend on the decisions to be taken by the Intergovernmental Forum on Forests and on future actions of the Commission on Sustainable Development of the United Nations.

The Need for Flexibility and a Phased Approach in Expanding International Co-operation in the Forestry Sector: International legal instruments have, at least in their initial stage, frequently the character of soft law, meaning that they are general on purpose and provide opportunities to individual countries to determine their own approach in choosing appropriate solutions to common problems. They leave options with regard to implementation, instead of formulating precise and binding commitments. Apart from establishing legal certainty, international agreements have the role of providing working tools, that are flexible enough to accommodate competing interests, changing situations, and evolving scientific and technical knowledge. Mechanisms facilitating a gradual adoption of responsibilities, can thus produce concrete and implementable results on the long run.

Considering the diversity of forestry issues by ecological zones and different stages of economic development, a framework convention on forests is probably an appropriate alternative in order to achieve a more institutionalised level of international co-operation. It would allow for protocols with flexible regional arrangements, to be negotiated in accordance with the possibilities of the parties to accept commitments on sustainable forest practices.
The development of international law on environment and natural resources utilisation is characterised by the establishment of enabling mechanisms. They support countries with a lower level of advancement in certain policy areas in order to agree step-by-step to the adoption of new instruments and to facilitate compliance with legally binding commitments. Such has been the case, for instance, with the Montreal Protocol, where a special fund was set up to finance projects addressing the reduction or phasing out of ozone depleting substances. Another mechanism to allow for gradually increasing commitments is the use of subsidiary instruments such as the Kyoto Protocol implementing the Climate Change Convention. This kind of approach appears to be highly relevant for strengthening international co-operation in forestry matters.

6 Impacts on Land Owners and Sustainable Forest Development

Multilevel Policy Networks: The commitments of international forest-related instruments have to be seen within the context of multilevel policy networks (Figure 8). They are initiated by national governments, which negotiate the framework of co-operation. At the same time, national governments are the principal addressee and agents for implementation. An increasing range of continental and regional processes involving multilateral and supranational entities form at present the international system. In part, they develop their own political and institutional dynamic; in part, they emanate from the work of UN agencies. International and supra-national agreements and instruments reflect primarily global or continental concerns. They have, however, immediate consequences for the development of rural areas, from which the problems originate and where the solutions and developments chances are to be looked for.¹¹

¹¹ Problems of multi-level governance versus simple structures of centralisation or decentralisation are discussed by Benz 1999. He argues that policy-making in complex multi-level governance related to the formulation and implementation of forest policy programmes offers new opportunities to develop more consistent solutions that satisfy different social groups and policy actors. Obser 1999 analyses the interdependence of international, national and local initiatives of sustainable forest management focussing on criteria and indicators and related certification schemes in forestry.
**Figure 8: Public Decision Making and Decision Impacts within International, National and Local Networks**

**Major Policies Issues:** The prominent issues at stake vary at different levels of the policy network (Figure 9). At the global level free trade, environmental protection and biodiversity are dominant subjects. Forest-related aspects are increased industrial uses through access to new areas, reduction of large-scale deforestation, and maintenance of a minimum proportion of natural forests. At the supra-national level major issues are structural changes in agriculture, and the protection of environment and of water resources. Afforestation of marginal lands and criteria and indicators for

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12 The considerations of this paper are limited to international and global policy developments relevant to forests and forestry. The paper does not deal with supra-national aspects that are of importance to the countries of the European Region. This refers in particular to the Pan-European Process of the Ministerial Conference on Forests, to the increasing number of cross-sectoral and sectoral policies and regulations of the European Union having an impact on forests and forestry, and to the Alpine Convention and its Protocol on Mountain Forests. These issues need a detailed analysis to be undertaken at another occasion.
sustainable forest development are of importance. At the national level, emphasis is on forestry and wood processing as productive sectors of the economy, and on the regulation of forest management practices. At local levels multiple forest uses providing employment, protection and recreation are of immediate concern.

*Figure 9: Major Forest and Forestry Related Issues within International, National and Local Networks*

Consequences for Land Management and Family Decisions: National regulations induced by international agreements, as well as directly applicable provisions, for instance in the case of international and multilateral projects, affect primarily individual and family land management decisions. It is largely at this level, that the policy objectives have to be put into workable, socially acceptable and economical feasible programmes. The conservation and development of rural space, and the increase of its production potential is the pivot and the ultimate objective of the political networks addressing sustainable uses of lands and natural resources.
The envisaged solutions are in many cases of a cross sectoral and multisectoral nature. Issues, which are on the forefront of global or supra-national concerns, are superposing a national and local demand. The combined effects have to be assessed in relation to specific needs and potentials. The impacts on individual and family land management decisions are, in fact, incremental.

**Role of Land Owners Facing Public Demands:** For the forest owners the situation changes in as much as additional demands of user groups and public opinion arise and are gradually incorporated in laws and regulations. The public has contrasting views on forests as a means of production and as a particularly valued element of the physical and spiritual environment. A large proportion of the population considers forests as a space for leisure and outdoor activities. Even if forested areas in Europe have been intensively used during the past, they are perceived today by many people as a manifestation of nature which is supposed to be largely free from human intervention. For many persons forests are important as a place of recollection, of contemplative reflection and of personal freedom. An increasing number of nature and environmental organisations articulate and promote the expectations and interests of the public.

Such developments need to be qualified in accordance with the constitutional rights of ownership. It is primarily the responsibility of the landowners to define the objectives of forest uses and to choose the management options which fits them best. It is up to them to decide to what extent they are able and willing to provide goods and services for which markets do not, or do not yet exist. In particular, private forest owners are barely in a position to carry the incremental costs of external benefits without compensations. Legislation has to balance the rights and obligations of landowners against those of individuals, user groups and the community.

**Shift from Regulation to Joint Management Responsibilities:** Sustainable uses of forests mean that the rate of resource consumption and the environmental impacts which follow from it are a constitutive part of management decisions. The use of forests is not a mobilisation of production inputs and consumption values without costs. Sustainable forestry requires re-investment or new investments to maintain and increase productivity and an adjustment of use intensities to the available potential. It needs a legitimate basis for arbitration between many economic and social interests. To enable public and private actors to accomplish these tasks has been the challenge to forest law in the past. It will remain the challenge of the future.

This implies a shift from state control of forestry practices to legislation which favours new forms of joint management involving forest owners, non-governmental organisations and public authorities. Legislation sets a frame for defining the
requirements and performance standards of the parties concerned. It supports efforts to develop cooperative forms of decision-making and contractual arrangements with third parties. Guidelines for best management practices, procedures for mediation and the exchange of information constitute a substantial part of this framework. From the viewpoint of the authorities it puts emphasis on process-steering and more comprehensive implementation programmes. It supports negotiated activities on a contractual basis and reduces direct governmental intervention. And it requires a more precise determination of targets and evaluation systems in order to assess the outcomes and impacts of public policies.

**New Strategies in Forest Resources Management:** The expanding policy framework on forest resources management - both in its multisectoral dimensions as well as in its relevance to different political levels - requires new strategies of the landowners, a high amount of process-steering on the side of public agencies and concerted decision-making on the side of the principal users and environmental groups. The following points are of particular relevance:

- Land-use decisions can only be made in relation to specific situations and combinations of interests.
- The primary responsibility for land management is with the forest owners; they are not obliged to provide external benefits beyond legal requirements.
- It is necessary to institutionalise the involvement of the relevant interest groups and of local public entities in land-management decisions and practices.
- Multifunctional forest uses need a balance between the commitments of user groups and public entities and the benefits which accrue to them.
- Sustainable forest management requires organised mediation and arbitration processes that are facilitated and legitimised by public process steering instruments.

**Financial Arrangements for Multiple Forestry Outputs:** Public policies and legal provisions that favour an adequate transfer of resources, are instrumental for generating a combination of private and public benefits and for developing the potential of the rural space. They allow for more interactions between land owners, immediate beneficiaries and public entities in accordance with the principle of subsidiarity (Schmithüsen 1996). Rural policies have to be concerned with multiple outputs and services from productive land management and natural resources conservation requiring different sources of financing (*Figure 10*). In addition to market proceeds, this may include contributions from user groups, as well as incentives and compensations from different levels of the political community. Such
an approach leads to a sharing of financial commitments, which is consistent with the economic realities of multiple-use forest land management.

*Figure 10: Different Sources of Financing for Multiple Outputs and Services from Forest Land Management.*

<table>
<thead>
<tr>
<th>Investment and Financial Contributions of Land Owners</th>
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<tr>
<td>Owners' Uses and Consumption</td>
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<td>Owners' Interests and Values</td>
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<th>Proceeds from Market Sales</th>
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<td>Wood Production</td>
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<td>Other Forest Products</td>
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<td>Commercial Services</td>
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<td>Marketable Infrastructural Services</td>
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<th>Proceeds from Compensations and Contributions of Third Parties</th>
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<td>Individual Users</td>
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<td>Private User Groups</td>
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<td>Public Local Entities</td>
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<th>Proceeds from National Governments and Sub-National Authorities</th>
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<td>Compensations for Outputs and Services Due to Public Requirements</td>
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<th>Proceeds from Supranational and International Institutions and Organisations</th>
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<tr>
<td>Productive Resources Development</td>
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<tr>
<td>Sustainable Land Management Practices</td>
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<td>Protection and Non-Use Arrangements</td>
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Source: Schmithüsen and Schmidhauser 1998, p. 103 (translated and modified)
Conclusions

Challenges to Research on Policy and Law Developments: For a long time, perhaps for too long, policy research has focused largely on forest programmes defining uses and management practices. This understanding developed in Central and Western Europe, where forest laws have existed over long periods and - in comparison with other continents - have initiated a high level of sustainable forest practices. Today preservation and uses of forests address a wider range of political concerns. The linkages between an increasing number of policy areas, the superposition of international and national political actors, and the increasing importance of sub-national and local entities are challenges to policy research on the role of forests in rural development. This refers, in particular, to implementation processes based on multiple transfers of financial resources, that are commensurate with different political goals for sustainable development. It also refers to public decision making processes involving third parties concerned and benefiting from the implementation of such goals.

Policy and Legislative Networks: Research needs arise with respect to new methodological approaches in order to deal with positive and negative impacts between sectoral policies on different land uses, cross-sectoral policies of environmental and nature protection, and regional development programmes. It is necessary to examine their effects not only at national or local levels. They have to be analysed within increasingly complex political networks, in which international and supranational legal instruments introduce or reinforce specific policy objectives. Research designs are required, that show the consequences with regard to changes in national policies, to the influence on public opinion, as well as to their impact on immediate land management decisions.

Process Steering Aspects Related to Multilevel Governance: Since international and supranational agreements rely to a large extent on implementation by national and sub-national policies, the distribution of public competencies, financial and administrative arrangements, and decision making procedures need particular attention. The role of land owners, local entities, non-governmental organisations, and public opinion are important research components. The same refers to shifts of responsibilities to the private sector, to bargaining processes and to contractual arrangements.

This requires case studies on public process steering instruments, which support negotiation, mediation and contractual arrangements in order to manage more sustainably the natural resources of rural areas. Such studies contribute to a better knowledge on the relationships between present and future resources potentials, as
determined by benefits or outputs and investments or inputs within a common flow of financial transfers. It makes the discussion on the improvement of policy programmes, both in an international as well as national perspective, more substantial. Otherwise the pressure for more regulations as induced by international agreements will remain a series of demands, which complicate land management and contribute little to an improvement of living conditions in rural areas.

Evaluation of Implementation and Results: Empirical research on the evaluation of the impacts of existing policy networks and on the successes and failures, which result from them, are of considerable interests. Major issues are the relevance, the implementation possibilities and the effective contributions of their various segments to sustainable resources utilisation in a given area. Objectives, instruments and provisions for financial resources transfers are among the key issues. Studies on implementation and results require an examination of programme outputs from public entities and non-governmental organisations with delegated competencies, and of the outcomes determined largely by the reactions of owners and land managers. The impacts have to be evaluated with regard to the improvement of living conditions, and to environmental and biodiversity conservation.

Abstract: In many European countries forest laws have been revised and amended in order to adjust to new social demands. Public policies addressing nature conservation, land use planning and renewable natural resources have produced legislation relevant to forests and forestry. National laws are increasingly influenced by international conventions and other legal instruments. The evolving regulatory framework reflects the growing importance of forests in sustainable development. It raises new issues with regard to the respective role of the public and private sectors, to the rights of land owners facing external demands, and to compensation arrangements between forest enterprises, user groups and public entities. It also calls for more efficient decision-making processes on sustainable forest resources management balancing local, national and global requirements.

Key Words: Forest Law; Natural Resource Legislation; Land Renure; Forest Management; Sustainable Development.
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