Forest Legislation Developments in European Countries

Communal Forests - A Modern Form of Public Land Management

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FOREST LEGISLATION DEVELOPMENTS IN EUROPEAN COUNTRIES

1. Examples of New and Amended Forest Legislation

In a number of European countries new forest laws have been promulgated during the last 10 years. In others major revisions and amendments of forestry related laws and regulations have taken place. The process of adapting the legal framework to changing political, economic and social conditions in maintaining and using forest resources has gained considerable momentum. Figure 1 presents for the period 1985-1995 some of the important events related to changes in forest and forestry related regulations in a chronological order.

The following countries have been considered in order to show the variety of conditions under which the process of adapting the legal framework in order to improve the conditions of sustainable management of forest resources has to take place.

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.
Figure 1: Revision and Amendments of Forest Legislation 1985 - 1995 (Examples)

1985
- **France**: Law 85-1273 on Management, Valorisation and Protection of Forests
- **Italy**: Law 431/1985 for the Protection of Nature and Landscape (Legge Galasso)

1989
- **Spain**: Law on Conservation of Natural Areas and of Forest Flora and Fauna

1990
- **Belgium**: Flemish Forest Decree

1991
- **Poland**: Forest Act
- **Switzerland**: Federal Law on Forests

1993
- **Finland**: Forest and Park Service Act
- **Sweden**: Forestry Act

1994
- **Spain**: Forest Development Law (Castilla y Leon)

1990-1994
- **Germany**: New Forest Acts in the 5 States on the territory of the former German Democratic Republic
- **Great Britain**: Forest Management Guidelines

1990-1995
- **Central and Eastern European countries**: Preparation of new Forest Legislation

**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.

**Poland:** Among the central and eastern European countries in transition to a market economy, Poland has been the first to adopt a new 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 New Act on Forests has important relations to the nature protection law which has also been promulgated in 1991.
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 Forest Act has been promulgated (Svensson 1994, Thelander 1996). It replaces the previous 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 directions. 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. On the other hand 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 organization 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: In all central and eastern European countries in transition to a market economy, new forest legislation is under preparation or in the stage of parliamentary enactment (FAO 1995, country reports). In Albania, the law on forests and forest service policy, adopted in 1992, recognises state, communal and private forests and allows private forest utilization and other activities. In Bulgaria, Art.18 of the Constitution addresses legal requirements concerning ownership of forests. A project of a forest law has been presented to the national assembly by the Committee of Forests. In the Czech Republic, a new forest law has been prepared in order to replace the previous legislation of 1977. Similar developments have occurred in the Slovak Republic. In Hungary preparation for law revision were started in 1990 and a draft forest law was presented to parliament in 1994. In the three Baltic States, the process of revising forest legislation is well advanced with major emphasis on reconstitution
of former private forest holdings and on new regulations facilitating private initiative in forest utilization and development. In Romania, a new forestry code was prepared but has not yet been enacted.

2. Common Trends Apparent from Recent Developments in Forest Legislation

Protection, Land Use and Utilization Regulations: With regard to conservation and sustainable utilization of forests legislation provides different types of regulations (Figure 2). Protection regulations refer to measures on environment and biodiversity, nature and landscape protection, access of local groups and rights of indigenous people to land and forests, 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.

If the examples of changes in forest law in different countries correspond to specific constitutional, economic and political conditions they demonstrate at the same time certain trends within the European region. Some of these trends are discussed in the following.

More Comprehensive Policy Objectives: 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 resulting demands are of a much diversified nature and differentiated by countries and regions. 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 everyone. The multifunctional character of alternative uses makes the forests an element "sui generis" of the rural and urban space. The potential and capacity to satisfy present needs, but also those of future generations, determine their social relevance and the limits of use in sustainable management. It is this aspect, which has given a new dimension to the political debate on forests and forestry.
New and amended legislation reflects these developments by addressing a broader range of objectives in regulating public intervention and providing support to forest owners. Forest laws acknowledge increasingly as of equal importance the production of wood and other forest uses, the conservation of biodiversity in forest practices, and the preservation of certain forest lands for reasons of nature and landscape protection. Regulations related to management and utilisation stipulate more clearly 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 potential of different ecosystems and local conditions the principal goals of modern forest laws are less focused on specific outputs and values and refer more explicitly to the role of forests as multifunctional renewable resources.
Emphasis on Silvicultural Practices close to Nature: The demands of society are in constant evolution. Their qualitative nature and the intensity in which they are expressed, change with the flux of economic and social development. The character of uncertainty, which is inherent in any assessment of future demands, requires long-term strategies which go beyond the pattern of day to day solutions. A flexible form of resources management, which is not too intensive and relies on the site specific production potential, is such a long-term approach in dealing with the uncertainties of future demands and values. In this sense silvicultural practices close to nature are a modern and appropriate form of management. It safeguards the natural diversity and stability of the forests, and it maintains at the same time future options of which we can think, and options which we do not yet know.

Legislation favours increasingly 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, and 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. Subsidies tend to favour the conservation of broad-leaved forests and promote silvicultural measures for regeneration, tending and thinning in broad-leaved stands.

Role of National, Regional and Local Authorities: An important aspect in recent forest law developments are changes in the role of national, regional and local authorities. This refers foremost to a new definition of constitutional competences in forestry matters with a strong trend to shift such competences to regional governments that already exist, or to establish them with newly created autonomous state entities. Where the national level remains responsible for forest conservation and development there is a tendency to involve regional entities more strongly in policy formulation and implementation. A complementary process becomes apparent in the relationships between national and regional governmental units on the one side and local communities and associations on the other side. It follows a similar pattern either by expanding their legal competences in forest management and land-use planning or by delegating authority to entities of the local level.

The changing role of national, regional and local authorities provides, all together, more opportunities for multi-level political decisions on maintaining and utilizing forests and for the negotiation of locally adapted solutions. It acknowledges the fact, that forests are of national concern but that they are, at the same time, renewable resources of great importance in the rural and urban space with diversified and immediate local interests. The transfer of constitutional competences respectively delegation of authority allows for more participation of people in democratic decision-making processes in order to consider specific interests and values associated with forest management and utilization.
**Proactive Legislation and new Approaches in Implementation:** On the whole new forest legislation becomes proactive in the sense that it relies less on defensive i.e. police regulations and favours more systematically incentive and monitoring measures. This change in emphasis 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 more comprehensive forestry programmes which concern usually several government services. It may also imply an increase of delegated activities negotiated on a contractual basis, and less direct governmental intervention.

These trends influence in particular the strategies of implementation at national level. Parliamentary and governmental activities focus on broad objectives and on political decisions allocating the necessary resources. In accordance with the principles of new public management this requires more global steering-processes in implementing forest regulations. It also implies precise demands on the tasks and services to be performed by different administrations and other public entities to which more operational flexibility in managing human and financial resources has been delegated. And it requires a more precise determination of targets to be achieved under different programmes combined with appropriate monitoring systems in order to evaluate the accomplished results and their impacts.

**Changes in Strategies to Support Forest Owners:** New and amended forest laws show generally less regulation and control of communal and private forest owners in management planning, forestry operations and commercialisation of forest products. The shift from state control of planning and operations to joint management responsibilities has probably several reasons. One is, for instance, the stronger constitutional emphasis which is put on local government combined with strengthening of institutional and financial capabilities of municipalities. Another one results from the fact that multiple-use forest management has gained more importance in many areas and the proceeds from wood production are an important but not necessary the only source of finance for forestry activities. 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 as well as the possibility to rely on contractual arrangements with third parties that benefit directly from improved forest management. Guidelines for best management practices and approvals by exception are increasingly a part of the regulatory framework.

On the other hand public strategies in order to support communal and private land owners remain of importance. In addition to incentives in order to increase forest production, new ones related to maintaining biodiversity and to nature conservation are introduced. On the whole 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. Cost efficiency based
on specific targets and evaluation of results become an important aspect of forestry related incentive schemes.

*Regulative and Incentive Instruments:* Whereas previous legislation largely relied on prohibitions and obligations a more proactive approach in forest law leads to a new approach in the use of policy instruments. Regulative instruments keep a certain importance in particular with regard to protecting forest areas from uncontrolled changes in land-use and from devastative use practices. However, 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 often contractual basis.

Incentive instruments, which have been used in the past in a rather undifferentiated manner, are of greater importance. This implies a critical review of the already existing incentives for afforestation, forest roads and cooperation of forest owners with the aim to develop more output oriented systems and more accurate measures of performance and impacts. It also refers to the use of new categories of incentives for silvicultural practices close to nature, multiple use management and for promoting measures which sustain biodiversity. And it includes the introduction of compensatory payments to forest owners for specific tasks or restrictions in the public interest. On the whole, legislation related to forest incentives is more specifically related to determined public targets with more precise commitments of the beneficiaries.

*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 an increasing demand for information on the economic performance of forest enterprises and on services rendered to the public as part of sustainable management.

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

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. This 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.
Growing Impact of Legislation related to Environmental Conservation and Economic Land Development: The use of forests and forest land as well as the management of timber stands becomes subject to a network of legal provisions, which are not any more regulated exclusively by specific forest legislation (de Montalembert and Schmithüsen, 1993). This leads to an increasing interdependence between forest laws on the one hand, and economic development laws as well as natural resources and environmental legislation on the other hand. The growing complexity of legislation requires a thorough analysis of the compatibility of the various laws and regulations. The following aspects need particular 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.

3. Concluding Remarks: Criteria for analysing Developments 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. Among the criteria which are relevant for a comparative analysis in order to determine the advancement of such legislation, the following may be considered:

Comprehensiveness: This criteria refers to the range of 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.

Consistency: The criteria of consistency may be used in order to judge the compatibility of forest regulations with constitutional values and democratic rules, with national policies addressing land-use, economic development and environmental protection, and increasingly, too, with international commitments and multilateral agreements in which the respective country is involved.

Subsidiarity: The principle of subsidiarity is of considerable importance in the context of forestry and emanates from the role of forests as national but at the same time as local and regional resources. It is also of relevance with regard to the double nature of forests as private resources that may be used according to the decisions of land owners and as local resources that yield numerous benefits to the community. Subsidiarity as a criteria of analysis determines to what extent state forest programmes support the activities of land owners, whether state
regulations are balanced with local decision-making processes, and whether negotiated agreements and contractual arrangements are used instead of regulative provisions.

Applicability: Probably one of the most important criteria in comparative analysis is the applicability of new or amended forest legislation. It 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. Applicability depends to a large degree on a balance between the transfer of public resources and the public benefits and values that are to be protected by legislation. An efficient coordination of competencies among public entities involved in forest conservation and development is another aspect in evaluating new or amended regulations.

REFERENCES


COMMUNAL FORESTS - A MODERN FORM OF PUBLIC LAND MANAGEMENT

1. Communal Forests in a Situation of Economic Change
Communal ownership is a modern form of regulating access to the forest resource, both in rural and urban areas. Forests as a multifunctional resource with a wide range of benefits are in many respects of value to local communities and user groups. They satisfy the requirements of rural people for which forests provide wood and energy, food security, shelter and survival. In many countries, particularly in mountainous regions, communal forests are of an increasing importance as a local resource. They facilitate land management for a wide range of uses and protection. Forest practices are based on social rules respected by the community organization, established from long dating experience and enforced by local customs and sanctions. Traditional usage rights and management practices that are transformed into modern communal tenure promote multiple-use forestry and induce new developments and participatory processes in order to protect forest land and to provide equitable access to forest uses. Communal ownership in many different forms has a considerable potential for improvements in forest utilization.

The uses and values associated with communal forests are complementary, locally specific, and have different implications in time and space. They represent many options for owners and the community. Land uses are flexible, multipurpose oriented and integrate varying social and economic priorities. Communal forest management, by definition, has to provide for a kind of utilisation which satisfies different groups of the community and leaves opportunities related to changing social demands. This is accomplished by conservation of natural vegetation, silvicultural practices close to nature, and selective uses which maintain ecosystem specific potential. The need to satisfy different user groups and to accommodate changing demands is probably a major reason why communal forests show a larger variety of vegetation and more selective utilisation patterns than other tenures.

The reasons for the existence of communal forests are manifold. Forests were used as a local resource for firewood, pasture, supply of construction timber and a wide range of products needed in daily life. Forest management for commercial wood production became an important objective during the last two centuries generating revenues to owners and communities. In mountainous areas protective values of forests against the effects of natural calamities are a major reason for maintaining and protecting the tree cover. Whereas these aspects continue to determine local management practices, other objectives have gained more weight during the last 30 years. Communal forests are now of considerable value for recreational uses in urban and peri-urban regions, an asset for tourist developments in rural areas, and of importance in order to protect clean water resources. Studies on people's perception of the importance of forests in their vicinity show that they are increasingly valued as environment and natural spaces. They are appreciated as characteristic elements of familiar landscapes and represent a testimony of history and spiritual values.
Generally communal forests are appreciated by the members of the entity to which they belong, and a reason of pride to the community in which they are situated. The owners were accustomed for a long time to the fact that the costs of management could be financed from wood selling proceeds and that forest enterprises generated a surplus to the community budget. This situation, however, has changed drastically since in many forest holdings earnings from wood production do not cover the operational costs anymore. Citizens and their representative decision making bodies may like to own forests, but they generally do not like to allocate recurrent funds to finance forestry activities.

The deteriorating economic conditions which many enterprises experience at present, create a new situation and rise questions. Some owners ask, for instance, whether they have sufficient information in order to decide on financial commitments regarding forest management. Others, especially members from local entities without income from taxes wonder, why they should bare the costs for protection and recreational benefits which accrue mainly to other people. City councils and management committees inquire, to what extent managers of their forests could not develop new markets for products and services which generate additional income. They look for possibilities to cut management costs through rationalisation measures, organisational changes and better cooperation between forest enterprises.

There are no indications that the unfavourable tendencies in the economics of wood production could be reversed in the foreseeable future. On the contrary they represent general and structural trends. General are the developments in as much, as the growing financial difficulties of forest enterprises occur in several European countries. They are caused by the decline of market prices in real terms per unit of produced raw material. Structural are the developments since they reflect a growing imbalance between forest management which incorporates a widening range of multiple-use objectives and the auto-financing capacity of forest enterprises which still is largely based on earnings from timber sales. The capability of owners to provide services to third parties and the public will diminish, if new forms of collaborative forest management are not developed. The expansion of forest management objectives facing many social demands requires a more global approach. Multipurpose forestry practices need a more equitable sharing of responsibilities and commitments between land owners and users.

2. Co-Financing of Communal Forest Management

The changing economic reality of communal forest enterprises has important consequences. In the past the principal management objectives i.e. to provide local benefits and generate income from commercial wood production could be reached without difficulties and the managerial performance was largely an issue of competent technical expertise. Today forest activities are a matter of a business policy which decides on production priorities and on the range of tasks to be performed. Forest owners require informations on different management options and better financial planning and performance control methods which relate production costs to specific outputs in goods and services. They look for cost sharing arrangements involving special user groups and public entities which benefit from forests but do not yet contribute to finance management costs. In the case of political municipalities such as cities and villages with
the competence to raise taxes, it involves commitments in the annual budgets in order to ensure services which are important to the community but cannot be financed from the proceeds of timber sales alone.

Providing multifunctional outputs for different social groups and in the interests of public entities requires co-financing systems in forest management. The framework in which they operate is determined by several considerations. One is the acknowledgement that communal land owners are not obliged to furnish goods and services beyond their own needs without reimbursement of additional costs. Another one is the principle that user groups and public entities benefiting from the protection and sustainable management of forests should compensate the owners for such benefits. And the third one relates to the use of incentives and financial compensations replacing regulatory commitments in the implementation of national forest policy programmes.

The following examples (Figure 1) are representative for two typical categories of communal owners and indicate the possible mix of financial contributions to forest management.

The first example shows a forest owner in a rural area putting major emphasis on sustained wood production. It assumes a local community with little financial resources from other capital assets, which is not in a position to raise local taxes, and which has drawn in the past its main income from forests. Earnings from wood sales remain probably the most substantial income for financing forestry operations, but contributions from selling other goods and service would increase due to improved costing for delivered units. Cost sharing arrangements with special user groups may be difficult in the beginning but their proceeds would increase if the enterprise demonstrates its unwillingness to continue with the delivery of such services without compensation. Cost sharing arrangements with local and regional public entities are probably more realistic and more easy to be implemented. This refers in particular to contractual arrangements with political municipalities, interested in good management practices in the forests of their territory and in protective and recreational benefits for their citizens. Governmental contributions from production incentives may already be a source of financing forestry operations in mountainous forests.
Fig. 1: Different Models for Co-Financing Joint Management Systems on Communal Forest Lands

Major Emphasis on Sustained Wood Production Management

- Governmental Compensations
  - National Policy Objectives
  - Improved Resources Management and Conservation

- Cost Sharing Arrangements for Specific Benefits
  - with User Groups
  - with Local and Regional Public Entities

Earning from other Marketable Goods and Services

Earning from Wood Production
- Sale of Logs, Stumpage Revenues
- Proceeds from Resources Utilization Fees

Major Emphasis on Urban Forest Management

- Governmental Incentives and Compensations
- National Policy Objectives

Earnings from Wood Production

Cost Sharing Arrangements
- with Local and Regional Public Entities
- with Local User Groups

Financial Means of Owner to Manage Forests as a Local Recreational Resource
The second example shows the case of a large city forest which is managed mainly for recreational use and environmental reasons and which benefits to all citizens. In this case the forest is primarily a local public resource for which the municipality has developed special management objectives in order to satisfy the demands of an urban population. Management costs are financed to a considerable extent from the municipal budget and from community taxes. Cost sharing arrangements with neighbouring political entities which also benefit from this forest, as well as compensation payments from special user groups may supplement management expenditures. Proceeds from wood sales are important as a market contribution to multipurpose forest management costs. Government incentives and compensations would be part of the co-financing package in as much as they are applicable.

All together the co-financing packages vary considerably depending on the specific situation and objectives of owners and the readiness of political entities and public opinion to support forest management valuing forests as local public goods. Governmental incentives and compensation measures determined by forest legislation are another important factor. From the point of view of the owner the financial frame in sustainable resources management thus consists of alternative combinations in which user groups and public entities are involved.

The increasing difficulties in financing forestry activities form the earnings of timber sales only, as well as the positive external effects valued by user groups and the public thus call for a double strategy of communal forest owners. They have to insist on their ownership rights and on income generating business objectives. On the other hand they have to demonstrate that numerous demands can be satisfied if costs are compensated under co-financing arrangements. The owners have to prove to different clients in the community, that multipurpose forestry practices provide a range of specific goods and services which are of value at local and regional levels. Cost calculations and an evaluation of the public utility of communal forest management in monetary terms are necessary. And they should be capable to provide sufficient information to interested user groups and to engage a process of negotiations with third parties. Such an approach requires a realistic evaluation of possible earnings in relation to planned activities, based on a combination of proceeds from market sales and from complementary contributions from user groups and public entities. A simple but efficient accounting system is indispensable in order to calculate the costs for goods and services that are to be considered in co-financing arrangements. Accounting practices which focus on wood production only and group other outputs more or less as an ancillary item are not suitable anymore.

3. Communal Forest Owner and the Private Sector

Another important aspect is the relationship between communal forest owners and the private sector. In a free market economy the constitutional values of protected ownership rights and of free entrepreneurial initiative are important frame conditions. Private initiative may extend to a range of uses and show different forms of involvement in management activities. This refers in particular to:

- the right of private and communal forest owners to utilize and manage their forests according to their individual objectives;
- the rights of user groups to conclude contractual arrangements with the owners of forest land;
- the right of the private wood processing sector to enter into contractual arrangements with forest owners in order to secure raw material supply;
- and the possibility of individuals and industrial operators to acquire forest management rights by contractual arrangements with public land owners.

There are various possible combinations of public land owner and private sector involvement in timber harvesting and forest management. Three approaches (Figure 2), with many variations in their application, may be distinguished:

- timber harvesting and forest management are carried out by forest owners;
- timber harvesting is carried out by private entrepreneurs whereas management remains at the responsibility of forest owners;
- timber harvesting and forest management are carried out by private companies and the forest owners retain planning and control of resources utilization.

Fig. 2: Forest Resources Utilization Involving Public Land Owners and Private Sector Activities

<table>
<thead>
<tr>
<th>Silviculture and Management</th>
<th>Forest Management Contracts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timber Harvesting</td>
<td>Sale of Wood on Open Log Market</td>
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<tr>
<td>Wood Processing</td>
<td>Stumpage Sales; Utilization Contracts</td>
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</tbody>
</table>

Timber harvesting by private operators and wood processing companies on public land cover is carried out under arrangements such as stumpage sales, logging permits as well as medium- and long-term utilization agreements. Stumpage sales are practised under various forms of forest ownership, whereas logging permits and timber harvesting agreements are predominant on state forest land. Sales of standing timber, usually marked in advance and limited to annual harvesting volumes are frequent in Western and Southern Europe. For economic reasons they become more current in areas in which logging has traditionally been undertaken by forest owners. The sale of standing timber refers to a determined volume of wood which is negotiated between the owner and the buyer. The owner exercises a fairly high level of control with regard to management planning, logging standards and wood prices. Stumpage sales of a determined
log volume through a bidding process are more compatible with improved management standards. They tend to replace logging permits and licences which are typical during the first stage of large scale forest exploitation.

Timber harvesting operations on state and communal forest land by forest services or state operated forest enterprises have developed in several European countries as the result of intensive silvicultural practices and of state induced forest development policies. In other parts of the world state operated forest management is usually restricted to forest plantations. The role of national forest services as land management agencies is subject to review with arguments both in favour and against such a solution. The arguments in favour underline the multipurpose character of public forests and the role of technical expertise in the case of mixed public forest tenures. The arguments against concentrate on managerial flexibility and efficiency considerations. It is also argued that a clear distinction between the regulatory role of public administrations and business oriented land management activities should be made.

Timber harvesting and forest management by land owners occur in some European countries. The pattern which has evolved provides for forest management, silviculture and logging road construction by the owners. Timber harvesting is undertaken by communal enterprises or in combination with private contractors. Timber is sold in different grades to the wood processing industry at road side. The management and timber allocation system through forest enterprises of communal owners has led to a high standard of silvicultural practices and good forest management.

Economic and technical reasons favour new organisational forms of cooperation. One is the increasing trend of the processing sector to reduce time spans of supply, to demand more flexibility in wood delivery, and to optimise raw material recovery within the whole production chain. Another one is the increase of private contracting companies offering their services in logging, road construction and silvicultural work as well as in business management. Working for different forest units and in several regions, they balance seasonal variations, use special equipment and are thus in a position to reduce operating costs. Private operators in forest management and logging are today an important option in increasing the competitiveness of timber production through rationalisation and improved productivity. This argument has particular weight considering the prevailing tenurial structure with many small-sized units which often cannot employ a full-sized forestry equip anymore. The growing involvement of the private sector in wood harvesting and silviculture has consequences for man power requirements in communal enterprises. It also calls for the elaboration of contractual arrangements, both of short and medium term duration, and for minimum standards of contractual work which satisfy the interests of owners and the public.
4. Concluding Remarks: From Supervision to Cooperative Land Use Systems

The efforts of protection and development of communal forest lands are by no means completed. New problems, new pressures and new challenges arise. They call for a reconfirmed political consensus, continuous efforts of forest owners, as well as for the patient work of forestry professionals. What on a first and superficial glance may look to an outsider as a stable and almost unchangeable accomplishment, is in fact the result of a national forest policy which is in constant evolution. In many countries, we experience a diminishing profitability of wood production and at the same time an increasing demand for public services and protective values. This has put communal forest owners and forestry enterprises in considerable operational and financial difficulties and calls for a reassessment of forest management objectives. Policy measures and appropriate legislation are required which favour and support:

- the rationalisation of forest operations in order to reduce production costs and improve economic efficiency;
- the compensation of forest owners for goods and services supplied as collective goods;
- the restructuring of forest enterprises through new forms of co-operation and transfer of certain management activities to the private sector;
- the adaptation of forest services to new tasks in extension and collaborative management practices.

On the whole the management of communal forest lands has passed through different stages. For a long time communities and municipalities managed their forest according to the prevailing local conditions. Forest legislation established frame conditions which from the perspective of today appear fairly rigid, and enabled national forest services to intervene with a range of regulatory instruments. The system of state supervision in communal forests has gradually been enlarged by relying on incentives which the owners are free to use at their discretion and on supportive measures of extension, training and information.

Today forest practices in communal forests need to be based increasingly on joint management systems and cooperation among different categories of tenures. This implies that land owners are compensated for management tasks and determined benefits which accrue to special interest groups and to public entities at the local and regional level. Those who benefit from a multipurpose management should be able to articulate their interests and requirements but they should also contribute to the costs on a negotiated or contractual basis. Forest regulations may favour such developments by facilitating negotiations processes and by providing for contractual arrangements between landowners and public entities. Forest regulations may also contribute to more efficient and less costly management practices by promoting new forms of cooperation between communal forest enterprises, state forest management agencies and private forest owners. Regional approaches in organising forest management combined with an increasing involvement of the private sector are possible solutions in order to maintain the communal ownership of forests as a modern form of public land management.