Evolution of conservation policies and their impact on forest policy development
the example of Switzerland

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Evolution of Conservation Policies and their Impact on Forest Policy Development: the Example of Switzerland

Franz Schmithüsen

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Summary
The paper considers in a global perspective of conservation and resources utilisation policies based on regulation of use according to an accessible potential, reinvestment for continued productivity and preservation of irreplaceable values. The evolution of relevant federal policies in Switzerland is reviewed with emphasis on cross-sectoral conservation and forest policy programmes. The relationship between such programmes, the social and political dimension of conservation, and new actors determining the various policy processes are described. It is concluded that the linkages between the different policy areas increasingly determine forest protection and management, and are a central element of forest policy development and analysis.

Keywords: Conservation Policies, Forest Policy Development, Nature- and Landscape Conservation, Land Use Planning
1. Towards a Global Perspective of Conservation and Resources Utilisation Policies

The use of resources and at the same time their conservation are fundamental concerns which determine man's living and his relations to nature and environment. Many societies have striven to find some form of balance which is understandable and acceptable to their members, in order to satisfy physical, social and spiritual needs in using their surroundings and to protect the available resources for themselves and their children. They have developed local techniques and customary rules which facilitate the use of land, water, plants and animals as well as raw materials but at the same time they have limited an excessive utilisation. Investment to maintain or increase productivity, and the setting aside of certain parts of the resources which appeared irreplaceable or of a particular spiritual and religious value are the two complementary elements of such an approach.

It is the balance of long term production and consumption, involving the regulation of current use, reinvestment in order to ensure continued productivity and preservation of irreplaceable values which we generally refer to when we speak of conservation. The combination of these different aspects is in a process of continuous change as determined by new technologies, new economic and social aspirations as well as by changing personal attitudes and cultural perceptions. And it is the process of adjustment between resources consumption and resources conservation which decides whether social and economic development can be interpreted as meaningful and lasting or short sighted and exploitative.

New elements of recent developments are the changed perception of citizens of the urgency of conservation needs and their concern for the future, the appearance of interest groups articulating more precise conservation demands in the political arena, and the elaboration of policy programmes\(^1\) through which the political system reacts to such concerns and demands. New also is the experience that espousing conservation as a principle does not necessarily prevent environmental degradation and wasteful use of resources, but that it argues for specific political measures and regulations in order to stop such processes and to redress the situation. New to societies demanding more and more intensive and multiple uses of soil, water and air, as well as of the available space, is that conservation requires a clear understanding and decisions on what can be used and what must be protected and preserved.

Conservation, if translated into political action and policy programmes, has the difficult task of framing conditions which foster sustainable uses and management parts of development, and of limiting certain uses in order to protect the environment, a landscape and nature. It requires regulatory and contractual arbitration processes which lead to a balance of use and preservation that is socially and politically acceptable. The combination of both aspects makes the political attraction of the term conservation. But it makes it difficult too, to elaborate and implement policies. In fact, can we speak of a country's conservation policy, or is such a term

\(^1\) The term policy programme is used to describe a set of objectives, including quantitative goals when appropriate, together with implementation measures.
so broad that it hides more of the inherent difficulties and compromises than it reveals? And do we limit the meaning of conservation largely to restrictive measures of protection, or do we include sustainable resource management as it corresponds to the state of the art?

The difficulty of defining conservation in a political context is a general one, and the divergent positions on its content are an important element in policy formation. It is not surprising that we have similar problems when we look at the context of conservation and forest development. What we find are the evolution of new policy areas, changes of forest policy programmes, a growing network of linkages, but also the need to understand more clearly how the various elements of conservation and development fit together.

2. Evolution of Federal Conservation Policies in Switzerland

**Constitutional Competences and Policy Areas**

The evolution of Swiss conservation policies has to be seen against the background of the country's social and political reality. An important aspect is for instance the constitutional division between the responsibilities of the federal government and those of the states or cantons. There is also a strong and immediate influence of citizens using the popular referendum and the initiative for constitutional changes as instruments of direct democratic intervention. These elements constitute an important feedback in policy making, which integrates local and regional concerns with national political decisions.

Today the Swiss federal government has a comprehensive set of constitutional competences with regard to natural resources conservation and environmental protection. They comprise competences which had been established in the 2nd Federal Constitution of 1874 in particular with regard to forests and protection from water calamities (Art. 24), and competences introduced by constitutional amendments after World War II. The latter refer to the protection of nature- and landscape (Art. 24sexies), land use planning (Art. 24quater) and to environmental protection (Art. 24septies). Federal competences relevant to conservation also exist in other fields such as energy, traffic regulation and agriculture.

The various constitutional amendments have led to a growing network of distinct policy areas which are concerned with resources conservation and environmental protection. Three elements of this network may be distinguished:

- conservation linked to the use of renewable natural resources such as forest, water protection and fishery policies;
- conservation of nature and landscape as well as of the available space as part of cross-sectoral policies;
- conservation of the environment in particular with regard to air, soil and pollutants.

For an orientation on relevant issues and legislation see Rausch 1990. For a more detailed analysis the comments on the applicable articles of the federal constitution and the background statements of the federal council introducing new legislation to parliament are valuable sources of information.
If we review the evolution of policies (Figure 1), we find cross-sectoral policies which have emerged during the past 30 years and which address conservation needs relevant to all forms of resources utilisation. Such policies comprise programmes on nature- and landscape protection, environmental protection, and land use planning. We may also distinguish policies which aim at the conservation of specific renewable natural resources. They have evolved at an earlier stage and have been modified in the meantime by major revisions of their applicable legislation. Whereas the primary objectives of such policies are to regulate resources utilisation and sectoral development, they also include important conservation aspects which have gained more weight during recent years. One of the prominent examples of combined resources development and conservation programmes is forest policy. Other programmes to be considered are those related to water, fishery, hunting and wildlife.

Cross-Sectoral Federal Conservation Policy Programmes
A centre piece in the expanding federal conservation policies was the adoption of the Nature- and Landscape Conservation Act some 30 years ago. The law was the starting point for a new policy area which has evolved considerably during the eighties with emphasis on a systematic conservation of biotopes, of the remaining peatland landscapes and of riparian forests. Among the factors which have contributed to the definition of the objectives of this policy and to the development of important linkages with other areas, the following may be mentioned:

- an increasing sensitivity of the population for the need of nature- and landscape conservation;
- the adoption of higher standards of biotope protection in the applicable legislation;
- the official acknowledgement of several series of federal and cantonal inventories registering landscapes of high conservation value;
- the more systematic integration of nature conservation objectives into land use planning;
- the introduction of obligatory environmental impact assessment in connection with larger infrastructure projects including an evaluation of ecological impacts;
- the establishment of nature and conservation authorities at the federal level, followed by similar measures in the cantons;
- the higher priority given by the federal court to conservation aspects and its insistence on a comprehensive evaluation and balance of interests;
- the comparatively high success rate of appeals from nature protection organisations in the courts; and
- the increase of financial resources for nature- and landscape conservation, mainly experienced in the late eighties.
**Figure 1: Evolution of Major Swiss Conservation Policies**

<table>
<thead>
<tr>
<th>Policy Areas</th>
<th>Constitutional Competences</th>
<th>Policy Programmes</th>
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<tbody>
<tr>
<td></td>
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<td>Initial</td>
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<td>Revision</td>
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**Cross Sectoral Conservation Policies**

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<tbody>
<tr>
<td>Land Use Planning</td>
<td>1969 Art. 22 quater</td>
<td>1979</td>
<td>Current Partial Revisions</td>
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**Policies Aiming at the Conservation of Specific Resources**

<table>
<thead>
<tr>
<th>Resources</th>
<th>Initial Year</th>
<th>Art.</th>
<th>Final Year</th>
<th>Final Year</th>
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<tr>
<td>Water (1)</td>
<td>1874/1902</td>
<td>Art. 24</td>
<td>1977 1991</td>
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<tr>
<td>- Protection against Natural Hazards</td>
<td>1874 Art. 24</td>
<td>1877</td>
<td>1991</td>
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<td>Hunting/Wildlife</td>
<td>1874 Art. 25 1875/1904/1925</td>
<td>1986</td>
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**International Agreements**

| Nature- and Landscape Protection | Several Agreements Since 1971 (Nature- and Landscape Protection, Species Protection etc.) |
| Environmental Protection        | Several Agreements Since 1979, Mainly in the Framework of ECE-UNO, UNEP, UNCED etc. and Bilateral Agreements |

(1) The revision of Art. 24bis in 1975 has integrated the three aspects of water (protection from water, use and protection of water) in the same article.
A federal policy on land use planning was initiated with the adoption of the planning law in 1980. Its principal objectives are the conservation of the available space and a balanced development of settlements in the various regions. It establishes nature- and landscape protection as one of the important elements in the planning and regulation of land use, it integrates the available information on land development activities and indicates conflicts between use and protection, and it provides participatory procedures for arbitration. Its principal instruments are development plans for the cantons which are binding for the federal government, land use plans of the communities which are binding for land owners, and special development concepts of the federal authorities by subject areas. The coordination effects of this three-level planning hierarchy has made considerable progress during the last years and led to a more systematic consideration of conservation and nature protection requirements.

The constitutional amendment on environmental protection of 1971 provides for "protecting man and his natural environment from harmful or irritating impacts" and is clearly the broadest and most important federal competence in the field of conservation. Its legal implementation was only achieved in 1985 when the Federal Law on Environmental Protection was adopted. The law establishes general guidelines such as the principles of general prevention and of responsibility of intervention and contains procedural and administrative provisions, as for example with regard to the right of appeal of non governmental organisations, for environmental impact assessment procedures and for the designation of competent governmental authorities. In addition the law addresses specifically those conservation areas which had not been regulated at an earlier stage: air pollution, protection against noise, control of environmentally dangerous substances, soil protection and waste disposal.

**Federal Forest Policy Programmes**

Some of the aspects to be considered with regard to forest policy development are:

- As a country, in which about half of the forests are in mountainous areas, it is one of Switzerland's fundamental issues to maintain a policy framework that protects the forests and favours their protective value.
- With 70% public forest ownership and the remainder being largely small holdings of private owners, Swiss forest policy can only be effective if it acknowledges strong forest owner participation in management decisions.
- Forest policy has to respond to new aspirations and opportunities. It also has to cope with serious economic problems of the forestry enterprise: many have negative cash flows before grants.

The backbone of the country's forest policy is a joint constitutional competence for forestry matters between the federal government and the member states or cantons. 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. The joint public land management system, laid out by the Federal Constitution, facilitates a balance between national and regional interests and contributes to a wide range of locally adapted political solutions.

If we look at the evolution of the Swiss forest policy (Figure 2) as the result of different political processes, the picture is the following: The 19th century is a period of perception and policy formulation, leading to constitutional changes and to the adoption of a federal legislation. The first (1876) and second (1902) national forest law provide the basis for a long process of implementation of a policy of protection and resource conservation. The measures of this policy programme are on the whole fairly simple but for that reason effective. They restrict forest clearings, demand compensatory afforestation if a clearing permit is issued, introduce sustainable management practices and prohibit clear cutting. They provide federal financial contributions in order to promote afforestation, protective works and infrastructure improvements.

After a long process of review a new forest law was adopted by the two chambers of the federal parliament in 1991: this has been in force since the beginning of 1993. We can assess the new programme under the criterion of continuity by saying that it has retained the principles of forest protection and conservation, which so far have proved their usefulness. We can also look at it considering the criterion of change by referring to its first article, which offers a truly multifunctional concept of forests. It claims equality among the objectives of protection from natural hazards, wood production, recreational and educational uses, landscape- and nature conservation and forest sector development. Protection of nature and landscapes has become one of the specific requirements to be addressed in planning and management regulations, forest utilisation may be reduced in certain areas if compatible with the general objectives of the law, and special forests may be set aside by the cantons in order to safeguard biodiversity. With regard to forestry development, the law introduces the principle of compensation which implies that forest owners have to be compensated if they are required to carry out works or provide services of public interest at costs which cannot be covered otherwise. One should also mention the increased federal support to education and training, the support to research and development activities, the possibility to transfer specific tasks to non-governmental organisations, and a new requirement for information of the general public and the authorities.

On the whole, the new policy programme has reacted to important changes of the role of forests in our society, focusing on two central issues. How can policy contribute to maintain a balance between the interests and possibilities of forest owners, and the increasing and diversified interests of public user groups? How can policy establish an equilibrium between public demands and public commitments in order to protect forest lands and to maintain a wide range of socially desirable forestry outputs?
### Figure 2: Evolution of the Swiss Forest Policy Programmes

<table>
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<tr>
<th>1874</th>
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#### Constitutional Competences
- 2nd Federal Constitution
- Joint Federal and Cantonal Competences for Forestry Matters

#### Policy Programmes
- 1st Federal Forest Law
- 2nd Federal Forest Law
- 3rd Federal Forest Law
- Forest Laws of Cantons
- Adaptation of Cantonal Laws

#### Policy Processes
- Implementation and Adjustment
  - Federal and Cantonal Forest Policies
- Policy Changes

#### Policy Context: Forest Conservation and Sustainable Use of Resources
- Protection of Forest Areas
- Sustainable Wood Production
- Protection Against Natural Disasters (Flooding, Avalanches)
- Silviculture Close to Nature
- Multipurpose Use Concepts
- Support to Forest Owners
- Nature- and Landscape Protection
- Maintenance of Biodiversity
- Specific Conservation Areas
3. Linkages between Conservation and Forest Policy Programmes

Complementary and Competing Policy Programmes
As the Swiss example indicates, conservation has become a part of several important policy programmes. For historical reasons, but also due to the complexity of the subject, each of these programmes has developed in a specific way. The various programmes are complementary, but to some extent also compete with each other. Sectoral resource policies tend to integrate conservation aspects, cross-sectoral conservation policies become more and more involved in regulations of specific uses, and land use planning integrates all aspects of land development and conservation.

Cross-sectoral conservation objectives have an increasing impact on the development of policies for forest protection and sustainable forest management. Similarly, the objectives of forest policy programmes are of considerable relevance to conservation. It is thus important to examine the linkages which exist (Figure 3) and to analyse to what extent the objectives are compatible or controversial, and whether the combined effects reinforce or neutralise each other. Whereas the protection of forest lands and biodiversity are largely common goals of all conservation programmes, there may be more or less pronounced conflicts with regard to land use and management practices.

Linkages between Nature Conservation and Forest Policy Programmes
Probably the most important implications result from nature- and landscape protection policy. Conservation is not limited any more to the protection of certain species or to some endangered biotopes but aims at the integration of conservation aspects in resource development in general. The theme of nature- and landscape conservation at all levels has extended immediate conservation interests to all forest lands as well as to silvicultural practices and forest management in general.

Most of conservation measures support the protection of forest areas which is in any event reinforced by forest law. One of the most effective instruments in this context is the right of appeal of recognised private nature conservation organisations against deforestation permits. To date, nature conservation groups have used this right selectively and with great success. Likewise the environmental impact assessment offers an opportunity to conservation agencies and private organisations to intervene at an early stage in administrative procedures and to claim forest protection.

If the support of forest area protection is generally acknowledged in a positive way by forest owners, the increasing impact of conservation demands is, at least on some occasions, regarded as an interference or limitation of forest management operations. The restrictive impact is particularly significant when dealing with new infrastructure projects such as the construction of forest roads or other permanent operational facilities. Current legislation and federal

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jurisdiction require that conservation aspects have to be considered. The formal procedure for an evaluation of forest management and conservation interests establishes *de facto* participation of private conservation organisations including their right of appeal in the courts. The forest authorities are thus obliged to consider ecological and conservation aspects with the same attention as they examined silvicultural and economic aspects in the past. This requires an intensive process of consultation with the conservation- and land use planning authorities in order to avoid lengthy and costly delays in project planning and realisation.

**Figure 3:** Functional Linkages between Cross-Sectoral Conservation and Forest Policy Programmes
The inventories elaborated during recent years have accumulated a wide range of information which can be used in order to evaluate more accurately the ecological importance and the relative conservation values of all kind of lands including forests. They are used more and more widely by conservation authorities and protection organisations. At present these inventories are mainly relevant at the level of the cantons when examining the need to establish new nature protection areas in forests, but in future they will be of increasing importance in connection with forestry operations and forest management planning. It is one of the important tasks of the current revision of cantonal forest laws to ensure an appropriate collaboration between forest- and conservation services and to provide regulations for the settlement of conflicts.

**Linkages between Land Use Planning and Forest Policy Programmes**

The linkages between the two programmes follow from the objectives and principles determined by the *Federal Land Use Planning Law* (Art. 1, 3). It provides for the protection of natural resources and forests, for the preservation of landscapes and recreational areas, and for maintaining important forest functions. In addition to these cross sectoral objectives there are those of the forest law (Art. 1), which stipulate the maintenance of the country's forest area and its prevailing regional distribution. The general framework is set by the planning act in as much as it refers to all aspects of land use and settlement. The provisions of the forest law refer to more immediate goals and to specific measures in order to protect forest lands and to maintain sustainable forest uses.

The coordinating role of land use planning involves many sectoral policy areas including transport, energy, agriculture, forestry, mineral exploitation, urban and regional development. The role of land use planning is of particular importance if demands for forest clearing arise. The assessment of the proposed site for a given infrastructure project, the need for the project, possible alternatives and the consequences with regard to nature- and landscape protection have to be evaluated by the planning authorities. But it is the responsibility of the forest authority to decide on applications for clearance permits. It is obvious that the problems of these complementary responsibilities can only be resolved by an iterative process of coordination and the new forest law emphasises such an approach.

With regard to conflict regulation one of the most important instruments of the planning law is zoning. The separation between settlement perimeters and open space has contributed to the protection of forest areas. In spite of a high pressure on land, forest clearances for building sites have been rather exceptional during recent years; clearance permits in connection with public demands for new infrastructure, however, have been issued more frequently.

Important linkages between land use planning and forest policy exist in determining forest areas and forestry related land use. The forest law provides that the borders of forests have to be defined by the forest service and to be marked in land use plans. The forest regulations require the agreement of the land use planning- and forest authorities for forest roads, forest
operating centres and other permanent installations. An area which will need a more coordi-
nated approach is the extension of nature conservation and recreational zones to forest lands.
Since this may imply considerable restrictions for forest owners and forestry, the participation
of the competent forest authorities in making such decisions is essential. Aspects which have
so far received little attention in both policy programmes are the linkages between regional
development and forestry and the potential impacts of changing land uses outside forest areas
on the forest.

4. The Growing Network of Nature Conservation and Environmental Protection Policies

**Changing Social Demands and Political Relevance of Forests**

Society's demands concerning forests and forestry are of a much diversified nature and
differentiated by countries and regions. They comprise the production of goods and services
and they refer to concerns about the very existence of forests, which have their foundation in
individual perception and personal conviction. It is this global aspect which makes the forests
an element *sui generis* of our reality. The potential and capacity to satisfy not only our needs,
but also those of future generations, determine their social relevance. And they set at the same
time the limits of present uses. All this gives a new dimension to the political debate on forests
and forestry.

The political relevance of forests (Figure 4) is thus determined by a wide range of social
demands and concerns which comprise present interests in protecting and using the available
resources as well as the changing emphases and new interests of the future. Direct and indi-
rect benefits from maintaining forests do not only result from immediate outputs and uses, but
to a very large extent from their importance in the broader context of protecting the envi-
ronment, nature and landscapes as well as spiritual and cultural values. And the intensity in
which individual and collective needs are articulated in the political arena is determined by
culture-specific values of a given society, which vary over time.

The expanding network of conservation programmes expresses a change in social concerns
and demands which places forest protection and forest resource utilisation in a larger political
context. Forests remain an important renewable resource and wood production is a valued
activity in rural areas. But forests are nowadays recognised first and foremost as an integrative
element between nature conservation and landscapes. It is this aspect which determines to a
large extent their political relevance in a highly industrialised and urbanised country like
Switzerland. To protect nature inside and outside forest areas is of considerable interest to
citizens and politicians.

In countries in which a large proportion of the population lives in an urban or periurban sur-
rounding, people have probably still an understanding, that forest can be used for wood
production. But an increasing proportion of people perceive forests, which they know or see in
TV presentations, not as a mass of trees, that may be harvested for timber but as an element of
the landscape. One can sense a widening gap between the messages of forestry sent to the
public, which generally focus on production aspects, and a changing perception by that public, concerned with a more global view of forest conservation. It is in this context, that we have to reason on the present and future role of foresters in society. In which perspective do citizens see their usefulness and mandate?

**Figure 4**: Political Relevance of Forests and Forestry as the Result of Changing Social Demands and Concerns

**New Actors Influencing Policy Processes**
New actors have appeared on the scene which shape political processes leading to the adoption or reinforcement of national conservation programmes. This refers to the role of citizens and of the mass media which have acquired a much higher sensitivity for the political impact of conservation. It also refers to the spectrum of political parties, to environmental parliamentary groups and commissions, and to the structure of governmental services.
Probably the most significant development has been the creation and consolidation of a wide range of non-governmental organisations forcefully engaged in promoting nature- and environmental protection. The role of these groups is important in several respects. They are the driving force in articulating public concern and in formulating specific demands in policy formation. They assume a major role in the implementation of conservation programmes by using the expertise of their members and the professional capabilities of their officers. They are increasingly involved in conservation management as land owners and become important agents in administrative decision making by using their rights of appeal in the courts.

In many cases the conservation groups become an important factor in forest policy development itself. They formulate their own criteria on sustainable forest resources utilisation, call for amendments or revision of forest policy programmes and set up their own standards and monitoring systems in order to evaluate the results of programme implementation. Clearly, it is right to include the conservation organisations among the major actors shaping policies on forests (Figure 5).

**Figure 5: Interest Groups as Political Actors in Forest Policy Development**

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4 The role of Swiss non-governmental organisations as policy actors is discussed in Schmidhauser, Schmithüsen and Zimmermann 1993, p. 65 f.
The Swiss environmentalist group, for instance, include approximately 10 organisations which have specific nature conservation objectives and which have formulated their position with regard to forest protection and management. The four major groups as far as membership is concerned have together more than 300’000 members (including double membership). Most of them have articulated specific requirements towards forestry during the past 10 years and have played a role in forest policy development. Whereas forest owners and forest industry organisations represent primarily economic interests of wood production and whereas other associations have frequently rather specific and limited objectives, the conservation groups introduce an additional element in forest policy. They articulate more general concerns in a changing society which deal with environment, sustainable development, nature- and landscape protection.

5. Conclusions: Linkages between Programmes as a Central Element in Forest Policy Development

The example of Switzerland is a specific one, but by no means an isolated case. It is in fact representative of policy developments occurring in other European countries and in North America. To a certain extent it reflects a world-wide debate initiated by the Rio Conference and now carried on by the UN Commission on Sustainable Development. In whatever geographical context we look at the relationship between conservation and development we find a divergent range of public and private interests, changing coalitions among the political actors and policy networks of increasing complexity.

The expanding vision of conservation needs, combined with more precise information on the values of biotopes and ecosystems that need to be protected leads to more and more precise concerns on the ways and means in which forests are utilised and managed. Forestry is no longer a largely uncontested sectoral activity, left to forest owners and to foresters. Forestry becomes accountable, as other land users, to the far reaching demands of conservation groups and to the growing sensitivity of the public. Forest management cannot be limited any more to its traditional role of ensuring sustainable wood production. It has to integrate many more aspects and to prove that the different forest uses safeguard biodiversity and protect cultural and aesthetic values.

A global approach of conservation and sustainable development puts new demands on conservationists and foresters. Both have to acknowledge the interdependence between investments in resources utilisation and restrictions of uses and have to realise that the necessary political arbitration processes are subject to social change. Conservationists need to understand the rationale of forest sector development within the broader context of sustainability and environmental protection. Foresters need to understand that management and utilisation of forests imply a compromise between development and preservation and that the possible solutions are as much political as technical issues.

5 Several studies on the impact on forest conservation and the development of nature protection and environmental policy programmes respectively the resulting legislation were prepared by the IUFRO Subject Group on Forest Law and Environmental Legislation. See Schmithüsen (ed.) 1992.
Forest policy is generally understood to mean a policy programme focusing on sustainable resources utilisation and management. It is concerned with the protection of forest areas, the regulation of sustainable uses and the promotion of forest sector activities. Its objectives, measures and instruments are to a large extent determined by forest legislation which evolves as the result of changing social demands and of new political arbitration processes. In a broader policy context we may refer to it as forest policy *sensu stricto* in as much as the programme addresses specifically forest conservation and forestry development.

But this is not the only focus of forest policy development as it may have been emphasised in the past. In a modern vision forest policy formation and implementation has to be concerned with the role of forests as parts of nature and landscape, as parts of the global environment and as integrative elements of culture. Policy processes have to consider a wide range of programmes which have a growing impact on forest protection and forest management. With regard to conservation this primarily involves cross-sectoral programmes of nature- and landscape protection, land use planning and environment. With regard to sustainable development it refers in particular to natural resources and regional development policies.

What emerges is a new and broader concept of forest policy development. It includes and integrates all political aspects leading to social regulations of the protection and sustainable use of forests. This refers to the formation and implementation of nominal forest policies and their relevance for the objectives and measures of neighbouring programmes. And it refers to the numerous impacts of such policy programmes which address cross-sectoral and sectoral conservation and development and which for that matter may be highly relevant for forests and forestry. In other words, the functional linkages between different policy areas which affect forest protection and utilisation become a central element in forest policy formation.

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*General developments in forest policy are discussed in Schmithüsen and de Montalembert 1991. For linkages between different policy areas see de Montalembert and Schmithüsen 1993 and the forthcoming study of Peck and Descargues.*
References


