# Forest policy development in an international perspective

In its first part this paper reviews the emerging international setting of forest policy development. Its second part analyses national and local policy issues as relevant in an international perspective, and the need for a global policy framework to protect and develop forests as a multifunctional and sustainable resource.

# **Dimensions of international** policy developments

Policy development and social change

Forest policy development may be understood as a systematic course of action taken by a government to maintain the social and economic conditions which ensure the protection and sustainable use of forest resources. Development implies that such policies are in a constant process of adaptation, influenced by changes in society. Policy changes are determined by varying opportunities and constraints and by new aspirations and demands of the actors that can influence decisions in the political arena.

An international perspective addresses the social and political dimensions of forests and the means of ensuring their conservation in a world in which often divergent national objectives are becoming increasingly interdependent. It refers to the international policy framework which emerges in order to provide solutions to problems of common concern to the international com-150 munity. And it has to focus on relevant issues and trends which shape forest policy development beyond national perspectives.

Fundamental issues of concern to the international community determine the scope of forest policy development (De Montalembert, 1991). Economic development as the basis for fostering the well-being of individuals and people remains one of the fundamental aspirations of our societies. But the adverse effects on the environment of an unchallenged economic growth and the irrationality of an ad hoc use of resources have become a major concern. The need for sustainability is emerging as the complementary element to economic growth. Forests can contribute to sustainable economic development. But in reality, in many parts of the world development leads to the destruction and destabilization of forest ecosystems. Forest resources can be managed for the benefit of present and future generations; but in reality, in many cases they are not used in such a manner.

The alleviation of poverty and the satisfaction of basic human needs are of considerable global concern. Forests and trees are important to rural people and can be used in such a way that they contribute to food security and satisfy basic human needs. But in many cases local people are deprived of their customary usage rights and denied the access and benefits that result from forest development. Social justice, political determination and cultural identity are values of great importance to society. The sharing of benefits from forests between local people and the national community, the participation of local users in determining forest development options, the role of forests as part of the landscape and as a national heritage, are part of such values.

Aspects of international forest policy may be characterized by two mainstream developments. One is a sectoral approach based on exchange of information and experience as well as on bilateral and multilateral assistance and cooperation. The focus is to look at forests as an opportunity to use resources, to build up an economically viable forest sector. The other is a growing political awareness of forest problems as part of environmental and conservation needs. These approaches are reflected in various recent initiatives on international forestry cooperation. Both lines also converged towards a political perspective during the United Nations Conference on Environment and Development UNCED.

# Institutional policy actors

The Food and Agriculture Organization FAO is the specialized UN agency mandated to promote international coordination and cooperation in the field of forestry. As its name indicates, the principal task of FAO is to foster international cooperation in agricultural development and food security. Over the years its forestry department, although small and with limited resources, has made considerable efforts to create an international network for forestry and to engage in



# FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

development projects. It has expanded its activities by incorporating rural forestry and agroforestry, nature and wildlife protection and the monitoring of quantitative aspects of the world's forests. The international forestry network of FAO is linked to forestry in a sectoral perspective and its major correspondents are national forest services and the ministries on which they depend.

Cooperation in tropical forestry (FAO, 1989; Muthoo, 1991) has gained considerable importance during the last 20 years. Steinlin and Pretzsch (1984) describe the changes from timber production and industrial development targets to more integrative forest policies that consider rural development and maintain biodiversity. Murray (in WFC, 1991: 213-225) presents a review of major developments since the early 80's, with an emphasis on institutions engaged in international forestry cooperation. An interesting point of view on the activities of international agencies as seen from a developing country's perspective is presented by Zongo (in WFC, 1991: 305-313).

The World Conservation Union IUCN has alerted the scientific community, the development planners and the general public to the dramatic impact of infrastructural projects, land colonization and development, as well as to the expansion of forest exploitation on the remaining areas of tropical rain forests. Its work on conservation strategies for living

resources for sustainable development (World Conservation Strategy, 1980) and on ecological guidelines for the management of tropical moist forest lands (Poore and Sayer, 1987) has been a landmark in the debate on protecting the biodiversity of forest ecosystems. IUCN has not restricted its position and contributions to nature conserva-



tion and national park development. It has addressed the need to conserve biological diversity in managed forests and to expand the concept of sustainable wood production to sustainable forest ecosystem management (Sayer, 1991; Sayer and Wegge, 1992).

The Tropical Forestry Action Plan TFAP launched in the mid 80's and revised following an independent review in 1990, has been designed to give a new momentum to international forestry cooperation. The plan provides for sector reviews and action programmes at the level of the participating countries, involving government institutions and representatives of international agencies and donors. Clément, Gane

and Roberts (each in WFC, 1991: 323-349) have critically examined the performance of the TFAP and the problems encountered during implementation. The latter are related to institutional and policy shortcomings within countries as well as to the lack of a more formal structure for international collaboration. As Caberle (1992) points out, an improvement of the efficiency of the TFAP requires first and foremost a set of criteria to ensure all interested parties participate during the preparatory stages, plus full disclosure and dissemination of TFAP-related information by the national steering committees, and a participatory strategy with appropriate consultative mechanisms from the outset of national activities.

The European Community EC is carrying out development activities of considerable relevance to tropical forests. Guibourg and Robbins (in WFC, 1991: 294-299) describe the environmental focus of such programmes and the relevant policies and procedures. In the field of tropical timber trade the International Tropical Timber Organization ITTO, established in 1985, has become a common forum for producer and consumer countries.

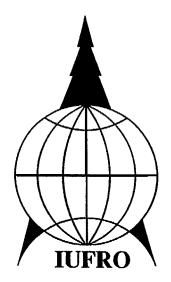
International development banks have increased their lending to the sector. The World Bank has



revised its forest sector approach and elaborated several policy documents which are relevant in a debate on policy development. Back in 1977 the forestry sector paper called for a different balance of Bank activities, with higher priority for environmental and rural development forestry, and for institution-building projects. However, a Bank review in 1991 examining the performance of Bank-funded development and the experience of implementation shows considerable constraints with regard to the institutional and policy framework.

The most recent forest policy paper issued by the World Bank (1991) puts considerable emphasis on policy reform and institutional strengthening, participatory rural forestry programmes and the preservation of intact forest areas. This implies more vigorous efforts in sector work, recognition of intersectoral links, and a more systematic incorporation of forestry into the formulation and reform of macroeconomics policy. The forest sector strategy for the Asian region (1992) confirms the need to improve the conditions for investment and policy reform and to mobilize political commitment, based on a process of sector analysis, policy dialogue and targeted investments.

The creation of the International Council on Agroforestry ICRAF has been an important step towards bringing integrated land use issues into the international research network. The efforts to establish a Council for International Forestry Research CIFOR in a country with large areas of tropical forests is a necessary complementary element. Both research organizations operate as part of the Consultative Group on International Agricultural search CGIAR system. The ex-152 change among researchers is



supported by the special programme of the International Union of Forestry Research Organizations IUFRO for developing countries.

If we look at the role of the international agreements, in particular those of the UN, forests and forest policy development have not been the target of vigorous international action (Cirelli, 1992). There is only one agreement of global scope dealing specifically with forests. It establishes the International Tropical Timber Organization, following a recommendation of the UN Conference on Trade and Development UNC-TAD. The situation is different with regard to cooperation in the field of natural resources management and conservation: several conventions and agreements of global or regional dimension have been signed.

#### Political perspective

Parallel to the institutional evolution of international cooperation, forests have become a political issue of global concern (Maini, 1992). Political in the sense that people and citizens are concerned about the destruction of forest areas, and that they are urging their political representa-

tives to take action. Global in that probably for the first time in the history of mankind people perceive the forests of the world as a limited continuum which is endangered in many ways; global too as citizens realize that protection and conservation cannot be ensured within their own national context alone but need international support and cooperation.

Some of the reasons which make forests a global political issue are very real and specific. There is the personal experience that nearby forests are disappearing; that the daily distance walked to collect firewood and forest produce is becoming longer; that flooding and landslides occur more frequently when forests have been cut; and that forest ecosystems are suffering from emissions. Some reasons are of a more general nature and are linked to much broader concern and debate on the environment. The burning of forests which contributes to possible climatic changes is part of the public debate, as are reforestation and afforestation as a means to provide CO2 sinks.

The increasing pressure on the use of renewable natural resources, the intensification of agricultural production systems and, at least in certain regions, intensive forestry land uses, make people reflect on man's relation to nature, and on the limits to human interventions. Nature conservation and the protection of landscape are a necessity in many parts of the world. They are part of the need of our societies to find a balance between technology and economic efficiency and a meaningful interpretation man's existence as part of nature. It is in this context that forests are seen as having a particular significance. They represent

a cultural and spiritual symbol for the protection of nature as a whole, for maintaining mankind's own integrity and for preserving people's cultural heritage.

Public awareness is diffuse and often controversial. It is influenced by people's particular economic and social conditions, by their specific needs and values, as much as by their vision on the opportunities to maintain and use forest resources. But there is little doubt that today forests are perceived very differently than even a decade ago. It is the global context of environmental protection and nature conservation that has an impact on national as well as international development of forest policy.

Non-government organizations are among the principal policy actors that have contributed to a more global perception of the role of forests. Environmental associations and nature conservation groups operating nationally and/or internationally raise forestry issues to a level beyond their sectoral relevance. They alert the general public to the speeding up of tropical forest destruction, the problems of forest decline, the role of forests in possible climate change. They scrutinize standards of forest use and their effects on maintaining biodiversity, and question established concepts of forest management. Environmental associations and nature conservation groups present material to the mass media in order to generate public awareness, and systematically use political decision-making processes and the courts. They react to the growing concern of people by simultaneously being instrumental in politicizing conservation.

Sayer (in WFC, 1991: 315-322) and Korten (1992) present the

# MILIEU EN **ONTWIKKELING**



wide range of such organizations from associations extending whose activities are determined by their members through a democratic process, to private and public think-tanks and special interest lobbies. They confirm their impact, from defending the cause of special or local interests to being promoters for the deliverv of development assistance and influential participants in the formulation of forest policy at the national and international level. The recent study by Dudley (1992) on the status of temperate forests is an example of the critical contribution of such organizations to the international debate on policy.

The UN Conference on Environment and Development UNCED in June 1992 put global forestry issues on the political agenda of the world community. This is in itself a significant step in forest policy development. Even in the preparatory stages it was clear that deforestation would be an important theme of the Conference and that the convention on biodiversity had important links with forest conservation and utilization. Three options to incorporate forests into the envisaged international network were discussed. Firstly, to deal with forests within the arrangements on environmental protection and biodiversity; secondly to prepare a separate convention on forests; and thirdly to deal with forestry in

a less formal manner by leaving the Conference to decide on the legal status of the International Instrument on Forests.

The outcome of the UNCED Conference was a statement of principles and a supportive chapter on combating deforestation as part of Agenda 21. Both documents summarize major issues on forests and forestry in a worldwide perspective. They allow the enormous variety of interests and values that determine the social and political relevance of forests to be appreciated.

It is difficult to assess to what extent the Conference statement of principles on all types of forests can make a positive contribution to forest policy development. Its most constructive aspect probably results from the fact that it has been possible to achieve a broad consensus on the multifunctionality of forests, and on the need to foster protection, conservation and development as common elements of any policy solution. The commitment to the importance of sustainable use and management is positive. The shortcomings of the statement of principles result from the fact that the declaration necessarily remains general and sometimes vague. Its informal and non-mandatory character does not allow a judgment to be made on priorities and on actions to be taken. By emphasizing national sovereignty and national policies, and at the same time advocating international coordination and commitment, the course of action open to nations and governments and the role of the international community remain unresolved.

Further evolution: Global and regional concerns

Further evolution remains open. Concern about environmental is- 153 sues, deforestation and uncontrolled resource depletion will probably continue. This will lead to ongoing efforts to reach a global forest agreement, supplemented by regional protocols with specific commitments from developing and industrialized countries as well as from countries in transition to a market economy. Such an approach is possible by virtue of clause (d) in the preamble of the UNCED statement of principles. However, the lack of change and of tangible results in forest protection may lead to disappointment and frustration, focusing political attention and public resources on other internationally important is-

For the time being, international cooperation on a global level will have to continue in the prevailing institutional setting and with the established institutions of the UN system. An assessment of the status and trends of forestry institutions and proposals for institutional changes for world forestry activities has been made by Roberts et al. (1991). As far as forestry cooperation between developing and developed countries is concerned, it must be admitted that the institutional linkages are certainly no stronger than before the Rio Conference. One of the reasons for this is that the Tropical Forestry Action Plan as an important instrument of coordination has not gained the necessary international support as a global platform for fostering conservation and development.

A possible evolution could also be that in the immediate future international involvement in forest policy development will concentrate on regional activities. The second meeting of the ministerial Conference on the Protection of Forest in Europe to be held in <u>'54</u> June 1993 in Helsinki offers such a regional platform. It succeeds a first meeting in Strasbourg 1990 (Barthod and Kauppila, in WFC. 1991: 265-271) and the previous SILVA conference held in Paris in 1986. The Helsinki Conference addresses in particular the preparation of guidelines for sustainable management and preserving biodiversity of the European forests, forestry cooperation with countries with economies in transition, and strategies in the context of a possible climatic change.

The technical seminar on sustainable development of boreal and temperate forest to be held in Montreal in September 1993 promises to be an interesting event. The seminar will be held under the auspices of the Conference on Security and Cooperation in Europe CSCE, dealing primarily with collective security in Europe. The CSCE has recognized that future cooperation will increasingly focus on environmental issues, and has agreed to include forests on its agenda. The seminar in Montreal provides for a critical examination of concepts of sustainable development and of the necessary forest information base. Given that the CSCE member states represent the majority of northern hemisphere boreal and temperate forests, the potential for cooperation is considerable, particularly with countries in transition to a market economy.

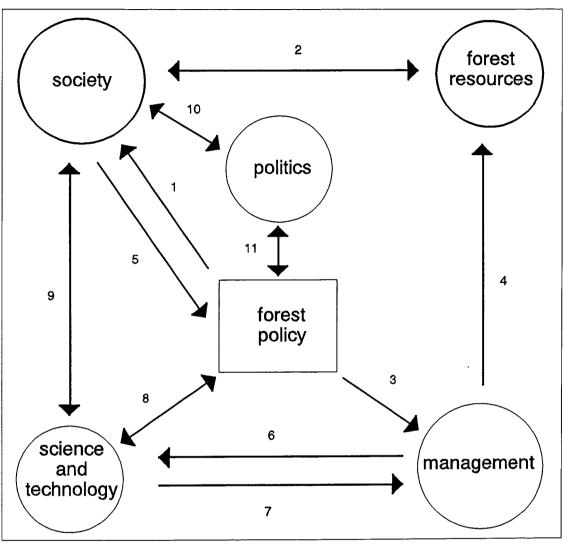
# Issues determining policy formation and implementation

National forest policies in an international context

The results of the 1992 UNCED Conference demonstrate that the most national governments are currently unwilling to go beyond the present stage of cooperation with respect to stimulating sustainable forest management. The representatives of the more than 150 participating governments were not in a position to compromise on fundamental issues of forest protection, to reach a consensus on more vigorous international cooperation and to agree on binding arrangements for global policy measures. The international community is far from having a clear and well structured policy programme which allows global forestry policies to be realized. The outcome of the Conference as regards forests is no more than a necessary step in a long process of policy formation. The reasons for the lack of progress are largely general in nature. They refer to the lack of consensus on global and more equitable solutions to energy use and industrial development, international trade, technology sharing and transfer of financial resources.

More than other Conference themes the debate on forests has been dominated by the fear of many countries that they will lose their sovereignty to determine the use of the renewable resource according to their own economic and social development targets. The debate has also been influenced by the marked inability of the parties concerned to place the two principal elements of a possible agreement, forest protection and conservation on the one side and forest development and management on the other side, in a complementary and not in a contradictory context. Progress in international cooperation will primarily require agreement on priorities with regard to forest use and consistent forestry programmes at the national level.

Forests are a multifunctional re-



■ Fig. 1: "Diagram: Framework of interrelations around forest policy"

(source: Van Maaren, 1984)

- 1 needs for forest products and services (consumption and expectations)
- 2 output of the forest resource (functions)
- 3 instructions for management (e.g. objectives or
- 4 treatment and use of the forest resource
- 5 policy influencing society demands

- 6 problems to solve by science and technology 7 expertise
- 8 scientific basis for policy
- 9 interaction between society and science (research/education)
- 10 party politics
- 11 political decision-making

source of the rural space, an integrative part of landscape, a source of great biodiversity and of considerable importance in maintaining stable environmental conditions. Forest conservation implies a balance of interests between forest owners, land users and the community which

benefits from sustainable and multifunctional resource management. Policy development has to set the boundary conditions in order to achieve this balance for the present generation and to maintain an equal option for later generations. Addressing the complex social and economic factors involved is by no means limited to what is traditionally understood as forest policy. Under the heading "Forests and forestry in national life", Van Maaren (1984: 3) presents national forest policy development as "a continuous process designed to maintain the balance 155

between the forest resource as the potential supplier on the one hand and the various components of society as the consumer on the other hand". He shows the relations between forest policy and society, politics, science and technology, and the major task to be accomplished (Fig. 1). This task is to find a balance between long- and short-term objectives in order to satisfy local rural needs and industrial wood production. He stresses that society has to understand the contribution of forest and trees to the well-being of all of its members, and that forest policy and other sectoral policies are interdependent. It is this concept which allows the role and functioning of policy development and its impact on the sustainable use of resources to be appreciated.

However, in many cases forest policies as they have been conceived and understood tend to be rather technical and bureaucratic declarations of intent with little political support and of limited interest to people. Quite often forests are considered as a residual among other expanding land uses. Consequently, forest policies also appear to be residual and often to impede economic and social development. Forest conservation does not find the necessary support as a social and economic priority and many countries currently do not have a consistent policy framework to protect their forest area effectively and to ensure sustainable forest uses. There are many reasons for this, depending on the particular situation of a country and the stage of development of its society. The general cause results from fundamental deficiencies in the political system. People who are interested in forest conservation and benefit from 156 forest uses are unable to bring their views to the political arena and to influence the political decision-making process. People suffering from forest devastation and destruction or from an appropriation of a local resource cannot intervene vigorously in policy development.

## Political commitment and benefits for people

Political commitment to the protection and sustainable use thus requires institutionalized democratic participation of those people who are principally interested in the forest resource. It implies their involvement as actors and interest groups in determining the priorities of national development and their participation in decision-making processes on forest resource planning and management. The role of forests as a national and a local common resource does not allow forest management decisions to be dealt with mainly by a technical and bureaucratic approach.

The need to generate political commitment and to expand democratic participation in forest policy development is a strong argument for transferring institutional powers to regional and local entities. Federal state organizations, decentralization of central powers and increased local autonomy are constitutional and political principles receiving considerable attention in many parts of the world. They offer an opportunity to define a new balance of responsibilities in forest resources management between state governments, regional territorial entities and local government. Such a political approach can fill the widening gap between global public perception of the role of forests and the lack of policy formation and implementation at national and local levels.

Forests are maintained if their protection and use generates benefits to people. They are cleared when people see more benefits from a change in land use, they are burnt and destroyed when people have no alternative to ensure their livelihood. Benefits result from a sustainable use of forest resources if ownership and usage rights are firmly acknowledged. This calls for management regulations which do not disregard usage rights and provoke their abolition but offer firm support in maintaining such rights on a sustainable basis. It implies acknowledged and statutory access of local communities to the resource by land title registration of communal forest land and by introducing new forms of communal forest ownership. It needs a positive approach in encouraging sustainable forest management on private land and land use agreements which allow forestry and agroforestry to be practised on public land.

The key role of stable and flexible forest tenure and ownership rights to land for conservation and sustainable management has been stressed in most policy reviews. Bromley and Cernea (1989) have pointed out that resource degradation in developing countries is incorrectly attributed to common property systems. In fact the dissolution of local-level institutional arrangements leads to common property regimes with a sustainable pattern of use being transformed into open access regimes, in which the rule of appropriation does not allow resource protection and development. It is thus important to examine critically the relation between property rights and resource management and to re-establish customary uses and local forest tenure as part of a viable policy framework.

The principle that conservation and sustainable use of the resource must be associated with benefits to rural people requires the transfer of public funds based on an equitable cost sharing between land users and public entities. Cost sharing and financial compensation are of considerable importance in providing a balance of interest between the immediate goals of forest owners and local user groups and the longer-term objectives of the community as a whole. The latter are principally related to non-market values, which are generated from maintaining forest areas and from an appropriate resource utilization. Policy has to address this situation by providing grants for the improvement of the resource base and its productive potential, compensation and cost-sharing arrangements for forest management activities in the public interest, and compensation for curtailing forest uses incompatible with nature and landscape preservation.

Forest conservation and development thus require incentives for sustainable use, and financial compensation for forest owners and local user groups. In reality, however, the situation is different. Forest policy has taken less account than other sectors that rural development including forestry requires positive signals and incentives in order to stimulate the population's initiative and acceptance. Policy measures in forestry still largely rely on a set of repressive legislative measures. In certain regions forestry programmes lead to an accumulation of benefits in urban centres, to a diminished productive potential of the utilized forests and to disinvestments in rural areas.

Forests are generally considered

as an economic asset and a source of public revenue, with very little understanding that the sustainable use of this resource requires private and public investment, political responsibility and professional competence The common attitude that forests are a resource to be tapped but not a resource to be paid for, is one of the principal obstacles in protecting and managing forests and forest lands. This is in striking contrast to the experience of many European countries. The build-up of a productive and sustainable forest economy has been based on long-term investment efforts of forest owners, rural communities and governments over several generations It is this experience which Europe can contribute in the international debate on forest policy.

#### Forests and land-use policies

The existence or disappearance of forest areas, as much as the importance of forestry outputs and services is often determined by policy developments which influence the framework of forest conservation and management much more than forest policy itself. In their overview on economics and policy analysis Hyde and Newman (1991) presented the impact of agricultural land development and the relevance of exsector policies on sustainable forest use as one of the major conclusions. The interdependence existing between sectoral and cross-sectoral policies and the applicable legislative framework are discussed in De Montalembert and Schmithüsen (1993).

Looking at agricultural policy, for instance, it is obvious that changes in forestry land use are profoundly determined by agriculture in two ways. The need for new land and the expansion of farming zones leads to forest

clearance and, in the tropics now, to large-scale forest destruction. This statement is not a judgment on the social and political justification of changes in land use. But it is an indication of the fact that forest protection, if socially and politically desirable. can be accomplished only by improving agricultural land use and by changing agricultural policies Outside the tropics agriculture is setting aside considerable areas suitable for reforestation and sustainable forest development. Such land remains a resource providing employment to farmers and local communities; agricultural and rural development policies are the principal factors for inducing and sustaining such land-use changes. The objective of integrating trees, woodlots and forests into agricultural and rural development also implies more farmer-oriented thinking by foresters (Van Maaren, 1987, 1988).

A similar perspective exists on nature conservation and forestry and development. The protection of certain forest areas may be socially and politically desirable and justified for reasons of nature conservation, but it may also be an important limitation to the production of forestry outputs. This calls for nature conservation policies that provide financial compensation because of the need to restrict such outputs. On the other hand, a policy of preserving nature cannot consider all forests as potential nature conservation areas. It must acknowledge and support the multifunctional role of forests as an economic resource for rural and industrial development. It can provide criteria and guidelines fostering sustainable use, and silvicultural practices close to nature and for maintaining biodiversity in forest management.

What of the relevance and impact of policies related to infrastructure and settlement, industrial and urban development and global environmental protection? Road construction and settlement projects providing access to forest areas offer development opportunities, but they also create economic and social conflicts about land use and resource conservation. Urban development may require the clearance of forests, by simultaneously increasing the need to maintain forest areas for recreational uses. None of these issues can be settled by forest policy measures alone.

### Global policy framework for maintaining a multifunctional resource

The significant point of such considerations is that complex social and economic problems of a multifunctional resource like forests can only be addressed in a complex and multifunctional policy framework (Van Maaren, 1991). Each of the relevant policy areas has to accept accountability for imposing new demands on the use of land and forests. The present trend to make environmental impact assessment a prerequisite for new development projects is one step in the right direction. But it is not sufficient. As long as policies related to agricultural and rural development as well as to infrastructural and industrial development do not reflect their impact on forests as part of their own policy formation, there is little chance of making real progress in conservation and sustainable use. As long as such policies do not offer their specific contribution to solving the arising land-use conflicts, policy implementation will remain largely wishful thinking.

158 As well as a political framework

for forests as a multifunctional resource which engages the responsibilities of all relevant sectoral policies, there also needs to be global policies for forest protection, conservation and development. This implies that the improvement of national forest policies is necessary but does not provide viable solutions alone. It implies that intersectoral coordination of policies is essential but not a definite answer. It implies that forests can be maintained and used for private and public benefit only if society acknowledges such an objective in its own right and if policy formation cuts across sectoral borders. It is this perspective in policy development which is urgently needed, at the level of local and regional entities, at national level, and primarily at the level of the international community.

The previous statements do not diminish the importance of the development of sectoral forest policy. Nor do they play down the necessary contribution of national and international forest institutions and agencies, and of the accountability of professional forestry. However, they do allow forest policy to be placed in a more global and integrative context. Forest policy is fundamental in order to provide the framework for using forests as an economic resource, for ensuring sustainable production of wood and forestry services, and for fostering forestry and the development of the forest industry. It is essential in playing a coordinating and monitoring role among the various policies relevant in maintaining the resource.

Forestry institutions are the principal agents for promoting forest development and for ensuring the necessary interlinkage to other sectors. Making professional forestry accountable provides a critical mass of expertise to manage the resource according to multifunctional and changing requirements. Forest policy, forest services and foresters can significantly contribute to promoting the protection and rational use of forests. But it is society with its complex political objectives which decides whether forests are maintained and how they are to be used and managed.

### Conclusion

In spite of a change in public perception, forests are not considered as a global resource or as global commons. They are primarily a national resource for economic development, and as the Rio process has shown, governments are not prepared to accede to international pressure and modify their sovereign position. Within countries, forests are largely a local resource, inasmuch as their use is part of the development of the rural space and is subject to considerable social sensitivity and political pressure from a wide range of local actors.

National and local policy development and implementation are the principal requirements for any cooperation in protecting forest resources. International efforts will have a very limited impact if they fail to address the need to strengthen the institutional framework of national and local forest resources management.

Forests and forestry have become part of the national and international public debate. Their political relevance is increasingly determined by general issues related to economic growth and sustainable use of resources, to the impact of human activities on nature, landscape and the environment, and to social justice among people and nations. On the other hand, forests and forestry remain of immediate interest and represent very specific benefits and values to rural people and local communities. The legitimate demands of the latter to determine the use of forests and forest lands are opposed by global perceptions and objectives. The task to be accomplished is to reconcile the demands made of the rural space, in which forests and forestry are a reality, with national and international requirements.

The solution must be a political one, based on the fundamental values of each nation. Democratic participation in making decisions which affect the conservation and use of forests, equity in sharing the benefits but also the costs of sustainable forest development on all levels of the community, and a more integrative effort of governmental institutions are the linchpins of a political solution.

Policy development emanates from political commitment to maintaining forests as a renewable resource. It should be based on a realistic approach to implementing social and economic objectives. The approach must be global inasmuch as the conservation and use of forests are determined by all land-users and in particular agriculture, grazing, and infrastructure and urban development. The conservation of forests, woodlots and trees as an essential element of rural and urban areas is part of the responsibilities and tasks of a wide range of sectoral and cross-sectoral policies.

Policy development must be specific inasmuch as forests are a multifunctional resource with particular opportunities for social and economic development. Forest policy has to set the framework for sustainable use and management considering all be-

nefits and not timber production alone. And it has to provide the necessary links to other sectors and to foster the supportive role of forestry. The analysis of the global and specific aspects of policy development with regard to forest conservation and sustainable use, and the evaluation of its results and also of the prevailing obstacles and deficiencies, is a new challenge to the science of forest policy.

#### References\*

Bromley, D.W. and Cernea, M.M. (1989). The management of common property natural resources: Some conceptional and operational fallacies. World Bank Discussion Paper 57: 66 pp., Washington D.C., USA.

Caberle, B. (1992). Close encounters? NGOs and the TFAP. Unasylva 43/171: pp. 30-37.

Cirelli, M.-T. (1992). International agreements related to the protection, management and utilization of forest ecosystems. Forstwissenschaftliche Beiträge 1992/11: pp. 25-37, Professur für Forstpolitik und Forstökonomie, ETH Zürich, Switzerland.

Dudley, N. (1992). Forests in trouble: A review of the status of temperate forests worldwide. World Wide Fund for Nature, 244 pp. and annexes. Gland. Switzerland.

FAO (1989). Review of international cooperation in tropical forestry. Secretariat Note prepared for the Committee on Forest Development in the Tropics, Rome, July 1989.

Hyde, W.F. and Newman, D.H. (1991). Forest economics and policy analysis: An Overview. World Bank Discussion Paper 134: 92 pp., Washington D.C., USA.

Korten, F. F. (1992). NGO's and the forestry sector: an overview. Unasylva 43/171: pp. 3-10.

Maaren, A. van (1984). Forests and forestry in national life. In: Hummel, F.C. "Forest policy: a contribution to resource development", Nijhoff/Junk Publishers, The Hague, pp. 1-19.

Maaren, A. van (1987). Die Forstwirtschaft in den Niederlanden auf neuen Wegen. Allgemeine Forst Zeitschrift 42/30: pp. 781-783.

Maaren, A. van (1988). Änderungen in der EG-Landwirtschaftspolitik: eine Aufgabe für die Forstpolitik? Forstarchiv 59/6: pp. 211-215.

Maaren, A. van (1991). Integrierte gebietsgerichtete politische Lenkung - eine neuartige oder erneuernde Ergänzung der Forstpolitikwissenschaft. Forstarchiv 62/6: pp. 219-223.

Maini, J.S. (1992). Sustainable development of forests. Unasylva 43/169: pp. 3-8.

Montalembert, M.R. de (1991). Key forestry policy issues in the early 1990s. Unasylva 42/166: pp. 9-18.

Montalembert, M.R. de and Schmithüsen, F. (1993). Policy, legal and institutional aspects of sustainable forest management. Arbeitsbericht Internationale Reihe 93/1, Professur für Forstpolitik und Forstökonomie, ETH Zürich, Switzerland.

Muthoo, M.K. (1991). An overview of the FAO Forestry Field Programme. Unasylva 42/166: pp. 30-39.

Poore, D. and Sayer, J. (1987). The management of tropical moist forest lands: ecological guidelines. IUCN, Gland, Switzerland.

Roberts, R.W., Pringle, S.L. and Nagle, G.S. (1991). Leadership on World Forestry. Discussion Paper, 12 pp., Canadian International Development Agency.

Sayer, J. (1991). Conservation and protection of tropical rain forests: the perspective of the World Conservation Union. Unasylva 42/166: pp. 40-45.

Sayer, J. and Wegge, P. (1992). The role of production forest in conserving biological diversity. IUCN/ ITTO, Yokohama, Japan.

Steinlin, H. and Pretzsch, J. (1984).

Der tropische Feuchtwald in der internationalen Forstpolitik.

Holzzentralblatt 138.

WFC (1991). Proceedings of the 10th World Forestry Congress, Vol. 8: pp. 213-225, 265-271, 294-299, 305-349.

\*: abridged by the editors; full references can be obtained from the Department of Forestry, Agricultural University, Wageningen, The Netherlands.