Search for Innovative Forest Policies and Programs: The Future and Role of Policy and Program Analysis

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This paper considers the problems of world's forestry and emphasizes the policy nature of the most threatening issues. A policy science approach is needed in order to be able to provide effective tools to solve the problems. Incremental forest policies followed are evaluated to be too tardy to respond to the many forestry issues of today. Managing the global forestry issues presupposes the design of new and more effective and efficient public policy programs. More profound policy analysis is therefore needed to improve the intellectual basis for planning and decision making. The advancement of the research on the effectiveness presupposes further development of the theories of timber supply and forestry investments as well as the improvement of national forestry statistics. The whole forest policy process should be a subject to intensified systematic research.

Additional keywords: forest policy, policy science, effectiveness, policy analysis

Policy problems of the world's forestry

The problems of conserving, developing and using world forest resources have not been able to be solved satisfactorily in spite of the remarkable advancement of forest science during the last decades. On the contrary, some detrimental trends, the depletion of tropical forests as the most alarming issue, are even threatening the future welfare of mankind.

We also know that in the foreseeable future forests are not providing a sufficient and regionally balanced flow of those products, services and environmental benefits, which are projected to be demanded and inevitably would be socially and ecologically desirable.

This alarming message has been brought to many international floors during the past few years. As could be stated at the meeting of the Club of Rome in Helsinki two years ago, forestry of today has two enemies: poverty and affluence. They are the primary causes of either over or underuse of forest resources. Both the exploitation and the underutilization of forests are a threat to the welfare of future generations, because they are likely to lead to decreasing production, increasing costs and prices, lower levels of employment and income as well as to a degraded environment.

What then has been the contribution of the forest science community to address the issues we are facing? Have the appropriate scientific approaches been employed for each issue in order to be able to provide efficient tools to solve the problems? We know that the majority of forest science activity is devoted to forests themselves. It would be, however, misleading to draw an inference that forest

sciences are producing unimportant or inapplicable information for biological, technical or silvicultural questions of forestry.

The point is that many of the forestry issues of today and the future challenges ahead are fundamentally policy problems, not solely or even substantially problems e.g. of silviculture. Especially this holds true for the problems of private forestry because it is in a key position in many countries to bring about all the benefits, which forests can provide.

Therefore, the policy perspective and a policy science approach is needed to understand the basic nature of the manifold forestry problems we are facing. Otherwise they will remain unsolved.

In spite of the primary importance of this research field it is still an exercise of very few forest scientists throughout the world. IUFRO and especially the Forest Policy Subject Group has a special role to change this situation.

In broad terms, the universal policy aim for conserving, developing and utilizing forest resources is to close – or at least reduce – the gap between private and public interests. This gap is caused by the divergent time horizons together with different benefits and costs concerning forestry from the private and public point of view. More specifically, the aim is to provide the goods, services and environmental benefits, which are demanded and are socially and ecologically beneficial. The policy problem arises if the present state deviates from the set public aims.

Given progressing forest policy aims, another remark concerns the basis for formulating public policies. For this purpose the policy science approach provides us with a simple rule: if the autonomous social, economic and ecological trends are not likely to lead to the attempted aim, then public policies have to be employed.

The present problems of world forestry would be less severe and perhaps easier to manage if market forces were able to stop desertification and other environmental damages, allocate more resources to forestry investments in countries lacking sustained management or induce increased cuttings of mature timber inventories in many industrialized countries. Past experience together

with social and economic prospects affecting forestry would, however, suggest that the autonomous increase of forestry investments and timber supply to meet the public policy aims seems less likely. Rather the contrary, having the present policy programs unchanged, the gap between projected demand for various forestry benefits and the supply of them may still be increasing.

Thus, to manage the global forestry issues and to reach the national forest policy aims unavoidably presuppose the design of new and more effective and efficient public policy programs.

This also means that public involvement in managing forest resources will increase rather than decrease. That, in turn, causes pressure to increase public funding. As a result, policy and program analysis as a means of improving the effectiveness and efficiency of policy programs, are becoming an ever more necessary intellectual basis for planning and decision making.

Innovative policies instead of incrementalism

Today, public involvement in private forest resource management consists of a variety of policy means ranging from regulations included in forest legislation to direct fiscal and non-fiscal (cost-sharing) as well as indirect types of incentives (e.g. extension). Too often, obviously, the influence of the instruments of general economic policies (monetary and fiscal policy) and, for instance, agricultural policy is ignored.

The present state of forestry and the level of production achieved can partly be ascribed to the public policies followed or, in some cases, even to the lack of systematic forest policy. Because only the theoretical foundations for the effectiveness analysis have been created and just a few empirical policy analyses of separate policy means have been carried out by now, we are not yet able to draw any conclusive inferences on the total effects of forest policy programs. In most countries,

however, the existing combinations of public policy means employed are deemed to be mainly ineffective to achieve the demanding aims of the future.

Reasons for the insufficient effectiveness of forest policy programs can be associated with two main aspects of public policy:

– the policy means applied and their properties,
– the process of the policy itself including policy formulation, analysis and planning, decision making and implementation.

The quality of public policy (in terms of effectiveness, efficiency etc.), in turn, is decisively dependent on both the adequacy of knowledge in these two areas[1] and how this knowledge is utilized.

International comparisons of the forest policies designed especially for increasing the timber production in private forests indicate that the low effectiveness may arise from e.g. the following sources:

– in the causal sense, the principal means applied are not affecting or acting as determinants of investment behaviour or timber supply or they may have only a weak indirect effect (e.g. general means of extension),
– internal coordination between regulative and incentive means is poor or lacking,
– coordination with other sectors of public policy is poor; different policy sectors may have even contradictory effects on forestry,
– the policy-making system (policy formulation, evaluation, planning) may not be sensitive to the economic and social changes affecting forestry, which are, in turn, affecting the effectiveness of policy means applied.

A widely applied practice to make policies, forest policy included, is characterized by the term 'incrementalism'. As Paul Ellefson (1984, p. 38–39) describes it: "Incrementalism is a conservative process in that existing programs, policies and expenditure levels are considered a base; attention is concentrated on making modest changes in such programs." In times when economic, social and environmental changes were slow and know-

ledge on alternative policy options vague, incrementalism has been a rational mode for policy-making. Modest changes in policies have then been preferred to innovative and often risky reformulations of policy programs.

During the last decades, however, the decision-making environment for forest policies has substantially changed.

Today, incrementalism in most cases may be too tardy a procedure to respond to the many economic and environmental issues in world forestry. Therefore, quite opposite to the earlier times it may even increase the risks involved in the decision making and be the source of ineffective policy programs.

Together with the premises described above this is the main reason to motivate the urgent need to search for innovative forest policies and programs instead of continuing incrementalism. Especially this holds true in many developing countries. The low priority of forest policies in public policy making should be raised in general. The change toward more innovative policy-making is, however, not possible until we are capable of providing well-founded policy knowledge as the basis of improved policy design. This is the challenge forest policy scientists of today have ahead.

Future challenges for forest policy analysis

In the search for innovative polices, which may be seen also as a search for new and more effective and efficient forest policy means, I can see no other alternative avenue than the intensified, more profound theoretical and empirical policy analysis. Innovations without knowledge of their impacts will lead back to the trial and error-policy making.

The task ahead for policy and program analysts can be traced out of the above discussion on the forest policy issues and the present state of art in forest policy science. The following research areas may be seen as the main study objects of policy analysis to be furthered.

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[1] in Yehezkel Dror's terminology, "policy issue knowledge" and "policy-making knowledge".

Research on the effectiveness of forest policy means and programs

Systematic research into public forest policy using modern scientific approaches is still a young field of science. The focus of scientific interest as well as the expectations of practical policy making has been and most certainly will be also in the future the analysis of the effectiveness of various public policy means and programs.

During the past two IUFRO's five-year periods the attempt has been to lay the theoretical and methodological foundation for the effectiveness analysis to be applied to empirical policy analyses. In the past few years empirical policy analyses have been employed for the two main policy issues in private forestry, i.e. timber growing investments and, to a lesser extent, timber supply. In numbers, empirical policy models to analyse the effects of various policy means are still very few.

The advancement and extensive applications of empirical policy analyses are retarded by several factors, which can be found in both the forest policy science and forest policies themselves. Firstly, the underlying theories as a necessary prerequisite for specifying empirical policy models may be inadequate or they may even be missing, i.e., the theories explaining the investment or timber supply behaviour of private forest owners do not provide an adequate basis to analyze the behavioral responses to various policy means. In many countries, the research on the behaviour of NIPF-owners is still at an infant state, even totally absent. The importance of the theoretical base is revealed by the fact that empirical policy models have been specified by now mainly in the area of investment behaviour, where theories have been more applicable from the policy point of view than are the present theories on timber supply[1]. Secondly, the data base for empirical, especially time-series analysis is in many cases insufficient or inappropriate due to the weaknesses of forestry statistics. Thirdly, if

the forest policy aims and means are not properly specified or the means applied do not contain any significant variation over time (incrementalism) the effectiveness of the policy is then also hard to evaluate.

To contribute to the advancement of the research on the effectiveness of public forest policies – and thus, to create premises for innovative policies – the emphasis should be set on the following areas:

– to develop, by means of intensified international scientific cooperation, the theories explaining the investment and especially the timber supply behaviour of NIPF-owners,
– to improve the national data base for empirical policy analyses in terms of developing forestry statistics and establishing permanent monitoring systems for private forestry,
– to encourage empirical policy analyses in all areas of forestry including multiple use aspects; effectiveness analysis should cover the whole range of various forest policy aims as well as means to achieve them; especially the research should be directed to analyze the total effects of the policy programs as a whole,
– the policy analysis should be extended to include the other sectors of public policies having a likely effect on forestry, such as monetary, fiscal and agricultural policy,
– more research should be directed to the economic, social and ecological trends affecting forestry and forest owners and thus influencing also the foundations of public policies,
– in state forestry, the effects of public policies of forest industries should be subject to an intensified research.

As a long term ambitious aim for forest policy analysis we may think of the establishment of permanent policy modelling systems to evaluate and predict the effects of policy instruments, analogous to the modelling in economic policies. This presupposes, however, a remarkable improvement in both the data base as well as the theoretical foundations.

In policy and program analyses the evaluation of the effectiveness should be followed by the efficiency analyses. This research field has gained increasing interest as well as good results during the past years.

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[1] Another reason is that public involvement in timber markets is not as considerable as in forestry investments.

Research on the forest policy process

As referred to above, the outcome of a policy, especially the policy effectiveness, is not a result of the characteristics of a certain applied policy instrument only. The success of policy depends also on the quality of the whole policy-making process, an area which has been much neglected in the forest policy research until lately. Therefore, one of the future challenges for forest policy science, also within IUFRO, is to improve our knowledge on the policy making and implementation process in order to improve, in turn, the quality of public management of forest resources. This kind of policy research could contribute to better formulation of policy aims and a more effective search for alternative policy means, more efficient allocation of public resources and improved policy planning, implementation and, finally, better use of systematic evaluation and analysis of the policy itself.

For those purposes this study area may be subdivided into more specific areas to analyze the substance of various phases of the policy process and their mutual interdependences. As a very complex study object it presupposes the use of a variety of theoretical and methodological approaches employed in many fields of social and policy sciences. Therefore, it also calls for an intensive collaboration with the expertise of these sciences.

Being a little explored field it is hard to set any other priorities than an overall promotion of status of this research area. The following questions to be analyzed might be, however, of general interest:

– how policy analysis, planning and decision-making could be integrated into a dynamic and efficient system to lead to an improved policy outcome; how various policy means are or could be coordinated, also between different sectors of public policies affecting forestry and forest industries. Of special importance this would be in the developing countries.
– would it be possible, in the implementation phase of the policy process, to improve the effectiveness and efficiency of the policy by means of some organizational, administrative or institutional solutions; i.e., can innovations in policy be organized?

Holistic, comparative studies of public forest policies

Finally, we may call for synthetic studies in terms of international comparisons of the public forest policies in different countries. On a descriptive level, this kind of undertaking has been carried out by OECD some years ago. In-depth analysis of the whole policy process beginning with the identification of policy goals, studying the various parts of policy making process and ending up with the evaluation of policy effectiveness would be a demanding but also a revealing exercise. It could expose the critical points of the forest policies and would be the way toward better public management of forest resources in less developed, as well as in developed forestry countries.

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