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# Silva Fennica

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# ANALYSIS AND EVALUATION OF PUBLIC FOREST POLICIES

Tikkanen, Ilpo (edit.)

TIIVISTELMÄ: METSÄPOLITIIKAN ANALYYSI JA EVALUOINTI

Tikkanen, I. (edit.). 1986. Analysis and evaluation of public forest policies. Tiivistelmä: Metsäpolitiikan analyysi ja evaluointi. *Silva Fennica* 20(4): 251–427

The publication comprises 22 papers on forest policy and program analysis and evaluation presented at the XVIII IUFRO World Congress in 1986 in Ljubljana. The papers discuss the future and role of policy and program analysis, the effectiveness of policy programs on timber supply and private forestry investments as well as the application of forest sector models to policy analysis.

Julkaisu käsittää 22 metsäpolitiikan analyysiä ja evaluointia käsittelevää artikkelia, jotka esitettiin Metsäntutkimusjärjestöjen kansainvälisen liiton (IUFRO) XVIII maailmankongressissa Ljubljanassa vuonna 1986. Artikkelikokoelma on läpileikkaus niistä tutkimusotteista ja tarkastelutavoista, joita metsäpolitiikan harjoittamisen eri osa-alueiden tutkimuksessa on viime vuosina sovellettu. Artikkeleissa käsitellään mm. metsäpolitiikan analyysin tulevia haasteita ja tutkimustehtäviä, politiikan analyysin teoriaa ja menetelmiä, metsäpolitiikan vaikuttavuutta sekä yksityismetsien raakapuun tarjonnan vahvistamisesta että puunkasvatuksen investointien edistämistä sekä metsäsektorimallien soveltamista politiikan vaikutusten analysointiin. Metsätalouden monet ongelmat eri puolilla maailmaa – trooppiin metsien häviäminen, metsäkuolemat teollisuusmaissa, puun sekä metsävarojen tuottamien muiden hyödykkeiden kysynnän ja tarjonnan epätasapainoinen vahvistuminen – ovat aiheuttaneet harjoitetun metsäpolitiikan uudelleenarvioinnin tarvetta. Metsäpolitiikan harjoittaminen ja sen uudelleenmuotoilu muuttuvassa maailmassa edellyttävät entistä pätevämpää tietopohjaa, jota metsäpolitiikan tutkimus pyrkii vahvistamaan.

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## Preface

Changing society and environment, non-solved global forestry issues, increasing public financing and intervention in managing forest resources as well as rising opportunity costs of forestry have made forest policy analysis and evaluation increasingly necessary. In spite of gaining still increasing importance, systematic forest policy analysis as a central branch of forest economics has not been provided with the benefits of long scientific traditions. Therefore, it deserves to notice that IUFRO has offered a major framework for advancing this new field during the past 10–15 years.

This volume of *Silva Fennica* comprises the contributions of IUFRO Working Party S4.06-01, Effectiveness of Forest Policy, to the XVIII IUFRO World Congress in Ljubljana, Yugoslavia, supplemented with some papers presented in plenary sessions. These congress proceedings can be seen as a successor to the three earlier main contributions of the working party: "Effectiveness of Forest Policy on Small Woodlands" (1981), "Non-industrial Private Forest, A Review of Economic and Policy Studies" (1983) and "Policy Analysis for Forestry Development" (1984). The aim for publishing these proceedings is to provide a review of different kind of approaches and methodology applied nowadays in policy analysis and evaluation. The progress of forest policy analysis leads to the employment of econometric policy models. Always, policy analysis and policy science have to resort to the contributions of qualitative, descriptive and comparative approaches, too, depending on the subject of policy research. In this volume the reader may notice also a conscious opening into two main directions to expand the area of forest policy studies: research into forest policy institutions and administration and the attempt to apply forest sector models to policy analysis in its proper meaning.

The 22 papers included in this publication are grouped into five main parts. The Part I discusses the major challenges, future and role of forest policy analysis arising from the most threatening issues of world's forestry. Managing the global – and local – forestry issues presupposes the design of new and

more effective and efficient policy programs. Therefore, also more profound policy analysis is increasingly necessary. Public intervention in forestry often takes the form of forestry legislation, which should be conceived as a set of concrete policy means and, thus, be analysed and coordinated together with other policy measures. Another field to be seen from policy perspective are the problems connected with land use. Policy analysis may contribute to finding out better solutions to conflicting land use patterns.

The Part II under the title "Advancing the Theory and Methods of Public Policy Analysis" introduces first the approaches of policy research applicable to the study of forest policy formulation, implementation and administration. Quantification problems in the design of a forest policy program are discussed using as a case the Forest 2000-Program in Finland. An algorithm for macroeconomic evaluation of public forest policy programs is also presented. The Part II concludes with the discussion of the development of timber sales accounting system for U.S. Federal forests.

The Part III and Part IV lead the discussion to the analysis and evaluation of the effectiveness of forest policy programs on timber supply from non-industrial private forests and timber growing investments, respectively. The effects of permanent and non-permanent types of policy means on timber supply are considered and the impacts of forestry extension are evaluated employing path analysis as a methodological tool. The framework of welfare economics is applied to the evaluation of regional and distributional impacts of cost-share programs. Part IV addresses the various policy programs aimed at inducing private forestry investments. Evaluated under varying circumstances the public intervention in terms of forest practice laws, cost-share payments, technical assistance programs and forest management planning has been evidenced to increase timber production in NIP-forests. Effectiveness and efficiency of these programs are, however, to be improved.

Part V, entitled "Policy Analysis Using Forest Sector Models", presents a sophisti-

cated econometric policy model which is designed for policy formulation, evaluation, simulation and optimizing purposes. The publication concludes with the discussion of the general applicability of forest sector models for policy analysis.

Finally, I would like to thank the authors for their valuable contribution to the international scientific exchange as well as for all the good collaboration at various IUFRO-meetings. I also express my gratitude to the Leaders of Subject Group S4.06 – Forest Policy, Dr. Veli-Pekka Järveläinen and Professor Paul

Ellefson for their encouraging and kind support given to me during the past congress period. For the same reason I extend my thanks to Professor Päiviö Riihinen, Past Leader of the Subject Group. My special appreciation I will extend to the efficient and effective Cochairman of the Working Party, Director Christopher D. Risbrudt. Without him the outcome had been less successful.

On behalf of the IUFRO Working Party, and personally, I owe my respectful thanks to the Society of Forestry in Finland for accepting these proceedings as a volume of *Silva Fennica*.

*Ilpo Tikkanen*  
Chairman of IUFRO Working  
Party S4.06-01,  
Effectiveness of Forest Policy

## Part I

# SEARCH FOR INNOVATIVE FOREST POLICIES AND PROGRAMS:

## The Future and Role of Policy and Program Analysis