Cross-Sectoral Policy Impacts on Forests

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Ilpo Tikkanen, Peter Glück and Heikki Pajuoja (eds.)

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Foreword

Forests and forest sector have never been an isolated island in ocean, but an integral part of the economy, society and environment. The notion of sustainable forest management (SFM) as an outcome of international forest policy processes and deliberations, including economic, social and environmental dimensions, has been broadly received as an overall aim for national forest policies and programmes since Rio Summit. Derived from this multi-dimensional substance of SFM, the successful implementation of it should be, respectively, an outcome of well co-ordinated forest, economic, social and environmental policies. The need for comprehensive and inter-sectoral approaches as a prerequisite for proceeding towards improved forest resource management and sustainable development has been clearly articulated and highlighted by IPF/IFF- processes as well as by Ministerial Conferences on the Protection of Forests in Europe. Also, such leading global organisations as FAO and World Bank have seen the necessity of addressing e.g. the poverty alleviation issues from comprehensive and cross-sectoral perspective in their recently redesigned Forest Strategies.

National forest programmes as a process provide a potential strategic framework, which enable cross-sectoral approaches and policy co-ordination through participation and partnership arrangements. Forest policy formulation processes are evolving in many countries adopting these principles. Two major challenges – and weaknesses – have been faced especially in the implementation stage of national forest programmes: inter-institutional arrangements for policy co-ordination to implement SFM in support of sustainable development may be ineffective, and policy research providing knowledge on cross-sectoral policy impacts and inter-sectoral linkages may be virtually non-existing. A few empirical analyses available are mainly related to the issues of deforestation and poverty. In addition, some econometric models have been specified to include policy variables from sectors external to forests.

These two main challenges in mind an International Conference was arranged on the topic "Cross-sectoral Policy Impacts on Forests" as a joint effort of and in partnership with Forest Policy Research Forum of EFI, EU COST Action E19: National Forest Programmes in a European Context, Finnish Forest Research Institute Metla, with co-sponsorship of IUFRO Research Group 6.12-00, Forest Policy and Forestry Administration, and University of Joensuu. The conference was held in Savonlinna, Finland, in April 3–6, 2002.

These proceedings include the keynote presentations of the Plenary Session of the conference as well as the presentations given in Working Group meetings of COST E19. As organisers of the Savonlinna meeting we are very pleased and indeed highly appreciate that all leading forest policy institutions and processes from European perspective could accept our invitation and give their invaluable contribution to this important challenge and success of the conference. We heartily thank Mr. Knut Øistad, Immediate past-chairman of UNFF2; Professor Margaret Shannon, SUNY Buffalo School of Law, USA; Director Lennart Ljungman, FAO, Director Christian Mersmann, Profor/World Bank, Director-General Aarne Reunala, Ministry of Agriculture and Forestry, Finland, Mr. Robert Flies, Head of Sector, DG

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Agriculture, European Commission and Dr. Peter Mayer, Head of the Liaison Unit of MCPFE. Our sincere thanks go also to all other speakers of this meeting as well as to all the representatives of participating countries in COST E19 for their active participation during the group discussions and deliberations to advance national forest programmes and related science based knowledge. As editors of these proceedings we appreciate the review of papers done by the Chairpersons of Working Group 1 and 2, Ine Neven and Américo M.S. Carvalho Mendes. We wish these proceedings will open also new avenues and encourage policy analysis on cross-sectoral policy impacts worldwide in support of sustainable development.

October, 2002

Ilpo Tikkanen
Peter Glück
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National Forest Programmes as a Holistic Approach to Address Inter-Sectoral Impacts on Forests – Opportunities and Challenges with a Reference to Norwegian Experiences

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Abstract

A national forest programme (NFP) is a planning framework for the development of national forest policies in order to contribute to sustainable forest management. The report of the Intergovernmental Panel on Forests' fourth session provides the agreed principles for NFPs.

This paper discusses the challenges in the development and implementation of national forest programmes based on some experiences in Norway with a focus on how the existing system for development of forest policies influences the development and implementation of national forest programmes. It is stated that an NFP is a holistic approach to implement the outcome of international forest related initiatives and conventions and gives an opportunity to address inter-sectoral impacts, raise awareness, formalise involvement of different parts of government and interest groups, build capacity and create an opportunity to focus on issues that tend to fall between different national authorities. The main challenge in a country with a relative small forest sector, like Norway, is how to establish sufficient political attention and support on the NFP process in order to motivate for broad participation from stakeholders and legitimacy for the outcome of the process.

Introduction

National forest programmes (NFPs) are a new planning framework for the development of national forest policies in order to contribute to sustainable forest management defined by procedural elements and principles given by IPF. The ongoing international discussion of national forest programmes (NFPs) was launched at the 1992 United Nations Conference on Environment and Development (UNCED) in Rio. UN's Intergovernmental Panel on Forests

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(IPF) and its successor, the Intergovernmental Forum on Forests (IFF) and the newly established United Nations Forum on Forests (UNFF), have all been focusing on NFPs and emphasised that national forest programmes should be considered as an important planning instrument for governments to promote sustainable forest management. National forest programmes are being implemented to varying degrees in more than 100 countries (UN 2001).

IPF stated in its conclusions in the fourth session in 1997 a number of specific elements to be considered during the development and implementation of national forest programmes (§9) and key elements to be recognised regardless of the approach adopted by individual countries (§10). In its proposal for action, countries are encouraged to develop, implement, monitor and evaluate national forest programmes in accordance with their national sovereignty, specific country conditions and national legislation and elements to be included in the process as well as in the outcome of the process is given. (UN 1997)

IPF emphasised the need for a flexible approach for the national forest programmes, noting that various countries prefer to use means which are different from plans or programmes formally established in order to achieve their political forestry objectives. The Ministerial Conference on the Protection of Forests in Europe (MCFPE) is in the process of elaborating a common approach to NFPs in the European context. The purpose of this paper is to:

1. analyse the opportunities and challenges of the ongoing NFP process in Norway, and
2. discuss some challenges in the development and implementation of national forest programmes on the basis of this experience.

The NFP process in Norway

Background

Broad participation is already an important feature of the Norwegian forest policies and the result of the white paper process in 1998 – regional forest programmes on county level and the government supported Living Forest process in 1995–1998 – is referred to as the existing NFP in Norway.

The Forest Section in the Ministry of Agriculture has initiated a new NFP process in Norway and the process can be said to be in an agenda setting stage where the design of the process in collaboration with the political decision makers and communication with the stakeholders are important activities. An overall strategy for the NFP process is being developed. The purpose of the NFP process, its political functions and the thematic extent of the process are central questions in the process. A step-wise process consisting of the following main activities is suggested to:

1. Develop an overall plan for the development of a National Forest Program in Norway that can be communicated externally after consultations with the political authorities.
2. Assess how recent and existing forest policy processes follow the elements and principles for NFPs given by IPF.
3. Assess the implementation of relevant international commitments in the forest sector.
4. Carry out an analysis of economic, social, environmental and institutional aspects of the forest sector where stakeholders are involved in order to establish a common understanding of challenges in the forest sector.
5. Consult political decision makers and stakeholders on how revisions of existing processes or a supplementary process with normative and strategic elements can contribute to the closure of gaps defined by activities 2–4.

6. Eventually carry out a normative and strategic phase of the NFP process in order to develop an NFP document that can serve as a basis for political decisions.
7. Establish iterative and monitoring procedures based on evaluation of the NFP process.

This stepwise procedure is suggested due to the following considerations:

1. *Limited possibilities for a formal/legal status of an NFP in Norway*
   The possibility of getting an NFP document to the Parliament is considered to be limited. The legitimacy of the NFP process will depend on participation and political attention. It is hence needed to build up an understanding on how a normative and strategic process can affect political decisions related to the forest sector.
2. *The forest sector is getting smaller in economic terms*
   The economic contribution of the forest sector in Norway is shown in Table 1. The employment in the forest sector was 32,200 man-years in year 2000. The gross value of roundwood reduced by 35% in the last decade due to reduced prices and harvesting level. Because the total GDP doubled in the last decade the Forest Sector's contribution to total GDP was reduced by 40% and the contribution from roundwood alone was reduced by close to 70%. Although the absolute economic size of the sector is approximately stable, the relative economic importance of the sector is significantly smaller. The relative economic importance of the sector is important for political attention and support.
3. *Relatively low conflict level*
   The main forest policy issue in Norway at the moment is related to the need for more forest conservation. The Forest Owners Association would accept more conservation if full economic compensation were given. There are conflicting interests on how forest management should be decided and carried out in specific areas. In general, the conflict level in the forest sector is relatively modest if political attention is taken as an indicator.

Potential role of the NFP in Norway

NFP as a programme document has currently limited possibilities in getting a formal political status in Norway. It is likely to be a political document of a strategic nature and its political legitimacy and impact depend on broad participation and political attention. The implementation of the NFP will be through existing political decision making processes. It is important to consider this aspect for NFP processes in order to optimise the impact of new policy processes. Figure 1 illustrates the expected function of a NFP in Norway.

Table 1. GDP and employment in the forest sector year 2000.

Sub-sector	Share of total GDP	Share of export value (not including oil and gas)	Share of employment
Forestry (wood)	0.20%	0.20%	0.25%
Pulp and paper	0.50%	6.85%	0.50%
Sawn-wood and wood-based industries	0.40%	1.50%	0.80%
Total	1.10%	8.55%	1.55%

Source: Statistics Norway 2000 (www.ssb.no)

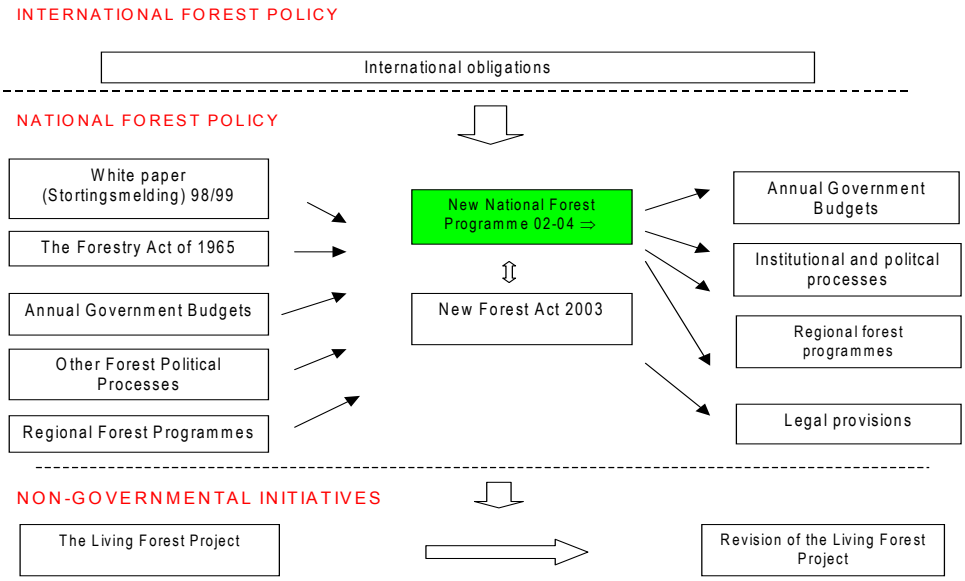

Figure 1. The function of a new National Forest Programme in Norway.

Purpose of a new NFP process in Norway

At the current stage, we consider the following immediate purpose or motivating factors as most important for a new NFP process:

- *The economic activity in the forest sector is at historically low level*
  The economic importance of wood is at historically low level for both the forest owners as well as for the national economy. This should motivate the economic stakeholders in the sector to discuss the business environment, objectives, strategies as well as institutional aspects within the sector.
- *Reduced access to sector specific financial instruments*
  The political trend in Norway is towards a reduced availability of financial instruments in general and sector specific instruments specifically. There is a need to establish a broader understanding for the need of financial instruments in the forest sector if they are to be maintained. Effects on the forest sector of more general financial incentives such as tax reliefs must be analysed and discussed, as well as changes in the legal framework.
- *An opportunity to address inter-sectoral impacts*
  Decisions outside the traditional mandate of forest policy have impact on forests and forest management practices. NFP can, by involvement of other ministries, establish a better understanding of how such decisions might affect the forest sector.
- *Issues that tend to fall between the mandate of different ministries or organisations can be included in the NFP*
  The holistic approach of the NFP can ensure that issues with weak governmental or institutional "homes" can be included as appropriate. Examples of such issues in Norway are development of hunting activities, biomass energy and tourist activities and property development based on forest properties.

- *New international commitments for forest management and policy processes*
  Forest sector objectives, policy processes and actual forest management must be consistent with international commitments. An NFP process can establish or document this consistency.
- *Objectives and strategies in the forest sector need to be better communicated nationally and internationally*
  Communication of objectives and strategies are important to establish legitimacy for the forest sector. Existing political documents have shortcomings with respect to communication especially outside the sector.

Challenges

NFP as a defined process has similarities with the Cabinet appointed commissions frequently used in Norway, but such commissions usually consist of a limited number of stakeholders and/or resource persons. NFP defined as a structured process with a given start is new in the Norwegian forest policy and is also a new political process at a national level. Regional planning at the county level has process similarities and provides useful experience for the NFP process. County planning processes are supposed to co-ordinate the main activities of the government, county and municipalities in the county and to cover all public sectors as defined in the Planning Act.

We consider the following factors as important challenges for the NFP process in Norway:

1. *Establishment and political legitimacy for the NFP*

NFP as a planning process is not defined in the legal framework. The process must be established based on a political decision where specific objectives of the process must be defined. International obligations and considerations of costs and benefits related to this process are factors affecting a decision to initiate an NFP process.

2. *To mobilise the participation in a new planning process*

The planning situation in forest policy can be described by high complexity and the presence of many actors and would hence be categorised as "social mobilization" following the terminology of Friedman (1987). Mobilisation of stakeholders including other ministries for true participation is essential for the process and impact of an NFP.

In traditional policymaking processes, different interests are brought forward by stakeholders and decided by politicians. A political solution is hence achieved without the need for stakeholders to negotiate or reach an agreement. Understanding of potential interests of different stakeholders is important when an NFP process is initiated.

Useful suggestions on how to mobilise for participation in political planning processes are given by Amdam and Veggeland (1998):

- Central persons, who could be resource persons, but also obstacles, need to be motivated for the suggested process. This implies learning.
- One should start carefully and have realistic ambitions.
- Give priority to issues that most participants think are important and where changes are possible
- Accept that planning never ends, a plan as a document will never be perfect because the society is always changing. Create something useful in the given situation.

3. *Conflict resolution*

Different interests are the basis for forest policies – if conflicting interests were not present, forest policies, government interactions or an NFP process would not be needed. Conflicting

Table 2. Different situations with respect to objectives and knowledge in forest policies.

Objectives technology	Agreements about objectives	Disagreement about objectives
Knowledge about effects of policy instruments	A. Programming	B. Negotiations
Lacking knowledge about effects of policy instruments	C. Experimentation	D. Chaos

Based on Christensen 1985 in Amdam and Veggeland 1998.

interests might be related to differences in objectives or practices between forest owners and the society, or between different stakeholders. Different situations with respect to objectives and knowledge in forest policies are illustrated in Table 2.

Even though the NFP process will highlight different interests, the process can, if well designed, increase the understanding of different interests and reduce the long-run conflict level (reduce the "chaos"). Negotiations in planning with a long-run time horizon like in an NFP process is a challenging approach because issues often are more value-orientated than matter-orientated. It is important that procedures for negotiations are stated in advance when an NFP process is established. References to agreed sources describing the existing situation, authorisation from the represented organisation to negotiate an agreement, defined negotiation instruments, time-limits and mediation capacity are key-words in order to solve conflicts and reach an implementable outcome of the process. As NFP in Norway will have a more strategic than formal/juridical function, some level of defined disagreement can be included in the NFP-document, but participants should be aware that disagreement would weaken political impact of the process.

4. *Innovation*

Consolidation of existing objectives and strategies in forest policies and/or reduction of conflicts between conflicting interests might be important effects of an NFP process. In Norway where the economic importance of the forest sector has significantly reduced over the last decade, NFP as a product and process should give some elements of new understanding, new objectives or new strategies. Expectation to the process from the politicians as well as cultural and structural design of the process can contribute to an innovative NFP process.

5. *Efficient administration and co-ordination*

Sufficient capacity for administration, co-ordination and secretarial functions are important for the progress and content of the process. Sufficient resources for data collection and synthesis are important in establishing a common ground for the discussions of objectives/ visions and strategies. A plan for the NFP process with objectives, outputs, activities and time schedules should be designed in collaboration with the representatives of the stakeholders. We also think that the format of the final document/program should be discussed at an early stage and serve as a basis for the process. Consistence with other national and international processes and obligations are also important tasks in the NFP process.

Conclusions

NFP provides a holistic approach in implementing the outcome of international forest related initiatives and conventions and national challenges related to sustainable development of the forest sector. Potential contributions of NFPs in forest policy planning include:

1. Formalisation of participation in forest policy processes
2. Awareness on how government decisions outside the traditional forest policy area affect the forest sector
3. Focus on issues that tend to fall between different national authorities
4. Public awareness and national and international communication of national forest policies
5. Reduction of conflicts between different interests

The phrase "national forest programmes" can be an impediment to initiate an NFP process in countries with limited political "space" for political programmes of a long-term nature. It is hence important to focus on NFPs as procedural elements of forest policy processes where formulation of a programme document is one alternative to improve participation, holistic and inter-sectoral approaches etc. in forest policy processes. Other possibilities could include increased participation in legal and budgetary processes, hearings and establishment of consultative forums where stakeholders are consulted on a regular basis.

The functions of NFPs in relation to the existing national political planning frameworks are important issue as NFPs are likely to have informal status in national legal frameworks. A defined objective and role of NFP processes is important in order to establish realistic expectations among the stakeholders as well as to define an appropriate format of the programme document (level of detail). A well-designed NFP process can affect political decisions indirectly through changes in attitudes and knowledge of stakeholders involved in the process. But in order to ensure the implementation of strategies defined in the NFP document, an explicit link to the existing political structures is needed.

Conflicting interests present a challenge to design a process evaluated as participatory, innovative and realistic. Participatory approaches to policy planning in the forest sector can contribute to sustainable forest management through extensive involvement, holistic focus and public and political attention on forest sector issues. However, a participatory process with a given number of stakeholders does not ensure a democratic outcome (a political process can give a "democratic deficit"). The link of the NFP process to established national political structures is important also in this respect.

National forest programme is a promising but challenging approach to policy planning in the forest sector. International exchange of knowledge and experience related to development and implementation of NFP processes is needed in order to further improve the contribution of NFPs to sustainable forest management.

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Theoretical Approaches to Understanding Intersectoral Policy Integration

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Abstract

Policy sectors have variously been described in terms of "advocacy coalitions," "policy communities," "policy systems," "iron triangles," "power blocks" among other concepts depending on disciplinary perspective. Policy sectors focus on a specific area of public policy (forests, water, agriculture, etc.) and include all the groups, organizations, and institutional rules pertaining to that arena of policy making and implementation. Intersectoral policy integration presumes that the way to achieve increased efficacy in actual policy-guided outcomes is through improved integration of policy making and implementation across multiple policy sectors. This paper examines several different conceptions of policy sectors and shows how each conception affects what kinds of mechanisms or institutional arrangements would be most useful in promoting integration across policy sectors. The purpose of this exercise is to advance practical understanding of policy sectors so as to enhance the effectiveness of efforts toward intersectoral policy integration.

Three general social theories will be used to examine policy sectors: social systems theory envisions autonomous and self-referential policy sectors; advocacy coalition theory envisions organization around centers of interest and conflict; and communicative action theory envisions dynamic, self-organizing policy communities. Each of these perspectives offers something in understanding the actual behavior of policy sectors. This paper does not advance any particular theory, rather it seeks to expand our ability to understand the behavior and dynamics of policy sectors so as to better provide the participatory, planning, and institutional mechanisms for promoting integration. The national forest programme process utilizes all three of these mechanisms, and thus improved understanding of how different policy sectors organize and behave differently can improve the design and implementation of these mechanisms.

Keywords: Intersectoral policy integration, participatory processes, social systems theory, advocacy coalition theory, communicative action theory.

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1. Introduction

How tightly are policies connected to those they benefit? Examination of this question fills the academic and practice journals in the many fields of policy studies. What is evident is that the answer is always, "well, it depends… ." Yes, but depends on what?

This paper addresses this question in the context of demands for intersectoral policy integration. If policies are tightly held in place by beneficiaries – interests, political alignments, and agencies, then working across policy sectors can be very difficult. If policies are more loosely related to the interests of beneficiaries, the structural and ideological preferences of organizations and agencies, and the shifting alignment of political interests, then it may be somewhat easier to pursue efforts to integrate policies across sectors. Clearly, these are empirical questions. But how one conceptualizes these questions and carries out research is a theoretical question.

The purpose of this paper is to examine three common, but quite different theoretical approaches to thinking about intersectoral policy integration. Each theory conceptualizes the idea of a "policy community" quite differently. As a result, not only would the empirical study be affected by the initial theoretical standpoint, so would the results, and thus also the recommendations for approaches for improving intersectoral policy integration.

The three general social theories discussed in this paper include: social systems theory envisions autonomous and self-referential policy sectors; advocacy coalition theory envisions organization around centers of interest and conflict; and communicative action theory envisions dynamic, self-organizing policy communities. Each of these theories offers something to policy researchers and practitioners in terms of understanding the actual behavior of policy sectors. The following sections will take up each theory area in turn and provide a brief overview of key propositions, major concepts, and implications for understanding policy dynamics. This will be followed by a discussion of how each theory might affect our understanding of intersectoral policy integration.

It should be noted that these three theory areas are not the only ones applied to understanding policy. Paul Sabatier (1999) edited a book titled "Theories of the Policy Process" that includes discussions of rational choice theory and punctuated equilibrium theory as well as innovation and diffusion models. However, these three theory areas were chosen for this paper because they represent a useful range of theoretical approaches when considering policy integration. At the systems theory end, policy sectors are closed and self-referential, and so the problem of integration is a one of structural adjustment. At the communicative action end, policy sectors are constructed through communication, and so the problem for integration is creating a forum for dialogue. And for advocacy coalition theory, policy sectors depend upon conflict and contested ideas, and so the problem for integration is to find opportunities for negotiation and compromise. Each perspective brings into focus some of the challenges to policy integration in a multi-level governance context.

2. Framework for emergent governance

Understanding the framework of governance that underlies the call for policy integration is the first task of this paper. The demand for intersectoral policy integration stretches beyond just the environmental arenas into the agricultural, social welfare, economic and other policy spheres (Sandel 1996). Meeting the challenge of these new demands for integration is difficult and time-consuming, and requires new relationships to be built among very different policy networks, academic disciplines, and administrative agencies (Landy and Plotkin

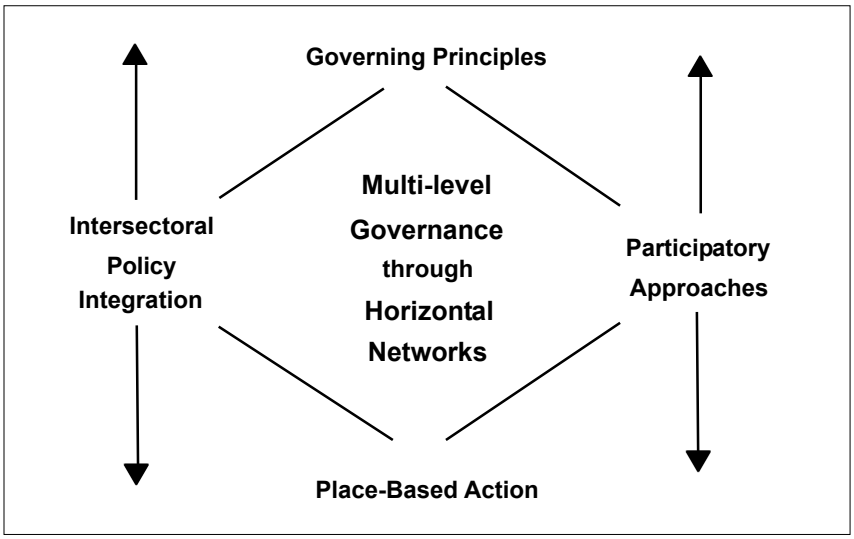

Figure 1. Conceptual Framework for Emergent Governance.

1982). This section on emergent governance is taken from Shannon (2002a) which focused on the participatory and collaborative processes. The present paper will focus on intersectoral policy integration.

Governance is a concept that necessarily relies on both agency and structure elements (Crozier 1980; Giddens 1984). In terms of structure, governance describes a pattern of institutional arrangements. However, action in terms of innovation, creativity and organizing is necessary to create and enact institutions (Shannon 2002a,b). Still, to persist over time, emergent institutions must institutionalize the creative, generative capacity of communicative action (Wheatley 1992). Thus, the structural elements of governance are produced and maintained over time by the agency of actors who engage in cooperative, supportive, learning, and adaptive behavior. Just as collaboration is an activity that includes sharing resources – including staff and budgets, working to craft joint decisions, engaging the opposition in designing creative solutions to shared problems, and building new relationships as needs and problems arise (Shannon 2002a,b), so policy integration is an activity that links policy actors, organizations, and networks across sector boundaries. Facilitating, supporting, and rewarding processes that cross, expand, or otherwise link policy sector boundaries is a necessary characteristic for intersectoral policy integration.

Governance is a pattern of institutions and behavior over time that links principles to actions, choices, and outcomes. However, the emergent quality of communicative action leads to understanding governance as an emergent system. Since environmental governance connects expressions of principles and ethical commitments to actions and choices in actual localities, it is important to conceptualize the elements of the system and their relationships as well as their respective functions. The following schematic is a start in developing such a conceptualization.

Both participatory approaches and cross-sectoral policy integration are processes that link levels of governance by linking horizontal networks of relationships and organizations to one another. Thus, integration refers to processes that cross or expand boundaries fixed by

existing institutional rules, organizations, and divisions of authority. Since emergent governance is an outcome of action, participatory processes refers to the multiple opportunities for interaction among actors and organizations as well as through institutional arrangements. Through communicative processes various actors develop common visions for action along with creating the capacity to achieve these visions – collaboration. To call this framework "emergent governance" is to say that the processes of boundary definition and expansion create a system of rules, institutions, and mechanisms over time.

We begin by briefly describing the elements of this framework and what kinds of behavior, institutions and communicative action are entailed in its parts as well as in giving it unity. The framework takes as an initial assumption that the relationship between globalism and localism is loosely coupled, rather than linked through hierarchical structures. From this perspective, then, the primary communicative work of the global sphere is the creation of principles (agreements, conventions, laws, or shared ethical commitments) that arise from within action and are expected to have a more or less universal or global reach. By place-based localism is meant the everyday work of creating meaning through action and carrying out actions with consequences for land, resources, and people (Jacobs 2000; 1992). Place-making is a critical feature of emergent governance because meaning can only come through action within a context of actors (Schneekloth and Shibley 1995). Thus, without place-making action there can be no situated meanings that guide decisions, frame management choices, and link policy networks.

This conceptual model considers only two of several potential linking relationships between global and local spheres. The first is the process of *intersectoral policy integration*. Whereas historically policy issues have been located within relatively autonomous policy sectors supported by separate government bureaus, the emphasis of national forest programmes is upon developing intersectoral policies that link policy networks, policy purposes, and affect desired changes in policy outcomes (Lee 1993). For example, many of the changes in land management in the United States result from linking resource extraction policies with nature conservation policies (Caldwell, Wilkinson and Shannon 1994). When actors, agencies, NGOs, and political resources that have traditionally ignored one another are suddenly forced (usually by legal challenges to current practices) to work together, the first reaction is often animosity and territorial behavior. However, the kinds of problems that land and resource policy address today demand integration because no one policy sector, agency, or political actor can effectively address the problem alone (Shannon 1998; Johnson et al. 1999). The new issues cross boundaries ecologically, socially, politically, administratively, and legally (Meidinger 1999; 1997). Indeed, frequently several regions, states, countries are involved and their separate regimes must find ways to work together on a common problem (Shannon and Antypas 1997).

The demand for intersectoral policy integration stretches beyond just the environmental arenas into the agricultural, social welfare, economic and other policy spheres (Sandel 1996). For example, meeting the challenge of abandoned or neglected forest land in parts of Europe requires addressing the livelihood needs of local people as well as the ecological implications of a changed landscape. Meeting the challenge of these new demands for integration is difficult and time-consuming, and requires new relationships to be built among very different policy networks, academic disciplines, and administrative agencies (Landy and Plotkin 1982; Shannon 1999).

The second linking process is participatory approaches. By *participatory approaches* is meant political processes that self-consciously and directly engage the people interested in and affected by the choices as well as those whose actions, budgets, and commitments are necessary to carry out the choices (Reich 1985). These participatory approaches in the context of emergent governance are addressed in more detail in Shannon (2002a).

The result of these integrative and participatory linking processes is a form of organization that works at *multiple levels through horizontal networks*. Rather than a focus on the vertical integration of levels of governance, this framework suggests multiple levels of policy, planning and administration that are linked through both demands for policy integration and participatory processes (Benz 1999; Schattschneider 1960). At each level, there are numerous networks which reflect the problems of that scale of governance. Clearly, both agencies and NGOs play important roles in vertical integration across these levels of governance. However, this is different from assuming that each lower level is simply a subset of higher levels in terms of desired policy goals and outcomes. For example, in a federalist system of government each lower level of government is expected to carry out the mandates of the higher levels. However, the higher levels do not have to apply lower level decisions, recognize those decisions, or treat them as legitimate expressions of the public will. In a multi-level system, there is only a loose-coupling between levels based on the integrative and participatory processes that link them. There is also, of course, the „feedback" process based on the actual responses of the ecological or social systems to policies and actions. This element is not evident in this framework but should not be forgotten.

As a unity, this conceptual model of emergent governance reveals to us the necessity for continuous creative action. As discussed in Shannon (2002a), generative politics creates new meanings, actors, and organizations as compared to reactive politics which is bound by existing interests, preferences, and authorities. However, how policy communities are understood theoretically affects our understanding of generative politics. These next three sections outline the three different theory areas explored in this paper.

3. Social systems theory

Social systems theory considers organizations or organizational networks as social systems. From this theoretical perspective, organizations are closed and self-referring social systems (Luhmann 1996, Schimank 2000, Willke 1991). Self-reference means that organizations view the environment only in terms of their own purposes, traditions, and history. In other words, social systems reduce complexity by restricting their range of attention (Willke 1991). Since organizations are created to focus attention and direct action towards identified purposes, social systems theory contributes to understanding the strategies organizations use to simplify their external environment in order to increase their internal capacity to work with complex information. These self-referring processes also allow an organization to develop an identity and maintain it over time by restricting what information is recognized by the organization as well as expanding the sense of competency towards designated purposes within the organization (Kickert 1993). These processes lead to internally complex organizations, but with limited ability to change since all new information is viewed through the lens of the tradition and history.

The concept of self-referring systems leads to several propositions:

- Systems are not open and adaptive towards their environment, but they can be connected through structural linkages.
- Systems respond to external stimuli based upon their own internal beliefs and process rules. Thus, systems are dependent upon the history of their past responses in addressing new problems or situations.
- Systems are complex and stable sets of structures and relationships, thus intervening to create change in the system is difficult because of the self-referring nature of the system response.

Communication processes are the defining feature of a "self-referring social system." In social systems theory, the technological information infrastructure, hierarchy, culture, laws and processes reflect accumulated communication, and therefore have a strong influence in shaping the types of communication that are enabled or hindered. Individual actions within various social systems depend upon the strength and resistance of the communication patterns. These patterns limit the degree to which rules can be changed or new communication patterns established.

Social systems theory contributes to understanding policy coordination processes from the perspective of organizations considered as closed and self-referring social systems (Willke 1996). When each organization is considered to be a self-referring social system, then the processes of policy integration are limited by the purposes, history, ideology, and communication patterns characterizing each of them. Thus, understanding the limits of policy integration can be greatly facilitated by asking: To what degree an organization is open or closed to its environment? To what degree can new information or new demands be recognized by an organization? To what degree can the internal competency of an organization contribute to developing an integrated policy approach to a multi-dimensional policy problem?

From the perspective of social systems theory, the various policy sectors work as self-referential systems and each focuses on a particular aspect of the world. Each policy sector can increase internal complexity, because it reduces external complexity by restricting its attention and focus. However, the danger of this approach is decreasing the scope of the policy problem based upon the limits of expertise (Benveniste 1977), the history and tradition of the organizations, and the restriction of processes of change.

4. Advocacy coalition theory

Paul Sabatier (1988; 1986) framed the ideas of advocacy-coalition theory to understand policy change. One of his initial premises was that a *policy subsystem* – those actors from a variety of public and private organizations who are actively concerned with a policy problem or issue (id 1988:131) – is the most useful aggregate of analysis for understanding policy change. Following Pressman and Wildavsky (1973), Sabatier conceptualizes policies as belief systems based upon implicit theories. Thus, within any policy subsystem, there are several "advocacy coalitions" organized around shared normative commitments and causal beliefs (implicit theories). Policy strategies are based upon these belief systems and each coalition adopts strategies that enhance its policy objectives. As policies turn into programs and activities and new information or new external conditions arise, advocacy coalitions may change or alter their beliefs and strategies.

While policy change can be expected as a routine aspect of policy processes, predicting the direction or magnitude of change is a more difficult question. Sabatier (1988) follows Heclo (1974:306) in defining *policy oriented learning* as a relatively enduring alteration of thought or behavior based on experience and aimed at achieving or revising policy objectives. This kind of policy-oriented learning might be termed "single loop learning" (Lee 1993) wherein advocacy-coalitions respond to new information, new conditions, or new adversaries by revising or strengthening their strategies to better achieve their objectives. But the coalitions do not change their basic objectives or belief systems. In this kind of learning, advocacy coalitions could be expected to resist new information or signals of failure of their strategies in an effort to protect core beliefs and theories.

Lee (1993) contrasts single-loop learning with "double-loop learning." Double-loop learning occurs when individuals, groups, or organizations question core commitments, beliefs, and objectives. Sabatier suggests that when advocacy coalitions engage in debate, dialogue,

negotiation and conflict, there is the potential for questioning core beliefs and objectives. However, he suggests that the greater the stability in external, "real world" conditions, the less the likelihood for learning across coalitions. Thus, Sabatier's work examines in some detail the stable as well as dynamic factors in policy in order to better understand, and eventually predict, the degree and kind of policy learning in an advocacy coalition framework.

Some of the relatively stable policy parameters include: basic attributes of the problem area or nature of the economic "good or service;" basic distribution of resources, including power; fundamental cultural values and social structure; and the basic legal structure (Sabatier 1988: 135–6). Some of the dynamic factors include: changes in socio-economic conditions and technology; changes in systemic governing conditions; and policy decisions and impacts from other subsystems (Sabatier 1988: 136–7). Considering the complexity of these factors, it is no surprise that most policy problems demand specialization and lead to the creation of the numerous, specialized policy subsystems that we find in practice.

Sabatier's analysis fits well into the multi-level governance model proposed in this paper. He defines advocacy coalitions more precisely as "people from a variety of positions (elected and agency officials, interest group leaders, researchers) who share a particular belief system – i.e., a set of basic values, causal assumptions, and problem perceptions – and who show a non-trivial degree of coordinated activity over time" (Sabatier 1988:139). It is worth noting his reasoning as to why he uses the term "belief system" rather than the more usual concept of "interests."

"This framework uses belief systems rather than 'interests' as its focus because beliefs are more inclusive and more verifiable. Interest models must still identify a set of means and performance indicators necessary for goal attainment; this set of interests/goals, perceived causal relationships, and perceived parameter states constitutes a 'belief system' "(Sabatier 1988: 142).

This more inclusive concept also allows for wide variation in strategies consistent with core beliefs and objectives, and thus provides for "single loop" policy learning to occur continually. Nonetheless, the expectation is that every advocacy coalition seeks to employ strategies to protect the assignment of governmental responsibilities so that the governmental units it controls as a tightly linked beneficiary retain the most power (Sabatier 1988, citing Schattschneider 1960).

Schattschneider's (1960) now classic concept that "organization is the mobilization of bias" fits well in understanding advocacy coalitions organized around belief systems. It also directs attention to the self-organizing aspect of advocacy coalitions. Thus, as belief systems gain in complexity and sometimes fragment into more specialized sets of core ideas, new information and new situations are gradually reflected in the range and diversity of advocacy coalitions.

From the point of view of cross-sectoral policy integration, advocacy coalition theory suggests a mechanism for integration. Core belief systems are shared across policy sectors, and thus advocacy coalitions can encompass more than one policy sector. For example, a belief in the primacy of the "free market" to adjust economic production and allocation is a core belief shared by people engaged in nearly every policy sector. Similarly, a reliance on government action to ensure fairness in distribution and allocation decisions is also a core belief system that is represented in nearly every policy sector. Thus, following Sabatier we might look for how these core belief systems are already working as integrative mechanisms across policy sectors. Then it may be possible to bring these belief systems into a policy process aimed at looking for strategies that meet the core commitments of different policy-subsystems, while allowing for flexibility and dynamic responsiveness across policy sectors.

Why advocacy coalitions might engage in these kinds of negotiations when their control over specific policy sectors might be reduced is simple: the kinds of problems that land, natural resource, and forest policy address today demand collaboration because no one policy sector, agency, or political actor can effectively address the problem alone (Shannon 1998; Johnson et.al. 1999). The new policy issues cross boundaries ecologically, socially,

politically, administratively, and legally (Meidinger 1999; 1997). Indeed, frequently several regions, states, countries, and regions are involved and their separate regimes must find ways to work together on a common problem.

5. Communicative action theory

Cross-sectoral policy integration refers to certain kinds of cooperative behavior, certain forms of institutions, and certain kinds of communicative action. The theory of communicative action focuses our attention on how meaning is created and enacted in everyday life.

Jurgen Habermas writings in the 1960s and 1970s in Germany took up the question of developing a "historically oriented theory of society with a practical intent" (Habermas 1973; 1979). The 'practical intent' was the possibility of casting off past institutions, organizations and patterns of behavior based on critically examining existing societal patterns. The idea of a 'historically oriented theory of society' was a critique of the abstracted social theories of organizations, social structures, conflict and so on that were taken out of the actual contexts that produced them. Habermas advocated theory that would be reflective on the processes of society as a whole by reconstructing current conditions with a view to the past and anticipated future. Thus, he wanted to resituate social theory in history and context and, at the same time, foster a type of critical reflexive theory useful in enhancing agency of actors. Habermas was not alone in this critique (see Alexander 1988: Ch.9 for an excellent overview of this point), but his understanding of how communicative action was an activating process for transforming theory into practical action underlies many current theories of participatory democracy.

Theory is generally understood as a set of logically integrated systems of lawlike statements characteristic of the physical sciences (e.g. physics). The form of these statements is generally: given a set of initial conditions, one can predict future states of the system. In resource management, there is the added aim of science as an instrument of social control: scientists identify relevant factors that can be manipulated and decision makers develop strategies using these factors to produce desired states of human and natural affairs. In addition, science embodies a normative position that once the laws of human nature and behavior are known, then it is possible to use them to establish the conditions for a proper ordering of society. This separation of consideration of the ethical obligations of how scientific knowledge is used from the processes of production of the knowledge is a characteristic of "modern" science (Shannon and Antypas 1996). It is this kind of scientific work that Habermas was critiquing in his argument that by placing theory into its historical material conditions it was possible to reintegrate ethics as well as reform with science.

This loss of ethics in science is one of the unfortunate legacies of the 20th century. For Aristotle, politics was continuous with ethics – a doctrine of a good and just life. But in modern science, ethics was replaced by the application of positivistic social theory to produce the conditions that would lead to human behavior according to the (perceived) laws of nature. Thus, individual "agency" was replaced by institutional and organizational coercion. On the one hand, the practical problem of leading a virtuous life was absorbed into the technical sphere and "following directions" became a sufficient test of personal and societal virtue. However, by transforming the problem of how to lead a virtuous life by citizens into a problem of regulating social life by the technical-administrative sphere in order to ensure social order and stability of the state, individuals lost their responsibility to make ethical-virtuous choices.

For people trained in the natural, biophysical, and engineering sciences, this talk of ethics likely seems out of place. In biology, for example, an organism can be demarcated from its environment and studied as an "organism" and the environmental conditions for its survival characterized separately. The field of wildlife management is predicated upon the ability to predict from a set of habitat and ecological conditions, the likelihood of a species to survive and thrive.

In social science, however, over the course of history, social change occurs in both the elements and the boundaries of society. These changes can be a learning and regenerative process or a process of dissolution and transformation to a new system. How are we to know what the system is doing? It is not possible to “stand outside” of society and know what these changes mean. Rather, science must be located within the interpretations of members of society, for they are the only ones who can know and understand what is changing, why, and what it might mean for society. There is no meaning outside of those who produce it and so science must be located within the production of meaning in order to have access to this “data” about society.

So, what does this mean for policy and cross-sectoral policy integration? First, and foremost, meaning exists in social action that is shared among people and is dependent upon a shared definition – or contested definitions – of the situation. Meaning is always intersubjective because it is produced through communicative action. Thus, the methods of interpretive understanding of the symbolic structure of social reality are necessary for a social science able to grasp generative politics and emergent governance processes. Methods relying only on the positivist description of empirical artifacts of social action cannot interpret the meaning of these artifacts. To make visible – the work of science generally – the processes of generative politics and emergent governance, it is necessary to go beyond just the artifacts described – institutions, processes, organizations – and uncover their direction – towards transformation, construction, dissolution or collapse. Participatory processes create the forums for this kind of communicative action.

Coming from the perspective of management or decision science, one might be tempted to see the current direction implied by emergent governance and cross-sectoral policy integration as dissolution since many of the accepted processes no longer work as they did and technical-rational decision making is under challenge from many sides. However, coming from the perspective of communicative action and constructivist theory, one might see the processes of creation and transformation moving toward a system capable of self-organization and meaning generation. From the position of constructivist social theory, society is viewed as continuously created through communicative action and individuals are the agents of change as well as the producers of continuity.

From the perspective of communicative action theory, cross-sectoral policy integration occurs when meaning is generated through communication across sectors. This statement is not a tautology, rather it suggests that when the intersubjective nature of meaning generation is one’s theoretical starting point, then creating relationships and conversations across policy sectors will naturally lead to the creation of new meanings. These new meanings are the basis for new forms of organization and action and move toward the generation of new institutions. Thus, communicative action theory focuses attention not so much on the structures and rules that hold action and meaning stable, but more on the processes that continuously generate and maintain meaning. Our attention from this perspective would be on the ways in which greater communication across sectors might naturally occur and ways in which sectors must take account of one another in forming strategies. This perspective also points to the processes that create the belief systems that advocacy coalition theory begins with in its analysis. Thus, it shows us how belief systems might change as new meanings are generated in new intersubjective communities of interpretation (Shannon 2001).

Table 1. Some theoretical contributions to the understanding and improving the processes of cross-sectoral policy integration.

	Social Systems Theory	Advocacy Coalition Theory	Communicative Action Theory
How does cross-sectoral policy integration work?	• Organizations must be structurally coordinated either through centralized or participatory processes.	• Conflict creates new meanings as new coalitions form through negotiation. • Belief systems cross advocacy coalitions and link policy sectors.	• People share their knowledge, beliefs and thoughts through communication. Intersubjective meaning is created leading toward policy integration.
What are the positive effects of cross-sectoral policy integration?	• Self-referring organizations can build up internal complexity and expertise leading to greater competency in addressing technically challenging policies.	• Belief systems provide integrative stability within turbulent policy environments. • Policy change occurs through processes of conflict and negotiation which increase transparency.	• Discourse within the system of policy integration is encouraged and follows rapid response to new information and demands.
What are the problems of cross-sectoral policy integration?	• Organizational history and tradition limits the possibilities for integration to past practices. • Cross-sectoral policy integration is difficult and rare as organizations protect their "turf".	• Belief systems are resistant to change. • Conflict can create polarized policy problems where belief systems are mutually exclusive in terms of possible solutions.	• Institutional barries and individual limits of understanding restrict the capacity of communicative processess to foster integration.
How can cross-sectoral integration be improved?	• Organizations bring a respository of history and past knowledge which can structurally linked to new organizations and processes. • Participatory processes for organizational communication can improve the capacity of a social system to incorporate new information and expertise.	• Single and double loop learning can be encouraged through democratic structures by means of conflict and negotiation. • Policy communities work best when open to new members, expertise, and information.	• Increased democracy through participatory processes enables open communication and the creation of new ideas and policies. • New meanings develop through sharing of knowledge and can guide new actions and create new organizations.

6. Summary and conclusion

Each of these theoretical standpoints has something to offer to our understanding of the possibilities, potentials and mechanisms of cross-sectoral policy integration. While social systems theory reminds us that all organizations have self-referring properties in the face of challenge and change, communicative action theory suggests that these self-referring properties also depend upon intersubjectively created meanings that can change through other social processes, like cross-sectoral policy processes of integration. Advocacy coalition theory shows us that even within apparently coherent and "single-minded" policy subsystems there are numerous coalitions formed around beliefs systems that are often in conflict with one another.

The Table 1 highlights some of the contributions these different theoretical perspective bring to understanding cross-sectoral policy integration.

As Table 1 illustrates, each of these theories directs attention to different aspects of policy institutions, organizations and mechanisms of policy integration. By attending to the insights offered by these theories, effective mechanisms and long-term institutions for intersectoral policy integration may be crafted. The national forest programme process is certainly a mechanism that begins this long-term change in how policy sectors take one another into account. Hopefully, these theories can provide insights to governments, policy planners, agencies and NGOs as they seek to design and institutionalize long-term processes for integration.

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Knowledge Sharing for Cross-Sectoral Linkages in National Forest Programmes

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Cross-sectoral linkages

The cross-sector link

In the recent World Bank forest strategy review, an evaluation of its forest project portfolio revealed that the Bank's interventions in other sectors had had more (positive and negative) effects on forests and trees than its interventions in the forestry sector itself. This is a clear eye-opener on the importance of seeing the forests as part of a broader spectrum of issues and interventions. Examples include:

1. Structural adjustments to reduce government current salary expenditures may be desirable from a fiscal balance point of view, but may lead to a drastically reduced capacity to carry out regulatory functions such as fiscal and law enforcement control.
2. Fertilizer subsidies to increase food production may also lead to higher profitability to cultivate marginal land under forest cover and thus may increase deforestation.
3. Power demand leads to needs for more dams and pressure to clear forest land. This pressure group is joined by loggers wanting to earn money and farmers wanting water for irrigation. All leading to increased pressure on forests.

The market link

The ”normal” way to allocate resources between sectors and to link economic activities is through free market forces. But negative cross-sectoral impacts are often associated with actions leading to imperfect market conditions such as subsidies, laws and regulations, rent seeking and monopolies. These negative effects are normally the result of considering the consequences of sectoral interventions within the limited sectoral context, despite their overall impact.

Let us keep this in mind – if the market is free and competive it can go a long way for proper allocation of resources and to link sectors through the help of free market prices based on supply and demand.

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The common-issues link

Another type of sectoral linkages that needs particular policy attention is the link of common issues that affect a number if not all sectors. I am referring to issues such as poverty reduction, corruption and illegal activities and uncompetitive government salaries. Here the policy or strategy options to be considered to overcome associated problems are common approaches, joint actions and utilizing comparative advantages that each sector can offer to address common issues.

Strong actions to e.g. increase government salaries in other sectors may have the effect that also forestry officials receive higher remuneration which may attract competent people, reduce incentive for illegal acts and improve enforcement of existing policies and legislation, all important for sustainable forest management. That is why it is important to improve links between sectors to address common issues.

Knowledge sharing – a critical element

Information and communication gaps

My main message in this presentation is that most of the problems associated with sectoral linkages are either caused by communication gaps or could at least be resolved with the help of better communication of information and knowledge. There are three types of these communication types:

- The first and most important one is the lack of exchange and transparency of information.
- The second one has to do with the problem of navigating among already available information due to large amount at disposal and difficulty in knowing what is applicable in a specific case. The flow of information available on the World Wide Web has increased this problem.
- The third one has to do with the problem of communication between sectors because of the lack of common terminology and concepts. Talking about the urgency of biological diversity and soil erosion control may not receive enough attention at the Ministry of Finance unless it is expressed in monetary terms.

National Forest Programmes

Now I am coming to how cross-sectoral linkages could be addressed through the national forest programme approach. I am not going to repeat the history about how this approach has been developed and about the process on agreeing on its application, but I just want to remind you of a common definition of national forest programmes.

The common definition of national forest programmes is “national forest programmes are holistic, comprehensive, multisectoral approaches to sustainable forest management”.

This therefore means that cross-sectoral linkages are explicit part of national forest programmes.

I am now going to first present you with three slides on how national forest programmes can contribute to intersectoral linkages and then I am going to present another three slides on how the National Forest Programme Facility is assisting in implementing NFPs.

National forest programmes and cross-sectoral linkages

The NFP concept is based on broad-based national leadership. This means that the solutions to problems should come from below and inside the country and not, as often before, from outside advice or coercion. This also means that one of the fundamental concepts of national forest programmes is national capacity building at all levels.

The main aim of NFP is to provide enabling conditions for sustainable forest management. Since actions in other sectors often have profound impact on forestry, NFPs cannot be implemented in isolation of other sectors.

To achieve the NFP objectives, including improved cross-sectoral policy impact, there has to be broad stakeholder participation and an efficient knowledge sharing. As I have already said, knowledge sharing capacity building among forestry stakeholders is fundamental to cross-sectoral policy impact. With information and knowledge available to these stakeholders, they should in my view have the responsibility to proactively interact with other sectors to avoid negative impacts and improve synergy between sectors. This is different from earlier development approaches such as the integrated rural development approach, where all intersectoral linkages were to be resolved by endless committees or by staff knowledgeable in all sectors.

Sharing of knowledge

The stakeholder involvement in NFPs has to be in two directions. This means that forestry sector staff and staff in other sectors should exchange information in both ways. But perhaps more importantly, it also means involvement of civil society in a two-way traffic of information and knowledge so that there is bottom up pressure for action and change.

The sector specialists are only the conduits to the ultimate stakeholders. A fundamental ingredient in national forest programmes is the participation of stakeholders in decisions concerning trees and forests. These stakeholders should be informed and trained to respond to outside interventions having an effect on trees and forests. Therefore, a key feature in overcoming cross-sectoral problems is to empower civil society to react in their interest through current, transparent and articulated knowledge.

Knowledge sharing is facilitated if the providers of knowledge are connected with each other in formal or informal networks.

Addressing common issues

The NFP approach has, as one of its fundamental principles, to work in a holistic framework. This means that common issues such as poverty reduction and livelihood support are also determining factors in NFP approaches. However, NFPs are not aimed to resolve all developmental issues based on actions in the forestry sector alone. This is why it is imperative to establish good coordination with other sector representatives so that common issues will be addressed. This should be based on full transparency on information regarding approaches, actions and results.

Likewise, the forestry sector may have a comparative advantage to other sectors in addressing problems such as corruption in view of the public attention that environmental concerns has proven to have. This may result in publicized cases of corrupt behaviour, increased transparency and ultimately higher pressure on politicians to address corruption and vested interests and thus also having a beneficial effect also on other sectors.

The National Forest Programme Facility

Support to implementation of NFPs

The National Forest Programme Facility has been formulated and supported by FAO and some European countries including Finland, France, the Netherlands, Norway and Sweden. The European Commission and UK have also been instrumental in the formulation of the Facility, but have not yet provided any financial support. The Facility is working closely together with PROFOR, more of which you will hear in the next presentation.

The Facility is set up (1) to give direct support to national forest programme processes (whether they are called so or not) and (2) to create and maintain an international information platform. The main modes of operation are:

- strengthen national capacity
- support empowerment of civil society
- promote transparency
- nurture country-led policy formulation
- promote national and international knowledge sharing

Utilizing knowledge

Next, a few examples of the type of support provided by the Facility with bearing on cross-sectoral linkages will be presented.

With the improvement of information technology, the use of knowledge is often constrained by the volume of information and data available. The sheer volume of information requires a method screening. The human brain happens to be particularly good in that regard. What therefore is needed is a method to find out who can help with screening the overflow of information. This can be accomplished through a network of so-called communities of practice, that is a reference to people with experiences in specific fields, to be used to give guidance. The Facility is providing such networks.

An important consideration is how to get past the “digital divide” that is how to reach those who do not have access or knowledge in communication technology. This means that information has to be transformed to text for distribution or to oral messages passed on by radio or TV or directly through meetings and workshops. Translation of text into local languages is also an important instrument to involve civil society in pertinent issues.

Another type of networking is also provided for by the Facility. Knowledge sharing can be facilitated if the providers of knowledge are connected with each other in formal or informal networks. The Facility is providing support both for national and international networking.

Information and knowledge sharing has to be timely. If information about interventions in other sectors is received after the event, little can be done to minimize possible damage to forest stakeholders. This requires efficient systems for knowledge sharing and trained recipients.

Build capacity to use and articulate knowledge

As I mentioned before, it is important to build capacity to articulate available knowledge. For instance, information on deforestation may not be as useful to a Minister of Finance as the costs caused by the deforestation or the income forgone expressed in monetary terms. The Facility is providing such capacity building support.

Local communities may also need training in conducting and facilitating meetings to ensure that they can get the intended message across both to the participants of the meeting and the intended impact points outside the community.

Information technology is not only a blessing. It is also a powerful tool to those who have financial or other resources to manipulate information and knowledge. This requires attention to see that knowledge and information is not provided through monopolistic sources, but through a transparent flow of information. The international community and NGOs as well as international organizations have important roles to play to ensure that information and knowledge are neutral and objective.

Conclusions

- Sharing of transparent, neutral and pertinent information and knowledge is fundamental to addressing cross-sectoral linkage problems;
- Co-ordination between sectors has to be improved to share information and knowledge and to address common issues;
- Forest stakeholders should take the lead in dealing with cross-sectoral links with effects on forests and trees;
- This means that these stakeholders have to be informed of – and if required to take actions in response to – interventions in other sectors;
- This requires human capacity building of forest sector representatives and civil society to deal with cross-sectoral issues;
- Civil society has to be empowered – through knowledge – to provide bottom-up pressure on politicians and sector representatives.

Interaction of National Forest Programmes with Comprehensive Development Frameworks

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World Bank

The objective of this paper is to identify issues of common concern and needs in policy research to assist and guide practitioners. I am using the example of the Comprehensive Development Framework concept (CDF) which was established by the World Bank as a means to address inter-sectoral and cross-sectoral linkages between the sectors and to emphasise on social development, a dimension that has not been given the necessary attention in the past. CDF for developing countries can be viewed as a process of achieving sustainable development. In this regard, it should be underlined that CDF is just an instrument to be used to support national efforts in sustainable development as much as national forest programmes are a tool to assist in achieving sustainable forest management (SFM). The policy debate and related research has therefore to go beyond the instrumental application of these concepts.

The call for inter-sectoral and cross-sectoral work in forest policy processes has been intensified with the increasing awareness of impacts from agriculture, mining, infrastructure and other sectors on forests and of the importance of cross-sectoral dimensions like environment and rural development for the forestry sector. As much as we can see from a historic perspective that the development of the European civilization has been a process of deforestation, as much have we agreed internationally that such a trend does not need to be continued world wide. The depletion of forest resources in Europe – particularly during the 19th century – was reversed only through new sources of fuel, economic development and consequently through policies that addressed inter-sectoral and cross-sectoral issues in forestry.

At least since the United Nations Conference on Environment and Development in 1992, the world has gone beyond the call for inter-sectoral cooperation between the sectors and has identified the overarching agenda of sustainable development. Forests are specifically addressed in the Forests Principles with a holistic and comprehensive approach to the management, conservation and sustainable development of all types of forests. In the IPF/IFF process, the further development of these principles were achieved and we have internationally agreed in the UN Forum on Forests to use the proposals for action has a political and strategic guidance for country-level work emphasizing the linkage between forests and other sectors.

In international development cooperation, overarching concepts and approaches are currently in fashion. We are moving between rural development, sustainable livelihoods,

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poverty alleviation, environment action plans and "good governance" without being able to effectively identify the position of forests and their sustainable development vis-à-vis these initiatives. Facing this reality and including macro-economic structural adjustment in the long list of processes to be handled at the national level, it is high time to identify the contribution of forests in sustainable development and to analyse the added value of these non-forest agendas with regard to the long-term transformation of the forest sector towards SFM.

For the World Bank, the priority seems to be national economic development. However, the full value of forests for economic development can only be realized if the forest sector is no longer adversely impacted by macro-economic adjustments. The often encountered failure of markets could only be overcome by fully reflecting the values of major forest goods and services beyond timber. For example, David Pearce in his work identifies goods and services including carbon sequestration, the use of genetic resources for pharmaceuticals, watershed protection, eco-tourism and recreation. He has also identified option values like "landscape beauty" as in Costa Rica and non-use values such as biodiversity protection through nature conservation. The commodatisation of these values of forest goods and services that are non-market values demands a political debate to agree on pricing at the country level rather than achieving their full value through entering the market. On the other hand, markets for additional forest values can be build through appropriate policies like those for land stabilization and water catchments to allow for sustainable agriculture and SFM in the long-term perspective. Cross-sectoral agendas like rural development often cause a shift by increasing the importance of social, cultural and environmental values which a given society is ready to pay for.

In structural adjustment operations of the World Bank, GDP, national income accounts, trade statistics and balance of payments have driven the financial and economic analysis. Aspects of national priorities and social development to address fundamental long-term issues of structure, scope and substance of societal development and social progress have not sufficiently found their place in the work on economic development. "Facts and figures" and conditionalities deriving from them have driven the process of support to economic development, but lastly hindered a process of establishing national ownership and participation. This is particularly true of the forestry sector which remains weak in the political debate and is often bypassed while identifying national priorities.

Throughout the world, we have been discussing sustainable development and the contribution of forests to it for many years. We have a good idea what is needed politically and strategically, but we have limited practical experiences with the how it can be achieved. One of the instrumental answers to this call is the Comprehensive Development Framework (CDF) which is seen as a societal process to inform and guide national development efforts through the establishment of a holistic long-term strategy for sustainable development.

To quote from the World Bank CDF Principles:

> *"The CDF is a new way of doing business, a tool to achieve greater development effectiveness in a world challenged by poverty and distress. In the short run, the CDF establishes mechanisms to bring people together and build consensus, it forges stronger partnerships that allow for strategic selectivity, reduces wasteful competition and overlap, and emphasizes the achievement of concrete results."*

This sounds familiar to the supporters and practitioners of national forest programmes since the underlying concept of a process orientation is basically the same. Consequently the CDF faces similar challenges and obstacles as national forest programmes in the 46 countries where it is currently being applied. One of the major obstacles to its effectiveness is its relative isolation from sectoral and inter-sectoral work and the rather weak initiation of cross-sectoral work on environment, rural development and trade. Additionally, internally consistent linkages of sectors to macro-economic policy frameworks through the process of CDF still remains weak. The fact

that CDFs are often established as a process parallel to many others, particularly the sectoral ones, without enhancing their interaction, clearly shows that institutional and human competence, capacity and a common understanding of the usefulness and strategic applicability of CDF is far from a reality. This leaves room for speculations as to whether or to what extent governments and civil society understand and/or politically support the concept and approach of sustainable development as identified in UNCED in 1992.

As much as we have learned to politically accept the need for an overarching policy framework for sustainable development, the question remains – what are the benefits for the forestry sector when interacting with such a process? Positioning forests in the overarching agenda of sustainable development and getting forests to be evaluated in a CDF process would certainly support the building of political will of the respective government to address the management, conservation and sustainable development of their forests as a higher national priority. However, the contribution of forests to sustainable development needs to be known. Can we really make a case beyond timber in concrete terms? Can we argue that the values of forest goods and services – be they market or non-market values – not only contribute to the economic development, but also to the overall societal progress? Since the forest sector has been quite defensive in making its case in the past, the CDF or sustainable development strategies offer an opportunity to be more pro-active in this regard and to communicate changes during the process to a wider audience.

By interacting with CDF processes or sustainable development strategies, the forestry sector could enable players in national forest programmes to make recommendations in support of the forest sector to other sectors through policy guidance delivered through the CDF process. Such interaction would facilitate inter-sectoral linkages, communication and cooperation, and reduce adverse measures with negative impacts on forests. Analysis and further research on experiences in interventions through such interaction are urgently needed to assist governmental institutions and civil society in determining how detailed such guidance of CDFs should be and what institutional arrangements and participatory mechanisms should be in place to yield successful results.

In Vietnam, the Programme on Forests (PROFOR) has supported a “Forest Partnership Agreement” between national institutions, bilateral donor agencies, the World Bank and the Asian Development Bank. The agreement not only outlines the cooperation and participation mechanisms, but also identifies patterns of inter-sectoral and cross-sectoral interactions. Even though the agreement is quite basic, it facilitates further institutional strengthening and makes the process of the national forest programme foreseeable and more reliable in its overall political and institutional context. This again supports the notion of national ownership and the basic concept that international institutions are only supporting a national process, not driving it.

Moving forward in interacting with a CDF process or a sustainable development strategy does not only entail the identification of the contribution of forests to overall development and the improvement of institutional settings and participation. Since a CDF is determined by macro-economic development and social progress, national forest programmes should also address strategic changes in forest management and in the establishment of forest resources. Support to community forestry or joint forest management, support to the establishment of local industries for forest products, as well as tree species selection based on analysis of local, regional and international markets are only a few examples. A CDF process could effectively assist in addressing these issues from a broader perspective.

What seems crucial is the political and strategic potential that a CDF offers to a national forest programmes with regard to the further work on pressing and emerging issues within the sector itself. The players in the forest sector presently do not achieve the objectives of SFM and it seems very beneficial to use the momentum of a CDF or sustainable development process to gain ground in political, strategic and financial terms as to achieve the goal of

identifying additional values of forest goods and services and to support their commodatisation. For the case of the developing countries and in particular those with a high forest cover, financial support is often only granted for biodiversity conservation and other donor priorities which cause an imbalance in investment which is aggravated by the dearth of domestic public and private investments in production forestry.

Forestry has proven to be complex in nature, and its integration into cross-sectoral approaches like rural development or sustainable livelihoods does not get us around solving the detailed problems inherent in sustainable forest development. The discrimination of the forest sector in overarching agendas is, however, only a consequence of our impediments to looking and working beyond the boundaries of the sector itself. Governments have to increasingly deal with broader agendas, while their institutional landscape remains largely sectoral. Line ministries like those in charge of forests find it very difficult to contribute to the discussion on sustainable development, macro-economic development and structural adjustment operations. The defensive attitude of line ministries stems from a lack of meaningful participation in overarching agendas so as to increase ownership and interest in processes other than those in forestry.

National forest programmes (or other policy processes in forestry) offer a good opportunity to jointly tackle this problem. A recent analysis of forest law in Africa, conducted by the German Agency for Technical Cooperation (GTZ) outlines quite clearly that most forest laws at least mentions the interrelationship between the forest sector and other sectors of the respective national economy. However, only a few cases were found in which more detailed regulations, ordinances or by-laws give guidance to practitioners. It is encouraging that the working hypothesis of the analysis that planning and implementation is undertaken " typically as the result of a narrow, sector-based perspective" could not be fully confirmed.

For national forest programme processes, it is crucial to find a point of entry and patterns of collaboration in the framework of sustainable development or comprehensive development frameworks, including the structural adjustment of national economies. Looking at specialised policy processes like the conservation and sustainable use of forest biodiversity, however, we have a good idea how to practically contribute to biodiversity strategies, including the question how to deal with the eco-system approach of the CBD in the context of SFM. In cooperation with the FCCC and carbon sequestration, we are prepared to look beyond the number of tons of CO_2 sequestered in a given sink. Our continuous conflicts with agricultural development (and agricultural expansion for that matter) has left us with a broad range of experience in confrontation and problem solving mechanisms.

What we lack, is sufficient analysis and synthesis of experiences in forest sector work with overarching, cross-sectoral agendas and processes. Even when it comes to inter-sectoral work on a bilateral basis with other sectors or when it comes to cross-sectoral work with agendas like the environment and rural development, we still lack knowledge and expertise. The latest evaluation on the comprehensive development frameworks by the World Bank outlines very clearly that there are excellent intentions to fulfil the requirements, but that institutional settings in countries and the competence of institutions in charge limit the necessary achievements. The World Bank also talks about cultural and behavioral change of its personnel as to increase the recognition of the CDF principles. A new "staff learning framework" has been put in place to foster "concrete action learning support to country teams" and World Bank country directors.

The latest draw-back in CDF implementation by the emerging and rather fashionable importance of the Poverty Reduction Strategy Papers (PRSP) should not irritate us. The PRSPs are becoming planning documents outlining national priorities like education, health, transport and agriculture. Forests play again a minor role. In many cases of PRSP (not in all), it is the well-known traditional routine avoiding long-term societal processes and showing rapid achievements through the finalisation of a planning document. The CDF or sustainable

development strategies to which PRSP should effectively contribute offer a good conceptional framework to eventually overcome such problems by a strong process orientation. Once again, for developing countries, the call for increased national ownership, leadership and responsibility is key for correcting non-consistent national processes in the cross-sectoral sense. Our capacity building support needs to be based on experiences and guidance from those who know better. This includes the experiences from the North, for example from the Pan-European Process.

We have argued enough. We were not fully convincing in the past, but we seem to be on a good path. Research support and extensive analysis in the interaction between sustainable development and the management, conservation and sustainable development of all types of forests in urgently needed. Eventually, we will be able to position forests effectively in a broader political and strategic context by comprehensively answering the most basic question "Why should there be forests"?

Finland's National Forest Programme 2010 – a Policy Framework to Balance the Demands for Socio-Economic and Ecological Sustainability

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Abstract

Finland's National Forest Programme 2010 was approved by the Government in 1999. It is a strategy and an action programme for Finland's forest sector policy until 2010. Several mechanisms have been used in order to balance economic, ecological and social demands: open and participatory drafting process, two impact assessments, two Government decisions, creation of new representative National and Regional Forest Councils, establishment of cross-sectoral projects and exterior evaluation of the Programme.

Keywords: National forest programme, forest cluster, sustainable forestry

1. Finland's Forest Programmes

In the 1950s Finland received 80% of her export income from forest products. Annual harvest of timber approached and even exceeded the annual growth of 55 million m^3 (Figure 1). Because of forest sector's crucial importance for country's economy, authorities got alarmed and asked eminent researchers to prepare a plan in order to increase forest growth. In 1963–1969 two national programmes, MERA I and MERA II, were approved in order to increase financing for forest regeneration, tending of seedling stands, forest fertilisation, forest drainage and construction of forest roads. With the aid of these programmes annual total financing of silvicultural and forest improvement works doubled from 100 million EUR in 1963 to 200 million EUR in 1971 (in 2000 money value)(Figure 2). State loans and grants covered about 50% of annual investments of non-industrial private forest owners.

In 1973–1975 there was a MERA III-programme, this time with the participation of the World Bank, also. Annual silvicultural and forest improvement investments increased to 265

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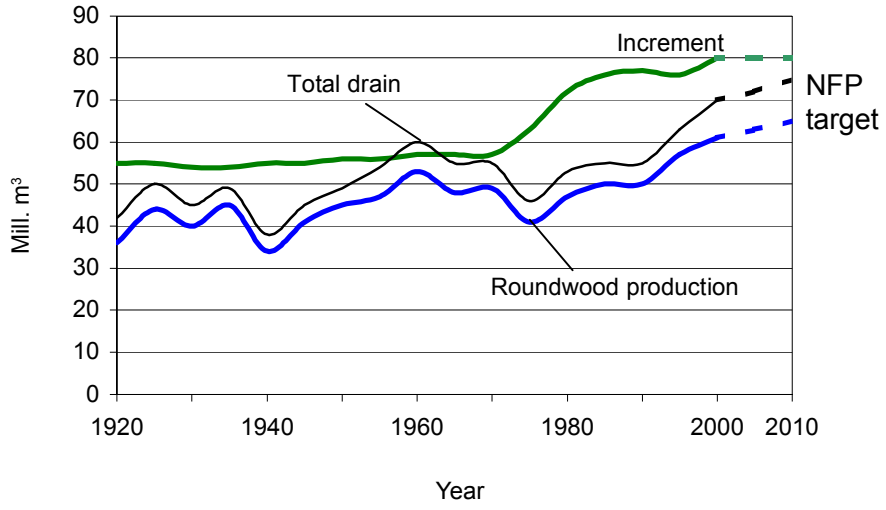

Figure 1. Annual harvest, total drain and increment of Finland's forests 1920–2001.

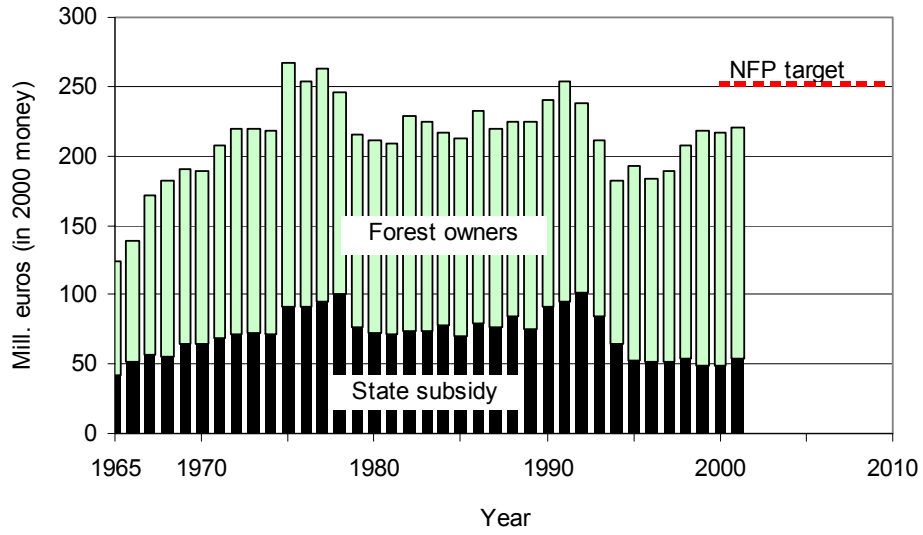

Figure 2. Annual total costs of silviculture and forest improvement in Finland 1965–2001.

million EUR, which has remained the all-time record in silvicultural and basic improvement investments in Finland.

In order to support economic growth, a national Forest 2000-programme was drafted in 1983–1985 and it proposed to increase annual roundwood harvesting from the level of 40 million m^3 to 61 million m^3 by the year 2000. For the first time, multiple-use of forests was, also, taken into account, which reduced slightly the allowable cut.

In 1990–1992 a new national committee revised the Forest 2000-programme. It reaffirmed the harvesting objective and gave attention to biodiversity, air pollution and climate change as new topics.

Two conflicting trends emerged in the 1990s. Due to new investments of forest industry companies the annual roundwood removals increased to 50–55 million m^3, but because of economic recession the annual silvicultural and forest improvement investments, on the contrary, decreased from 250 to 180 million EUR. In 1998 the Government decided to draft a new forest programme, in order to guarantee the sustainability of timber production but also all other important values of the forests. The drafting process followed the general recommendations of NFP's, agreed in Rio 1992 and in the following IPF and IFF processes. In March 1999 the Government approved Finland's National Forest Programme 2010 (NFP 2010) as Finland's forest strategy for the coming years and the implementation of the programme began in 2000.

2. Forest cluster – a cross-sectoral concept

In the beginning of the NFP-process the ministerial group decided the vision of NFP 2010 – the desired state of Finland's forests and forestry in the year 2010. The vision "Sustainable welfare courtesy of diverse forests" goes beyond traditional sustainable forestry including as new elements top-class forest sector know-how and active participation in the international forest policy.

Finland's NFP 2010 uses the concept "forest cluster" in order to describe the interrelationships between forestry, forest industries and other related industries and activities. By forest cluster we understand the network of industries and activities around forestry and forest industries like pulp and paper machinery, chemical industries, automation and information technology, energy production, forest machines, forestry and forest industry consulting, research and education, wood construction, packaging, printing and publishing.

Finnish forest industry companies have been successful on the global scene and three of them – Stora Enso, UPM-Kymmene and M-real – are nowadays among the biggest companies in Europe and the world. There are no simple explanations for this success, but many researchers think that the existence of a strong forest cluster has improved the quality and competitiveness of all partners.

Strong cluster has been good for Finland's forestry, too. Harvesting volume compared to growth as well as pulpwood prices have been among the highest in Europe, and, in consequence, forestry has been more profitable than in many other countries. Profitability has been the necessary basis for forest owners' investments in silviculture and forest improvement.

From the cluster view it follows that NFP 2010 includes many recommendations in order to guarantee good conditions for the industry. Attention is given to the development of traffic infrastructure, to sufficient and guaranteed supply of electrical power, to increasing the value added of wood products industries and to the networking of small and medium size enterprises. Research and education are seen as major tools for developing forest cluster know-how.

Cluster view implies, also, that many ministries besides the Ministry of Agriculture and Forestry have been involved in the drafting and implementation of the NFP 2010, just to mention Ministries of Interior, Finance, Transport and Communications, Trade and Industry, Education, Social Affairs, Labour, and the Environment. NFP 2010 was drafted in accordance with other Government programmes and policies, for example those of sustainable development, business and trade, energy, road network, water protection and biodiversity.

3. Economic sustainability

NFP 2010 was prepared in an iterative process where different aspects of sustainability were considered step-by-step. The basic need was to seek for further possibilities of economic growth based on forest resources. An evaluation was made that there were growing markets for forest industry products in Europe and in the world, and that the industries could increase their annual consumption of domestic roundwood from 55 to 65 million m^3 by 2010, with the condition that investment conditions in Finland remain favourable.

The sustainability of annual roundwood production of 63–68 million m^3 was then evaluated. Scenario calculations showed that both the volume of timber and annual increment in Finland's forests would continue to increase with this volume of harvesting, supposing sufficient investments in silviculture. Sufficient level of silvicultural and basic improvement investments was estimated to be about 250 million EUR/year, as it was in the beginning of the 1990s before the economic recession.

Calculations showed that an increase in silvicultural and basic improvement investments would pay a good return to forest owners by 2010: the total annual stumpage earnings would rise by 100–250 million EUR and the average net income per hectare and per year would remain at the level of 100 EUR/ha. Variations in net income are big between South and North Finland due to climate and soil conditions: in south the net income can be over 200 EUR/ha/y whereas in Lapland the net income may be as low as 20 EUR/ha/y.

Since the 1920s forest improvement investments have been in Finland a co-operative effort of family forest owners and the State. State has offered incentives, grants and loans, for long term investments like forest road building, forest drainage and improvement of young stands, with an average share of about 25% of the total investment. This tradition was to be continued and it was calculated that an increase in the State budget of about 20 million EUR/year for incentives and forestry promotion would be profitable for the State. Increased forest sector activity would by 2010, for example, increase annual balance of payments by 0.8 –1.5 billion EUR and annual export earnings by 2–3 billion EUR.

This kind of reasoning convinced forest industry companies, forest owners and politicians that the draft programme was economically sustainable and profitable for the forest sector and the State.

4. Social sustainability

Concerning social sustainability, the planned increase of forestry and forest industry production promised new employment opportunities and income especially to the rural regions. Employment estimates were not easy to make. Increased silvicultural activities and timber harvesting would create new jobs, but at the same time the development of productivity would decrease the number of jobs.

By 2010 the positive employment effect of the NFP 2010 was calculated to be 10,000–15,000 jobs in forestry and forest industries, but due to productivity increase the total employment in the sector would, anyhow, decrease from 95,000 to 80,000 man-years. It was essential, however, that without the NFP 2010 the employment decrease would be much bigger.

It was essential, also, that large part of employment and income benefits would go to rural regions, since rural decline has been one of the major social problems during many decades.

Public participation strengthens social sustainability by bringing social values into planning processes. It was used in the preparation of NFP 2010 by large stakeholder representation in the working groups, by national and regional public forums and meetings and by open internet pages. All interested parties had an opportunity to express their views during the drafting process.

Social sustainability is, also, enhanced by Finland's forest ownership structure. Private families own 60% of the forests and it has been estimated that about 900,000 Finns, almost 20% of the total population, belong to a forest-owning family. This large share assures that the whole spectrum of changing social values is reflected in forest management decisions.

Finland's forests have been traditionally used according to the multiple-use principle. Due to common right of access there are extensive possibilities for outdoor recreation in all, even privately owned forests. People generally understand the economic importance of forests and do not feel major conflicts between recreational use and forestry. Multiple-use is important, also, for forest owners themselves and therefore landscape, hunting and other recreational aspects are given attention in forest planning and management.

Social sustainability is a more difficult concept to define and measure than economic sustainability. Social, cultural and spiritual sustainability were included in the Rio Forest Principles, but we still lack generally agreed definitions. There are only few quantitative measures for social sustainability and therefore we have to rely on qualitative descriptions, which are in many ways problematic. It is very difficult to compare the social sustainability of forestry of one country to another as long as there are no internationally comparable indexes.

With these reservations in mind it is generally felt, however, that social sustainability is not a major issue in the NFP 2010 and that most social and cultural values of forests can be taken care of as an integral part of forest planning and management.

5. Ecological sustainability

Ecological sustainability, the conservation of species and habitats in the forests, is an important issue of the NFP 2010 and there are conflicting viewpoints about it.

Comparing the share of strictly protected forests, Finland represents the top in Europe by 6.6% when the European average is around 1%. Finland's managed forests have, also, many benefits for biodiversity, since only domestic tree species are used in forest regeneration and about half of the regeneration is carried out naturally. Regeneration after final harvesting is assured by legislation and by competent owners and organisations. In the 1990s biodiversity has received increasing attention in forest management, based on renewed legislation, research, education and recommendations. In 1994 the Ministry of Agriculture and Forestry and the Ministry of the Environment approved an extensive Environmental Programme for Forestry.

As in most European countries, the annual increment and the volume of the growing stock are increasing, and the forest area is, also, expanding due to decreasing agriculture. The health of forests has, also, improved due to reduced air pollution since the 1980s.

On the other hand, forest conservation areas are mainly in the north and in South Finland the share of strictly protected forests is only about 1–2%. Many forest ecology researchers

and environmental NGOs think that 5 or even 10% of forests should be strictly protected also in the south in order to guarantee the existence of endangered species.

About 40% of Finland's endangered species live in forest habitats and therefore special measures are needed in forestry in order to take care of their environments. Most important structural elements needed are decaying trees, burnt wood and large aspen trees. Rare ecosystems that should be given special attention are herb-rich groves and spruce mires.

Based on the recommendation of the NFP 2010 the Government established a national committee for biodiversity protection in Southern Finland. In its report in June 2002 the committee recommends that until 2007 biodiversity should be promoted mainly on voluntary bases and with State incentives, after which the possible need for the enlargement of strictly protected forests will be evaluated and decided.

6. Balancing the demands for sustainability

In the NFP 2010 process there have been several ways with which the proper balance between economic, ecological and social sustainability has been sought for.

The drafting process was open and participatory. All different interests had an opportunity to express themselves and the working groups preparing the programme included representatives of major public and private stakeholders. Therefore the process itself included a structure to balance differing needs and demands.

Preliminary assessment of economic, ecological and social effects was made as part of the drafting the process. After the NFP 2010 was approved in March 1999, an independent expert group was asked to prepare a more detailed impact assessment. In their report they stressed the uncertainty of certain economic benefits, criticized the employment estimates as too optimistic and emphasised some ecological risks of timber harvesting, forest road construction and drainage.

The Government made the political balancing twice. In March 1999 it approved the NFP 2010, and in November 1999 after the external impact assessment it confirmed the approval and added that the programme should be implemented as a balanced entity.

The implementation of the NFP 2010 includes several balancing structures. A new institution in the Finnish forest policy, the Forest Council, was established in 1999 in order to follow-up and develop the NFP 2010. It is chaired by the Minister of Agriculture and Forestry, and all major economic, ecological and social interests are represented, much in the same manner as in the Steering Group during the drafting process. The Forest Council discusses all relevant issues of the NFP 2010 and approves the follow-up reports.

At the regional level there is a corresponding new structure, Regional Forest Council, with a similar task of following and developing the Regional Forest Programme. There programmes – there are 13 of them – are coordinated with the NFP 2010 and they assure that sustainable forestry is carried out as a balanced entity also at the regional level.

It is not an easy task follow the implementation of the whole NFP 2010 because of its cross-sectoral character. Therefore 32 special projects were established in order to implement major tasks. Private sector has the responsibility of eight projects and public sector of 24 projects. Many projects include a balanced approach to economic, ecological and social sustainability.

NFP 2010 is, also, subject to exterior evaluations. The first such evaluation is under way and should be finished in September 2002. Among other things the experts should express their view about how well balanced the implementation of the first three years of the NFP 2010 has been.

Experiences of the NFP 2010 are so far mainly positive. New structures for the implementation and follow-up have been beneficial for the cross-sectoral aspects of sustainable forestry as well as for the balancing of economic, ecological and social demands. Large scope and participatory preparation and follow-up have gained the NFP 2010 wide support among politicians and forest sector stakeholders.

The management of such a wide programme is a challenge. Traditional policy structures are based on sectoral responsibilities; therefore cross-sectoral projects and follow-up are a laborious task and need extra efforts from all ministries and administrations. Public participation is, also, a new way of working needing both resources and learning. Benefits of the NFP 2010 have so far been big enough for the administration and the private sector to invest resources into its implementation.

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Intersectoral Linkages and EU's Forestry Strategy

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The Council Resolution of the 15 December 1998 on a forestry strategy for the European Union identifies as overall principles for action sustainable forest management and the multifunctional role of forests. This common strategy encompasses both the forest programmes of the Member States and a number of forest-related actions at EU level.

The sectoral forestry policies, which constitute the prevailing part of this strategy, are handled by the Member States. Such a decentralised approach, which is in line with the principle of subsidiarity, is allowing considering the wide range of different natural, social, economic and cultural conditions of the forests in the Community in the best manner.

There is also an increasingly complex array of legislation and support measures out of several Community policies that directly or indirectly address sustainable forest development and sustainable forest resources utilisation in the Union. This refers in particular to horizontal policies in areas such as land-use policies, regional development and environmental protection.

As a matter of a fact, all Community actions that concern forestry, in one way or another, are deriving from broader intersectoral issues in the framework of existing Community policies, such as Internal Market, Trade and Competition, CAP and Rural Development, Environment, Enlargement, Research, Regional Policy, Development Policy, Energy etc.

The impact of such EU actions on the forest policies of the Member States can be characterised – either by a legal framework, such as for example the competition rules, internal market or environmental policy directives – or by providing financial support to regional or national policies for facilitating the implementation by the Member States of defined Community objectives inherent to such respective EU policies.

In policy making, our decision-makers are increasingly using integrated and cross-sectoral approaches and general horizontal key issues – such as for example the overall sustainable development of our society – which is disaggregating the boundaries between traditional sectoral policies and which leads to growing overlapping responsibilities inside different policy sectors for the formulation and implementation of relevant policy objectives.

A good example of such an approach on the EU level is the Commission's proposal for the 6th Research Framework Programme (2002–2006). This proposal is a deliberate break with past EU research programmes with regard to scope and instruments to be used in its implementation. The aim is to achieve greater focus on questions of European importance and

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a better integration of research efforts on the basis of an improved partnership between the various actors in the European research area. Priority thematic areas, such as genomics and biotechnology for health, food quality and safety, sustainable development, global change and ecosystems, clearly demonstrate the change from traditional sectoral research areas to more global thematic approaches of interest for our society. Forestry research is no more identified as a specific sector of interest. Forestry research activities, however, may be integrated in a number of such more broad thematic fields of research.

Cross-sectoral issues in areas such as environmental protection, nature and landscape conservation, land-use planning and sustainable development are dominating as well the discussions and negotiations on forest resources at the UN level and this in different processes such as UNCED, Convention on Biodiversity (CBD), Kyoto Protocol or the Convention on Desertification.

The 10 years of work in the framework of UNCED – first by the Intergovernmental Panel on Forests and then by the Intergovernmental Forum on Forests and now under the United Nations Forum on Forests – has resulted until now with hundreds of proposals of action for which the European foresters have sometimes failed to visualise and communicate enough to the large public their concrete measures and policy framework they have set up in order to promote sustainable development.

European foresters should in this respect reinforce their engagement to progress in UNFF and should pay attention that this important institutional focus for international forest issues is not risking in the future to be more and more undermined by other more horizontal ongoing initiatives, such as for instance the draft work programme on Forest Biological Diversity in the framework of the CBD, which will be presented in the COP6 meeting in The Hague from 7 to19 April 2002.

The emerging treatment of important and more comprehensive society issues in relation to the sustainable utilisation of our natural resources requires more efficient linkages and interplay between an increasing number of policy areas. Moreover the international commitments, EU policy issues, national and sub-national forest policies of the Member States and the increasing importance of regional and local actors are all likely to play an essential role in shaping the sustainable development and management of our forest resources in Europe.

Concerning the Community actions interacting with the forestry sector in the Member States (and it is not my intention here to touch to development policy or international forest policy), I briefly want to concentrate on a few examples in areas such as internal market, environment as well as rural development which are illustrating the inter-sectoral linkages of the EU forestry strategy.

Internal market

Forestry is a major economic sector within the Union, as the Community is the second largest paper and sawn-wood producer in the world and the third largest exporter of forest products. As wood is an industrial product and thereby subject to the general competition rules in the framework of the internal market, it is useful to comment briefly the current evolutions of this sector and its perspectives.

Forest enterprises are operating in an increasingly competitive climate on European and international level, whereby it is essential to differentiate between two main types of competitors:

- competition within the same sector in different regions of the world, and
- competition with other industrial sectors, either within EU or elsewhere using non-wooden raw materials for the same purposes.

Parts of the European forest sector are trying to increase their competitiveness, for example by:

- undergoing a process of concentration, or by
- locating their operations in a more optimal way in relation to their markets and sources inputs in order to reduce costs, and by
- introducing innovations in their production and marketing technologies.

The existing open-market and competition policy at EU level doesn't provide, in my view, a lot of possibilities for specific, sector targeted, economic policy initiatives. With the introduction of a single currency within the Union, the respect of the public budgetary debt ceilings and the consideration of the existing competition rules, any additional room for sectoral economic support initiatives of the Member States and the Community is rather limited.

The main potential for supporting the economic dimension of the European forest sector is, besides the EU training and education programmes, the development and application of technological innovations by increasing research activities and efforts at Community level. The development of new forest products and the improvement of existing ones, the exploration of new markets and new applications for forest products are the essential challenges for the European R&D institutes with the aim to ensure that our forest industries maintain themselves also in the future competitive on the world market .

Environment

A growing prominence of environmental thematic issues has taken place on forest policy making during the last twenty years. Given the time constraints for making this presentation, I limit myself to a rather important discussion item, biodiversity and nature conservation in the framework of the European territory .

If you consider forest biodiversity and nature conservation on the European level, it is quite useful to keep in mind some fundamental premises which are specific to European natural and historic conditions:

- it is a fact that forests are a major contributor to the terrestrial biodiversity in the world, and even in Europe, where the human impact on forest ecosystems has been important in shaping the landscape at least for the past 4000–5000 years, forests are still ecologically far less disturbed than the areas of other land uses;
- forest biodiversity on the European level means dealing with great regional and local diversity in biological terms as well as in socio-economic terms;
- ecological sciences are not in a position to decide why and how much species diversity should be preserved; they are investigating the functioning and further evolution of forest ecosystems; decisions however, on how much forest protection or close to nature silviculture we need, are rather to be sought from a moral political and social point of view;
- there are hardly any old growth forests remaining in Europe (forests which has been continuously forested since the end of the ice age or since the Tertiary period); some estimates of the TBRFA report state that there are nearly 3 million ha of somewhat natural forests in protected areas in Europe;

- only an integrated approach in investigating the complex interdependencies between socio-economic development and natural component will allow a proper understanding of the processes underlying the changes of biodiversity; the history of forests, landscape, people and their interactions is rich and complex in Europe and the trends for instance in agriculture, industrialisation and demographic processes have been different in different countries;

In relation to forestry, you may distinguish on the implementation side between two main types of biodiversity and nature conservation measures, the establishment of protected areas and the promotion of more "nature oriented forest management".

The European nature conservation network NATURA 2000 consisting of "special protection areas" (Habitat Directive 92/43/EEC) and "special areas of conservation" (Birds Directive 79/409/EEC) has important political implications for the forest policies of the Member States as protected forest habitats are essential parts of the conservation sites proposed by the Member States. The nature conservation objectives are in most of cases not the establishment of unexploited nature reserves.

But as the designation of areas is considering very often conservation sites where human activities have always existed and may even have contributed to the creation of certain habitats of conservation value, the conservation objectives pursue much more that forest management activities in such areas should not lead to a deterioration of the conservation value and contribute to maintain or improve the conservation status of the site.

Besides traditional obstacles, such as delays occurred, non-respect of certain legal constraints, for the implementation of these directives, the main difficulties in implementing NATURA 2000 can be summarised as follows:

- some Member States favoured a more top down approach and proposed a number of protected sites which were designated on a scientific basis (bio-geographical regions, assessment of existing natural heritage...) but without paying enough attention to involve different local and regional stakeholders in this designation process; a pre-condition for success is however to use a participatory and transparent approach right from the start and to include forest owners and other regional actors during the whole decision process as the conservation of biodiversity often depends on the maintenance of human activities, notably if non-climax vegetation habitats are to be maintained;
- an adequate a priori approach to the financial and economic implications of implementing NATURA 2000 has not been set up, neither at the level of the Member States, neither at Community level for the designated forest areas.

The preservation of biodiversity not only requires the establishment of a functional ecological network of protected areas but necessitates also measures for conservation of biodiversity covering the whole territory. The Commission proposal concerning a biodiversity action plan for the conservation of natural resources identifies the promotion of nature oriented forest management as an most effective tool to ensure the conservation and sustainable use of biodiversity in European forests.

Nature oriented forest management means in fact the use of specific silvicultural techniques which are aiming to imitate and better mimic natural processes. Such an approach is including silviculture such as replacing even-aged stands by uneven-aged stands, favouring selective harvesting systems and eliminating or at least reducing clear cuttings, planting endemic species and working, where possible with natural regeneration, increasing the rate of dead and decaying wood, converting monocultural plantations in mixed stands of broadleaved and coniferous species, increasing the rotation lengths of stands to enhance their environmental and social functions, eliminating or at least limiting the use of drainage, the input of fertilisers and pesticides…

Such initiatives clearly depend on an integrated planning and management approach on local and regional level which should be ensured by the implementation of the forest programmes of the Member States. In my view, a specific action plan of the Community is in this respect not needed and not in line with the respect of the principle of subsidiarity. The only role, the Union can play, is the promotion of such silvicultural techniques by co-funding these kind of measures undertaken by the Member States in the framework of their regional development programmes. The present rural development framework already gives this opportunity.

Rural development

The Community policy for rural areas is moving more and more away from the primacy of agricultural production and is embracing, both a broader concept of rural development in adopting a more integrated approach and a more accentuated sense of the multifunctional role of agriculture within rural areas. It is quite evident that forestry, as an essential multi-purpose land use, as an significant employment sector and as an often considerable indirect economic component of rural economies, is brought into such an integrated rural policy domain.

The relative importance of agriculture, forestry and other forms of land use varies greatly from region to region, depending on geographical, climatic conditions, as well as historical, social and economic conditions which is pleading for an great flexibility in drawing up such a policy. The practical difficulties in implementing the reform of the CAP have hereby proved to be substantial and the rural development policy is trying hard in finding ways to avoid weakening the social fabric in rural areas and to maintain employment and living standards.

The overall principles of the EU Forestry Strategy, e.g. "multifunctionality" and "sustainability" are reflected in rural development by bringing together economic, social and environmental objectives into a coherent package of schemes with the aim to facilitate and support the implementation of the forest programmes of the Member States in their regions. The forestry measures of the rural development programmes should at the same time contribute to more global issues such as sustainable development, climate change and biodiversity.

For the Member States and the Community, the Rural Development Regulation (EC) n° 1257/99 thus emerges as an important vehicle for implementing the EU Forestry Strategy. In broad terms, the integration of forestry aspects in the Rural Development Policy follows three pathways, in particular for private owned and municipality forests:

- the afforestation of agricultural land (article 31),
- the quality improvement of multifunctional forestry (article 30), and
- the maintenance and improvement of the protection values of forest stands (article 32).

The integrated rural development approach is implying a greater emphasis on inter-linkages with other policy areas and land uses as well as on the socio-economic and ecological dimensions in line with the following principles:

- interdependencies of policies, – a need to combine different interests and to achieve economic, social and environmental objectives,
- regional diversity, – an acknowledgement of locally distinctive characteristics and priorities, problems and opportunities,
- bottom up approach, – an emphasis on active involvement and participation of local communities and self-help rather than reliance on external action.

The forestry measures of the Rural Development Policy are not meant to substitute the legal and political framework of the forestry policies in the Member States, neither to establish a common forestry policy through the backdoor. The rural development forestry measures are aimed to facilitate and support the implementation of the national or sub-national forest programmes of the Member States in areas where the Member States are identifying an synergy between the forestry incentives inside their National Forest Programmes and the objectives of the integrated rural development policy as laid down in the Council Regulation.

The forestry measures of the rural development programmes are sometimes criticised that in some cases they could be market distorting or, as you may read in recent publications from environmental NGOs, that there may be "perverse subsidies". It is impossible to deal with these important questions in the framework of this presentation, but if there are such type of problems, it should be remembered that the Community support inside the rural development programmes is based on national or regional state aids of the Member States, and that consequently such problems need to be analysed – by the Commission – in the broader context of state aid regimes applied by the Member States and not only in the framework of specific forestry measures that are implemented in the rural development programmes.

There are certainly a number of possibilities to improve the contribution of forestry to rural development and to establish greater coherence of forest policies and programmes and activities in other sectors, such as agriculture, environment, energy and industry in taking advantage of complementarities and synergies.

A major challenge surely is to explore ways and means, on regional, national and Community level, to maintain and develop in rural areas a sound political and economic framework enabling and motivating especially owners of small and fragmented forest areas to practice in an economic viable way sustainable forest management and to make long term investment in forestry.

The setting up of forest management plans on an operational level as laid down in the Lisbon Resolutions of the Third Ministerial Conference on the Protection of Forests in Europe, as a pre-condition for Community co-funding, would probably contribute to a greater impact of the Community rural development measures with the overall objective of sustainable management of our natural resources.

There are quite a number of other thematic issues related to forestry, such as climate change, forest certification, trade and environment, development policy, Johannesburg Conference etc. that could have been developed in this presentation. I suggest that we take advantage of further meetings to discuss these important items more in detail.

I like to close this presentation with some comments that are related to my experiences in dealing with forestry questions in the rural development programmes.

The major challenge of forest policies for the near future in most of the European countries,- perhaps with the exception of Sweden and Finland where the forest sector has an considerable economic importance on a national scale – will be to find the right balance between the rights and obligations of landowners and the increasing social demands from society to forests.

Our society is developing more and more contrasting views on the multiple functions of forests. The urbanised population, which is about 80% of the total population, at the same time that it is advocating a greater use of renewable raw materials, is considering forests mainly as space for leisure and recreation activities as well as manifestations of nature which are supposed to be largely free from human intervention, as places of contemplative reflection and of personal freedom.

Such expectations from the society need to be weighed carefully against constitutional rights of ownership, and the responsibilities of landowners to choose the management options which fits them best. Already today, a lot of small forest owners, which are predominant in the Union, are frequently not in a position to support the incremental costs of such external

benefits without compensation with the result that they are simply no more interested in managing their forests in a sustainable manner.

Only if we are able to set up an effective partnership between society and the forest sector which is recognising the role of forests as a key renewable resource and which endorses the responsibility of forest policies in implementing the integration of all forest functions at the appropriate local and regional level, we will be able to meet global concerns such as sustainable development effectively. Global problems don't necessarily mean global or centralised recommendations and solution proposals for solving such problems. We are increasingly well positioned to use global advances in science and technology such as GIS or GPS, to develop more and better defined strategies for location specific forestry.

The evolving political framework of forest resources management – both in its multisectoral dimensions as well as with respect to different political levels – requires new strategies on the part of landowners, a commitment to effective, efficient and transparent process steering on the part of public institutions, and a more collaborative decision-making involving the main users as well as other stakeholders of the civil society.

In line with the Council Resolution on the EU Forestry Strategy, the Commission is invited to submit an implementation report of this strategy in 2003. The issues that were discussed in the Savonlinna meeting, such as cross-sectoral coordination, participatory approach, inter-sectoral multilevel coordination will be important elements in the context of the setting up of national or sub-national forest programmes in the Member States and by that essential questions to be dealt within the overall strategy.

It is in my view obvious that the linkages and interplay between an increasing number of policy areas, the superposition of international commitments, Community thematic issues and national political actors – and the increasing importance of sub-national and local entities – are all likely to play a powerful role in shaping the sustainable development of the forest sector in the coming years.

The Pan-European Approach to NFPs
Current State of MCPFE Work

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Abstract

The MCPFE has worked on national forest programmes (NFPs) within the frame of the MCPFE Work Programme. Two workshops and a preparatory group have resulted in a pan-European approach towards NFPs. This pan-European approach includes the scope of NFPs, the relation of NFPs to criteria and indicators for sustainable forest management (SFM) and a description of the principles and elements of NFPs in Europe.

1. Background

The Ministerial Conference on the Protection of Forests in Europe (MCPFE) as forum for deliberations on the most important pan-European forest policy issues has worked on national forest programmes (NFPs) since its Third Ministerial Conference, convened in Lisbon, Portugal, in 1998. In the General Declaration of the Lisbon Conference NFPs were considered as an important policy tool for sustainable forest management.

Consequently, the MCPFE tackled this issue in its Work Programme in order to develop a common understanding on NFPs in the pan-European context. National experiences as well as results of scientific work carried out e.g. by COST Action E19 "National Forest Programmes in a European Context" contributed to the MCPFE discussion.

The MCPFE's work on NFPs is based on the outcomes of the Intergovernmental Panel on Forests (IPF), the Intergovernmental Forum on Forests (IFF) and the United Nations Forum on Forests (UNFF). In the latter NFPs constitute a common item of the multi-year programme of work. The MCPFE's efforts on NFPs are also relevant with regard to the expanded programme of work on forest biological diversity of the Convention on Biological Diversity (CBD).

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Furthermore, the concept of NFPs is also anchored in forest-related legislation of the European Community, including the Council Regulation on support for rural development and the Council Resolution on a Forestry Strategy for the European Union[1].

In general the MCPFE's work on NFPs therefore aims contribute to the international discussion[2] and to especially give a signal to other regions in the world.

2. Steps within MCPFE on NFPs

The steps that were taken by the MCPFE during the last three years included two workshops in which all MCPFE participants were invited to present their views on NFPs in the pan-European context.

- At the "Workshop on the Role of National Forest Programmes in the Pan-European Context" (13–14 September 1999 in Tulln, Austria) a basic understanding was achieved on the concept and characteristics of NFPs and their significance in the pan-European context. Further action at the pan-European level was encouraged.
- The "Second MCPFE Workshop on National Forest Programmes" (2–3 July 2001 in Lillehammer, Norway) confirmed the relevance of the issue NFPs for the 4th Ministerial Conference (28–30 April 2003 in Vienna) and further deliberated on elements and principles of NFPs in Europe. As an outcome of the discussion, a draft MCPFE Paper on National Forest Programmes was elaborated and subsequently commented by the MCPFE participants. Furthermore, the establishment of a preparatory group was recommended. The results of the Lillehammer workshop were confirmed by the MCPFE Expert Level Meeting in October 2001.

The proposed preparatory group on NFPs was convened on 24–26 April 2002 in Riga, Latvia. The aim of the MCPFE Preparatory Group on National Forest Programmes was to further develop the issue of national forest programmes for the 4th Ministerial Conference in Vienna.

The preparatory group continued to elaborate on a common pan-European approach to national forest programme, and reconsidered the structure of the related elements and principles of NFPs in Europe and further refined them. It also discussed the scope of a national forest programme, including the role of NFPs in the implementation of international commitments and the relation between NFPs and criteria and indicators for sustainable forest management.

In the following the pan-European approach to NFPs as agreed within the MCPFE so far is explained in more detail.

3. The pan-European approach to NFPs

3.1 General aspects

The discussions on a pan-European approach to NFPs within the MCPFE in general and especially the preparatory group held in Riga, Latvia, were based on the common understanding that this approach would build on the consensus on NFPs achieved in the

1 The "Forestry Strategy", inter alia, identifies as a substantial element "the implementation of international commitments, principles and recommendations through national or sub-national forest programmes or appropriate instruments developed by the Member States."

2 This includes also the exchange of information with PROFOR and the NFP facility.

Intergovernmental Panel on Forests (IPF) and its successor, the Intergovernmental Forum on Forests (IFF). This reaffirmed that all principles and elements as listed in the global deliberations are of importance for the pan-European discussion.

Within the MCPFE discussion on NFPs it is also understood that NFPsare one holistic process of policy planning, implementation, monitoring and evaluation at the national and/or sub-national level. However, within this overall NFP process, different targets with different timelines and actors have to be identified, thus initiating a number of sub-processes.

The preparatory group identified the need to further specify the objective of an NFP, i.e. to proceed towards sustainable forest management (SFM). Therefore the pan-European approach to NFPs contains a reference to Helsinki Resolution H1[3]. The contribution of NFPs to sustainable development was also re-emphasised. Furthermore the need for long-term high level political commitment to the NFP process was made explicit again.

3.2 The scope of NFPs

Concerning the thematic scope of NFPs the preparatory group concluded that the nfp process could make use of the six pan-European criteria for SFM as a framework which encompasses the three dimensions of sustainable development.

Taking this framework into account the policy issues would be addressed at the national and/or sub-national level in accordance with the elements and principles of the NFP process. The various levels from which the issues are derived in the NFP process range from local to global. Consequently, they can comprise local challenges just as well as international commitments.

Special importance is also derived through the connection with the implementation of all relevant forest-related international commitments in the national and/or sub-national context. These forest-related international commitments include the commitments made at the pan-European as well as at the global level. In this context particular emphasis can be given to the implementation of the IPF/IFF proposals for action and the outcomes of UNFF as well as to the forest-related conventions CBD, FCCC and CCD.

3.3 NFPs and criteria and indicators for SFM

With a view to the global deliberations on monitoring and assessment an explanation of the relation between NFPs and criteria and indicators (C&I) for sustainable forest management (SFM) is important. However, the generic role of C&I for SFM as a policy instrument is to periodically monitor, assess and report on the state of and progress towards SFM. C&I are not a feasible instrument for an evaluation of the nfp process and the related procedural and specific elements and principles as such.

Nevertheless, the preparatory group concluded that C&I can help to evaluate the output of an NFP with regard to its objective, i.e. SFM as defined in Helsinki Resolution H1. In this respect C&I for SFM can be considered as a component of the NFP process.

3 Resolution H1 contains the pan-European definition of SFM.

Table 1. Elements and principles of NFPs in Europe.

Key elements and principles: • Participation • Holistic and inter-sectoral approach • Iterative process with long-term commitment • Capacity building
Other elements and principles of relevance: • Consistency with national policies • Integration with national sustainable development strategies • Consistency with international commitments recognising synergies between international forest related initiatives and conventions • Institutional and policy reform • Ecosystem approach • Partnership for implementation • Raising awareness

3.4 Elements and principles of NFPs in Europe

As a basis for the description of elements and principles of NFPs in Europe it is important to re-emphasise that all general elements and principles of NFPs agreed upon at the global level by the Intergovernmental Panel on Forests are also important in Europe. Thus the MCPFE approach to NFPs provides a further specification of the global consensus on principles and elements of NFPs according to the priorities of the European region.

The basic structure of the principles and elements within the MCPFE process identify four "key elements and principles" as well as seven "other elements and principles of relevance" (Table 1).

4. Outlook

The pan-European approach to national forest programmes and the related elements and principles further shape the concept of NFPs in Europe. Concerning the next steps within the MCPFE process, the preparatory group recommended that European countries should be encouraged to develop NFPs in accordance with the common approach of the MCPFE to NFPs. Consequently this approach should serve as a component of the 4th Ministerial Conference on the Protection of Forests in Europe (Vienna 2003). The decisions of the MCPFE participants in the preparation of the Vienna Conference will determine how this approach will ultimately be included.

With regard to possible activities of the MCPFE on NFPs in the future, an exchange of experiences on NFP processes carried out by European countries including a number of possible mechanisms to support this exchange of experiences was recommended.

IPF/ IFF Proposals for Action and their Implementation by National Forest Programmes by National States and the European Community

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Abstract

The principal objective of this paper is to provide information on the nature of the IPF/IFF Proposals for Action, present a methodology that could be used for voluntary evaluation of the implementation of the IPF/IFF Proposals for Action and examine the role of national forest programmes. The methodology was elaborated in the context of two case studies – for the European Community and Austria. This paper shows how to assess the IPF/IFF Proposals for Action for national and international implementation. The methodology allows to examine the addressee(s) of the respective IPF/IFF Proposals for Action, the implementation priority, relevance and responsibility, policy areas, the implementation degree and implementation gaps. Some results for both case-studies will be outlined.

The paper shows furthermore what role national forest programmes might take in the implementation process of the IPF/IFF Proposals for Action. Throughout the text of many Proposals for Action, national forest programmes are addressed under various headings and in relation to many issues. They are viewed as one tool for implementing the Proposals for Action.

Keywords: Proposals for Action, national forest programmes, implementation, Austria, European Community

1. Introduction

During the years 1995–2000 two intergovernmental panels discussed forest-related aspects that would enhance sustainable forest management practices on a global, regional, national and local scale. As a result of the deliberations of the intergovernmental Panel on Forests

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(IPF) as well as the Intergovernmental Forum on Forests (IFF) nearly 300 IPF/IFF Proposals for Action were issued and found relevant by the international community. In addition to the "Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests", Chapter 11 of Agenda 21 and the Ministerial Declaration of the 2nd session of the United Nations Forum on Forests (UNFF) these IPF/IFF Proposals for Actions present the highest international political agreement on forest policy and therefore should be implemented by the appropriate international, national or regional authorities.

The United Nations Forum on Forests, a new UN-body, which was established on 18th October 2000, will facilitate, promote, and coordinate the implementation of the IPF/IFF Proposals for Action, but it will not undertake operational activities as it does not dispose of the capacity nor the mandate to do so. The national states as well as the European Community adopted the IPF/IFF Proposals for Action. Within the European Community (Press Release 7710, 2000), in April 2000 the Agricultural Council welcomed – like the previous report of the IPF in June 1997 – the IFF conclusions and IPF/IFF Proposals for Actions. It attached great importance in putting the agreed IPF/IFF Proposals for Actions into practice in all countries. The Council noted with reference to its Resolution on Forest and Development of 11 November 1999 and its Resolution on a Forest Strategy for the European Union of 15 December 1998 the great responsibility of the Commission. Therefore the European Community, and particularly the national governments, have a responsibility in implementing them.

In order to implement the IPF Proposals for Actions countries, groups of countries as well as international organisations created initiatives, as for instance the Six-Country initiative of Finland, Germany, Honduras, Indonesia, Uganda and the United Kingdom of Great Britain and Northern Ireland in co-operation with the Food and Agricultural Organization of the United Nations (FAO) and the United Nations Development Programme (UNDP). In this context the role of national forest programmes was emphasised.

Until now the international community did not agree on a common reporting system on the implementation of the IPF/IFF Proposals for Action. Still consensus was found on the importance of 16 categories that were found relevant for the global forest policy dialogue. The IPF/IFF Proposals for Action were clustered accordingly and the international community was asked to report on a voluntary basis.

2. Method[1] of Analysis

The IPF/IFF Proposals for Action address a broad range of actors and institutions. This negotiated policy text presents despite numerous overlaps and interlinkages the IPF/IFF Proposals for Action a solid basis for action at the international, supranational and national level. A prior assessment of the IPF/IFF Proposals for Action (Figure 1) by the relevant addressees (countries, international and regional organisations, major groups and others) could be done in the following way (Pülzl and Rametsteiner 2002a):

First *content* and *addressees* of all IPF/IFF Proposals for Action have to be analysed. On the one hand this first analysis clarifies the intention of the Proposals and on the other hand the various addresses can be clearly distinguished. It should be acknowledged that for some of the IPF/IFF Proposals for Action no agreement by the international community could be found and therefore these have to be excluded from a further investigation.

1 The development of the methodical approach was based on a call for tender of the European Commission, that closely follows the requirements of an IFF Proposal for Action lit. 17.c. (Pülzl, Rametsteiner 2002a, p. 3)

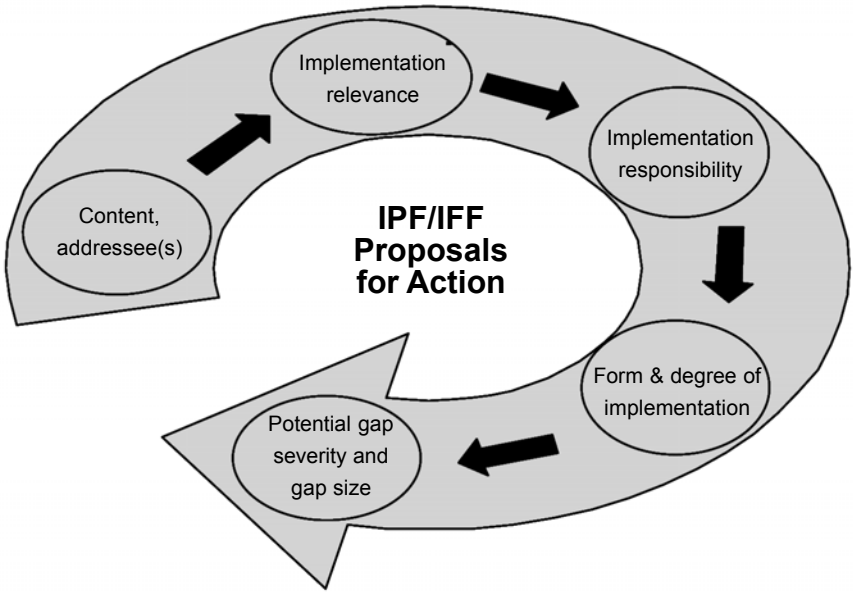


Figure 1. Analysing the IPF/IFF Proposals for Action.

Secondly, the *implementation relevance* has to be clarified. Therefore it has to be distinguished to whether the IPF/IFF Proposals for Action demand for a national or international activity or whether they remain indistinct and therefore not relevant. In addition, the respective policy areas have to be identified. A list of policy areas that reflect the specific institutional structure and competences of the country/ international organisation etc. is to be compiled. Furthermore the relevance the international community attached to the IPF/IFF Proposals for Action is to be analysed. The verb used to express the degree of urgency explains the priority the international community attaches to it. A paper prepared by the UNFF Secretariat was used as basis for the analysis (UNFF Secretariat 2001).

Thirdly the *implementation responsibility* is to be attributed according to whether the respective addresses have an exclusive, shared or no competence for implementing the IPF/ IFF Proposals for Action.

Furthermore, the basis for analysing the *implementation degree* and gap has to be prepared through the compilation of relevant legislation in force and under preparation as well as through a listing of all activities. The *form of implementation* of the IPF/IFF Proposals for Action will be assessed according to whether the implementation activities are to be attributed to the legislative or non-legislative frameworks. The degree of implementation is then assessed according to whether all aspects of the Proposal are addressed, whether one or more aspects are addressed, whether some aspects are partly addressed or addressed through future/ planned action or whether nothing is addressed at all and therefore a hug implementation gap can be assumed.

The implementation degree is finally seen as the inverse of the *size of* the *implementation gap*. The potential gap severity can then be derived by the comparison of the priority expressed through the IPF/IFF Proposals for Action and the implementation responsibility. The nature of the gap should finally be described with some brief notes.

In the subsequent chapter we will present some results of the evaluation of the implementation of the IPF/IFF Proposals for Action by Austria and the European Community.

3. Case-study results

The methodology that has been outlined in chapter 2, was used for the assessment of the IPF/IFF Proposals for Action for Austria as well as for the European Community. We will now outline some of the results (c.f. Pülzl and Rametsteiner 2002a; Pülzl 2002; Rametsteiner, Pülzl et al. 2001) of both analysis.

The IPF/IFF Proposals for Action were analysed with regards to their *key contents* and a short summary of every Proposal was done. They were all clustered into 16 categories[2] that were found relevant by the international community during the informal deliberations in February 2001 and at the first session of UNFF in June 2001. It should be noted here that the allocation of the IPF/IFF Proposals for Action followed very closely the suggestions of a note from the Secretariat of IFF (UN-IFF 2000).

The assessment of the IPF/IFF Proposals for Action in terms of their respective *addressees* showed the following picture (Figure 2). It was observed that most IPF/IFF Proposals for Action (about 42%) clearly address countries. About 27% of all IPF/IFF Proposals for Action are addressed to countries and international organisations, and only 9% address countries, international organisations and major groups (the latter as defined within CSD). About 12% of the IPF/IFF Proposals for Action were deemed not relevant, as no consensus could be found, or they remained unspecific, because it was not possible to clearly identify the addressee. 10% of all IPF/IFF Proposals for Action explicitly address international organisations[3] (other than the European Community) and are therefore also not relevant for country-specific action or for the European Community.

In the IPF/IFF context the European Community can be considered on the one hand as international organisation and on the other hand as "country", where it relies on exclusive competences according to its treaty framework.

Secondly the implementation *relevance* of the IPF/IFF Proposals for Action was clarified for both, Austria and the European Community. The analysis showed that about 34% of all IPF/IFF Proposals for Action are relevant for international action and only 29% for national action in Austria. 17% of all IPF/IFF Proposals for Action are relevant for national as well as for international action by Austria. It seems surprising that more IPF/IFF Proposals for Action are actually asking for international action than for national action, but from a global point of view it is not. The global forest dialogue deals first and foremost with international forest policy problems that require international approaches. Most of them call upon countries, international organisations, or donors to act. The relevance of the individual IPF/IFF Proposals for Action is outlined (Figure 3).

For the European Community a similar picture emerged. About 85% of all relevant IPF/IFF Proposals for Action, in one form or another, are to be implemented by the European Community. About 23% of the IPF/IFF Proposals for Action address specific action within the European Community. Another 29% of the IPF/IFF Proposals for Action address the European Community as an international organisation or donor. These ask especially for the provision of additional financial resources, technological transfer and international capacity-building with a view to enhancing international data on forestry.

However, relevance for Austria or the European Community does not mean that all these apply to European conditions or ask the European Community to pursue action. A few Proposals addressed to countries do not concern the European Community as they address purely national policies. For example they ask for the formulation of policies aiming at

2 The 16 categories include topics like: NFPs, promoting public participation, forest research, criteria & indicators, forest conservation, financial resources, international cooperation etc.
3 These Proposals are for example addressed at FAO, WIPO, CIFOR etc.

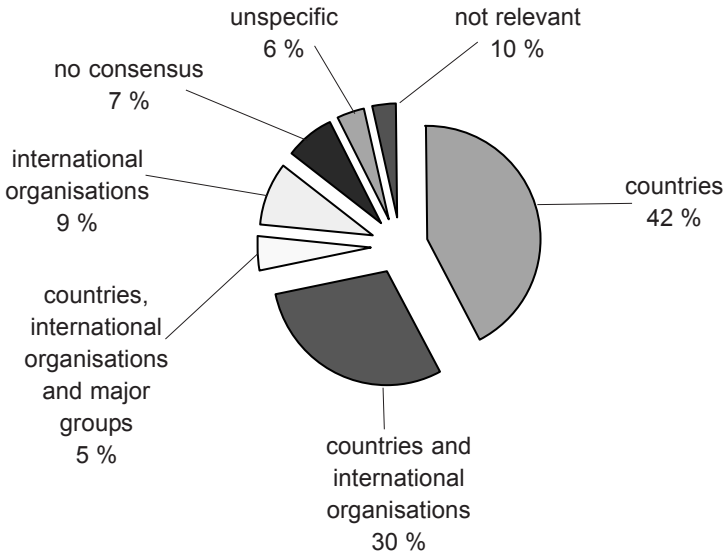


Figure 2. Addressee(s) of the IPF/IFF Proposals for Action (Pülzl, Rametsteiner 2002a).

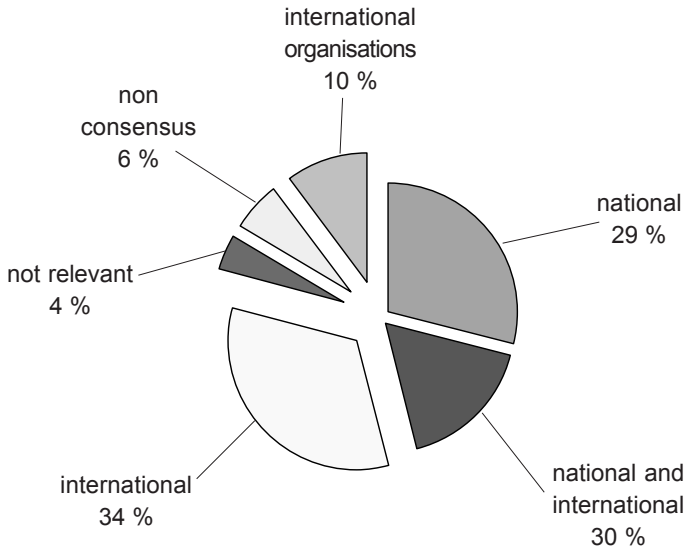


Figure 3. Relevance of the IPF/IFF Proposals for Action for implementation for national states (Pülzl, Rametsteiner 2002a).

securing land tenure for local communities or indigenous people. Here it has to be acknowledged that the degree of relevance could not be assessed, as it is up to the individual countries or others to set priorities and identify aspects that are deemed relevant.

Now we turn the readers attention to the policy areas addressed by the IPF/IFF Proposals for Action. We said earlier, that the policy areas selected here, specifically reflect the institutional structures and competences of either Austria or the European Community. These constitute important areas, where the respective administration is active with regards to forest related activities. This means that the identified policy areas for both cases need not be the same. Concerning the European Community it should be noted, that no common forest policy exists, but the Community disposes of a Forestry Strategy.

In the Austrian case "forest policy" is an area that is prominently referred to also due to the fact that forest policy has a long tradition in Austria.

Still in both cases, most of the IPF/IFF Proposals for Action address the policy fields of development co-operation, research, forestry statistics and rural development. This is not surprising, as development co-operation is most important to reduce the pressure on natural resources within developing countries and countries with economies in transition. Furthermore the global forest policy dialogue focuses largely on North-South issues related to forests. New and additional funds are asked to be raised. Research policy plays a prominent role, because it was one of the main elements of the IPF work programme. For instance, some policy issues require further clarification and research and therefore countries are called upon to identify ways in order to inventory, store and catalogue traditional forest related knowledge, and to work out methodological frameworks, share research findings and mobilize resources for it. Forestry statistics was prominently addressed within the IPF work programme also and many IPF/IFF Proposals for Action ask for the need to share information and they call upon countries and international organisations to develop harmonized and comprehensive reporting formats for collecting and synthesizing national forest information to meet various needs. Developing countries should be supported in their efforts and forest-related information should be made available to all. The relevance of the Proposals for rural development is partly due to the importance of the concept of national forest programmes (NFP) in global forest policy. NFPs are also the conceptual basis of rural development support to forestry in the European Community. Still rural development is not presenting a specific sector, but cross-sectoral in nature and therefore indirectly referred to in various contexts.

As has been emphasised before most IPF/IFF Proposals for Action are relevant for international action; it can thus be assumed that the policy area of foreign affairs is part of the most important policy areas of the IPF/IFF Proposals for Action. Here, the policy area for foreign affairs was split into development co-operation, eastern European policy respectively enlargement policy, and foreign affairs. Biodiversity and climate change respectively energy policy, are not among the key policy areas addressed by the IPF/IFF Proposals for Action as these issues are discussed separately within the framework of two Conventions – the Convention on Biological Diversity and the Framework Convention on Climate Change.

The implementation priorities of the IPF/IFF Proposals for Action were assessed according to their respective level of urgency. This analysis showed to which topics the international community attaches most relevance to. The following areas are deemed to have a primary implementation priority for Austria as well as the European Community:

- trade
- international co-operation and technology transfer
- financial assistance
- research
- rehabilitation of degraded areas

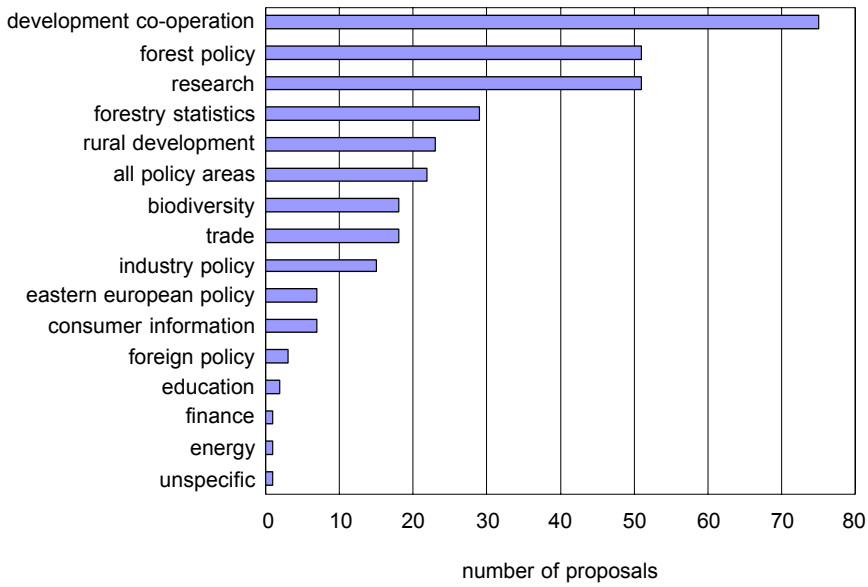


Figure 4. Relevance of the IPF/IFF Proposals for Action for Austrian policy areas (Pülzl 2002).

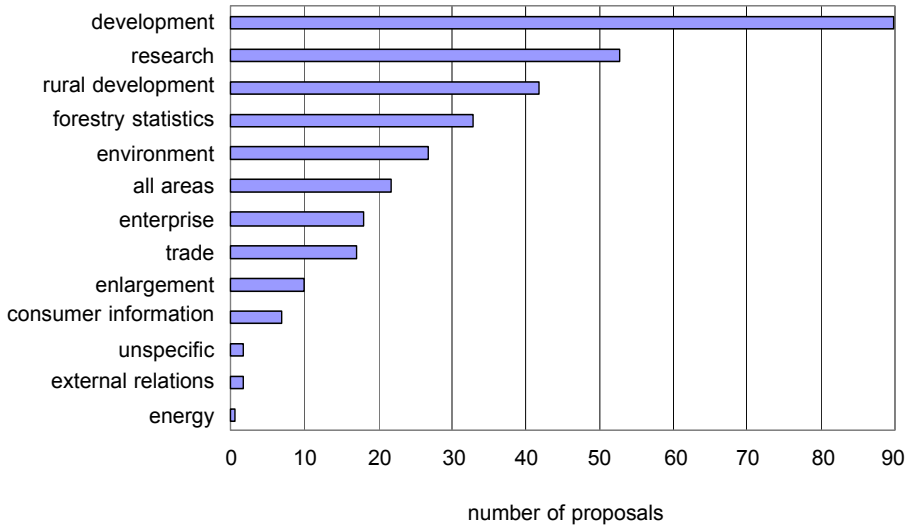


Figure 5. Relevance of the IPF/IFF Proposals for Action for European Community policy areas (Pülzl, Rametsteiner et al. 2001).

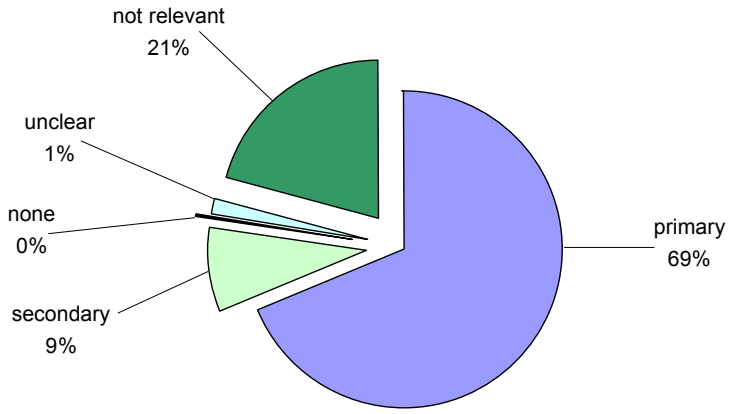


Figure 6. Austrian implementation responsibility on a federal level (Pülzl 2002).

Regarding the implementation *responsibility* of the Austrian federal level for the IPF/IFF Proposals for Action the analysis showed that in most cases (about 69%) it holds a primary implementation responsibility. About 9% of the IPF/IFF Proposals for Action are of secondary implementation responsibility for the federal level. These are areas where the main implementation responsibility lies within the responsibility of the Federal Provinces or where the European Community has a primary implementation responsibility.

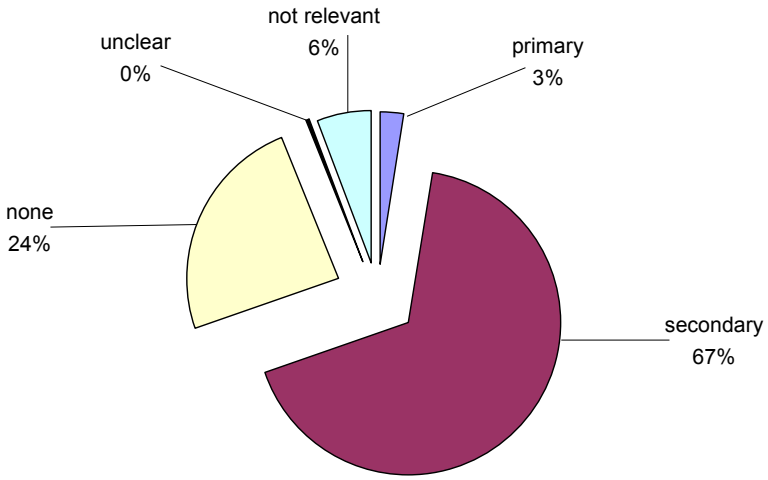


Figure 7. European Community responsibility for implementing IPF / IFF Proposals for Action (Pülzl, Rametsteiner et al 2001).

For the European Community a different picture emerges from the analysis: No common forest policy exists and therefore no single Directorate has the main responsibility for forest matters and quite a large number of Directorates somehow work on forest related issues. Only trade-related issues, e. g. with respect to forest products, fall into the exclusive competency of the Community. Likewise, those Proposals that refer to the implementation of international treaties or conventions and of which the European Community is a signatory are of primary responsibility of the Community to implement. As the Figure 7 shows, for nearly 70% of all Proposals the European Community is deemed to have a secondary implementation responsibility. This rather high figure is simply because the most often named policy areas, e.g. development cooperation, research and rural development, all fall into the secondary implementation competence, both because of shared competence or of the principle of subsidiarity. For about a quarter of the IPF/IFF Proposals for Action the Community has no implementation responsibility. These Proposals either name specific international actors or they relate to country level activity outside Community competence, or they exclusively address developing countries.

Concerning the *degree of implementation* of the IPF/IFF Proposals for Action in Austria the analysis showed that Austria has implemented a major part of the IPF/IFF Proposals for Action on the national level. Some of them have so far been implemented only partly or their implementation has only started. Austria's authorities regard an Austrian national forest program as the main tool of implementation for the remaining work. The national forest programme was not launched so far, therefore the further implementation will take more time. The IPF/IFF Proposals for Action that demand for international action by Austria, were not implemented as well as those addressing national action. This is also due to the fact that no further and additional financial resources, that were asked for, were provided to developing countries and that so far no assistance was granted for the development and implementation of national forest programmes in developing countries. For an overview of the Austrian implementation degree, see Figure 8.

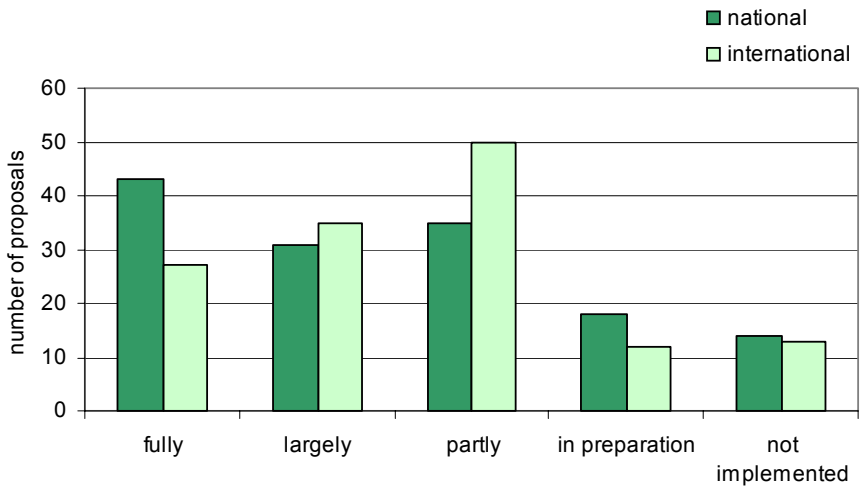


Figure 8. Austrian degree of implementation of the IPF/IFF Proposals for Action (Pülzl 2002).

The European Community implements topics addressed by the IPF/IFF Proposals for Action either through its legal framework on forest related matters as well as through a range of activities which are based on legal provisions of the Treaties establishing the European Community. The Figure 9 shows that the large majority of Proposals, where the Community has either primary or secondary implementation responsibility was indeed addressed in some form. Only a minor fraction of less than 10% have not yet been addressed. Most Proposals were partly or largely addressed, which means, that some or most of the aspects covered by the individual Proposals is covered through legislation and/or activities by the Community. However, only a small part of the Proposals can be considered to be fully addressed. This is often an indication of the political nature of the actual text of the Proposals, as they often tend to cover multiple aspects within one and the same Proposal. For a number of Proposals Action the implementation is still in preparation. Overall only very few activities or legal texts explicitly include references to the IPF / IFF Proposals in general, such as the Forest Strategy for the European Union.

Finally the *gap analysis* for the Austrian case showed that on a national level for a strikingly small number (16 IPF/IFF Proposals for Action) no progress regarding implementation was made. These areas include for instance the legal protection of traditional forest knowledge, a more preventive approach to air pollution that would require co-operation between ministries as well as further international action, the foundation of partnerships for the promotion of sustainable forest management and the regeneration of natural vegetation in affected ecosystems, the promotion of lesser used species etc. These implementation gaps can be found simply due to the fact that the requirements are sometimes not properly adapted to the Austrian situation, because they were negotiated within the global context, or because these areas have not been identified within national forest policy so far. Furthermore funding for forestry research risks to be cut down on a national level. On an international level the implementation for about 14 IPF/IFF Proposals for Action has not started. It seems for instance that Austria so far did not support the development and implementation of NFPs in developing countries and did not grant new and additional financial resources to developing countries, did not assist them in preparing national reports on forests and did not or only on a very limited scale fund forest research in developing countries.

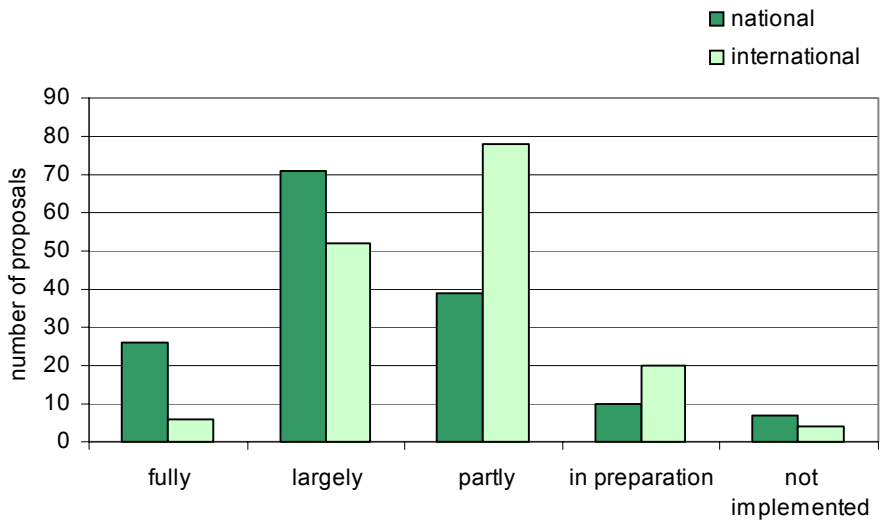


Figure 9. European Community degree of implementation of the IPF/IFF Proposals for Action (Pülzl, Rametsteiner 2001 et al. 2001).

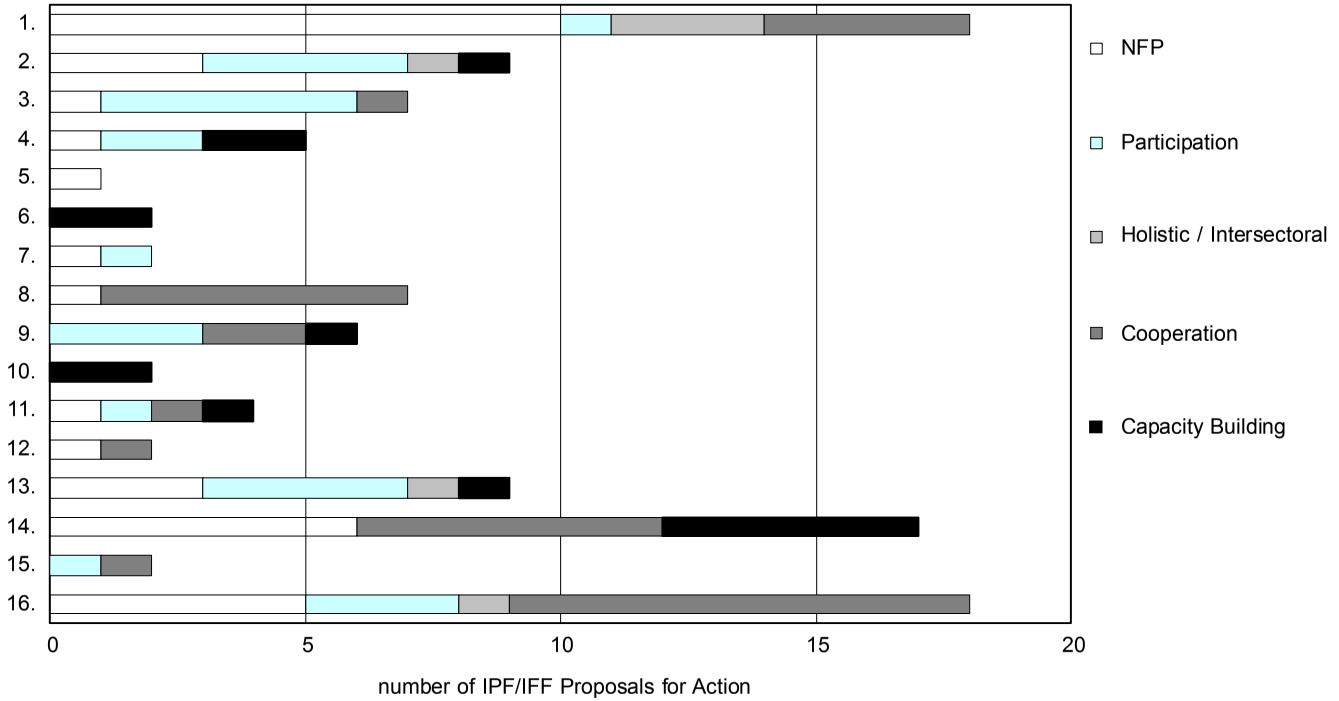
Some of the most significant points of the gap analysis results for the European Community are summarised as follows: There are only 13 IPF/IFF Proposals for Action on which there appeared to have been no significant progress, and a further 26 on which implementation is still in the preparatory phase. The analysis identified only one area (traditional forest knowledge) with a notably high number of large or full sized gaps. Furthermore there is no evidence of an increase in financial assistance to forestry (for development cooperation), as some Proposals urge, but increasing efficiency of aid delivery is a priority. The resources directly available to forestry are quite limited and it is also not reassuring that forests are not named in the new European development policy document. Within the sixth framework programme for European research there are no key actions which explicitly address forest matters as in the previous framework programme and no specific actions for developing countries seem to be included. In general, the level of implementation is significantly higher within the European Community than outside.

Although development and research policy are both prominently addressed by the IPF/IFF Proposals for Action, the analysis showed that in Austria and the European Community funding for these areas face a possible cut down or limitation in the near future.

4. The role of national forest programmes and the IPF/IFF Proposals for Action

Here we outline the role of national forest programmes in the implementation of the IPF/IFF Proposals for Action. Throughout the text of many IPF/IFF Proposals for Action, national forest programmes are addressed. They are viewed as one possible implementation tool for implementing the IPF/IFF Proposals for Action. So we look at the individual IPF/IFF Proposals for Action to show the issues the global community attaches relevance to in the context of national forest programmes (cf. Pülzl and Rametsteiner 2002b).

The analysis showed that in the first category on NFPs (1) all countries are called upon to develop, implement, monitor and evaluate NFPs using a participatory, holistic, intersectoral and iterative approach (IPF 1997, §17a). The importance of international cooperation (IPF 1997, §17b) is emphasised and it is called for a sound national coordination based on consensus-building principles within NFPs (IPF 1997, §17h). Within category 2 on public participation and category 13 on the maintenance of forest cover the implementation of the IPF/IFF Proposals for Action within NFPs is recalled (IFF 2000, §9e). An integrated approach within NFPs should be promoted for the implementation of all forest-relevant issues (IPF/IFF Proposals for Action, conventions, work-programmes etc.) (IFF 2000, §9b) and finally support for NFPs in developing countries encouraged (IFF 2000, §9a). In category 14 on financial assistance the request for identifying the needs of developing countries for sustainable forest management on the basis of NFPs is underscored (IPF 1997, §67c). International organisations and financial institutions are urged to use NFPs as framework for coordinating forest-related activities (IPF 1997, §67d). On the one hand recipient countries are asked to establish NFPs that include priority needs and that serve as framework (including the coordination of international cooperation) and on the other hand donor countries and international organisations are asked to support initiatives to create NFPs in developing countries (IPF 1997, §70a). Further countries and international organisations should use NFPs for channelling, prioritising, and increasing financial assistance to the forest sector in developing countries (IFF 2000, §30a). In category 16 on international cooperation and technology transfer it is underlined that expertise provided by international, regional organisations and instruments should be utilized by governments in the formulation of NFPs



1. Formulation and implementation of national forest programmes. 2. Promoting public participation. 3. Combating deforestation and forest degradation.
4. Traditional forest knowledge. 5. Forest-related science. 6. Forest health and productivity. 7. Criteria and indicators.
8. Economic, social and cultural aspects of forests. 9. Forest conservation and protection of unique types of forests and fragile ecosystems.
10. Monitoring, assessment and reporting, concepts, terminology and definitions. 11. Rehabilitation and conservation strategies for countries with low forest cover.
12. Rehabilitation and restoration of degraded lands, and the promotion of natural regeneration and plated forests.
13. Maintaining forest cover for present and future needs. 14. Financial resources. 15. International trade and SFM.
16. International co-operation in capacity-building and access to and transfer of environmentally sound technologies to support SFM.

Figure 10. National forest programmes and the IPF/IFF Proposals for Action (Pülzl, Rametsteiner 2002b).

to particularly implement cross-sectoral linkages (IFF 2000, §140a). A greater emphasis on national and local capacity-building in the development and implementation of NFPs is called for (IPF 1997, §77e). Countries should assess and identify national technical requirements and capabilities. This should be consistent with the priorities in NFPs (IPF 1997, §77b). They should develop in line with NFPs an enabling policy, legal and institutional framework that encourages public and private sector investments in environmental sound technologies for sustainable forest management. (IFF 2000, §56b). Finally relevant international organisations and financial institutions should review and initiate the development of forest-information systems for enhancing the coordination and data-sharing regarding the implementation of NFPs (IPF 1997, §78a).

In addition in the context of combating deforestation and forest degradation (3) countries are encouraged to define policy goals for national forest cover as input to the implementation of NFPs (IPF 1997, §29a). In reference to traditional forest knowledge (4) countries are asked to provide opportunities for indigenous people, forest-dependent people that posses traditional forest knowledge and forest owner to participate in the planning, development and implementation of NFPs (IPF 1997, §40e). In reference to forest research (5) countries are encouraged to identify research needs and priorities and to coordinate research programmes relevant for sustainable forest management in the context of NFPs (IFF 2000, §96a). Further criteria and indicators for SFM (7) should be included in NFPs (IPF 1997, §115). Besides countries are asked to assess the potential scope and effective combination of economic instruments and tax policies (8) as part of their NFPs (IFF 2000, §115a). Countries with low forest cover (11) should seek long-term security of forest goods and services through NFPs for SFM (IPF 1997, §58 b (i)). In reference to rehabilitation and restoration of degraded lands (12) countries and international organisations should adopt an integrated approach in the development and implementation of NFPs with respect to issues related to dryland forest ecosystems in countries affected by desertification and drought (IPF 1997, §46a).

For understanding what the international community expects NFPs to do, we need to understand in which context or in relation to which thematic areas these planning ideas that underlie the NFP concept are referred to. In some circumstances the international community attaches more relevance to certain elements than in others. The issue of participation is primarily referred to in the context of category 2 on public participation and category 3 on combating deforestation and degradation as well as category 13 on maintaining forest cover and category 16 dedicated to international cooperation and technology transfer: Besides the call for the participation of major groups, private sector (IFF 2000, §9c) respectively all interested parties, appropriate procedures for effective participation should be created (IFF 2000, §64b). The IPF/ IFF Proposals for Action should be implemented with the participation of all interested parties (IFF 2000 §9e, §139a) and synergies among international and regional organisations and instruments should be fostered as well as their active participation in the forest-policy-dialogue should be encouraged (IFF 2000, §139b). The planning ideas intersectoral and holistic are referred to in category 1 on NFPs, 2 on public participation, 13 on the maintenance of forest cover and 16 on international cooperation and technology transfer. NFP should embody capabilities for intersectoral planning (IFF 2000, §9e). The iterative long-term planning approach is referred to in Chapter 1 on NFPs in (IPF 1997, §17a) and in category 2 on public participation. Here it is recalled in the context of the creation of initiatives, approaches or partnerships that could include long-term commitments (IFF 2000, §9c).

It seems that the international community puts the main emphasis on the usage of NFPs for international co-operation and for channelling money to the forest sector in developing countries. In addition countries were encouraged to define their national and technical requirements, policy goals for forest cover, research needs, criteria and indicators for sustainable forest management. On a national and local level capacity building in the

development and implementation of NFPs was emphasised and NFPs should also be based on sound national coordination based on consensus-building. (Pülzl and Rametsteiner 2002b). In the previous chapter we showed that all IPF/IFF Proposals for Action address various policy areas among which development, research, forestry statistics and rural development policies rank prominently. This means also that the intersectoral requirements of the IPF/IFF Proposals for Action will be a major challenge for the implementation. If we compare these international requirements to the results of our two case studies, we can conclude that the vertical as well as the horizontal co-ordination within Austria and the European Community needs to be emphasised for a further implementation of the IPF/IFF Proposals for Action. The Austrian national forest programme is still in the preparation phase. Further implementation in the Austrian case will depend on the inter-sectoral and inter-ministerial co-ordination of strategies and programmes. Until now it is not clear how far the usage of national forest programmes for development co-operation will go.

5. Conclusions

We showed that the outcomes of the IPF / IFF deliberations 1995–2000, which to a good part constitute the IPF/IFF Proposals for Actions, are substantive. The numerous IPF/IFF Proposals for Actions establish despite their complex nature and the repetitions contained therein, a rather solid basis for action at the international, supranational and national level. The international community has agreed to implement the IPF/IFF Proposals for Action and due to the complex nature of them a possible methodology was outlined that was used to analyse their implementation within Austria and the European Community.

The analysis showed that a big part of the IPF/IFF Proposals for Action address either individual countries, countries and international organisations, or countries, international organisations and major groups. Only few IPF/IFF Proposals for Action address international organisations. Around 12% of all IPF/IFF Proposals for Action were not considered relevant, are unspecific, and no addressee could be identified or no consensus on the formulation of the IPF/IFF Proposals for Action could be reached by the international community. Most of the IPF/IFF Proposals for Action were deemed relevant for an Austrian implementation on the international scale (34%), fewer for implementation on the national scale (29%). We could also see that for the European Community a similar picture emerged. Most the IPF/IFF Proposals for Action were asking for external and less for internal implementation. The Austrian as well as the European Community policy areas addressed by the IPF/IFF Proposals for Action refer primarily to development co-operation, research policy, forestry statistics and rural development. Also many other fields of policy are considered relevant. The Austrian Federal Government holds a primary implementation responsibility for about 70% of all IPF/IFF Proposals for Action, while the European Community has a primary implementation responsibility for about 3% of the IPF/IFF Proposals for Action. The degree of the Austrian implementation of the IPF/IFF Proposals for Action can be described as rather good, although they are not well known on the national level and authorities of the Federal Provinces are not familiar with them. There are no legal texts referring to the IPF/IFF Proposals for Action, which is striking because an amendment to the Austrian Forest Act was adopted by the Austrian Parliament only recently. While the European Community has indeed a legal and institutional framework as well as activities in place that are able to address most or all issues specified by IPF / IFF Proposals for Action, few of the Community bodies seem to be aware of their existence, and only a few legal texts of the Community make explicit reference to the IPF / IFF Proposals. In general, the level of implementation is significantly

higher within the European Community than outside. The Austrian development co-operation, the policy field most addressed, does not pay special attention to the support of forest policy in developing countries as no relevant strategy exists so far. The European Community development policy does not pay special attention to forests and it seems that no additional funds are available. Finally, current forest research programmes have been finalised and there are no new and additional budget-lines for forest research. Funds for forest research both in Austria and on the international level through the research programmes of the European Union risk to be cut down or suspended. Overall, the analysis has revealed that there is a need for Austria and the European Community to further commit themselves to those actions currently implemented or in preparation. It also calls upon both, Austrian and the European Community to work on a coherent and co-ordinated approach related to forest matters in its internal and external relations.

National forest programmes are regarded as one implementation tool for the IPF/IFF Proposals for Action. Therefore it is important to see to what issues the international community attaches relevance to. The analysis revealed that the international community actually puts the main emphasis on the usage of NFPs for international co-operation and channelling money primarily to developing countries. Other aims like individualising national and technical requirements, policy goals for forest cover, research needs, criteria and indicators and capacity building were also mentioned. Turning the readers attention back to the two case-studies, we can conclude for the Austrian case that the authorities regard a national forest programme as one of the main tools for the implementation of the IPF/IFF Proposals for Action. The remaining work to be done in the implementation process of the IPF/IFF Proposals for Action therefore depends on the successful start of an Austrian national forest programme. For the European Community the analysis showed that NFPs are the conceptual basis of rural development financial support to forestry. We showed that in both cases, Austria and the European Community attaches quite much importance to the concept of NFPs, still it seems there is a rift between the national or supranational priorities and the global requirements. This means in neither of the cases NFPs seem to be the basis of international co-operation and channelling money to the forest sector in developing countries. Furthermore the intersectoral requirements, as the IPF/IFF Proposals for Action were asking for (explicitly as well as implicitly through the policy areas they addressed), might become the main challenge for implementation.

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Reflections on Inter-Sectoral Co-ordination in National Forest Programmes

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Abstract

This paper deals with three basic questions concerning inter-sectoral co-ordination against the background of National Forest Programmes (NFP): What does "inter-sectoral co-ordination" mean? Why should policy-makers strive for inter-sectoral co-ordination, and how can they achieve it? It distinguishes two approaches to the subject: inter-sectoral co-ordination can be defined as a process or a status. The process is about the reconciliation of the policies and programmes of different sectors. Referring to co-ordination as a status, sectors are co-ordinated when their respective policies show minimum redundancy, minimum incoherence, and a minimum of untackled issues. As regards the "units of analysis", again, two approaches are distinguished: one defines "sectors" based on the policy dimension (social policy, forest policy, etc.), the other one refers to the polity dimension (policy networks). As regards the question of "why inter-sectoral co-ordination" the paper refers to welfare theory. From this perspective, co-ordination is desirable if concerted action can increase the overall welfare-gains. The main part of the paper deals with mechanisms of inter-sectoral co-ordination applicable to NFPs: hierarchy and horizontal co-ordination by negotiations. It is concluded that the success of both mechanisms depends on quite demanding preconditions but that horizontal co-ordination by negotiations can be facilitated significantly by embedding the processes in hierarchies or in network structures.

Keywords: National Forest Programmes, inter-sectoral, policy co-ordination

1. Introduction

"Inter-sectoral co-ordination" has always been a vital topic and problem of politics. Complaints about co-ordination deficits are mostly based on the assumption that sectoral actors are

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insufficiently informed about each other or pursue differing interests: either because they have different preferences in factual questions or because they strive for power positions and influence. The more differentiated political systems become, the more complaints will emerge that an organisation does not know what the other is doing, that programmes are redundant or contradictory and that crucial questions are not raised. Recent references in political sciences assume that some current developments make co-ordination increasingly important: state actions have gained significance in an increasing number of public spheres, political problems have become increasingly inter-sectoral (cf. Peters 1998:296; for the forest sector cf. Peck/Descargues 1995) and, last but not least, the national level has become increasingly integrated in supranational and international policy-making forums (cf. Peters 1998: 306). If national representatives are supposed to represent concrete and consistent positions, they need prior national co-ordination. It cannot be postponed to the period of implementation.

Besides these trends, "inter-sectoral co-ordination" is also a significant characteristic of "National Forest Programmes" (NFPs) and a central theme in the national NFP processes that we observe. It is one of the central topics in phase II of the German NFP process, for example, where it has been identified as one of the major shortcomings of phase I. In their assessment report, Hofmann and Liss (2001: 5) state that "inter-sectoral aspects have been widely raised, but thus far insufficiently discussed and that the elaborated recommendations for action … are not very concrete and were largely excluded for political reasons." In the Finnish NFP process as well, inter-sectoral co-ordination was only achieved to a minor degree (Voitleithner 2001: 20f). The resolution of important conflicts has been postponed to the implementation of the forest programmes.

The essence and factual claim of inter-sectoral co-ordination seem to be obvious at first sight: in some cases, the point is to pursue goals that can only be achieved collectively, either because of insufficient individual resources or because mutual effects disapprove individual actions. In other cases, the point is to avoid double tracks or contradictions in the activities of independent decision-making units. Co-ordination should allow to pursue goals of different sectors in the most efficient way without negative side effects. Therefore it is considered desirable – in any case from a superior point of view.

Even if the question "why inter-sectoral co-ordination?" seems so simple to be answered at first sight, some central questions become obvious at second sight, e.g. about the problem definition: what exactly is understood as a "sector"? When is it possible to speak of "co-ordination" and what is the measurement of success? Only with answers to these questions, a concrete NFP-process can be evaluated in terms of the "extent" of inter-sectoral co-ordination.

A third look discovers questions of political practice: what mechanisms are suitable for inter-sectoral co-ordination? What institutional demands have to be fulfilled, what obstacles can be expected? How can different mechanisms be assessed in terms of their capability to achieve collective decisions? Answers to these questions help to clarify under which conditions the demands for "inter-sectoral co-ordination" do not remain mere programmatic and do not lead to "symbolic politics".

In the following sections, I will discuss these questions by reflecting on some findings from the literature on "politics of co-ordination" and on "negotiation systems" against the background of the NFP concept. This results in the following structure: Chapter 2 deals with the question "Why" Why does inter-sectoral co-ordination make sense, what are the expected benefits and what measures for success can be applied to the processes and the results of co-ordination? It proceeds from a rather general understanding of the concepts "sector" and "co-ordination". Chapter 3 goes more into the details. There, I try to define "what" can be meant with "inter-sectoral" and "co-ordination". Chapter 4, finally, explores the question "How" models of inter-sectoral co-ordination can be designed. It explores their strengths and weaknesses and the institutional demands they imply.

2. Inter-sectoral Co-ordination – "Why"

2.1 Superior Objective

As a working definition I proceed on the assumption that co-ordination goes beyond the one-way anticipation of the consequences of actions of others and reactions to these actions. Keeping in mind the efforts and costs that might be incurred, it is legitimate to ask why co-ordination is a goal policy-making should strive for.

Co-ordination is important when the decisions of two or more units are mutually dependent. This applies to individuals, interest groups, administrative units, sector networks and even to nation states. The inter-dependence might be caused by the fact that individual goals can only be achieved in joint actions or by the fact that effects of individual programmes can be anticipated that have an impact on the interests of others.

But even then, there might be other good reasons against co-ordination from the viewpoint of individual actors or sectors, be it that they consider themselves in a position to assert their interests alone, or be it that the anticipated transaction costs of co-ordination are too high. From the viewpoint of potentially participating sectors, a general judgment of the advantages or disadvantages of co-ordination cannot be made. One has to take a "superior" point of view. Only then criteria can be specified, which allow giving normative judgments, which consider the "overall interest" and – where applicable – identify deficits in co-ordination.

In National Forest Programmes, the overall interest is to co-ordinate the economic, ecologic and social interests in the forests. Co-ordination is desirable if the welfare benefits achievable with the individual actions are less significant than the welfare benefits achievable with co-ordinated action. From this perspective, "co-ordination" can be defined as a process towards mutual agreement; the welfare-theoretic aspiration level of this agreement exceeds the achievable results of mutual, non-co-operative adjustment (cf. Scharpf 1996: 498).

Criteria for the "overall interests" are provided by welfare economics: Taking the Pareto-criterion as the basis for assessment, individual plans are acceptable if none of the participants experiences a deterioration of the status quo and at least one achieves additional benefits. Then an increase in collective welfare is guaranteed. On the other hand, projects are rejected if only a single participant would experience disadvantages, even if the benefits for others outweigh these disadvantages. In contrast, the Kaldor-criterion is met even if individuals experience disadvantages as long as the aggregated net-benefit is positive. Reasonable projects from an overall perspective will not be rejected. The question is, however, how agreements can be reached if a proposed project does not promise a win-win solution. If assuming egoistic-rational actors, it needs either decision-making from a superior authority, compensation payments or package deals. The former option implies co-ordination by hierarchy (see 4.1), the latter two options point to the need for negotiations (see 4.2).

2.2 Measuring the Degree of Co-ordination

So far, the reflections have been based on "co-ordinating", i.e. on co-ordination as a process. Co-ordination, however, can also be considered a state, i.e. the degree of "being co-ordinated with each other".

While the assessment of the process implies assessment criteria such as the number of sectors involved, the point of time, the period of time of participation etc., the state of co-ordination can be assessed by the extent of redundancy, the degree of incoherence and the existence of important, but still untackled issues (cf. Peters 1998: 296). The degree of "being co-ordinated" can be measured on an imaginary scale. At the bottom of that scale, the actors

are aware of the activities of others and try to avoid redundancies and not to interfere with each other. The achievement of maximum co-ordination implies the need for unrestricted control and implementation mechanisms in order to overcome power and competence struggles when necessary and to set untackled issues on the agenda. The co-ordinated solution of all relevant problems would imply omniscience and omnipotence.

According to Peters (1998: 303), redundancy is usually easier to overcome than the problem of contradictory programmes. As redundant programmes have similar or the same objectives, very often a far-reaching coincidence of the underlying interests can be assumed, at least with regard to the factual questions. What may remain are conflicts on the competencies or about the best means to achieve the goals. The reasons for contradictory policies, however, can be competing interests or views of the problem. Accordingly, in the case of incoherence, one can presume stronger resistance to inter-sectoral co-ordination. With untackled problems calling for co-ordinated action, it will depend on whether they are perceived as "hot potatoes" which nobody sets on the agenda because significant trouble can be anticipated, whether there is no knowledge about how to tackle the problem, or whether a problem is "simply" not obvious enough to become an item on an agenda (e.g. climatic changes for some time). According to the reason applicable, varying levels of resistance to co-ordination can be expected.

3. Inter-sectoral Co-ordination – "Where" Is It Applied?

The question "what is meant by a sector?" might seem strange at first sight. In general, we think of our common terms such as "nature protection policy", "energy policy", "research policy" and "forest policy". But when do we assign a programme to these "sectors"? Sometimes this seems easy and clear at first sight, e.g. when talking about a regulation concerning the employment of forestry staff. But in many cases, such an approach cannot be satisfactory from an analytical perspective. For example: does a subsidy programme for mixed forests which considers the economic objectives of the forest owners as well as the ecologic objectives of nature protection belong to the sector "forest policy" or to "nature protection". Moreover, do we talk of "inter-sectoral co-ordination" between nature protection and forest politics in case of such a programme? Or do we talk of inter-sectoral co-ordination only if it is a joint product of the authorities in charge of forest policy and nature protection? This, in turn, would mean that we do not speak of "inter-sectoral co-ordination" if these competencies are in one hand, e.g. after restructuring ministries. In short, the common approach seems to work with a presumption of "sectors" which corresponds more or less with the historically developed administrative structures. When programmes are assigned to sectors, these definitions lead to ambiguous and more or less arbitrary results. Therefore, the question is whether there are other approaches to define "sectors" that are more useful for the purpose of analysis.

As not the programmes, but the actors co-ordinate themselves, they can serve as units of analysis. Political actors, organisations, or policy networks have a minimum of autonomy. Proceeding from this, it seems reasonable to define sectors as relatively autonomous decision-making structures (see also Peters 1998: 297). This can be administrative units as well as policy domain networks. Sabatier/Jenkins-Smith (1999: 119) for example, talk about "policy subsystems" comprising administrative agencies, committees and interest groups as well as journalists, researchers and policy analysts at all levels of government active in policy formulation and implementation. Compared to the traditional, state-centred co-ordination approach, such a network perspective is more open for the role of private actors. Such policy domain networks (Pappi 1993: 91pp) are structures with more or less stable actor relationships. They organise around factually linked questions, have their own identity and a minimum degree

of autonomy. When sectors are defined on the basis of existing structures, "inter-sectoral co-ordination" refers to the interaction between actor networks in order to harmonise their decisions (process perspective) or to the degree of harmonisation of the programmes (status) of these actor networks, respectively. In terms of interaction, taking a network approach implies emphasising negotiations and mediation rather than this is the case in hierarchic concepts (Peters 1998: 299).

In some policy domains like in forest policy, the "profession" may serve as a harmonising bracket and thus as a basis for policy networks, i.e. "sectors". A common language, a similar level of knowledge, related views of problems as well as a shared view of basic goals and causal mechanisms in the field may facilitate co-ordination remarkably. Such professional networks are often vertically structured; their members have positions at different political levels. The reverse of the likely advantages regarding vertical co-ordination is that such networks are often relatively closed for outsiders and may therefore obstruct inter-sectoral co-ordination. Peters (1998: 302) sums up stating that "... some failures of horizontal co-ordination can be understood through the success of vertical co-ordination."

Another point is whether inter-sectoral co-ordination is more related to the stage of policy formulation, the stage of implementation or to the whole policy cycle. The processes, for example, that are presently underway in Germany (at the federal level) and in Bavaria have more or less "only" dealt with agenda-setting and policy formulation so far. Discussions about potential policy means are at the initial stage (cf. Liss/Hofmann 2002). But the active actor networks at different stages can differ considerably, especially in federal systems like Germany. Peters argues that in the course of policy formulation rather questions of budgeting and keeping influence in the overall system predominate at the national level. The readiness for inter-sectoral co-operation would mostly be higher at the operative level, because here worries about the effects on the clients may come to the fore. In this sense, he formulates that

> *"... policy co-ordination is not a matter of rationality but rather it is an intensely political exercise, ...This political dimension is especially significant for policy formation in which competing interests are manifest; programme co-ordination and implementation may be more solvable through rational means" (Peters 1998: 300 referring to O'Tool 1996).*

4. Inter-sectoral Co-ordination – "How"?

"Negotiation" and "hierarchy" are the basic options for the inter-sectoral co-ordination in NFP processes.[1] Although one might assume that in an NFP context, due to its defining elements of "participation", "collaboration" and "conflict resolution schemes", only negotiation may be an appropriate mechanism for inter-sectoral co-ordination, hierarchy may also have its role. The "shadow of hierarchy" may have a significant impact on negotiations, and hierarchy may also have its role regarding the integration of NFPs into broader strategies for sustainable development.

4.1 Co-ordination by Hierarchy

Hierarchy is the traditional co-ordination mechanism of state administrations. It works top-down, entails a certain degree of centralisation and has to be performed at superior levels,

1 The third co-ordination mechanism that is often mentioned is the "market" (cf. Scharpf 1996).

finally – if necessary – by the cabinet. This approach assumes that individual organisational units lack overview beyond their direct competencies and that they sometimes also miss incentives for enhanced co-operation instead of pursuing their own organisational interests.

Hierarchic control is supposed to decrease the transaction costs inside organisations. Specialised sub-units might fulfil their tasks with high efficiency, but the efforts necessary to achieve horizontal self-co-ordination threaten to outweigh the efficiency gains achieved by specialisation. Co-ordination performed by superior authorities is supposed to be a remedy. If we assume benevolent and comprehensively informed co-ordinators ("the benevolent dictator"), co-ordination by hierarchy meets the Kaldor-criterion in a model organisation. The potential of possible welfare gains is achieved .

The above-mentioned assumptions show the two central problems that have to be faced in a successful process of co-ordination by hierarchy: the "motivation problem" and the "information problem" have to be solved (cf. Scharpf 1996 and 1993). It needs a "benevolent dictator" who has to be informed in detail about the problems and the options for solution.

From a welfare-theoretic point of view, hierarchic co-ordination is normatively acceptable, if it pursues the overall interest of those who are affected (motivation problems). But Rational Choice theory, however, assumes that political parties and governments strive for an increase of power and for re-election, that interest groups seek to save the maximum of the overall social benefits for their clients, and that bureaucrats strive for budget maximisation and the expansions of competencies. In order to hope for a minimum of corporative orientation under such circumstances, we do not only need the "checks and balances" which have been institutionalised in democratic systems, but moreover it is necessary to assume that the behaviour of political actors is also oriented at "norms". They define the "normal" degree of pursuing self-interests and set limits for egoistic actions. In how far such norms become effective depends, among other things, on whether we are dealing with a rather permanent network of relationships, or rather singular interactions of actors. In the latter case actors do not have to fear sanctions that much if they pursue their interest with means that exceed the "normal" measures.

The information problem is solved when decision-makers have valid information on the problems and their possible solutions, and are moreover capable to process this information. Even if we assume a benevolent dictator, co-ordination by hierarchy is permanently at risk to take quite unreasonable decisions, either due to a lack of relevant information or due to information overflow.

As a solution, organisational theory points at the principle of "selective intervention" (Scharpf 1996: 506). It states that superior units have to restrict their decisions to those issues that have to be decided at their level. All other decisions shall be taken by the subordinate authorities/units because they have better access to the relevant information. In this way overburdening of the central authorities can be avoided. Selective intervention, however, requires lines of formal competencies that correspond with the frequency and significance of the interactions between organisational units. In such a design, the interactions of units with one common supervisor are remarkably more frequent and more significant than the interactions of bodies with different direct supervisors. But this kind of organisational design seems to become increasingly difficult because the interlacement of different task areas increases (see Peters 1998, Scharpf 1996). Besides structural reforms, there are two possible reactions to this: first, the existing distribution of competencies is retained and problems are passed on to the first position, which is head of all units concerned. Then, the more significance interlacement between subunits of different lines of hierarchy gains, the higher will be the stage of the first "common" supervisor. Therefore the choice of this strategy will – in the worst case – reveal the benefits of decentralisation to a great extent, and the heads of organisations will suffer from information and decision-making overflows. If an organisation instead chooses the second possible strategy, to do partly without central decision-making

competencies and go for the horizontal self-co-ordination of subunits, it faces the threat of systematic strains of high transaction costs and may easily end up in decision-making deadlocks.

When striving to co-ordinate within and/or between ministries by hierarchy, the relevant decision-making level will normally rise with the number of organisational units from different lines of hierarchy. At the same time, it is true that the level of hierarchy, at which the topic "NFP" can be set on the agenda, will dependent on the political significance it can achieve. Therefore, states with a high importance of woodlands, forestry and timber industries are more likely to deal with inter-sectoral co-ordination by hierarchy than other countries.

4.2 Co-ordination by Negotiations

Co-ordination between sectors or political actors can be achieved by negotiations. First of all, inter-sectoral co-ordination by negotiation of state and private actors requires interest groups that are capable to act. That might be no problem in many countries, but can also mean that the necessary capacities have either to be built up or strengthened as a first step. It is reported that lacking capacity is a real problem for some of the interest groups involved in the German and Austrian processes. In the case of the Austrian strategy for sustainable development even some representatives of ministries had troubles to contribute to the time-consuming process in addition to their core business. Anyhow, neither the German NFP processes nor the Austrian process towards a strategy for sustainable development are provided with a budget to support and facilitate the actors' participation.

If we assume that an NFP process is carried out in a "system of compulsory negotiations"[2], meaning that unilateral actions are excluded, and furthermore, that potential actions are definitely fixed in their degree (they are not variable on a continuous scale like e.g. budgets, and that compensation payments between actors are excluded, then the attempt to co-ordinate by negotiations is confronted with two fundamental problems (cf. Scharpf 1996: 501):

1. Projects that might be advantageous from an overall point of view are systematically excluded if they give reason to expect disadvantages for one of the negotiation partners compared to the status quo (thus, the Kaldor-criterion would not be fulfilled).
2. Even if there are several advantageous solutions to choose from, the process runs the risk to be blocked by disputes about the choice of one alternative (accordingly, even the Pareto-criterion might be missed).

If compensation payments are allowed or non-fixed projects are assumed and if we moreover neglect both the transaction costs as well as the distribution problems, the Coase-Theorem (Coase 1960) suggests that welfare gains, which can be achieved by ideal hierarchies, can also be achieved by negotiations between autonomous, egoistic-rational actors. Such actors would choose solutions that maximize the collective net benefits. But in the case of many controversial political issues, the projects that have to be discussed will not be variable on scales, the degree of implementation is not negotiable. For example, a certain area can be either dedicated to a nature reserve or not. In such cases, an approach to Coases's solution is only conceivable if several projects can be bundled to "packages deals" in order to achieve an interest balance that is acceptable for all the actors involved.

But even then, successful co-ordination by negotiations has to face two central challenges: the "negotiators' dilemma" and the "large-numbers problem" (ibid.). The negotiators'

2 Compulsion does not necessarily exist due to formal rules, but can also exist factually because desired programmes can only be pursued by joint action.

dilemma follows from the fact that actors must solve two problems simultaneously: They should not only find a joint course of action which maximises their aggregate welfare, but they also need to decide jointly on the allocation of benefits and costs of co-ordinated action.[3] The core problem is that these two tasks – if we assume egoistic-rational actors – are linked to incompatible orientations. While the search for common solutions requires co-operative orientations, the zero-sum game of negotiating the distribution of costs and benefits stimulates a more competitive orientation.

Actors, who behave co-operatively in problem solving by sharing all their information, run the risk of being disadvantaged in the course of decision-making about distributional issues. The negotiators' dilemma results in sub-optimal solutions or in a blockage of advantageous decisions due to unbridgeable distribution conflicts. The definition of sustainable forest management can serve as an example: the prescription of thresholds for ecologic indicators, which might have to be defined primarily on the basis of scientific findings on the one hand, entails the question which costs are incurred in the case of necessary changes in forest management, and the question about who has to cover them, on the other hand.

The large-numbers problem a consequence of the simple fact that the difficulties of co-ordination increase quickly with the number of actors concerned, or more precisely speaking, with the variety of their preferences and options. Beyond relatively narrow limits, multilateral negotiations are likely to fail because of high demands on information processing and conflict regulation.

4.3 Co-ordination by Negotiations in Hierarchies or Networks

Obviously both co-ordination by hierarchy and co-ordination by negotiations face systematic difficulties. Both modes are alert for opportunistic behaviour; both face relatively narrow limits concerning their potential outreach. As Scharpf (1996: 510f, 1993: 145f) describes in detail, the combinations of different prerequisites and of different ideal types of co-ordination promise to improve the problems discussed. Co-ordination by negotiations in combination with hierarchies or network structures should allow mobilising the strengths of the respective structures.

4.3.1 Negotiations in the Shadow of Hierarchy

If co-ordination takes place inside hierarchic structures, Scharpf (1996: 510) talks about "self-co-ordination in the shadow of hierarchy". This suggestion to improve the problems described above is based on the observation that very often vertical co-ordination processes inside of bureaucracies are primarily based on negotiations, less on hierarchic decisions (ibid., see also Peters 1998: 297). Because of different views of the problems and orientations on different clients, and because of organisational self-interests, specialised units inside hierarchic structures often have quite different preferences. A strategy to present all conflict issues to the head of the department or – in the case of inter-departmental co-ordination – even to the cabinet can practically not be implemented, if the system should not be blocked. However, it is essential and often sufficient that a superior authority can finally take a decision at least in principle.

We can think of different patterns of interaction between the units involved in negotiations within a department, between several departments or between the actors of a network. The two ideal models of "positive co-ordination" and "negative co-ordination" (ibid. 512) can be

3 In contrast to this, if the market is used as a co-ordination mechanism, distribution conflicts must not be solved explicitly. Co-ordination by hierarchy, however, also has to decide on distributive questions, but does not need the agreement of those who are concerned (in contrast to negotiation).

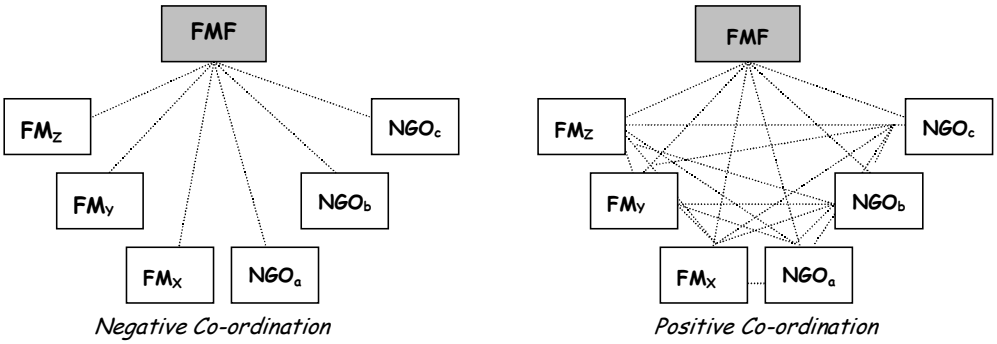

Figure 1. Negative and positive co-ordination led by a Federal Ministry for Forestry. (modified after Scharpf 1996: 513).

used to describe these patterns. For explanation, Figure 1 assumes a fictitious leading "Federal Ministry for Forestry" (FMF).

The two models differ in terms of interaction density and in terms of welfare theoretic aspiration levels: positive co-ordination aims at achieving agreement on those options with the highest collective benefit (Kaldor-criterion) and integrates all actors in multilateral interaction. In the case of negative co-ordination, only the ministry in charge contacts all the others with the goal to clarify negative effects of one's own plans on the others and to prevent potential negative effects of other's actions on one's own initiative. Alternatives to plans of the leading unit that might be raised by others are not an issue. Negative co-ordination aims at ensuring that new initiatives fulfil the Pareto-criterion. In contrast to positive co-ordination, interaction is bilateral. The large-numbers problem is thus drastically improved. On the other hand, the chance to achieve innovative solutions is comparably small as there is only the choice of options that is brought up by one actor, while the affected programmes of others are regarded given restrictions. With the rising number of different positions and/or programmes concerned, the restrictions sum up quickly. There is an accumulation of veto-positions. In practice, all combinations between negative and positive co-ordination are possible.

According to Scharpf (ibid.) both ideal types of horizontal self-co-ordination can profit considerably in terms of decision-making capacities by integrating them in hierarchic structures. Positive co-ordination is remarkably facilitated if the search for common solutions is commissioned by a common superior body that finally has to accept the results. This applies, for example, when NFP-processes are carried out at the initiative and with the commission of a leading ministry, especially when the actors involved have to consider that this ministry might initiate its own programmes if agreement cannot be found among them. Furthermore, this entails that trans-departmental or trans-sectoral appraisal criteria (in any case, the criteria of the final decision-making body) may take effect in the processes of horizontal co-ordination, and that "unfair" negotiation tactics have less chances for success. That is, the negotiation dilemma is significantly improved (Scharpf 1996: 514).

In the case of negative co-ordination, the potential effects of the shadow of hierarchy are also obvious: negative co-ordination inside hierarchies follows prescribed rules and the co-ordinating unit has to assume that the last word will come from a superior body, that unilateral initiatives will not be supported and that there will be no approval as long intra-organisational conflicts have not been dealt with satisfactorily. In that way the integration in hierarchies may help to make sure that those who shall be co-ordinated will be heard. In any case, the shadow of

hierarchy forces the participants to look for common solutions; otherwise they are threatened by decisions taken at superior levels that might mean the "bigger evil" for them.

The reflections on negotiations in the shadow of hierarchies can also be applied to constellations including private actors. Also in such settings, common decisions may have to be translated in binding law or state programmes or be implemented by administrative action. The possibility to reject a proposed compromise gives authorities the possibility to influence negotiations.

In practice, however, it seems that the shadow of hierarchy is hardly applied in the processes that we observe. In the case of the Austrian strategy for sustainable development, for instance, the leading ministry stated in advance that a common output has to be found by consensus, no matter how low the common denominator might be. According to the codes of applied practice, the Bavarian forest programme process as well as the NFP processes for Germany strive for the maximum possible degree of consensus. In practice, every actor has a veto on important issues (Beck et al. 2002).

4.3.2 Negotiations in Networks

As described above, the integration in hierarchies can enhance the scope of negotiations and improve the negotiators' dilemma. But this approach is only applicable within the effective reach of hierarchic structures. To go beyond that, co-ordination without the support of hierarchies is necessary.

The Motivation and Orientation of Actors

In the relevant literature, we frequently find references to the specific advantages and characteristics of co-operative actor networks (e.g. Mayntz 1996, Scharpf 1992, 1993 and 1996, Peters 1998). With regard to the subject of this paper, especially the non-hierarchic and relatively permanent character of mutual relationships between the actors of such networks have to be stressed. In such structures it may be rational for egoistic actors to behave co-operatively, even if they have nothing to win in a case at hand. If they do not co-operate, if they break agreements, they have to fear that their counterparts impose sanctions on them. From a theoretical perspective the question is, under which circumstances one really has to expect sanctions that can be regarded as incentives for co-operation. If we continue to assume egoistic-rational actors who do not abstain from their benefit only to take revenge, co-operation seems likely only if effective sanctions can be imposed at low-cost. This is certainly the case in some situations, e.g. when sanctions can be executed easily by avoiding further interactions (e.g. at markets where unreliable suppliers lose their customers). But in many cases interactions cannot be avoided so easily. This is per definition true within policy domain networks.

Mayntz (1996: 479ff) brings about another aspect concerning the orientation of actors: she identifies "exchange" and "negotiation"[4] as the two central forms of interaction inside long-term policy domain networks. "Exchange" means to make the individual resources (also influence) mutually available. It serves only the pursuit of individual interests (balance of interest). In contrast to this, in "negotiations", in Mayntz's understanding (1996: 480), a collective goal or result is the central topic of interaction. When networks are capable "to produce deliberately collective outputs" despite different interests of the participants (ibid.), the dominating logic can be described as "negotiation" in her understanding.

4 In contrast to this paper, Mayntz uses the term "negotiation" in a much narrower sense.

Against the background of Mayntz's differentiation, questions about the motivation of the actors and the differences in the outcome that are caused by the different actor orientations arise. When can we expect that actors in NFP processes will go beyond the pure logics of "exchange", and in how far would the results of exchange differ from the results of "negotiations" based on an orientation towards joint problem resolution?

I suggest that one central prerequisite for orientations towards co-operative problem resolution is the existence or finding of collective goals, common problems, i.e. "common interests" in the broadest sense. Such common references can provide guidance in the search for collective decisions. But what could provide such common references in the case of NFPs? Generally speaking, NFPs are supposed to promote the sustainable management, conservation and development of forests. This is, however, an objective that is quite abstract and has a long-term perspective. "Common interests" of some of the actors can probably be described more concretely, e.g. the promotion of production and use of timber and timber products (for actors representing forestry and forests industries), or the protection of forests from air pollution (forest owners and environmentalists). The common interest might also be found in conflict resolution among the actors involved. Anyway, a lack of reasonably concrete common references might be a crucial deficit in some of the ongoing NFP processes. Most of them start by identifying "subject areas" rather than "goals".

There are, however, some typical constellations in which one could expect that the actors' orientations will differ from an orientation towards an overall interest. The difference between the "system interest" and the interests of the decision-makers will tend to be the more significant, the less those who are affected are represented in the decision-making process. Furthermore, the results of decision-making processes may differ significantly because interest are oriented towards different time horizons (ibid. 482). Sustainable forest management might be interesting for actors on the long term, but short-term individual benefit calculations still might lead to depletion. Third, Mayntz (ibid.) points out that the actors' references for assessment might be related to different dimensions. For example, while the postulated collective benefit of an NFP negotiation system can bee seen in the promotion of SFM, the decision-makers might strive first of all to ensure their domains of influence and their resources.

In order to avoid the threatening gap between the orientations towards interest balance, on the one hand, and joint problem resolution, on the other hand, Mayntz (1996: 487) suggests the institutional separation of arenas in which either one or the other orientation dominates. That might mean that decisions on factual and more instrumental questions might be left to expert groups, while decisions on general principles and goals and the distribution of costs and benefits have to be taken by the actors affected. Especially in the case of policy networks, this will usually not be applicable because their essence is the unity of both arenas. The integration of external expertise might be used to promote the search for system interests, but corporative actors, however, are tied to represent the interests of their clients due to their organisation purpose.

Another point connected to this, brought forward time and again, is the question of "mandate". The codes of practice for the German NFP as well as the Bavarian process stipulate that "actors have to ensure that their interest group/institution awards them the necessary mandate" (BMVEL 2001; translated by the author). Beck et al. (2002: 7) complain that representatives often had to query their institutions before proceeding to negotiate a common text, whereby the degree of precision and obligation of the consensual formulations usually decreased. This points to a trade-off between "mandate" and "expert orientation". On the one hand, we can assume that experts who primarily deal with factual issues in their daily work might tend to be primarily oriented towards problem solving, but may lack the necessary mandate within their institution. On the other hand, those who certainly have an extensive mandate may often be more involved in policy-making, thus usually more likely adopting positions oriented towards achieving organisational interests.

Limits and Problems

Long-term relationships within co-operative actor networks may tame opportunistic behaviour and allow to balance the actors' interests beyond specific topics and limited time frames. But the positive effects of the actor networks will become effective only to such an extent as the groups of actors concerned coincides with the given network structure. The better the structure of relationships corresponds with the need for co-ordination, the more likely is success.

A general assumption is that structures of policy networks will mostly better correspond to co-ordination needs than the structures of hierarchic organisations, because the former develop based on mutual interdependencies and are more adaptable due to their more informal character. But of course, also networks can show remarkable resistance towards structural changes and may therefore lag behind actual necessities. Then, if necessary, the participation of "outsiders" increases the transaction costs and is therefore possible only to a limited extent.

But co-ordination by networks may not only entail the advantages with regard to the actors' orientations. It might also entail problems that are well known from applying dialogue-oriented methods of decision-making to the local level (cf. Bogumil 2001: 13): selectivity regarding participants, motivation problems, high time expenditure as well as lacking transparency and publicity. Considering experience from processes of citizens' participation at the local level, I conclude that these problems can be partly prevented by clarifying in advance – or at an early stage – who is allowed to participate, when and on what topics, and how the results of an NFP shall be integrated in other decision-making processes. The crucial aspect is that the results of inter-sectoral NFP processes will usually affect a number of policy domains, while the decisive decision-making processes leading towards implementation will often take place in other, sectoral arenas. Similar to the co-ordination of several levels, inter-sectoral active "policy brokers" could take central roles as communicators of information and mediators between policy arenas.

The outcome of phase I of the National Forest Programme Germany was strongly criticised for lacking perspectives towards implementation. Hofmann and Liss (2001:8) report that at the end many actors had no concrete idea about the character of the elaborated NFP paper, and that some felt it turned out to be nothing more than a sector paper of the ministry in charge. But still, the practice code for phase II provides nothing more than the obligation that "the NFP process includes all relevant departments of government" (BMVEL 2001: 1). In fact, most oft the ongoing NFP processes seem to be quite weak in that point. Only recently, considerations and proposals for monitoring of the German NFP have been brought forward (Liss/Hofmann 2002:6f).

4.3.3 Co-ordination between Imposition and Influence

According to Wilkinson (1997: 155), different approaches of inter-sectoral co-ordination favouring either hierarchy or emphasising informing, consulting, influencing, and negotiating can be depicted on a continuum, the "integration continuum". It encompasses the mechanisms that have been discussed in the previous sections. Along this continuum the affected sectors are confronted with increasing restrictions by various forms of goal-setting, monitoring and evaluation. At the end points, there are soft bottom-up approaches on the one hand, on the other hand approaches of mandatory top-down co-ordination.

Top-down co-ordination requires formal power and authority to a very high extent. It demands a binding framework which provides the necessary restrictions for the co-ordinated sectors. Implementation is usually based on trans-sectoral strategies or plans, sectoral action-plans with operational targets and time schedules, effective reporting and monitoring mechanisms and regular evaluations.

At the other end of the integration continuum are bottom-up approaches that do not rest on formal power. Here, sectors develop their programmes in correspondence with their own priorities. Co-ordination is aimed at by a time-consuming process of information exchange, striving to integrate objectives from different sectors step-by-step. Vehicles of such approaches are not binding action plans but procedures that are supposed to raise the decision-makers awareness about the effects of their sectors' activities, continued processes of consultation and negotiation. Traditional institutional provisions supposed to achieve this are "inter-ministerial committees", "working groups", "co-ordinating bureaus" etc.

Where an approach that would be applied in an NFP-process would be located on the "integration continuum" might first of all depend on the ability and willingness of the institutions that bear the main responsibility to assert hierarchic approaches. Anyway, there are two main arguments against processes taking mainly a top-down approach: Firstly, our current understanding of the NFP concept, emphasising the elements of "participation", "collaboration" and "conflict-resolution", rules out mere state-centred top-down approaches. Secondly, the prerequisites for effective hierarchical co-ordination of various sectors are quite demanding with regard to the motivation and the capacities of co-ordinating units (see above).

5. Conclusions

Most of the recent literature related to policy co-ordination focuses on questions of vertical co-ordination whereas there are only few analyses dealing with processes of inter-sectoral co-ordination. This is especially surprising, as international political arenas are gaining importance and the demand for national co-ordination increases.

Anyway, "inter-sectoral co-ordination" has been discussed in terms of a process and a status. While the assessment of a process implies criteria such as the number of sectors involved, the period of participation etc., the status can be characterised by the extent of redundancy, the degree of incoherence, and the existence of issues which are important but not yet addressed.

When trying to assign policies to sectors, the traditional approach that is oriented on administrative structures will often lead to quite ambiguous and more or less arbitrary results. For analytical ends it seems more reasonable to define sectors as relatively autonomous decision-making structures and to assess their boundaries empirically. Therefore, a polity-oriented approach to define "sectors" was suggested.

One factor that can constitutes sector boundaries is the "profession" of actors. It often serves as a harmonising bracket for sectoral networks and results in advantages with regard to vertical co-ordination. The other side of the coin is that such networks are often relatively closed to outsiders. Closed policy domain networks are not well-disposed to inter-sectoral co-ordination.

Two main mechanisms of co-ordination have been discussed: co-ordination by hierarchy and co-ordination by negotiation. The assessment shows that both mechanisms face narrow restrictions. Successful co-ordination by pure hierarchy has quite demanding pre-conditions with regard to the motivation and the capacities of co-ordinating units. Beyond that, our current understanding of the NFP concept, with its emphasise on the elements of "participation", "collaboration", and "conflict-resolution", rules out mere state-centred top-down approaches.

Inter-sectoral co-ordination by negotiations requires interest groups that are capable to partici-pate and contribute on the long run. In certain cases the present capacities may have to be strengthened or even established as a first step before being able to start a broad participatory NFP process. But even then, co-ordination by negotiations faces the problem of incompatible orientations towards co-operative problem solving, on the one hand, and more

competitive orientations that are caused by question on the distribution on costs and benefits, on the other hand.

Two options to "control" opportunistic behaviour and to reduce transaction costs in processes of horizontal co-ordination have been discussed: The integration of horizontal self-co-ordination in hierarchies or network structures. Both allow to increase the outreach of co-ordination significantly. The "shadow of hierarchy" can force participants to look for common solutions. The norms of interaction that are adhered to in non-hierarchic and relatively permanent actor relationships within networks provide a basis for co-operative decision-making.

In order to avoid an imminent gap between the orientations towards interest balance, on the one hand, and joint problem resolution, on the other hand, another idea was brought up suggesting to institutionally separate arenas in which either one or the other orientation dominates, that is to differentiate between arenas dealing with the more political problems and arenas dealing with the more factual questions.

Both the integration of successful horizontal co-ordination in network structures and the need to link various sectoral policies to package deals require more or less stable structures as regards the actors' interaction. Policies that could form package deals in order to balance the interests of different actors will not always be topical at the same time. Therefore, actors who are ready to make concessions in certain questions "in advance" must be in a position to assume that the others will honour this later if necessary. For this, a more or less stable structure that guarantees "institutional memory" (Scharpf 1992: 85) is a necessity.

Furthermore, decisions taken at inter-sectoral NFP arenas have to be translated into sectoral policies. Otherwise their implementation can be at risk. This is a crucial point. If this translation isn't achieved successfully, the NFP output will largely get stuck at the programme level, at least in those parts that do not coincide with the respective sectoral interests.

Institutional provisions are important. They can significantly facilitate or hamper co-ordination efforts. But to take action is the actors' task. Therefore, I concluded that one of the first important tasks within inter-sectoral co-ordination processes in the NFP context is to identify common problems, goals, or interests in the broadest sense which may provide common references and motivation for further steps. Problems with regard to the continuous motivation of actors can be partly prevented by clarifying in advance – or at an early stage – who is allowed to participate, when and on what topics, and how the results of an NFP shall be integrated in other decision-making processes.

The question of motivation is certainly a central one not least because processes like NFPs are usually not only about the factual issues at hand, i.e. about the concrete programmes and measures of forest policy. They are also, at the same time, about the distribution of competencies and domains of influence. The outcome is difficult to anticipate. Taken seriously, inter-sectoral co-ordination cannot be seen as a one-way process. It can result in changes as regards formal competencies and sectoral power and it may lead to new definitions of the roles of ministries, departments, actors, and policy networks. Actors who are preferred by the status quo are certainly aware of this. Perhaps this is one of the main reasons why "… no suggestion for reform is more common than 'what we need is more co-ordination' " (Pressman and Wildavsky 1984: 60).

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Inter-sectoral Co-ordination: State of the Art and Beyond

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Abstract

An increasing number of sectors outside forestry have an affect on the performance of the forestry sector. Therefore, international organisations like FAO and EU, but also individual countries, emphasise in their policy strategies the need for inter-sectoral co-ordination in the development of (national) forest strategies in order to achieve sustainable managed forests. However, both in practice and theory, there is no clear understanding of 'inter-sectoral co-ordination'. Practice, to be understood here as empirical research findings and policy documents, has not gone beyond the level of describing inter-sectoral relations. At the same time theory has focused on sectors in a descriptive way or has used it as a mere analytical concept to structure social complexity. None of them have resulted in a comprehensive framework for understanding inter-sectoral co-ordination. In this paper it will be argued that an actor-oriented approach, in which the delineation of sectors is based on the actors' own perspectives, will lead to a better understanding of inter-sectoral co-ordination. Therewith it is not only important to understand who is setting what boundaries, but also to explore what the quality of these actors' boundaries are, as it seems reasonable to assume that the quality of the boundary will impact on the co-ordination possibilities between these sectors.

Keywords: inter-sectoral co-ordination, sectors, actor-oriented, boundaries, quality of boundaries, policy co-ordination, forest policy

1. Introduction

The issue of inter-sectoral co-ordination is of particular interest against the background of the discussion on National Forest Programmes (Glück et al. 1999). Within this discussion, inter-sectoral co-ordination is one of the four conceptual essentials for National Forest

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Programmes that have been identified in COST Action E19 besides participatory approaches, collaborative approaches, and procedural approaches. In earlier attempts these four essentials were specified during the Freiburg seminar (1998) and at the NFP-workshop that was organised by the Ministerial Conference on the Protection of Forests in Europe.

At first sight, the mechanisms of inter-sectoral co-ordination may seem rather obvious, although, this review shows that both in practice and theory, no clear conceptual framework has been developed yet for inter-sectoral co-ordination. Practice refers here to empirical research and policy documents from several international organisations, while theory refers to scientific analysis and theoretical approaches. The aim of this paper is to review insights in the mechanisms of inter-sectoral co-ordination from both a practical and theoretical perspective in order to find building stones for a comprehensive conceptual framework for inter-sectoral co-ordination.

2. State of the art in practice and theory on inter-sectoral co-ordination

2.1 Review on practice: experiences, policy documents and empirical research on inter-sectoral co-ordination

Experiences clearly reflect a growing awareness among foresters that inter-sectoral linkages need more attention, especially in order to establish and safeguard sustainable forests all around the world (De Montalbert and Schmithüsen 1993; De Montalbert 1995; Schmithüsen et al. 2001). "There is an increasing understanding among policy makers and forest specialist that forest policy objectives and instruments are in many cases not sufficient to reach sustainable management of forest resources and therefore complementary measures which concern other public policies are necessary" (Schmithüsen et al. 2001:21).

Experiences also indicate that many of the key problems in forestry originate from outside the forest sector and that there is no way to tackle these key problems adequately by using the 'traditional' sectoral approach (Ellefson 1991; Liss 1999; Hooper 1999). 'Inter-sectoral co-ordination' in the understanding of a pro-active approach is seen as at least partially a solution to address these impacts of other sectors on forestry and forests.

Inter-sectoral co-ordination as a concept first occurred in official forest policy documents during the 1990s as an essential to execute and implement sustainable forest management in practice. The following three examples out of international policy documents illustrate the immediacy of these calls:

- *FAO* as well as later the *IPF* have identified holistic and inter-sectoral approaches as a basic principle for the formulation and implementation of National Forest Programmes (UN-CSD-IPF 1996; UN-FAO 1996).
- The *FAO* states that "because the underlying causes of most forestry problems are found in other sectors, adequate inter-sectoral co-ordination mechanisms must be developed" (FAO 1999).
- The *European Commission* states that "forests and the forest sector are mainly affected by elements lying outside the sector, which will need 'reorienting' cross-sectoral and forest related policies in favour of forest. Addressing issues pertaining only to the forest sector itself or to forests themselves would not have a sustainable and long-term impact" (European Commission 1999).

Similar calls can be found in national documents in almost all countries all over Europe.

Inter-sectoral co-ordination is presented in policy documents uniformly as an essential, however, at the same time also its relativity is stressed out, as the effectiveness and efficacy of inter-sectoral co-ordination still has not been examined in detail yet. Inter-sectoral co-ordination is nevertheless interpreted as one of the possibilities to improve the interactions between sectors impacting on forestry. Conflicts or disregarding strategies are considered to be other possibilities in solving inter-sectoral problems in forestry. Out of the review of policy documents the 'relativity' of inter-sectoral co-ordination seems to form an important starting basis for a conceptual framework of inter-sectoral co-ordination.

The few existing empirical studies on inter-sectoral co-ordination provide us with additional building blocks for such a conceptual framework. In the first instance one can wonder whether inter-sectoral co-ordination is really a new strategy or whether it already takes place without a conscious effort from the forest sector. Broadhead (2002) looked into cross-sectoral policy impacts in forestry within and outside the FAO and found that public policies from nearly all other sectors have impacts on forestry. More interesting, the results of his study also suggest that many policies are pursued with more or less full knowledge of the impacts they will have on forests and forestry (Broadhead 2002). However, it remains unclear whether inter-sectoral co-ordination is applied as a pro-active strategy by the forest sector or whether it is a consequence of activities outside the range of the forest sector.

Secondly, inter-sectoral co-ordination is not an overall solution for all co-ordination problems in forestry. It for example does not diminish the importance of the development of specific sectoral forest policy in order to tackle specific sectoral issues (Schmithüsen 1993). The case of Norway clearly illustrates this point. The Norwegian government distinguishes between *national targets and sectoral targets*. The national targets provide the basis for cross-sectoral environmental policy. But in cases where the nature of an environmental problem or other social factors means that it is not appropriate to use cross-sectoral instruments, sectoral targets and instruments will be used to achieve the national targets (Norway 2001). However, also in this example no clear criteria are given to distinct national from sectoral problems.

A third building block can be taken from empirical studies showing several (institutional) risks that can affect the course of an inter-sectoral process. Possible institutional risks are decreasing autonomy of individual institutions, reinforcement of institutional hierarchies, and undermining of the original, distinctive missions that led to the establishment of different institutional types in the first place (Jones et al. 1998). Besides these institutional risks also the general pit-falls of joint-decision making apply, such as the risk to end in deadlocks with an increasing number of actors or with increasing numbers of policy arenas involved in the policy co-ordination processes (Benz 1999).

The review on inter-sectoral co-ordination clearly indicates the need for inter-sectoral co-ordination (1) to tackle complex issues in forestry caused by other sectors and (2) to master the positive effects of forests to other sectors. However, the focus in practice has not yet gone beyond the promise of inter-sectoral co-ordination. Also the few empirical studies on inter-sectoral co-ordination do not provide more insights than just pointing out the relativity of the concept. In summary, it can be concluded that practice beside its claim does neither provide deeper understandings of the mechanisms and consequences of inter-sectoral co-ordination, nor clear criteria for the distinction of sectoral approaches from inter-sectoral co-ordination. The question is whether the situation is different in theory.

2.2 Review on theory: co-ordination between organisations, government agencies and networks

The 'state of the art' on inter-sectoral co-ordination in theory shows that frameworks on co-ordination between organisations, governments and networks are abundant, but that no comprehensive framework exists that focuses on co-ordination between sectors. Nevertheless, the existing frameworks on co-ordination between organisations, governments and networks do contain elements that might also be helpful in developing a comprehensive conceptual framework on inter-sectoral co-ordination.

Organisations

Co-ordination between *organisations* became a hot-topic during the sixties, seventies and eighties when this was the next step in understanding how organisations operate (see Hanf and Scharpf 1978; Godfroij 1981; Rogers and Whetten 1982; Barringer and Harrison 2000; Fenger 2001). Warren et al. were among the first to develop a perspective on co-ordination that focuses upon decision making. They define co-ordination as "a structure or process of concerted decision making or action wherein the decisions or action of two or more organisations are made simultaneously in part or in whole with some deliberate degree of adjustment to each other" (Warren et al. 1974: in Mulford and Rogers 1982: 16).

In almost all cases interdependencies or the perception of interdependencies are given as the prime motivation for co-ordination (see Godfroij 1981; Termeer 1993: 18). Interdependence is thereby defined as the condition by which the action of one actor interferes with or contributes to the goal achievement of another actor (Zafonte & Sabatier 1998). Zafonte and Sabatier (1998) further specify interdependencies as either imposed upon actors as a deliberate effort of an outside party or as the result of a natural cause-effect relationship outside the control of the involved parties. Interdependency either interferes or contributes to the goal achievement of the other actor's action, but also an independent (neutral) state can be detected (Fenger & Klok 2001). Other motivations for co-ordination between organisations are the feeling of a serious problem regarding scarcity or degradation as well as the perceived threat to loose autonomy, resources, and task or power domain. Besides these motivations, the extra efforts of a co-ordinated approach needs to generate proportional benefits (Hooper et al. 1999). In the eighties and nineties this call for efficiency was also applied to the level of government because of increasing expenditures of government (Peters 1998a,b). Together with the increasing establishment of governance structures (see Goodwin 1998; Bressers and Kuks 2001; Van Kersbergen & Van Waarden 2001) and new public management (see Kickert 1997) this has resulted in an increasing need for co-ordination between levels of government (multi-level governance) as well as between different government agencies and sectors (horizontal inter-sectoral co-ordination).

Governments and networks

Several studies on co-ordination between government agencies (Peters 1998, 1998b; Metcalfe 1994) have provided insights, which might also provide building blocks for a conceptual framework on policy co-ordination. Peters (1998a, 1998b) describes several institutions and procedures that facilitate co-ordination between governmental agencies. In figure 1 the policy co-ordination scales of Metcalfe (1994) is provided, with which co-ordination between governmental agencies can be brought into perspective.

It is important to point out that higher steps on Matcalfe's scale do not automatically imply 'better' coordination, especially when taking into account that higher steps in the scale involve usually higher transaction costs and higher chances of pitfalls in joint-decision making.

Figure 1. Policy co-ordination scale (Metcalfe 1994: 281).

Co-ordination in networks has also become a central topic with the rise of theories on networks and multi-level governance. Scharpf (1993; 1997), and Sabatier and Jenkins-Smith (1988; 1999) are the most prominent scholars that put a particular focus on co-ordination in their theoretical explanations.

Scharpf argues that the advantages of hierarchical co-ordination are lost in a world that is characterised by increased interdependence. Under such conditions negotiated co-ordination may be the only type of co-ordination that will work, despite disadvantages of the negotiator's dilemma and the large-number problem (see Scharpf, 1993: 138-141). Scharpf distinguishes between two forms of negotiated co-ordination: positive and negative co-ordination. Positive co-ordination is "an attempt to maximise the overall effectiveness and efficiency of government policy by exploring and utilising the joint strategy options of several ministerial portfolios" (Scharpf 1993: 143). This is seen in contrast to negative co-ordination with the goal "to assure that any new policy initiative designed by a specialised sub-unit within the ministerial organisation will not interfere with the established policies and the interests of other ministerial units" (Scharpf 1993: 143). Positive co-ordination means thus involving other actors during the policy-making phase while negative co-ordination is described as an 'export activity', meaning that a ready made plan is laid out to others for comments. Both 'negotiations' occur within the shadow of hierarchy and can facilitate a 'successful' co-ordination process (Scharpf 1993).

One of the shortcomings of the framework of Scharpf is that it is based on the rational choice perspective in which actors are perfectly rational with the prime motivation to maximise their own self-interest, under conditions of complete information and cognitive and computational capacities being unlimited (Scharpf 1997). The Advocacy Coalition Framework (ACF) of Sabatier and Jenkins-Smith (1988; 1998) overcomes this shortcoming by using a more social constructivist approach.

Sabatier (1988) and Sabatier and Jenkins-Smith (1998) developed the ACF in which actors can be aggregated into a number of 'advocacy coalitions'. Each coalition is composed of actors from various governmental and private organisations that both (1) share a set of normative and causal beliefs and (2) engage in a nontrivial degree of co-ordinated activity over time (Sabatier en Jenkins-Smith 1999: 120). Advocacy coalitions are referred to as belief systems that are organised into a 'hierarchical tripartite' with at the highest level the *deep core beliefs*, that refer to the basis ontological and normative beliefs. Followed by the *policy core beliefs* that represent the basic normative commitments and causal perceptions across domains. Finally at the lowest level, *the secondary aspects* compromising of a set of narrower beliefs like policy preferences regarding desirable budgetary allocations. The ACF assumes "that policy core beliefs are the fundamental glue of coalitions because they represent basic normative and empirical commitments within the domain of specialisation of

policy elite's" (Sabatier and Jenkins-Smith 1998). Zafonte & Sabatier (1998) build on the ACF by developing a 'co-ordination-scale' using 'strong and weak co-ordination' in order to approach co-ordination between different 'advocacy coalitions'. To 'complete' the different relations between advocacy coalitions Fenger and Klok (2001) included also weak and strong conflicts, and scales of coalitions whereby interdependency and beliefs determine the outcome of the coalition behaviour (Fenger and Klok 2002; Fenger 2001).

The institutional procedural channels for co-ordination, the co-ordination capacity scale and the more theoretical frameworks of Scharpf as well as of Sabatier and Jenkins on co-ordination show interesting building stones for a conceptual framework of inter-sectoral co-ordination. However, the major weakness of all these frameworks in the light of inter-sectoral co-ordination is that they do not go beyond the level of actors, organisations or networks. Inter-sectoral co-ordination clearly requires an understanding of sector. Only when sectors are interpreted synonym to networks the frameworks above would be directly applicable. However, it seems reasonable to assume that the concept of a sector comprises more than the classical understanding of actors in networks. It is argued here that the way in which sectors are delineated is influencing the co-ordination between them. The boundary of a sector then becomes a key concept in understanding inter-sectoral co-ordination. This point of view is elaborated in the next paragraph.

3. Perspectives on delineating sectors

The review on the state of the art in theory and practice clearly showed that frameworks for co-ordination have not gone beyond the levels of organisations, government or actor networks. A first step towards the development of a conceptual framework on inter-sectoral co-ordination is therefore to clarify the concept of a 'sector'. Out of literature, three perspectives can be identified on how the concept 'sector' is delineated.

3.1 System-perspective

The first and probably most common perspective on approaching sectors is to structure the socio-economic reality into systems in order to reduce complexity, according to observer's interest. Examples of this system-perspective are sectors that represent sections of economic life of society (agricultural, fisheries etc.) or sectors that are based on disciplines like economic, societal, organisational, and policy. Sectors are also approached along the spheres of state, market and civil society, especially in the Anglo-American literature (see Waddell 1999).

But because the boundaries of the sectors are drawn according to observer's interest it is the observer herself who determines whether interactions have to be seen as either sectoral or inter-sectoral. As a consequence such approaches have to remain on a descriptive level of inter-sectoral co-ordination. A good example for delineating sectors in a system perspective is the work of Schmithüsen et al. (2001). They describe three studies that all came up with similar descriptions of social systems influencing forestry, namely macro-economic policies, population and social affairs, and linkages with agriculture, land-use and tenure, energy, environment and infrastructure policies. So far, no studies in forestry have gone beyond such a descriptive level.

3.2 Analytical perspective

From an analytical perspective the existence of sectors is claimed *independent* from an observer. Scott and Meyer (1991), for example, assign significant characteristics of a sector to the amount of consensus among its members to the nature of the domain and its constituent members (Scott 1991). In an analytical approach emphasise is put on members and the networks in which they interact.

Members are addressed here with the concept 'actors'. Actors refer here to both individuals and organisations, both non-governmental and governmental, and to their representatives. Actors are units that act with a certain unity (Termeer 1993). Actors often participate in different networks and networks are therefore known by its actors and their interactions (Teisman 1995). Networks can be characterised as interwoven power structures where relations are characterised by dividing and sharing authority among multiple decision structures. Asymmetric relations (resources are unequally divided among actors so actors are condemned to each other), ambitions and permeable boundaries between organisations characterise interdependency in networks of decision-making (Teisman 1995).

With the emphasis on interactions within and across networks of actors the analytical perspective comes very close to the theoretical frameworks of co-ordination in networks, however, on the price of setting networks synonym with sectors. Two objections have to be made against such equalisation. The first refers to the level of network theories. Sectors are of a different abstraction level and therefore do compromise more than just actors in a network; sectors also include specific cultural, organisational, and institutional characteristics. Secondly, the boundary setting and specification of sectors is highly underexposed in organisational and network theory (see Gillespie and Murty 1991). However, precisely boundary setting activities are essential for inter-sectoral co-ordination as coordination is probably more influenced by the delineation of a network or a social system, than by inside activities. An actor-oriented perspective in delineating sectors might therefore hold the highest potential as a basis for a comprehensive conceptual framework on inter-sectoral co-ordination.

3.3 Actor-oriented perspective

This third perspective on sectors, an actor-oriented perspective, must be seen in the light of the social structure debate, a central debate in social science. An interesting contribution to this debate is the 'structuration-theory' of Giddens (1984, 1990). This theory argues that human agencies live through culturally-bound structures of rules and resource flows, yet human agency, in our continually inventive ways, remake them in each instance, and in remaking the systems, the structuring forces, we also change ourselves and our cultures (Giddens 1984).

In the actor-oriented perspective human agencies are the actors involved with forest policy making and the structure shapes the boundaries of the different sectors they feel related with. Actors are thus bounded by boundaries that they also challenge and change by their actions. If a sector is delineated from other sectors through the interaction of its actors and the way in which they use and challenge its boundaries, inter-sectoral co-ordination can be analysed only relative to the boundaries, which the actors themselves draw around their sector. As a logical consequence one has to realise that what we describe as forestry is only a snapshot of the truly continuous interactions of social forces at a given time and place (Schanz 1999b). Therefore, understanding actor's boundary setting is a basic requirement for the analysis of inter-sectoral co-ordination. For depending on how boundaries are drawn the same interaction between actors can be interpreted as being either sectoral or inter-sectoral. Just as in the system perspective, the interpretation of what is seen as inter-sectoral co-ordination always

requires a normative position. However, in contrast to the system perspective, this normative position is not filled in by the observer but by the relevant actors themselves.

It seems obvious that 'boundaries' become a key concept in developing a comprehensive conceptual framework on inter-sectoral co-ordination. As it can be hypothesised that the quality of the normative 'sector' boundary impacts on the quality and quantity of co-ordination between sectors. The first challenge is therefore to understand who is setting, accepting, maintaining and adapting the forestry sector boundaries and why. The second challenge is to identify in what way these sectoral boundaries impact on the co-ordination activities across them.

4. Towards a comprehensive conceptual framework for explaining the mechanisms of inter-sectoral co-ordination

4.1 Boundaries

In general, actors are drawing boundaries to define, to structure, to identify and to distinguish (Schanz 1999a: 4). The first function of boundaries, to define, reveals the variety in possible descriptions of a situation in a certain context. A description of the same situation of a sectoral boundary can be viewed from an institutional context, as well as from a cultural context resulting in different understandings of the same situation of the sector. The second motivation refers to the fact that setting of boundaries provides structure for orientations, comparison and positioning. Actors therefore structure boundaries according to their own ideas and interests. The third motivation for actors to draw boundaries is that actors can identify themselves in proportion to their own sector and also compared to other sectors. The fourth motivation for boundaries is that they can include and exclude. In relation to the boundaries of the forest sector inclusiveness and exclusiveness refers to who and what is within the forest boundaries and what is not. Consequently problem framing, identity, structure and inclusiveness, respectively exclusiveness seem to be key concepts in characterizing sectors. It seems only logical to assume that their respective interpretation determines the *quality* of the sectoral boundaries, and in doing so also influences the quantity and quality of inter-sectoral co-ordination.

4.2 Characteristics of boundaries

Three things have become obvious. Firstly, problem framing, identity, structure and inclusiveness, respectively exclusiveness differs between actors as "boundaries will be constructed differently for the involved actors have different cultural background, interests, emotions, and knowledge levels" (Schanz 1999a: 5). Secondly, involved actors challenge boundaries and therefore change boundaries over time and place (see Kennedy et al. 1998). Thirdly, due to increasing complexity of governance structures and rising complexity of problems at stake, more actors become involved which means an increasing number of boundary (re-)setting activities.

In consequence boundaries must be characterised as a highly dynamic concept, continuously undergoing changes. What is to be understood as inter-sectoral interaction today can be understood also in an actor-oriented perspective as sectoral interaction tomorrow. It seems therefore reasonable to assume that the characteristics of boundaries might also influence the quality inter-sectoral co-ordination. Out of literature two main characteristics of

boundaries can be distinguished that seem to be of particular influence, namely the permeability and the rigidity of boundaries.

The first characteristic, permeability of boundaries, is referred to as the amount of possible interfaces and linkages with other sectors. Permeability of boundaries ranges between impermeable, semi-permeable, and permeable boundaries. Long (1989) describes permeability as interfaces that are defined as "critical point of intersection or linkage between different social systems where structural discontinuities, based upon differences of normative value and social interest, are most likely to be found". Permeability of boundaries is influenced by environmental changes, but also because of the existence of boundary spanning roles, standardised referral procedures, and personnel roles (Halpert 1982:60).

The second characteristic of boundaries can be referred to as rigidity of boundaries (see Van de Laar 1990). Rigidity refers to the liability to 'blurring' expressed by the effort actors have to make in order to change boundaries. This rigidity of boundaries is especially interesting in the context of history; who set the boundaries, who changed the boundaries, how and for what reason. Rigidity as variable for the quality of boundaries seems relevant because a change in the setting of boundaries means that the interpretation of activities can change from sectoral to inter-sectoral co-ordination or vice versa.

Related to inter-sectoral co-ordination, permeability and rigidity of boundaries can be challenged in at least six ways: by institutions, organisations, politics, culture, information and persons.

- Institutions can be formal like the laws and regulations that apply for forests, professional associations, training, meetings, panels and symposia but also informal like informal gatherings and networks.
- Organisational elements are rooted in differing missions, professional orientations, structures, and processes of the agencies (Jennings and Krane 1994).
- Politics is grounded firstly in the external political environment of programs and constituency groups. Secondly, in the internal politics of bureaucracy, often referred to as 'turf-protection'. This means that each agency has a domain from which it strives to exclude others that requires minimal co-operative efforts with other agencies that may be looking to expand into its domain (Jennings and Krane 1994: 342).
- Culture provides a store of discursive resources, story lines and myths, and of organising resources, rituals and routines (Healy 1997). These cultural elements refer to jargon, habits and traditions, myths and stories specific for a certain sector.
- Information refers to the different possible information flows available or not between the sectors, for example via specific internet-sites, e-mail lists, newsletters, sector specific journals, and professional committees.
- Persons refer to trust, experiences, and solidarity's of individuals that could be negative, positive or neutral and influence the 'cohesion' of the sector and the relations with persons in other sectors (Franz 1991; Scharpf 1993; Tomkins 2001). Trust is derived from learned, usually interactive, experiences as well as from appropriate information that in turn depends upon the state of trust (Tomkins 2001).

5. Conclusion: quality of boundaries determines co-ordination

Inter-sectoral co-ordination is presented in (policy) practice as an essential, 'new' strategy for the forest sector to obtain sustainable forest management. But so far only a few empirical studies have described inter-sectoral linkages while theoretical frameworks have concentrated

on co-ordination of governments and networks and not on the more abstract level of sectors. From an actor-oriented perspective boundaries between sectors seem essential for a framework on inter-sectoral co-ordination. Therefore we have argued that inter-sectoral co-ordination can only be understood relative to these sectoral boundaries and that more specifically the quality of these boundaries determines the co-ordination capacity. The quality of boundaries is not fixed, because the level of permeability and the rigidity of boundaries change in time. These changes can have a political origin, like for example a new cabinet, but also organisational, like job rotation-systems. When looking at inter-sectoral co-ordination it seems therefore essential to relate co-ordination to the quality of boundaries because it can logically be deducted that the institutional, political, organisational, cultural, informational, and personal elements of boundaries determine the outcome of interactions between sectors. In any case, it is clear that the identified building blocks for a conceptual framework of inter-sectoral co-ordination need first empirical exemplification before they can serve to enlighten the mechanisms, limits and opportunities of inter-sectoral co-ordination.

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Institutional and Intersectoral Aspects of the National Forest Policy in Portugal

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Abstract

This paper gives an overview of the Portuguese forest sector and its characteristics. The legal and policy framework of the NFP in Portugal are described as well as the relevant institutions involved. Institutional and intersectoral aspects are analysed as important limiting factors for effective policy implementation, with emphasis on institutional complexity and traditional policy processes in opposition to new participatory ones. The evaluation of some processes involving participation and intersectoral aspects and associated problems generate new problems to cope with. Certification and sustainable forest management regarded as a NFP process are considered as an example of a new participatory approach. We conclude that some of the Portuguese problems in the policy making process are only solvable by working at the public and political awareness of these problems

Keywords: National Forest Policy, institutions, intersectoral aspects, Portugal.

1. Introduction

The forest resources in Portugal represent around 38% of the area of the country and are based in three different types of forest. Pine forests expanded since the end of the 19th century until the 1960s. Forest fires have been the main cause for the decrease of the pine forests as today their share is approx. 34% of the total forest area. Eucalypt fast-growing plantations for pulpwood have expanded since the 1960s, representing some 20% of the total forest area. Cork oaks and Holm oaks are the base of the agro-forestry systems dominant in the southern part of the country (*montados*), representing around 37% of the total forest area (CNADS 2001).

These three different types of forest determine the importance of the forest sector for the national economy, as well as a very heterogeneous structure deriving from the variety of

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products and industries associated with these forests, and the differences in ownership structure, forest management systems and capacity (Mendes 1999).

These characteristics reflect strong geographical differences in the Portuguese territory and determine an important role of the forest resources not only in the industrial and exporting business but also in the rural areas development, with special emphasis on the landscape and biodiversity environmental values associated with forest ecosystems.

The institutional and intersectoral aspects of the National Forest Policy in Portugal are important factors of effectiveness of political measures directed to the management of forest resources. Critical aspects are the efficiency of the implementation of these measures as well as the introduction of changes in participation methods of interested social groups in the various aspects of forest policy as a continuing process.

2. Current state of the NFP

2.1 Legal and Policy framework

The legal and policy framework integrating the Portuguese NFP includes as its main instruments the Forest Policy Law (1996), stating the principles and goals of the forest policy as well as the main policy tools to achieve those goals (Mendes 1999); the Environment Law (1987), focusing on a holistic perspective for the environment, including forests as multifunctional ecosystems and the Land-Use and Urban Planning Law (1998), considering the integration of sectorial plans containing programmes for regional socio-economic development, including the forest sector, with other types of territorial planning instruments.

Among the tools for the implementation of the NFP mentioned in the Forest Policy Law are the Regional Forest Management Plans (PROF) and the Forest Management Plans (PGF) (1999), that are special plans intended to focus respectively at the regional level and to the management unit level. The Regional Forest Management Plans include the evaluation of forest areas potentialities; species selection (afforestation and sylviculture), identification of adequate management and sylvicultural models, identification of critical zones (fire, soil erosion) and identification of zones of ecological, social and cultural importance.

The main document concerning NFP is the Plan for the Sustainable Development of the Portuguese Forest (1999). This was a document that was presented for public discussion before its approval. It is a National Forest Plan stating policy goals, operational targets and policy instruments in a comprehensive approach including: improving the productivity of existing forest stands; expanding the national forest area; improving the protection against forest fires; building forest management capacity; building capacity in forest-related services; creating a sustainable forest management certification system; protecting biodiversity; innovating financing; consolidating forest legislation and regulations; other goals regarding the protective role of forests (soils and water), contribution of forests to global carbon cycles, protection of forests against biotic and abiotic agents, integration of forests in land use planning, coordination of forest research, development of forest industries, commercial promotion of forest products, recreational use of forests and improved management of non-timber forest production, including gaming and fishing (Mendes 1999).

A National Strategy for Nature and Biodiversity Conservation (2001) has been presented for public discussion and approved. It states specific management regulations for Natura 2000 sites and specific forest plans (PROF and PGF) are considered as important potential instruments of conservation and protection of biodiversity in forest areas.

Recently a document issued by the National Council for Environment and Sustainable Development (*Conselho Nacional do Ambiente e do Desenvolvimento Sustentável*) (CNADS 2001) presented a characterization of the National Forest Sector and Policy, intended to integrate the National Strategy for Sustainability (MCOTA 2002).

The legal and program framework for decision-making concerning the Portuguese national forest policy exists and problems and objectives have been discussed and stated. There is also a national unanimity around forest political issues. Implementation and monitoring of forest political measures seem to be the questions requiring effective answers and these have been in part linked to institutional and intersectoral relations.

2.2 Relevant Institutions for the Forestry Sector

The Forestry Sector's political responsibility at State level in Portugal belongs mainly to the Ministry of Agriculture (*Ministério da Agricultura, do Desenvolvimento Rural e Pescas*). The Department of Rural Development (*Secretaria de Estado do Desenvolvimento Rural*) is responsible for the productive (or cultivated) forests, their role in the rural development, soil and water conservation, desertification problems.

The Ministry of Environment (*Ministério do Ambiente e do Ordenamento do Território*), is relevant for it oversees the natural parks and other protected areas (around 20% of the territory) and has jurisdiction concerning the forest domain, in environmental issues like biodiversity, natural resources conservation, and territorial management.

The General Directorate of Forestry (*Direcção-Geral de Florestas – D.G.F.*) is the National Forest Authority, responsible for "coordinating and supporting the implementation of the forest policy, through forest management and protection, production, conversion and marketing of forest products and other forest resources".

The seven Regional Directorates of Agriculture (*Direcções Regionais de Agricultura*), through the respective forest divisions (*direcções de serviço das florestas*), are responsible for the implementation of forest policies at the regional level, "in agreement with functional instructions from the National Forest Authority and with the participation of representative organizations of rural people", being therefore the regional operational component of the National Forest Policy. The Regional Directorates of Agriculture are also responsible for the management of public forests and for the elaboration of regional forest management plans (*Planos Regionais de Ordenamento Florestal – PROF*). Furthermore the Regional Directorates of Agriculture evaluate and approve investment projects, supported by public funding as well as control of other measures supporting forest production.

2.3 Other institutions

The public Institute IFADAP (*Instituto de Financiamento e Apoio ao Desenvolvimento da Agricultura e Pescas*) overseen by both the Ministries of Agriculture and Finances is in charge of the financing of the agricultural and forest development policies.

Forest Research Institutions is performed by public Universities (Ministry of Education) with undergraduate and graduate programmes in Forestry, private research institutes as well as the National Forest Research Station, being part of the public research institute of the Ministry of Agriculture.

2.4 Stakeholders and partners

Four Community Forests secretariats (*secretariados dos baldios*). The objectives of these organisms are the promotion, protection and development of community forest areas.

Federations, Associations and Cooperatives of forest owners. A considerable number of forest owner associations of all kinds at national, regional and local levels, covering all the territory. One forest contractors' association and several forest industries' associations, organized by type of industry (cork, wood and furniture, pulp and paper).

Hunter and Fishermen are organized in a Federation, representing 17 regional organizations.

Four environmentalist NGOs, ten professional associations and several local government (municipalities) associations complete the description made for the institutional framework of the Portuguese forest sector.

Some points should be emphasized with respect to institutions. Government institutions reflect the separation at the political level between production and conservation forests (two separate ministries), furthermore the recent reorganization of the D.G.F., separating the national forest authority from the regional forest divisions that are integrated with the agriculture services, has resulted in coordination difficulties and diminished capacity of the Forest Authority to perform their duties. Forest owners have only recently gained importance as political actors and their organizations have been involved in the implementation of policy measures, partially replacing the forest services in their traditional activities. An important aspect to retain is the existence of community forests (*baldios*) in which the D.G.F. has a traditional management influence. The integration of other institutions representing groups of interest in the political process is also a recent aspect of forest policy, and corresponds to an increase in interest by these groups but not necessarily an increase in awareness by the public opinion.

3. Co-operation on the State Level

3.1 Consultative institutions of the Ministry of Agriculture

The National Council for Agriculture and Rural Development (*Conselho Nacional da Agricultura e Desenvolvimento Rural*), " is a consultation institution for the Minister of Agriculture intended to implement dialogue and consultation with stakeholders and interested parties about agriculture, rural development, cattle-breeding, forest, conversion and marketing of agricultural products, environment and consumer interests. It is composed of 34 members, in which representatives of the production sector and industry predominate.

3.2 Regarding the Forestry Sector only

The Interministerial Commission for Forestry Affairs (*Comissão Interministerial para os Assuntos da Floresta – CIAF*) is presided by the Minister of Agriculture and was created to make articulation of different sectoral policies possible as well as to evaluate the consequences of different policies on the forest sector. This commission whose commitments are intended to discuss and recommend political measures adequate to the integrated development of the Forest Sector with others. Its composition includes representatives of the following ministries: Finances; Internal Affairs; Equipment; Planning and Territorial Administration; Economy and Environment. Although an intersectorial commission its meetings are irregular and its results are poor.

The Consultative Forest Council (*Conselho Consultivo Florestal*) is presided by the Minister of Agriculture and includes representatives from the forest interest groups. This council is a forum of discussion and monitoring of the forest policy whose role is to make recommendations to the Minister of Agriculture about new policies and the implementation of the current policies. Its composition includes: the Director general of forests, and representatives of the Public Administration (2), Municipalities (1), Community Forest administrations (2), Forest Cooperatives (2), Forest Owners' Associations (3), Forest Contracters' associations (2), Forest products marketing associations (2), Forest Industries' Associations (2), Professional organizations (2), Working class organizations (2), environmental groups (2), Teaching and Research Institutes (2), and 3 individual personalities widely recognized in the field.

The National Council for Hunting and Fauna Conservation (*Conselho Nacional da Caça e da Conservação da Fauna – CNCCF*). This Council is a consultative organ for the Minister of Agriculture regarding the definition and implementation of the national hunting policy. Its composition includes: the Director general of forests, and representatives of Public Administration (3), Municipalities (1), Hunters national organizations (8), managers of touristic interest hunting zones (1), managers of municipal interest hunting zones (1), big game hunters (1), Traditional hunting associations (1), farmers confederations (3), Working class organizations (2), environmental groups (2), Hunting species breeders' associations (2), armourers' organizations (1) and 3 individual personalities widely recognized in the field.

The Commission to following of Forest Operations (*Comissão de Acompanhamento para as Operações Florestais – CAOF*) was created to analyse the investments involving afforestation, tending and forest harvesting operations, with special attention to efficiency parameters. This is a commission that coordinates the actions directed to build a database of standard working times for all forest operations. Its composition includes representatives from: the General Directorate of Forests; IFADAP (Financing Institute, see above); Forest Owners' Organizations; Forest Contracters' organizations, Institute of Hydraulics, Rural Engineering and environment (*IHERA*), that coordinates the Commission.

The National Specialized Commission for Forest Fires (*Comissão Nacional Especializada de Fogos Florestais – CNEFF*) is a consultation commission that supports the Ministry of Internal Affairs in coordinating prevention, detection, fighting of forest fires. Its composition includes one national coordinator, the Director general of forests, the President of the National Service of Firemen, the president of the Institute for Nature Conservation, the president of the Institute of Meteorology, the president of the Youth Institute; and representatives of the Ministry of Education and the Association of Municipalities.

This characterization of the government level interrelationships concerning forest policy shows the institution complexity involving six ministries and a considerable number of institutes and other kind of directorates at various levels. This may lead to problems of organizational coordination and efficiency in formulating and implementing policies.

4. Forest Certification

A Portuguese National Standard for Certification of Sustainable Forest Management ("Portuguese Standard for Sustainable Forest Management Systems. Application of the pan-european criteria for sustainable forest management") was developed with the participation of many forestry professionals and other interested parties, representing the main forestry stakeholders. The participation process consisted of: (1) establishment of a technical commission; (2) organisation of discussion meetings. This standard is ISO 9001 and ISO 14001 based and incorporates the pan-european criteria for sustainable forest management.

A technical commission (*CT145 – Gestão Florestal Sustentável*) was established in 1998 under the Portuguese Institute for Quality (*IPQ – Instituto Português da Qualidade*) (Ministry of Economy), having been facilitated by the General Directorate on Environment (*DGA – Ministry of Environment and Land-Use Planning*). The organizations invited to participate included Forest Owners' regional and national associations (13); Forest Industries' (3 associations and 5 companies); Public administration (3, Agriculture and Environment Ministries); Environmental NGO's (3); Research and Development (2); Certification and Consultant Organizations (5). A period of consultation and public discussion process was set up. After this period, the technical committees have analyzed all contributions received and submitted the final draft for approval.

This technical commission has also produced a Code of Practice for forest owner's orientation in implementing a sustainable forest management system.

The Portuguese Forestry Sector Council (*Conselho da Fileira Florestal Portuguesa – CFFP*) has been formed in 2001 to promote forest management in Portugal and its control. Its members come from Forest Owners, Forest Industries, Consumers' and Environmental protection Organizations. Being a member of PEFC Europe, this Council is also responsible for the submission of the Portuguese standard to the Pan-European Certification Council (PEFC).

From this description of the legal and institutional framework of the NFP in Portugal it is evident that it represents a heavy hierarchical structure reflecting the historic tradition of a strong centralization (top-down process) in the formulation and implementation of forest policies many times imposed by central government institutions. Forest owners have been absent from policy formulation, and participation of relevant stakeholders has always been week, but in the last decade positive trends in stakeholder organization and participation have taken place. Forestry in Portugal has always been associated with forest and other industries, the influence of the industry and exporters of forest products being historically much stronger. Only recently have the forest owners' associations become stronger and an active part of the policy process, and they are becoming more and more aware of other values of alternative uses of forests, like non-wood products, environmental influences (e.g. carbon sequestration) and rural tourism.

Intersectorial co-ordination is also difficult to achieve with the present model. Forestry is considered as a rural development component, with strong ties to the industrial sector. Simultaneously environmental values in forest management are growing in importance, being progressively considered as accountable values by private forest owners.

Actions in other sectors have sometimes stronger effects on the forest sector than actions in the forest sector itself, frequently through government decisions

A list of important processes (or issues) in intersectoral and/or cross-sectoral coordination, in Portugal is presented in table 1. These are some of the most important processes concerning forest management at the national as well as regional and local levels. Table 1 contains a qualitative and subjective appreciation of the way intersectorial coordination is taking place. New problems, concerning the whole society, require new approaches regarding new participatory, conflict resolution and collaboration.

Regarding the inter-sectorial coordination and its difficulties in a NFP process, some weaknesses of the forest sector *vis-à-vis* other sectors are: insufficient political awareness by the public and other sectors of society (CNADS, 2001), lack of information and knowledge about the sector and its importance, difficulties in communication with other sectors (capacity problem), difficulties in participation in other processes (capacity problem), low attractiveness for professionals.

Table 1. Processes and problems in inter-sectorial and/or cross-sectorial coordination, in Portugal. The – or + in the third column reflect negative or positive tendencies while dealing with the processes.

Processes	Problems	
Land use planning and territorial administration.	- difficulties in coordination with the general land use planning policy - extended responsibilities to municipalities	-
Watershed management plans.	- difficulties in coordination - lack of information	-
Desertification (National Plan to combat desertification).	- a plan exists - lack of information	-/+
National Strategy for nature and biodiversity conservation.	- national strategy has been approved Natura 2000 sites represent 18% of the territory (36% of forest area) - special management plans are required	-/+
Climate change national strategy regarding scenarios, impacts and adaptation measures, specially regarding carbon sequestration (under discussion).	- forest group working (SIAM) - measures to obtain information	+
SFM criteria and indicators.	- participation in international processes - international commitment - elaboration of a Portuguese standard for SFM (technical commission) - adoption of the Pan-European C&I - some pilot studies have been advanced - participated process - constitution of the Portuguese forestry sector council to promote forest management and its verification - submission of the Portuguese standard to the PEFC - certification processes ongoing	+

5. Conclusions

As is clear from the description made above, representation of interested parties in the institutions has been assured. However, the question remains about the effectiveness of this participation and conflict resolution approaches in NFP. The institutional diversity that exists in Portugal, may generate complex relationships in the political process with special emphasis on intersectoral coordination. Some examples of bottom-up approaches have been adopted, like in the certification process. However the insufficient public and political awareness of the problems related to the forest sector, may originate problems concerning the policy-making process.

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The Status of Inter-Sectoral Co-ordination in SFM in Catalonia – Lessons Learnt from an Experimental Qualitative Research Design

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Abstract

The impact of other sectors on the forest, and vice versa, are evident (Rojas 1995) and policy makers and even the media are aware of the need for an inter-sectoral approach to achieve SFM. However, there are currently no examples or definitions of what kind of co-ordination is required and in which specific fields.

In 2001, the "Association for Sustainable Forest Management Certification in Catalonia" was founded. This association promoted the drawing up of a diagnosis in accordance with the specific indicators and criteria developed within a participatory process (UNE 162002-1 / UNE 162002-2).

From the analysis of this diagnosis, a new and wider understanding of the forest sector emerge, the sectors that necessarily have to be involved are defined and the need for better inter-sectoral collaboration is stated.

Those sectors and the administrative departments whose implication is proposed as a requirement for the future national forest programme for Catalonia are highlighted, and the main failures in co-ordination are indicated.

Keywords: inter-sectoral coordination, Catalonia, certification.

1. Introduction

The aim of this study is to analyse the status of the inter-sectorial co-ordination on forests and forestry in Catalonia in order to detect failures and needs. As a country experience paper, the objective is more to give an overview than to go deeper into defining the theoretical concepts.

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There is no definition of the sector or its boundaries in this study. A general definition is taken and assumed and the analysis framework presented by Karl Hogl as the background paper on Inter-sectoral Co-ordination (Hogl 2002) was adopted.

The sector is considered to correspond approximately to the historically developed administrative structures of public authorities and the core competencies of interest groups (Hogl 2002).

The approach to co-ordination as a state implies that the assessment can be based on the extent of redundancy, degree of incoherence and the existence of untackled issues (Peters 1998): The central questions to be asked here were (1) what other sectors are involved in forest matters? (2) what are the characteristics of this co-ordination between sectors? and (3) what level of coordination can be detected in the analysed 40 conceptual areas?

2. Research methodology

2.1 Where to analyse the inter-sectoral co-ordination?

In 2001, the "Association for Sustainable Forest Management Certification in Catalonia" was founded. This association promoted the drawing up of a diagnosis in accordance with the specific indicators and criteria developed within a participatory process (UNE 162002-1 / UNE 162002-2).

The forestry sector analysis was done from this diagnostic document elaborated for the regional certification process purposes. The choice of this document instead of others responded to different criteria. Firstly, this diagnosis was wider than the current official planning document. Although from the territorial planning point of view, forests are contemplated in a general and often strategic way, the national forest programme (NFP) of Catalonia, the so-called "General Forest Policy Plan" envisages no action towards inter-sectorial coordination. The Catalonia NFP, approved in 1994, was mainly drawn up by a section in the department responsible for forests, and only considers items that are the responsibility of the Directorate General where it was designed.

Second, the structure of the diagnosis follows the Pan-European criteria and indicators (C&I), adapted to Spanish conditions. The Pan-European C&I were approved on the Third Pan-European Ministerial Conference on Forest Protection in Europe, held in Lisbon (2–4 June, 1998) and had previously been accepted by a team of experts at the meetings monitoring the Helsinki Conference (Geneva, 24th June 1994, Antalya, 23rd January 1995). Thus, the diagnosis tackles the points considered to be important by the experts from around Europe.

Furthermore, the adaptation of the Pan-European C&I to Spanish conditions (defined by the AENOR norm UNE 162002-2) comes from a wide participatory process and has been accepted by all the relevant national stakeholders (landowners, industry, professionals, end-users, environmental groups, etc.) as a framework for defining Sustainable Forest Management at a regional level in Catalonia.

It has to be considered that not all the aspects related to forests are considered, but all those that the experts held to be the most important in relation with sustainable forest management according to the Helsinki Process has been taken into account.

The diagnosis is structured in 40 conceptual areas organised into the 6 paneuropean criteria (see the appendix 1), and defines more than 80 indicators.

2.2 Method for the analysis

Following the background paper on "Intersectoral Coordinarion" (Hogl 2002), we decided to analyse the inter-sectoral co-ordination not as a process but as a status, mainly because the analysis as a process was not possible because it is just starting, and also consider the definition of "sector" based on a policy dimension (Hogl 2002).

This approach works with the idea that "sectors" correspond approximately to the historically developed administrative structures of public authorities and the core competencies of interest groups. Thus, sectors are defined according to the limits of relatively autonomous decision making structures.

The approach to co-ordination as a state implies that the assessment can be based on the extent of redundancy, degree of incoherence and the existence of untackled issues (Peters 1998):

- Degree of Redundancy (two or more programmes/organisations aim towards the same goals without taking each other into consideration).
- Degree of Incoherence (two or more programmes/organisations aim at different goals or are based on different requirements).
- Degree of Policy gaps or issues not tackled. (important issues not on the agenda).

For the diagnosis, all the available information for every conceptual area was gathered though analysis of legal document, interviews with experts and published data.

From the legal documents, regulation rules, legislation about the organization of the administration and planning policies the departments or other administrative structures involved were determined (table 1). This analysis provided enough information to clarify responsibilities and domains, or, on the contrary, to see existing black points.

The questions are how this has been studied and what has or has not been considered redundancy.

Duplicated action by different administrations related to forest fires and fire-protection plans, for instance, have been considered redundancy. There are many institutions dealing with the issues of forest fires and many actions are duplicated, inter alia, fire watching or municipal strategies.

When analysing redundancy in detail, it can be said that in some cases it is due to multi-level governance and that administrations at different level do similar work. In this sense the existence until 2002 of two forest inventories can be highlighted, one for Spain (including Catalonia) and another, with some differences, only for Catalonia. This case has not been considered redundancy at an inter-sectoral level, because the redundancy has been detected at different administrative levels (local, regional and national).

Policy gaps have also been found. In some conceptual areas a policy gap appears when the responsibility is split and shared between different departments. An example could be the "Production monitoring and evaluation, and monitoring financial returns". The environment department is responsible for information about wood production, while the treasury department is responsible for information related to financial returns and the tolls section has the information about wood trade-offs.

There are other examples where the responsibility is not defined, such as "training for forest workers". The responsibility for controlling the training of forest workers. For instance, it is not clearly defined as to whether the labour, environmental or education department should be responsible for this. The jurisdictions of these three departments are not clearly defined concerning this issue.

In other cases the policy gap is due to a lack inside the department and not to a lack of inter sectoral co-ordination. Those cases are clear when the issue is about the responsibilities of the

department but the work is not done. An example for this could be the "Dead trees" conceptual area. According to this conceptual area, there should be a definition of the number and distribution of dead trees in accordance with the regional guidelines. However, the ideal number and distribution of dead trees has never been defined. Although it is clear that this is the responsibility of the environment department, there is a policy gap in this matter.

Few examples of incoherence were found. This has only been detected in the conceptual area 6.5: "recreational, landscape and cultural values" and in the conceptual area 6.4: "historical heritage". The culture and the tourism and industry departments make their own plans without regarding other policies, especially those of the environmental department. An example could be the declaration of protected areas and the decision to promote ski resorts. A paradigmatic case was promotion and support of the enlargement of a sky resort by the tourism and industry department on a protected area designated by the environment department.

Apart for these examples, there are other cases where two or three departments are involved and no lack of co-ordination has been found.

Table 1. Unco-ordination and department involved in the conceptual areas where co-ordination is required.

Conceptual area	Departments or other administrative structure involved	Uncordination found
Health of forest cover	agr/env	-
Fire protection plans	emerg/agr/env	Redundancy
Disaster damage	emerg/agr/env	Redundancy
Production monitoring and evaluation	env/tres/st/agr	Policy gap
Financial return	env/agr/st	Policy gap
Accessibility	env/pw	-
Socio-economic forest information	env/st/agr	Policy gap
Forestry reproductive material	env/agr	-
Socio labour conditions of workers in the management unit	env/lb	Policy gap
Worker training in sustainable forest management and job risks	env/edu	Redundancy and policy gap
Historical heritage	env/cul	Incoherence
Recreational, landscape and cultural values	env/cul/tour	Incoherence
Other forest socio-economic factors	env/st/tour	Policy gap

env: environment dept, agr: agriculture dept, emerg: emergency services, lb: labour dp, st: Statistics Institute, tres: treasury dept, pw: land planning and public works.

3. Results

Among 40 conceptual areas, analysed thorough the related indicators, in 12 there was more than one department or administrative structure involved and from this 12 areas unco-ordination at an inter-sectoral level was found in 10 cases (Table 1). The other 28 were under the responsibility of just one department or administrative structure.

The departments or other administrative structures involved were agriculture, environment, treasury, security, labour, land planning and public work, and emergency services.

The Inter-sectorial Co-ordination Capacity scale by Metcalf, modified by Karl Holg (Table 2) was also considered in the analysis. 8 levels of increasing capacities for inter-sectoral co-ordination are represented on this scale. The main idea is that a stable and reliable system of co-ordination depends on building the necessary capacities in the sequences shown in Table 2 from step 1 upwards (Hogl 2002).

When analysing from this point of view all the inter-sectorial co-ordination failures and how they could be evaded according to the Metcalf table (Table 2), it can be stated that 10 of the 40 conceptual areas contained in the diagnosis revealed a need for further co-ordination to achieve the agreed goals. In most of the cases, the cause of the problem was ambiguity

Table 2. Inter-Sectoral Co-ordination Scale.

Step 8	Establishing an overall inter-sectoral strategy. This step is added for the sake of completeness, but is unlikely to be attainable in practice.
Step 7	Establishing commonly agreed or binding priorities. Inter-sectoral agreement on common priorities and/or the main policy lines set out and cross-sector priorities established by centres of government.
Step 6	Defining common limits by setting parameters for sectoral activities. A central organisation of an inter-sectoral, decision-making body may play a more active role by constraining the admissible range of sectoral activity. The parameters define what sectoral actors must not do, rather than prescribing what they should do.
Step 5	Arbitration of inter-sectoral divergences. Where inter-sectoral divergences cannot be resolved by the horizontal co-ordination processes defined in steps 2 to 4, a central mechanism of an ex ante commonly agreed procedure for arbitration is applied (e.g. state hierarchy, voting).
Step 4	Avoiding policy divergences among sectors and seeking consensus. Beyond negative co-ordination to find out differences and prevent mutual negative effects, actors/ organisations work together, e.g. in joint committees and project teams, because they recognise their interdependence and their mutual interest in resolving policy divergences.
Step 3	Consultation with others. A two-way process. Sector/actors inform others about what they are doing. They consult others in the process of formulating their own policies or positions.
Step 2	Information exchange among sectors. Sector/actors keep each other up to date about arising issues and how they propose to act in their own areas. There must be reliable and accepted channels of regular communication.
Step 1	Sectors/actors manage independently within their domain/jurisdiction. Each sector retains autonomy within its own policy domain.

Based on Metcalf 1994 and 1997, OCDE 1996, cited and modified by Holg 2002

regarding jurisdictions and information deficits. It can be seen (Table 3) that the cause of many of the problems is at low levels, and can be solved without the need to apply more demanding levels of co-ordination.

Six conceptual areas can reach an appropriate level with only defining the jurisdiction of different departments properly, one needs better information exchange between sectors, two require consultation and one requires, at least, a joint committee.

Table 3. Failures in co-ordination and steps according to the Metcalf Capacity Scale.

Conceptual area	Failure	Problem	First failure on the Metcalf Capacity scale
Fire protection plans	R	Ambiguity regarding jurisdiction	1
Disaster damage	R	Ambiguity regarding jurisdiction	1
Production monitoring and evaluation	PG	Information deficits	1
Financial return	PG	Information deficits	1
Socio-economic forest information	PG	Information deficits	1
Socio labour conditions of workers in the management unit	PG	Ambiguity regarding jurisdictions and information deficit	1
Worker training in sustainable forest management and job risks	R & PG	Ambiguity regarding jurisdiction	3
Historical heritage	I	Lack of consultation	3
Recreational, landscape and cultural values	I	Policy divergences	4
Other forest socio-economic factors	PG	Lack of information	2

PG:policy gap, I: incoherence, R:redundancy.

4. Lessons learnt and conclusions

After this analysis we were able to draw a certain number of conclusions and lessons learned.

New processes in Europe related to sustainable forest management (e.g. certification, Pan-European process, NFP) and the adhoc diagnosis are providing a broader view of the sector. This is helping to make a better definition of the forest sector and to detect the need for inter-sectorial co-ordination in order to achieve the agreed goals and compromises on SFM.

The implication of more of one department doesn't mean necessarily the arise of policy gaps, redundancies or incoherences. In fact, there are many examples of successful multi-sectoral coordination .

Most of the failures can be found on the firsts steps of the capacity scale, what means that they can be solved with low demanding levels of coordination.

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APPENDIX 1. Conceptual area of Pan-European criteria and indicator system adapted for their application to sustainable forest management in Spain.

C1: Maintenance and appropriate enhancement of forest resources and their contribution to global carbon cycles	
• Forest area and structure • Stocks and growth rate • Carbon fixing • The existence of management plans	• Forestry legislation • Economic tools • Forestry information
C2: Maintenance of forest ecosystem health and vitality	
• The health of the forest cover • Fire-protection plans • Soil nutritional status • Plague and disease control techniques • Techniques applied in forestry work	• The state of regeneration of areas affected by disasters • Herbivore damages • Pollutant intrusion and deposits • Disaster damage
C3: Maintenance and encouragement of productive functions of forests (wood and non-wood)	
• Production monitoring and evaluation • The removals of wood/growth or biological production ratio	• Financial return • Accessibility • Socio-economic forestry information
C4: Maintenance, conservation and appropriate enhancement of biological diversity in forest ecosystems	
• Biodiversity estimate • Conservation of protected areas • Conservation and enhancement of singular habitats and ecotones • Threatened species	• Dead trees • Natural and semi-natural forests • Regeneration quality • Reproductive material • Mixed forests
C5: Maintenance and appropriate enhancement of protective functions in forest management (notably soil and water)	
• Erosion • Water	• Protective forests • Non-forestry waste management
C6: Maintenance of other socio-economic functions and conditions	
• Conservation of trees and specific environments • The socio-labour conditions of workers in the management unit • Worker training in sustainable forest management and job risks	• Historical heritage • Recreational, landscape and cultural values • Forest socio-economic factors

Economic Instruments for National Forest Programmes

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Abstract

This paper starts with the identification of the positive externalities and public goods corresponding to sustainable forest management as target of National Forest Programmes. The rest of the paper defines and assesses nine types of the economic instruments which may promote those forest outputs. In this assessment some attention is given to specific possibilities for "implementation failures" in the use of those policy instruments. The paper also points out several interdependencies to look at among NFP components (procedural elements, targets and policy instruments)

Keywords: National Forest Programmes, sustainable forest management, forest externalities and public goods, economic instruments

1. Positive Externalities and Public Goods in Sustainable Forest Management

Sustainable forest management (SFM) is the target of National Forest Programmes. Whatever is the specification of this concept adopted by the stakeholders in the NFP processes, it always calls for an increasing role of forests in the provision of positive externalities and public goods. These goods are defined by the following two characteristics: 1) they are non-excludable goods and services which means that it is not feasible (for technical, economic, legal, religious, cultural or other kinds of reasons) to establish mechanisms able to exclude some people from access to their use; and 2) they are non-rivalrous which means that their use by someone will not reduce the amount available for use by other people.

Table 1. presents a classification of the various types of goods and services according to these two concepts.

Externalities are direct interdependencies (or spillovers) among producers, among consumers or between producers and consumers where the actions of some of them have positive or negative impacts on others, but where those who benefit from the positive impacts

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Table 1. Economic classification of goods and services.

	Rivalrous	Nonrivalrous
Excludable	Private goods and services	Network services Club goods
Non-excludable	Goods and services subject to congestion or depletion, yet accessible to all ("open access")	Pure public goods

don't pay those who generate those impacts and those who suffer from the negative impacts are not compensated by those who cause them. The range of these "spillovers" can vary along temporal and geographical dimensions. In the temporal dimension the spillovers can be "intragenerational", that is, they are spread mostly through people living at the same moment of time, with very few or no spillovers at all to future generations; or they can be "intergenerational", that is, they can be spread through the current, but also the future generations, In the geographical dimension the spillovers can have geographical ranges varying from the local to the global level.

Whatever are the criteria and indicators adopted for the specification of the SFM concept, the following forest goods and services are usually included in that definition, besides timber production:

a) protection of soil and water resources and prevention of natural disasters
   - flood prevention
   - landslides and avalanche prevention
   - soil conservation and erosion control
   - protection of water resources for urban, rural, industrial or hydroelectrical use
b) protection of biological diversity (fauna and flora)
c) mitigation of emissions of gases with greenhouse effects
d) microclimate regulation and protection of the quality of the air
e) protection of forest ecosystem health and vitality:
   - forest fire monitoring and suppression
   - forest disease monitoring and eradication
f) enhancement of the quality of life of people living in the forests
   - specifying and securing property rights of forest owners
   - improvement in income levels of people living in the forests
   - employment creation in rural areas
   - economic diversification of rural areas
g) promotion and protection of landscape quality
h) protection of the cultural and spiritual values related to forests
i) promotion of non-wood forest goods and services:
   - non-wood forest products (cork, honey, nuts, mushrooms, aromatic plants, medicinal plants, etc.)
   - grazing
   - ecotourism and recreation
   - hunting
   - fishing

Table 2 presents an example of fitting the forest goods and services of the list above into the economic classification of goods and services with the corresponding scope of their spillovers.

Table 2. Economic classification and types of spillovers of forest goods and services.

Spillovers	Public goods	Club goods	"Open access" goods
INTRA AND INTERGENERATIONAL			
- Domestic (local, regional or national)	Protection of soils and watersheds of domestic importance; Microclimate regulation and protection of the quality of the air; Protection of forest ecosystem health and vitality; Promotion and protection of landscape quality; Promotion of the economic and social vitality of rural areas; Protection of the cultural values related to forests	Ecotourism and recreation in areas frequented mostly by domestic visitors	NWFP in open access (mushrooms, aromatic and medicinal plants, nuts, etc.) Grazing, hunting and fishing in open access
- Global	Protection of soils and watersheds of international importance; Protection of biological diversity; Mitigation of emissions of gases with greenhouse effects	Ecotourism and recreation in areas frequented not only by domestic visitors but also by many visitors from overseas	

Table 3. Policy instruments to internalise externalities.

Broad types	Specific types
Command and control	- Administrative restrictions coercively imposed on private behaviours by the public authorities
Economic instruments	- Securing or reforming property rights and negotiating private arrangements - Demand pull instruments - Market creation - Fiscal instruments - Charge systems - Public financial instruments - Liability systems - Environmental performance bonds and deposit refund systems - Public provision of services supporting private SFM

Besides the economic characteristics already mentioned about the externalities and public goods called for by SFM, there is another one that is worth mentioning. It is the fact that most of these types of forest outputs are jointly produced with timber production. This means that, in most cases, it is technically not possible to separate growth in timber stock from carbon sequestration, soil and watershed protection, and the other forest externalities and public goods.

2. Rights-based Approach to the Internalisation of Externalities

When externalities exist there are two possible types of policy instruments to promote their internalisation:

a) "command and control instruments" which are administrative restrictions coercively imposed by the public authorities on private behaviours of those generating negative externalities in order to reduce, or stop the activities responsible for that and mandatory targets assigned to those who generate positive externalities in order to increase their delivery;
b) "economic instruments" which are positive or negative incentives aiming to induce voluntary changes in behaviour of the economic agents towards the internalisation of the externalities.

NFPs may contain both types of instruments. However, the attention will be focused here on the economic instruments, which is in line with important consensual documents adopted in international policy dialogues with impact on forest policy, namely Principle 16 of the Rio Declaration which states the following:

> *"National authorities should endeavour to promote the internalisation of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution with due regard to the public interest and without distorting international trade and investment." (United Nations 1992).*

A possible typology of economic instruments for the internalisation of externalities is one that places them along a spectrum limited by the following two poles: one extreme corresponds to the so called "Coase Theorem" where the level of public intervention is limited to the specification and protection of property rights, leaving to voluntary negotiations between the parties concerned by the externality the settlement of the terms for its internalisation; and the other extreme corresponds to the "command and control" instruments which appeal to legally binding instruments and direct public provision of goods and services.

The Table 3 presents one typology of this kind borrowed from Panayotou (1998) with two additional types of instruments not considered by this author.

Underlying this emphasis on economic instruments, there is a certain political and moral philosophy which should be made explicit. Drawing on Dworkin's (1978) distinction between "duties", "rights" and "policies", we can approach NFPs in three alternative ways:

a) as "goal-based processes" in the sense of processes where the commitment of the major stakeholders to attain the NFP targets is mostly driven by their acceptance of a common goal (SFM, in this case), regardless of the consequences this might have for each of them;
b) as "duty-based processes", that is, as processes where the commitment of the major stakeholders to attain the NFP targets is mostly driven by their effort for "moral" conformity to those targets;

Table 4. Correspondence between the types of policy processes and the dominant types of policy instruments.

Model of Political Philosophy	Model of Moral Philosophy	Type of economic policy process	Dominant type of policy instruments
Goal-based	"Divine" or mundane command ethics	Optimiser technocrat	Command and control
Duty-based	Deontological ethics	Participatory	Institutional arrangements for participation
Rights-based	Consequencialist and Existencialist ethics	Incentive based regulator	Economic instruments (cf. table 3)

Table 5. Matrix of financial and other economic instruments to internalise externalities.

	Public	Mixed public/private	Private
Domestic	Fiscal instruments; Public financial instruments	Securing or reforming property rights and negotiating private arrangements; Market creation; Mixed public/private domestic financial instruments; Charge systems; Liability systems; Bonds and deposit refund systems	In-kind and other contributions of local populations; Domestic private philanthtropy; Domestic private investment funds
International	Official Development Assistance; Critical Ecosystems Protection Fund (World Bank); Debt swaps; Tobin tax	Market creation (Clean Development Mechanism); Mixed public/private international financial instruments (Global Environment Facility)	International private philanthropic assistance (international foundations, other NGOs and other private donors); International private investment funds
Mixed Domestic/ International	Mixed domestic/international public funds	Mixed public/private international investment funds	Mixed domestic/international private philanthtropic assistance and investment funds

c) as "rights-based processes", that is, as processes where the commitment of the major stakeholders to attain the NFP targets is mostly driven by their private behaviour in asserting the rights which they are entitled to by the political organisation of the society.

The first type of process is more typical of homogeneous and/or totalitarian societies. It corresponds to what was called the "optimiser technocrat model" in a previous paper prepared for this COST Action (Mendes 2000).

High degrees and long and successful histories of participation in policy making, accompanied by good monitoring, assessment and review mechanisms might contribute positively to the social viability of the second type of process mentioned above which is closer to what was called, in that paper, the "participatory models" (incrementalist or reformist, depending on the intensity of the commitment to radical reforms). It is not realistic to expect that the deontological ethics underlying this model is sufficiently widespread in most countries, even in the ones where that tradition of participation has a good track record.

So we are left with the rights-based model as the most appropriate for societies which are heterogeneous, democratic, market based, and where consequencialist and existentialist ethics are dominant. This corresponds to what was called the "incentive-based regulator" in Mendes' paper (Mendes 2000).

The economic instruments listed in Table 3 correspond to several types of rights: property rights, that is, ownership and use rights, on forest resources; rights to trade forest goods and services for which a market already exists or is created; and rights to get compensated by the state or by other entities for the costs of providing forest goods and services for which there is not a market.

These rights might be at different stages of implementation and specification. They may be what Dworkin (1978) calls "background rights", that is, they may be recognised, in principle, to their potential holders, but they may not yet be "institutional rights" because they still lack the institutions needed for their implementation; or they may be "abstract rights", that is, they may be at a stage of specification which does not yet make them "concrete rights" with a clear content and order of importance relatively to other rights with which they might be in conflict Dworkin (1978).

This rights-based approach is now going to be combined with the classifications of the forest externalities and public goods, and with the types of economic instruments which can contribute positively to their provision. This combination is based on the following principle: Principle of matching the scope (temporal and/or geographical) of the externalities with the scope of the financial and other economic instruments for their internalisation: externalities should be internalised at the level where most of their spillovers fall in.

This means, for example, that if a positive externality generated by forestry benefits essentially the domestic population and not so much people living in foreign countries, then it should be essentially the domestic population who should pay to compensate the forest owners for the full cost of providing those social benefits. If there are substantial mismatchings in this matter, this is a possible source for "implementation failures".

3. Property rights and Private Arrangements to Internalise Forest Externalities

The analysis of the economic instruments to internalise externalities will start with property rights specification and voluntary private arrangements. There are several important reasons for starting here, besides the reason mentioned before related to the fact that this is one of the extremes in the spectrum of economic instruments.

One reason has to do with the following facts:

- financial instruments aimed at SFM often have to rely a great deal on public funds from national or international sources;
- with most countries under tight government budget constraints and modest prospects for international public finance, economic instruments exclusively based on public funds are not sustainable;
- so the escape from this problem is to base the financing of SFM as much as possible on private funds;
- a basic enabling condition for this strategy is a clear and secure specification of the property rights of the parties involved so that those who invest in SFM have the appropriate property rights to claim for the corresponding benefits. Almost all the authors who have addressed the issue of financing SFM have brought up to the forefront of this discussion this role of property rights (UNDP 1996; Chipeta and Joshi 2001).

Another important reason to put property rights first in this discussion has to do with the fact that one way to look at NFPs and SFM is to see this type of policy as a major operation (at national and also at international levels) of reforming one component, at least, of forest property rights, more precisely, use rights. Actually we cannot find any NFP which does not set new constraints or expand existing constraints on the use rights in forestry, both the use rights of the forest owners, and the possible use rights of other stakeholders. Here are some examples of such changes in forest property rights brought about by NFPs with its SFM concept:

- new or expanded existing restrictions on the types of allowed harvesting techniques and other forest management operations;
- new or expanded existing restrictions on the tree species composition of afforestation and reforestation projects;
- other new or expanded existing restrictions on land use transformations;
- the right of domestic and even foreign populations to get from forestry a wide range of environmental services.

Talking about property rights does not necessarily mean private property rights. They may be of this kind, but they may also be communal or state held. Anyway, for the specification of each of these three kinds of property rights (private, communal or state held) to be possible, we should be dealing with a resource which can be parcelled out and enclosed, with boundaries easy to be demarcated and defended, in order to exclude non-owners (Panayotou 1998, p. 21). Forests, as land based resources, fall in this category because land and the timber stock can be parcelled out and enclosed.

The specification and enforcement of property rights would be enough if forest outputs were only made of private goods and services (excludable and rival), but we have already seen that it is not the case, especially if SFM is the chosen target of forest policy. Other policy instruments will be needed to deal with the non-excludable and/or non-rivalrous forest goods and services. However, these other instruments have to be complements and not substitutes of a proper specification and enforcement of property rights because of the reasons mentioned before: forestry is a land based activity amenable to excludability as well as the timber stock so that they are often in the hands (or transferable to) of private stakeholders; and most of the non-excludable and/or non-rivalrous goods and services are joint products with the net growth in timber stock.

There are two basic roles the specification and enforcement of property rights can perform in order to function as supporting factors of NFPs: The first one is that they make the internalisation of the on-site benefits and costs (private and social) of forest management

possible, namely those related timber; non-wood forest products (mushrooms, medicinal and aromatic plants, nuts, etc.) including grazing and recreation. The second role is that, when dealing with the internalisation of off-site externalities related to non-excludable and/or non-rivalrous forest goods and services, a clear specification of the forest property rights will define who are the stakeholders to be compensated for positive externalities, or charged for the negative externalities.

Some examples will now be given on how unattenuated, inappropriately defined or insufficiently enforced property (ownership and use) rights can be the source of unsustainable forest management, as far as the role mentioned in a) is concerned.

a)Non-wood forest goods and services with "open access" use rights

It is often the case that, even though forest land is privately owned, the local customs are such that some non-wood forest goods and services like mushrooms, aromatic and medicinal plants, recreation or others are under "open access" use rights, that is, anybody can go in the forest and use them without so much restrictions. If no restrictions are set on these "open access" use rights these forest products are likely to be subject to depletion or congestion. Such restrictions may be, for example, to allocate private use rights to the private forest owners. This solution would have the advantage of making the forest owner much more interested in promoting the sustainable production of that kind of goods and services, than in the case where he is ripped off of their benefits. So to set restrictions on "open access" use rights to forest goods and services in such a way as to make the forest owners benefiting from them is likely to be a supporting factor of NFPs.

b)Communal ownership rights

In many parts of the developed and developing countries forests are not under private ownership. Instead they are under some form of common ownership regime. In some cases this regime is an efficient response to "open access" problems such as the prevention of overgrazing by setting collective rules for the use of communal forest pasturelands.

However, there are other cases where communal ownership does not perform efficiently anymore. Here is a list of possible reasons for that the strength of communal ties of the past may have suffered a fatal erosion due to rural outmigration so that there is not locally enough people interested in the benefits and able to bear the costs of sustainably and collectively managed forests. Even though forests are nominally under communal ownership and there may be active local communities interested in their benefits, their management may have been allocated to other entities (for example, private companies with logging concessions) ripping off the local communities of those benefits. There may also be cases where the local communities have the ownership and the rights to use their communal forests, but are not able to promote SFM because alternative land uses are more profitable to them, or because SFM is too expensive.

In these cases changes in the communal property rights are needed to promote SFM. These changes should be in the direction of allocation to local communities the right to the benefits of SFM and to the support for bearing the corresponding costs which otherwise would have been unbearable. If this type of changes in property rights are implemented they will be a supporting factor to NFPs.

c)State ownership rights

In many developed and developing countries large extensions of forests are under state ownership and management. This is the result of the history of the country, but nowadays, with SFM at the forefront of forest policy, there may be reasons to readdress, in a critical way, this type of regime, either to keep it as a good instrument to attain SFM, or the reform it partially (keep the state ownership, and privatise the management, namely through

concessions or long term land leases), or totally (privatise the ownership and the management) because of the "government failures" in this matter (see Goldblatt 2001, for the positive effects towards SFM in South Africa resulting from public forest privatisation).

State ownership may be a more efficient regime compared to other property rights regimes where forest outputs include a great deal of public goods such as very rich and unique biodiversity and other environmental assets (Panayotou 1998).

However, even in this case, as well as in the other cases where public goods provision is much less important, there may be a case for changes in the state property rights regime:

- due to tight government budget constraints, public administration may lack enough human and financial resources to manage the public forests in a sustainable way;
- public administration of state forests may be vulnerable to corruption and incapable of making the local populations benefit sufficiently from forests.

In these cases devolution of forest ownership and/or use rights to local communities, outsourcing of forest management or full privatisation may promote SFM, in which case change in property rights will be a supporting factor of NFPs.

d) Small scale private forestry

Dispersion of ownership and use rights among a large number of persons is often a feature of forestry in many countries of Europe and in other parts of the world. Such dispersion when it is accompanied by lack of collective organisation of forest owners may be an impeding factor to SFM. The reason is that such dispersion of property rights generates three types of problems:

- it greatly increases the costs of negotiations with other stakeholders aiming at internalising externalities;
- it greatly increases the transactions costs of implementing public interventions aimed at promoting SFM;
- it raises forest management costs and does not allow to take advantage of economies of scale in forest management and marketing.

So, in these cases, a supporting factor to NFPs can be building capacity for collective organisation of the small forest owners which, while keeping ownership dispersed, might concentrate some forest management operations in forest owners' associations, or, at least, create some form of collective representation for negotiations with other stakeholders.

Let us now move on to the issue of how unattenuated, inappropriately defined or insufficiently enforced property (ownership and use) rights can be the source of unsustainable forest management. This leads us to the so-called "Coase Theorem" which can be stated as

- if there is an externality without a public goods nature;
- if the property rights are clearly specified and enforced (that is, it is specified who has to pay for the costs of a negative externality, or who has to be compensated for the benefits of a positive externality);
- and if the costs of negotiations between the parties involved are relatively low (there are not many stakeholders, they are well organised for negotiations, it is possible to quantify in a consensual way the costs or benefits of the externality, etc.);
- then voluntary negotiation between the parties involved will end up in an efficient outcome, that is, the activity generating the externality will be brought to a level where its marginal cost will be equal to its marginal benefit, with the generators of a positive externality recovering from the beneficiaries the full cost of their provision or the generators of a negative externality paying its full cost to those who are affected by the externality.

There are many situations in social life where externalities are internalised through voluntary negotiations leading to partnerships between the private parties involved, without major intervention from the public authorities, except for the specification and enforcement of property rights. If it were not like this, a huge public administration would be needed to internalise these externalities, given the enormous amount of externality problems arising in everyday life. So the same might apply to SFM and NFPs. Concerning the assumptions of the Coase Theorem, and the "essential elements" defining the concept of a NFP, there are two that are worth to be mentioned in this context. They are participation and intersectoral coordination. According to that theorem, one of the necessary conditions for voluntary negotiations between the parties involved in an externality to end up in an efficient outcome is that the negotiation costs be relatively low. Institutions able to promote participation and intersectoral coordination throughout the NFP process will contribute positively to lowering the costs of those negotiations.

There is one practical issue of great importance which applies to the operationalisation of this and the other types of economic instruments targeting the internalisation of externalities. One of the necessary conditions for the Coase Theorem to hold is that the costs of negotiation between the parties involved be relatively low. Or one factor that may contribute to raise these costs is the fact that, with very few exceptions, there is very insufficient, or no knowledge at all about the costs and benefits of SFM and their distribution among the major stakeholders (Landrot and Speed 2001). Without this knowledge coasean type negotiations or the practical specification of the other types of economic instruments is very likely to fall into "implementation failures" of the following types: undercharging or overcharging the generators of negative externalities; or undercompensating or overcompensating the generators of positive externalities.

If the parties affected by these inefficiencies recognize that they are being mistreated because the costs and restrictions imposed on them are perceived as unreasonable, unfair or superfluous, this might be a cause for them to opt out from participating in the NFP process (the NFP violates the individual rationality constraints), or might be an incentive for them to strategically manipulate the policy instruments in a way inconsistent with the goals of the NFP (the NFP is not incentive compatible). So poorly specified economic instruments in this matter can be an impeding factor of NFPs (Castellanos 2001).

To close this section it is necessary to make one cautionary remark. Reforming property rights, especially ownership rights, is often socially very difficult and is not immune to new sources of inefficiencies and inequities. So it is only in the small number of situations where there is clear evidence of inefficiencies and inequities that need to be corrected in this way and enough social acceptance in this matter that this type of reform should be undertaken. However, we are dealing here essentially with reforms in use rights and not in ownership rights. This type of reform is often easier and is enough to promote more efficiency and more justice than changes in ownership rights.

4. Demand Pull Instruments

The policy instrument treated in the previous section is applicable to forest goods and services with an excludable nature, or which are currently non-excludable and rivalrous (open access), but can be made excludable. For these types of goods and services it is possible to set prices to be charged on consumers. The major forest output which is excludable and rival is timber. It was pointed out before the fact that most of the non-excludable and/or non-rivalrous forest goods and services are or can be jointly produced with timber. So if the forest owners can get a price for their timber which incorporates the value buyers are willing to pay for the timber itself plus the value they are willing to pay for some non-excludable and non-

rivalrous forest goods and services, we would have found one possible way to internalise some positive forest externalities from SFM.

In order to proceed along this path there is a need to make consumers aware and willing to pay for the positive forest externalities jointly produced with the timber they want to buy. Some of the procedural elements of NFP can contribute positively to this aim as it may be the case of participation and intersectoral coordination: other stakeholders besides forest owners, participate in the design and implementation of mechanisms to recover the full cost of providing positive forest externalities.

The demand pull strategy for SFM promotion that has found, so far, more widespread attention and action among the major stakeholders in the countries with NFP processes is certification of the forest products (essentially timber) coming from forest considered to be sustainably managed. This is essentially a voluntary and privately organised process not fitting in the list of public policy instruments, but often these instruments play an enabling role for certification. So it is not out of place at least to mention this form of collective action by the private stakeholders, especially in the context of policy processes of the "incentive-based regulator" type.

Certification processes may have already gone enough ahead to be irreversible, but this shouldn't prevent critical thinking in order to find out whether or not this has been a wise move towards SFM. The first cautionary remarks to make about this type of process is that it creates a market segmentation among forest products: the certified forest products are positively discriminated relatively to the non certified ones and may expect to get a price premium from the consumers. Forest certification, as it has been implemented so far, creates a market segmentation among forest products". In fact, it discriminates among forest products, but doesn't discriminate forest products positively with respect to competing materials: plastics, metals, etc. Actually what does the type of forest certification implemented so far is the opposite:

- this process may make certified timber non competitive in some cases because it raises the cost of certified timber while the prospects for getting an adequate price premium from consumers may not be confirmed;
- this process also damages the competitiveness of non certified timber because this type of forest products appears to the consumers as being "unsustainable" when this is a highly unfair blame put on timber when compared to competing materials.

The second cautionary remark about forest certification is that the way it is designed and implemented is very much dependent on the approach adopted for the concretisation of the concept of SFM. More precisely one thing is forest certification processes based on a "micro sustainability" approach, the other is forest certification based on a "macro sustainability" approach. The first one will tend to exclude plantations and will not enable an increasing flow of private investment capital to forestry. The second one is willing to include plantations and will not be detrimental to the flow of private capital to forestry. If we go more for a "macro sustainability" approach then we get closer to what would have been a wiser move towards SFM than most of the currently available forest certification processes. This will be generic advertising campaigns and even some generic and internationally agreed ecolabelling system promoting wood as a renewable and recyclable material, more environmentally friendly than competing materials. This would have been much easier and less costly to implement, with probably better results for the competitiveness of forest products than current forest certification processes. By improving in this way the economic position of forest owners and other actors in the sector, more private funds would be available to improve forest management.

5. Market Creation for Forest Public Goods

The policy instruments treated in the two previous sections are applicable to forest goods and services with an excludable nature, or which are currently non-excludable and rivalrous (open access), but which can be made excludable. In fact, securing property rights to the forest owners will not help them very much in capturing the full cost of their forest outputs if these have a non excludable nature: once they are produced people can benefit from them without paying and the fact that forest owners have property rights on their forests will not make them able to claim payments for those non-excludable outputs. For those that are in open access securing property rights to the forest owners will introduce excludability and the problem will be fixed.

So we are now left with the case of non-excludable and non-rivalrous forest outputs and which cannot be made excludable and rival, that is those that are pure public goods. Some examples were already given of forest outputs with these economic characteristics:

- soil and watershed protection;
- biodiversity protection;
- mitigation of the greenhouse effects;
- microclimate regulation;
- promotion of landscape quality;
- protection of the forest ecosystem health and vitality;
- promotion of the economic and social vitality of rural areas;
- protection of cultural values related to forests.

For public goods there can be no market like the one for private goods which is based on private property rights. However, it is possible a different kind of market created through the intervention of public authorities. The process of creating such a market goes through the following steps:

a) The public authorities (national and/or international) with legitimacy for this purpose decide about the aggregate amount of forest public goods to be provided.
   Examples of this type of target setting are the following: setting a level for reduction in CO_2; defining species and areas to be preserved for biodiversity protection; defining areas and forest management practices targeted for soil and water resources protection; defining areas and forest management practices targeted for landscape quality protection, etc. It goes almost without saying that these are the kind of targets we should find in NFPs.
b) This amount should be set above the level at which this type of public good is currently provided without public intervention.
   This is not a major problem, since what usually happens is the underprovision of public goods, when there is no public intervention to correct for that. Notice that setting the level of public good provision in this way makes it a scarce good.
c) The public authorities assign and secure "institutional" and "concrete" rights to the producers of the public good (forest owners, in this case) to get paid for the full cost of its provision.
   Using a typology of rights presented in a previous section, this allocation cannot be a simple policy statement of "background" and "abstract" rights. If the NFP does not go some steps further and specify the institutions, the criteria and the practical procedures to make these rights effective there will be "implementation failures" in this matter. So only when these steps are included in the NFP we can say that are met some of the conditions to make this type of market creation a supporting factor of the NFP. Unfortunately it is not difficult to find NFPs which are left at the stage of only stating "background" and "abstract" rights in this matter.

d) The public authorities assign and secure "institutional" and "concrete" duties to the agents who (consume) contribute negatively to the attainment of the aggregate amount of forest public good. These duties consist in some form of payment to the producers of the public good for the full cost of the amount they consume.

Here the same type of remarks made in c) apply.

e) The role of the public authorities is to state the common goal to be achieved, define the actors and the activities contributing positively and negatively to attain that goal and assign and secure "institutional" and "concrete" rights and duties to the ones and the others. After doing this they leaving each actor free about how to use his right, or to fulfil his duty, which creates a "market" between rights-holders and duty-holders:

- if someone wants to carry out some activity which contributes negatively to the total amount of forest public good he has a duty to find and pay to a forest owner for a project in his forest which will compensate for that negative effect on the total amount of public good;
- if a forest owner wants to upgrade his forest in such a way that it will contribute positively to attain the total amount of public good he has to find someone who has an activity which contributes negatively for that purpose and for which that person is liable to pay for compensatory actions.

Most of the funding for the production of forest public goods with this type of economic instrument is private because we have private actors (the duty-holders) paying to other private actors (forest owners) for the costs of providing those forest public goods. There are, however, some costs that may have to be supported by the state budget. These are the costs of planning and implementation this type of policy. These costs may not be negligible, especially at the stage of monitoring the policy process. The reason is that monitoring involves problems like the following:

- follow up of many and dispersed actors;
- collection of detailed and reliable technical information about the compliance of rights-holders and duty-holders with their commitments about public goods provision;
- regular environmental inventories about the public good at stake.

One way often proposed to "institutionalise" the rights and duties on which this type of market is based is through the allocation of tradable quotas and tradable rights.

In the case of carbon sequestration, polluters may be allocated individual emission quotas about the maximum amount of CO_2 emissions they are allowed to produce without incurring in payments for carbon sequestration activities. If an existing actor already has or plans to have CO_2 emissions beyond his quota he has to pay for compensatory carbon sequestration activities. The same applies to an actor who wants to enter in some activity with the same kind of environmental effect. He has to buy quotas from actors going out of business or who are operating below their quotas.

On the side of the forest owners carrying out projects contributing to carbon sequestration, certificates of emissions reduction will be allocated depending on the certifiable CO_2 sequester tonnage of their project. Since the costs of forest projects will vary, also the cost per ton of CO_2 sequestered will vary. If a market exists between CO_2 emitters with tight quotas and CO_2 sequesters, the emitters will probably look for deals with sequesters with lowest costs per ton of CO_2 sequestered and the sequesters will look for deals with the emitters with the tightest quotas therefore willing to pay higher prices per ton of CO_2 sequestered.

It is a market of this kind that is in the process of being institutionalised at the global level through the Clean Development Mechanism (CDM) regulated by the United Nations Framework Convention on Climate Change. Remember that, carbon sequestration being a

forest public good with a global scope, the level appropriate for the mechanisms providing for its full cost pricing should also be global. So the CDM is in line with the principle stated in section 2.

As the process to implement the CDM moves forward and given modest prospects for ODA, this source of funds might become a major supporting factor of NFPs in developing countries where availability of international finance is crucial for the implementation of these programmes. Notice that the existence of a NFP is becoming an eligibility condition for receiving international assistance to forestry. Another reason why this financial instruments is specially important for NFPs in these countries is because, in general, they have a comparative advantage in terms of costs of carbon sequestration through forest projects. Under current rules, the CDM would apply only to forest restoration which benefits plantations. However, protection of natural forests which are very important in many developing countries might become eligible for CDM after review of its rules in 2003.

To have an idea about the relative importance of CDM compared to the other major sources of funds for forestry in developing, here are some recent estimates proposed by White et al. (2002):

- private funds (forest exports): US$ 28 billion per year;
- domestic payments for forest environmental services: US$ 2–5 billion per year
- CDM: US$ 0.063–0.36 billion per year;
- private philanthropic assistance: US$ 70 million and stagnant;
- GEF: US$ 50 million per year;
- CEPF: US$ 20 million per year;

Examples of market creation for other forest public goods exist but at domestic levels. One type of example is a system of tradable development quotas. In areas where forests are threatened by touristic and urban development it is ineffective and unfair to forest owners protecting those forests only by imposing land zoning restrictions:

- developers benefit but don't pay for the landscape quality provided by forests;
- forest owners don't share the benefits of urban development because they cannot convert their land to urbanisation.

A more effective and more equitable way of dealing with forest preservation in these situations is to make forest owners share the benefits of developers and make developers share the costs of forest preservation. This can be done by creating a market for development quotas in the following way:

- some maximum amount of development is set, for example, in cubic meters of construction space, for the area at stake;
- new developers have to buy a quota of that amount, the proceeds going to compensate the forest owners who have to preserve the nearby forests;
- existing developers who want to expand also have to buy non allocated quotas, or quotas held by others who are reducing the intensity of their development projects.

This type of market creation has not yet found wide application in NFPs in Europe and in other parts of the world. However, there are two facts that are true in many countries in Europe and elsewhere:

- construction and other urban development operations are subject to a license permit system;
- there are many situations where urban development threatens forest land use and where the public response to these threats is to appeal to land use zoning regulations.

If NFPs are meant to be substantive, their two procedural characteristics of participation and inter-sectoral coordination could be made concrete and useful in this kind of situations by sitting together with forest owners, developers and local governments and lead them to agree on a market process like the one mentioned here.

6. Fiscal Instruments

This section will deal with fiscal instruments and the next one with charges. Since often charges are inappropriately called "taxes" it is necessary to start by making clear the distinction between the two concepts. Charges can be defined as follows:

- they are bilateral, that is, they are payments made in exchange for the consumption of certain services which can be public goods or publicly provided private goods;
- the level of these payments is administratively set by the public authorities;
- the payments are made by those who consume the services;
- it follows from the previous characteristic that charges are not coercive on all citizens, since they are only paid by those who are willing to consume the corresponding services;
- the purpose of the charges is to pay for the production costs of the corresponding services and not to raise fiscal revenues;
- for this reason charges are extra-budgetary economic instruments.

Taxes can be defined as follows:

- they are unilateral payments, that is, they are not paid in exchange for the consumption of a specific service provided by the public sector;
- they are coercive, that is, all citizens are eligible for tax payments;
- the purpose of the tax is not to pay for the production costs of specific goods or services, but to raise fiscal revenue integrated in the global revenues of the state budget;
- for this reason taxes are budgetary economic instruments.

Fiscal policy can be used to internalise positive forest externalities in the following ways:

a) objective-oriented incentives built in direct or indirect forest taxation in order to lower the management and/or investments costs of SFM projects;
b) "feebate" schemes where new or existing taxes on non forest activities generators of negative externalities which can be compensated by positive forest externalities are assigned to the funding of SFM projects;
c) other "feebate schemes" where new or existing taxes on non forest activities benefiting from positive forest externalities are assigned to the funding of SFM projects.

The possibilities for the case mentioned in a) are many. Here are a few examples which can be found in several countries around the world:

- indirect tax reductions on inputs to forestry and on forest products;
- forest investment tax credits;
- accelerated depreciation rules for forest investment;
- differential land, wealth or inheritance taxes benefiting forest conservation;
- personal income tax deductions to forest owners on their SFM income.

These incentives can be reversed if the objective is to prevent unsustainable forest management.

An example of possible "feebate" schemes of the type mentioned in b) is the earmarking for SFM projects of new or existing taxes on fossil fuels and highway companies. An example of possible "feebate" schemes of the type mentioned in c) is the earmarking for SFM projects of new or existing taxes on touristic activities in forest areas, hydroelectrical power plants, industries and other activities using clean water protected by forests (breweries and municipal water companies, for example).

There are several issues of wider economic policy that should be raised about this type of instrument. One is that it should not damage the competitiveness of the national economy. One way to take care of this goal is to make these fiscal reforms "neutral". This means that they should not increase the total tax burden. One way to do it is to go as much as possible for the reform of existing taxes, without creating new taxes or increasing existing taxes. If we try to do this with the "feebate" schemes a possible impeding factor to fiscal reform is the classical principle of public finance adopted by the state budget laws of many countries forbidding earmarking of taxes.

Another impeding factor of this type of fiscal reform is that it needs a very strong political commitment to intersectoral coordination. Such a commitment in this matter might be very difficult to reach when the country is under a tight government budget constraint which makes fiscal policy a very sensitive area in the political debate. So unless forestry is high in the political priorities of the country and is capable of stating and pushing forward its case in the negotiations with the other sectors, a fiscal reform with positive discrimination towards forestry will not go through.

7. Charge Systems

Charge systems can be of the following types:

- pollution charges;
- user fees;
- betterment charges;
- impact fees.

Examples of pollution charges contributing to SFM are the following:

- deforestation charges;
- fines on wasteful uses and wilful damages to forests.
  User fees internalising forest externalities are charges paid by those who actively and directly benefit from non marketed goods or services produced by specific forests.
- charges paid by downstream beneficiaries of upland conservation as they exist, for example, in Japan for many years;
- charges paid out of their sales by hydroelectrical power plants to funds directly supporting upland watershed management;
- access fees paid by visitors to public forests, national parks or other protected forest areas;
- fees charged on total revenue from forestry concessions to pay for environmental services (water, biodiversity, etc.) used .

Betterment charges internalising positive forest externalities are those charges that are levied on private property passively and directly benefiting from improvements in forest management in the nearby areas.

Impact charges for SFM are those charges imposed on private investments having a negative impact on the nearby forests.

8. Public Financial Instruments

By public financial instruments it is meant here public funds (budgetary and/or extra-budgetary) directly allocated to forest owners and other forestry economic actors to support their SFM activities with in the following specific (non mutually exclusive) objectives:

- lower the private investment and management costs the targeted stakeholders have with SFM activities;
- release capital and other liquidity constraints preventing the targeted stakeholders from engaging in SFM activities;
- leverage private capital inflows towards SFM activities which otherwise would have gone to other activities.

Examples of this kind of instruments are the following:

- long and/or short term loans with reduced interest rates;
- loan guarantees;
- grants;
- subsidies to investment and/or management inputs for SFM;
- venture capital funds for innovative SFM activities;
- issue of public forestry bonds.

From the list of economic instruments presented in this paper, public financial instruments and fiscal instruments have been the most used so far to promote forest investment. Possible reasons for this fact are the following:

a) Considering the "supply side" of public policy, it is easier for policy makers to distribute money, than go for the other economic instruments which may have the following "political" difficulties:

   · they are "innovative" and therefore riskier to experiment and not sure to bring about quick and "visible" results;
   · they are less politically "visible" because they are often "indirect" in terms of the benefits for the targeted stakeholders;
   · they are much more demanding in terms of institutional reforms and consensus building;
   · they don't have "anesthesic" bumpers, that is, they may impose visible and direct duties to pay for forest environmental services to social groups who before didn't pay for that, or were already paying something but in "invisible" ways,

b) Considering the "demand side" of public policy, fiscal and financial incentives are also more appealing because they are visible and directly private revenue increasing incentives as compared to other economic instruments.

Referring this type of instruments to the "implementability constraints", it is obvious that they impact more directly the "individual rationality constraints": their specific aim is to raise the private revenue and release the capital and liquidity constraints preventing the targeted stakeholders from adopting the NFP goals. Let us stay for a while with this type of constraint, leaving the "incentive compatibility constraints" for later discussion. The available experience with many public finance programmes to support forest development (UNDP 1996; Chipeta and Joshi 2001; Papageorgiou and Vakrou 2002; Rojas-Briales 2002; Mendes and Dias 2002) shows that a "minimalist approach" to public financial instruments, that is, one which is limited to provide these instruments without strong accompanying measures, namely measures to lower the transaction costs of access to the forest policy instruments by small scale forest owners and poor local communities, is likely to lead to implementation failures.

So even though, financial instruments address very directly the issue of reducing the individual rationality constraints to the targeted stakeholders, left on their own they may lead to "implementation failures" (be impeding factors of NFPs) like the following:

- large tracks of the forest owners' populations are left out of support for SFM;
- poverty alleviation or other improvements in income distribution and in the living conditions in some rural areas are not accomplished.

One of the next sections will deal with what should be one of the major types of accompanying measures to financial instruments in order to prevent the problems mentioned before which is the provision of extension services and others forms of capacity building towards collective organisation in small scale forestry (Papageorgiou and Vakrou 2002; Mendes and Dias 2002).

Let us move now to the issue of how financial instruments may deal with the incentive compatibility constraints facing NFPs. Suppose the best case scenario where these instruments release the individual rationality constraints of the targeted stakeholders so that they can adopt the NFP policy instruments and join the program. This does not necessarily mean that they will use the financial instruments in a way consistent with the NFP targets. There are plenty of cases around the world where corruption and other opportunistic behaviours have lead to the diversion of public funds transferred to private hands to activities different from the ones they were supposed to be used. So monitoring mechanisms become a very much needed element of a NFP without which financial instruments may be impeding, rather than supporting factors to achieve SFM.

The problem is that monitoring mechanisms are expensive in terms of public human and financial resources and are not immune themselves to opportunistic behaviours. In areas of small scale and dispersed forestry these costs come from the large number of actors to be monitored. In areas of large scale forestry the problem may be the stronger power of forest owners to get around monitoring mechanisms.

The financial instruments are often budgetary or funded by international sources. This leads us to a more general principle that should embrace all the economic instruments treated in this paper which states as follows:

There is no sustainable forest management without sustainable economic instruments.

So if the financial instruments include in the NFP are not sustainable there are potential "implementation failures". Two examples will now be given about the characteristics of financial instruments identifiable at the policy formulation stage which may make them not sustainable:

a) One case of potentially not sustainable financial instruments is when they are too much dependent on the annual negotiations about the state budget. It is relatively easy for this type of instruments to loose in the competition for public funds with other sectors and to suffer from tight government budget constraints. One way to attenuate this problem while keeping the budgetary nature of the financial instruments is to tie them to some form of pluriannual commitment.
b) Another example of potentially unsustainable financial instruments is when they are too much dependent on international sources of funds relying on foreign actors on whom the country does not have control.

One way out if this problem is to allocate the available international funds to the financing of the global public goods provided by the country's forests (carbon sequestration, biodiversity protection) where the case is stronger and the commitment of the international community is more definitive towards supporting national projects for SFM. For the other forest public goods a sustainable strategy is to rely mostly on domestic sources of funds.

One strategy to improve the sustainability of financial instruments is again to drop the "minimalist approach" and make them complementary of the other economic instruments in their capacity to generate public and private money inflows to forestry by setting up "forest funds", or more generally "environmental funds". The creation of such type of funds at the international level ("Global Forest Fund") for financing the provision of global public goods by forestry is one of the main topics on the agenda of the international forest policy dialogue, but where consensus is not forthcoming. Some steps in that direction have already been undertaken with the Global Environmental Facility and the ITTO Bali Partnership Fund, but developing countries are claiming much more resolute steps than these. Currently there are environmental funds in more than 20 countries, with some good examples specially targeted to SFM like FONAFIFO in Costa Rica. In some countries (see Mendes 1998, 1999, for the case of Portugal) this type of fund is stated in the national legislation, but remains as a "background right", without further steps towards its institutionalisation.

These funds often need some form of grant to get started, coming either from domestic sources (state budget), or from international sources (debt conversion, debt swaps, international philanthropic assistance, etc.). With this initial capital they combine other sources of funds:

- earmarked taxes (on fossil fuels, for example);
- charge systems;
- fines resulting from liability systems;
- revolving credit systems;
- philanthropic contributions;
- private capital with "green" objectives.

It is out of this money that financial support is provided to forest owners who are willing to comply with the type of SFM objectives presiding to the creation of the fund.

Diversification of the origins of resources feeding the financial instruments contributes positively to its sustainability: if one fails the other can make it up. This is why the forest or environmental funds may be a good idea.

It is obvious that crucial necessary conditions for the existence of sustainable financial and other economic instruments are the following:

- Political commitment to SFM;
- Participatory mechanisms;
- Intersectoral coordination.

These conditions may not sufficient. For example:

- political commitment may not be strong enough and may not have a long enough time perspective;
- participatory mechanisms may be not wide enough, and may not lead to long lasting consensus;
- intersectoral coordination may also not be wide enough, leaving out major stakeholders.

The other way around, it is obvious that the existence of sustainable financial and other economic instruments contributes positively to some of the NFP procedural elements. One feed back effect of this nature is with respect to participation and intersectoral coordination. If private stakeholders from forestry and from other sectors observe a credible public commitment to support SFM they will be more willing to participate in the NFP process and contribute to SFM than if that commitment seems unsustainable (Mendes 1998, 1999).

There is one issue briefly referred to in the previous paragraph which deserves to be highlighted. Sustainable financial and other economic instruments towards SFM are very

likely to leverage and increase private capital inflows to forestry. The rationale for this statement is obvious and the available empirical evidence also points in this direction (UNDP 1996; Chipeta and Joshi 2001).

9. Liability Systems

There are two types of liability systems targeting the internalisation of externalities (Panayotou 1998):

- legal liability;
- liability insurance.

Legal liability has the following characteristics (Panayotou 1998):

a) it imposes a threat of legal action to recover the damages:

  - damage to natural resources;
  - property damage;
  - damage to human health or loss of life;
  - non-compliance to environmental regulations;
  - non-payment of due taxes or charges;

b) it acts ex post, that is, after the damage has been generated.

Liability insurance consists in pooling liability risks among liable parts (Panayotou 1998). Since there are economies of scale in risk sharing, this policy will reduce the burden on each party each may face liability risks. A system of this nature is required in Chile for the concessionaries of public forests.

10. Environmental Performance Bonds and Deposit Refund Systems

Performance bonds and deposit refund systems are similar to liability systems in the sense that they also aim at shifting to the private sector responsible for environmental damage the costs of repairing those damages. The difference with respect to liability systems is that performance bonds and deposit refund systems act ex ante, instead of ex post (Panayotou 1998). So they are part of a preventive approach to environmental risks.

Environmental performance bonds as they apply to forestry can be deposits paid by concessionaries of public forests into a government managed interest bearing fund which is refunded if the SFM commitments of the concessionaries are met and when the concession ends. This system has been applied in forestry in Malaysia and Philippines.

Deposit refund systems are applied more and more widely to discardable polluting objects. Forestry does not directly produce this kind of objects, but there is still a link between this policy instrument and SFM. Often this type of objects are discarded in forest lands causing serious damages to forests (forest fires, land contamination, etc.). So the more there are deposit refund systems in place the less is the risk of these damages to forestry.

11. Public Provision of Services Supporting Private Sustainable Forest Management

Public provision of services supporting private SFM already falls somehow outside the range of the economic incentives policy spectrum, if we want to restrict these to incentives for activities where the private sector is directly responsible.

However, there are services very important to support private SFM which are publicly provided either because of their strong public goods nature and/or because the institutional setting of the country which makes it not feasible or advisable to go quickly for private provision. Here are some examples:

a) Knowledge production activities: research with results for the public domain;
b) Knowledge management activities:

- technical and scientific cooperation;
- training;
- extension and technical assistance services

c) Forest protection activities:

- protection against forest diseases;
- protection against forest fires (monitoring and extinguishing).

In some of these cases it is possible and advisable for the public sector to be the direct provider, at an early stage, and then gradually shift responsibilities for direct provision to private stakeholders, while keeping an indirect intervention, for example, by funding part of the investment and management costs. Areas where this can and has been done are training and extension.

It was stressed before the fact highlighted by several case studies around the world (UNDP 1996; Chipeta and Joshi 2001; Papageorgiou and Vakrou 2002; Mendes and Dias 2002) where the absence of forest extension services was probably a major impeding factor for public financial instruments to contribute in a more efficient and equitable way to forest development, especially in areas of small scale forestry:

- extension services help forest owners to have access to the available policy instruments by lowering the transaction costs that are involved in applying for those instruments (lowering the "individual rationality" constraints);
- extension services provide knowledge management activities that are crucial to orient the forest investment and management activities supported by the financial incentives according to the best available practices for SFM;
- extension services help forest owners to get collectively organised in order to have a participative role in the policy processes.

By playing these positive roles with respect to forest owners engagement in NFPs, forest extension services may interact with financial instruments in another positive way. Since they help to bring in more forest owners than a "minimalist approach" to public financial instruments, they contribute to increase private capital inflows to forestry. More specifically, they make more forest owners to be willing and able to invest their own money in SFM.

It was said before that a desirable road for evolution of this kind of policy instruments would be for the public sector to play a start role in directly launching these activities and then retreat gradually to a role of partial funding of their private provision, namely by collective organisations of forest owners. This may be a feasible and promising strategy for developing small scale forestry and effectively improving the private capital inflows towards SFM.

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Evaluation of Supporting and Impeding Factors of National Forest Programmes

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Abstract

The first part of the paper defines the concepts of a substantive National Forest Programme (NFP), and of supporting and impeding factors of NFPs. For the first one the paper distinguishes three variants, one for each stage of the policy process (policy formulation, policy output and policy outcome). The second part of the paper proposes some key issues to be addressed in the evaluation of supporting and impeding factors of NFPs, especially at the policy formulation stage where most of them are right now. The issues are the following: the need for a holistic and case based approach; the inter- and path dependency relationships among NFP components; non-market interdependencies (externalities and public goods) derived from the nature of NFP targets (sustainable forest management); NFPs as discursive processes leading to new social norms (rights and duties); appropriate matching of targets with policy instruments; effectiveness, controllability, individual rationality and incentive compatibility of policy instruments.

Keywords: substantive National Forest Programmes, supporting and impeding factors, ex ante evaluation.

1. Main Issue

The main issue assigned to Working Group 2 in COST Action E19 was to assess external supporting and impeding factors for the development of substantive NFPs. To tackle this issue one has to clarify the following concepts: What is a "substantive" NFP; What is an "external" factor for an NFP process; and What is an external "supporting" or "impeding" factor for an NFP process.

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2. What is a "Substantive" NFP?

To define what a "substantive" NFP is, one has to specify at what stage this policy process is. This leads to specific concepts of substantiveness, one for each stage of the process.

2.1 Substantiveness at the policy formulation stage

Since at the policy formulation stage, the NFP process has not yet delivered a final set of policy outputs and policy outcomes, the assessment of its substantiveness can only be based on its procedural ("essential" or "core") elements. This leads to the concept of substantive NFP at the policy formulation stage, which refers to an NFP process having "high" degrees of the following procedural elements:

- participation (Appelstrand 2002);
- intersectoral coordination (Hogl 2002);
- iterativeness (Barstad 2002);
- conflict resolution schemes.

This definition is based on the NFP procedural elements politically agreed in the main international fora. The use of the terms "essential" or "core" during COST Action E19 can be understood as a way to stress that NFPs represent a change in paradigm in forest policy making, with more emphasis than in the past put on the procedural elements mentioned above.

2.2 Substantiveness at the policy output stage

When the NFP process reaches the policy output stage it has delivered the following types of policy outputs: a set of policy targets which, in this case, are likely to be an operational definition of sustainable forest management (SFM); and a set of policy instruments.

So at this stage, the assessment of the NFP substantiveness can be based not only on its procedural elements, but also on the kinds of policy outputs it has delivered. This leads to the following definition of substantive NFP at the policy output stage:

AN NFP process meeting the following conditions:

a) "high" degrees of the following procedural elements:

- participation;
- intersectoral coordination;
- iterativeness;
- conflict resolution schemes;

b) a set of targets which is:

- an operational definition of SFM concept in its three dimensions (ecological, economic and social);
- internally consistent and
- as consensual as possible among the main stakeholders

c) a set of policy instruments which are:

- controllable by policy makers
- appropriately matched to their targets.

At this stage of the NFP process, one of the main issues can be the following *ex ante* evaluative question: is the NFP implementable, that is, are its procedural (degree of participation, intersectoral coordination, iterativeness, etc.) and content elements (specification of targets, mix of policy instruments) such as to make it reasonable to expect the NFP will reach its targets (operational definition of SFM)?

2.3 Substantiveness at the policy outcome stage

When the NFP process reaches the policy outcome stage it has delivered policy outcomes. So the assessment of its substantiveness should consist in evaluating *ex post* whether or not it actually met the targets it was set out to reach, and why things happened the way they did. This leads to the following definition of the substantive NFP at the policy outcome stage – an NFP process meeting the following conditions:

a) "high" degrees of the following procedural elements:

- participation;
- intersectoral coordination;
- iterativeness;
- conflict resolution schemes;

b) a set of targets which is:

- an operational definition of SFM concept in its three dimensions (ecological, economic and social);
- internally consistent and
- as consensual as possible among the main stakeholders

c) procedural elements and policy instruments which were such as to effectively meet the NFP targets.

3. What is an "external" factor of an NFP process?

In the first meetings of Working Group 2 of COST Action E19 the working definition of an NFP "external" factor adopted by the participants was simply a "negative" one: an NFP "external" factor is any factor that is not an NFP "essential" (or procedural) element. So this concept led to an approach by extension which simply consisted in writing down a list of factors with that characteristic. The list initially agreed within the group in the Freiburg meeting of March 2000 was the following:

- legal regulations;
- institutional aspects;
- financial and other economic instruments;
- land tenure;
- multilevel governance;
- advocacy coalitions;
- political culture and social context.

Later on a conceptual clarification was made in this matter. It consisted in differentiating between two kinds of "external" factors:

a) those that are policy instruments and may become part of the NFP as the process reaches the policy outcome and policy outcome stages (for example, legal regulations, financial and other economic instruments);
b) those that will remain outside the scope of control of the NFP policy makers as exogenous factors, or policy constraints of the process, which does not necessarily mean that they will remain unchanged by its outcomes.

4. What is a "supporting" or "impeding" factor of an NFP process?

The only general statement one can make here is that an NFP "supporting" ("impeding") factor is an "external" factor (in the sense defined above) contributing positively (negatively) to the following:

a) "high" degrees of the NFP desired procedural elements (participation, intersectoral coordination, iterativeness, conflict resolution schemes);
b) NFP targets (operational definition of the SFM concept).

In general, there is no such thing as an NFP "supporting" or "impeding" in itself. This quality of an external factor depends on its context (other external elements, specific characteristics of the NFP procedural elements, NFP policy instruments, specific NFP targets) and on its interdependencies with that context.

5. What does this all imply in terms of analysis of the relationships between the components of an NFP process?

5.1 Holistic and case based approach

The context dependency of an "external factor" to qualify for a "supporting or impeding factor" of an NFP implies that results from one country, or from one period of time are not automatically transferable to other countries or periods of time. It also implies that we need to take a holistic and case based approach to assess "supporting" or "impeding" influences to specific NFP processes. The group of "supporting" or "impeding" factors may vary a lot from country to country. A first empirical indication in this direction was provided by the country survey carried out among COST E19 Working Group 2 participants.

This does not imply, however, that we cannot say anything more specific than this about "supporting or impeding influences" on NFP process before getting into case studies. In the next section some general hypothetical propositions will be provided for NFP evaluation at the policy output stage.

5.2 Inter and path dependency

Another important implication context dependency is that we should not look for one way, linear causality relationships between NFP "external" factors and the other components of the NFP process (procedural elements, policy instruments and policy outcomes). Instead we should consider the NFP process as a complex social process, whose components are inter and path dependent:

- they act and react on each other;
- these actions and reactions often generate "lock in" effects, that is, the initial conditions matter for the history of the whole process (for example those stakeholders that are or get an advantageous position will resist changes which may undermine that advantage).

5.3 Non-market economic interdependencies

We don't need to get into normative discussions about what should be the specific content of the SFM concept as overall designation for the targets of NFP processes, in order to be able to draw important positive implications about the interdependencies among the components of these processes. One group of implications comes from the fact that whatever is the specification of the SFM adopted by the stakeholders in the NFP processes it always calls for an increasing role of forests in the provision of positive externalities and public goods. Without appropriate policy instruments and procedural elements, it is very unlikely that these externalities and public goods can be delivered. So one has here a wide domain of interdependencies to look for between NFP outputs (operational specification of the SFM concept by the NFP stakeholders and the corresponding policy instruments), NFP procedural elements and the NFP outcomes.

5.4 Social and political interdependencies and new modes of governance

Another important group of interdependencies that comes out of the SFM concept as target of the NFP processes, whatever way this concept is specified, is that the provision of the positive externalities mentioned above, as well as the provision of other forest goods and services aimed at by the process, always involves changes in the system of social norms governing the activities of the stakeholders in the process: their liberties (what they may do) and immunities, their duties (what they have to do) and liabilities (what happen to them if they don't do what they have to do), their rights and powers (what they can do) and their disabilities (what they cannot do) and exposures. These changes may become legally binding, but not necessarily. If NFPs are really "substantive" in the sense previously defined, participation will be effective, so that these normative implications of NFPs may often be the result of consensus building through public discussion among stakeholders, like in the ethics of discussion advocated by Habermas (1999). This way of building or changing social norms constitutes a new mode of governance of the interactions among the major stakeholders in the forest policy process.

The analytical and practical implications that come out from this fact are the following:

- one should look at the way the different NFP components and interdependencies among them change the system of social norms regulating the interactions among the major stakeholders, especially, in view if identifying who is gaining and who is gaining with those changes;
- the gainers would very probably be "supporting" factors and the loosers "impeding" factors of the NFP process;
- if the process delivers policy outputs appropriate to compensate the loosers without hurting the gainers, it will be more likely to be successful in reaching its targets.

So one has here another wide domain of interdependencies to look for between the NFP policy outputs (specification of the SFM concept; NFP policy instruments), its "external" factors (social and political context, legal regulations, etc.) and its procedural elements and policy outcomes (what the process actually achieved).

5.5 No one-sided approach

NFPs are a paradigm shift in forest policy planning, moving away from bureaucratically driven policy making too much focused on target and policy instrument setting, without caring enough about the procedural aspects for that setting and for policy implementation. So it is understandable that COST E19 vocabulary accentuates this paradigm shift by naming the NFP procedural elements (participation, intersectoral coordination, iterativeness, conflict resolution schemes, and others) the NFP "essential", or "core" elements.

The danger here, for the less averted observer, especially in a time where most NFPs are still at the policy formulation stage, is to forget that they are still also about setting targets and policy instruments, and that they should deliver outcomes consistent with their targets. So one should still remain interested in NFP targets (with a normative perspective if one has to participate in the choice of those targets, or in a positive perspective if one has to draw the implications of the chosen targets in terms of appropriate policy instruments and expected outcomes). One should also remain interested in the appropriate matching of targets to policy instruments and in the conditions for controllability and effectiveness of the policy instruments. Finally, one should not forget that NFPs should ultimately be evaluated in terms of their outcomes compared to the targets they were set out to reach.

This should be obvious to everybody. However, by observing some discussions and even writings about NFPs the conclusion is that it is not so obvious. This is why it is better to make it clear that every one sided approach is bad: it was bad the old bureaucratic approach which emphasized the setting of targets and policy instruments, without caring about the process; it is also bad to shift to the other extreme, by over emphasizing the procedural elements, almost forgetting about the content of targets and policy outputs, as well as about the fact that, ultimately, the merits of NFPs should be evaluated by the way they really could make a (positive) difference towards SFM.

So again what is needed is a holistic, or systemic approach taking into consideration all the components of NFPs (procedural elements, policy outputs, policy outcomes, and exogenous factors) and the interdependencies among them.

6. What does this all imply in terms of analysis of NFPs at their current status?

Currently most NFPs are still at the policy formulation or policy output stages. So one type of analysis that is feasible at this stage is an *ex ante* evaluation analysis whose main issue was previously stated as follows: is the NFP implementable, that is, are its procedural (degree of participation, intersectoral coordination, iterativeness, etc.) and content elements (specification of targets, mix of policy instruments) such as to make it reasonable to expect the NFP will reach its targets (operational definition of SFM)?

Let us now look with more detail into this issue.

6.1 Implications derived from SFM as target of NFPs

As was said before, we don't need to get into normative discussions about what should be the contents of the SFM concept as target for the NFP processes in order to draw some positive implications for a process having this kind of target. As was also said before, one group of implications comes from the fact that whatever is the specification of the SFM adopted by the stakeholders in the NFP processes, it always calls for an increasing role of forests in the

Table 1. Policy instruments to internalise externalities and provide public goods.

Broad types	Specific types
Command and Control	- Administrative restrictions coercively imposed on private behaviours by the public authorities
Economic Instruments	- Securing or reforming property rights and negotiating private arrangements - Demand pull instruments - Market creation - Fiscal instruments - Charge systems - Public financial instruments - Liability systems - Environmental performance bonds and deposit refund systems - Public provision of services supporting private SFM

provision of positive externalities and public goods. This provision calls for a mix of the types of policy instruments presented in Table 1 and dealt with in detail in the companion paper (Mendes 2002). As explained in that paper, if there is inappropriate matching of the NFP targets with these types of instruments, implementation failures are likely to happen.

Another positive implication that can be drawn from having SFM as target for NFPs, without having to make normative choices about its contents, but taking into account the types of choices that can be made in this matter, has to do with the difference between what Castellanos (2001) calls the "micro sustainability" approach and the "macro sustainability" to SFM. More precisely this means the following:

a) for the supporters of SFM as "micro sustainability" all the sustainability criteria should be met at the stand level;
b) for the supporters of SFM as "macro sustainability" the relevant scale for meeting the sustainability criteria is at a larger landscape level.

Depending on which of these two camps the specification of the concept of SFM adopted by the NFP falls in, the consequences for mix of economic instruments can be enormous. If the NFP goes for a "macro sustainability" approach to SFM it will allow for the specialisation of the forest lands according to their competitive advantage between areas of intensive forestry more oriented for timber production and areas of less intensive forestry more oriented for conservation purposes (Castellanos 2001). Or all the available empirical evidence shows (UNDP 1996; Chipeta and Joshi 2001) that the major part of private funds flowing to forestry goes to investments in intensive forestry. Therefore a "macro sustainability" approach to SFM is more likely to attract private funds and rely less on public funds than the "micro sustainability" approach.

6.2 Implications derived from NFPs as processes changing or setting new social norms

As was said before, NFPs change or create new social norms regulating the interactions among the stakeholders in the forest policy process. In a very broad sense, we can say the following on this regard:

- to the domestic and even to the foreign population, all NFPs explicitly assign the right of getting from forestry a wide range of positive externalities and public goods (soil and

watershed protection, carbon sequestration, biodiversity protection, landscape quality, recreational services, etc.);
- for the forest owners the provision of these goods and services becomes a duty;
- as a counterpart of this duty, NFPs should assign to the forest owners the right to get paid by the society for the full cost of providing those goods and services, this duty for the society being the counterpart of the right to be provided with those goods and services.

What all the NFPs do relatively easily about these rights and duties is to establish them as what Dworkin (1978) calls "background" and "abstract" rights:

- as "background rights", it means that they may be recognised, in principle, to their potential holders, but they may not yet be "institutional rights" because they lack the specification of the institutions needed for their implementation;
- as "abstract rights", it means that they may be at a stage of specification which does not yet make them "concrete rights" with a clear content and order of importance relatively to other rights with which they might be in conflict.

One characteristic of rights which has a major importance for the proper design of the policy process both at the policy formulation and at the implementation stages is that rights may be in conflict among themselves (Dworkin 1978). So there is a need for other principles and for mechanisms to set priorities and settle compromises to fix these conflicts. One way to look at the role participatory and intersectoral coordination mechanisms in NFPs can be as procedural elements whose necessity and functions are, at least partially, related to this potential conflicting nature of rights and duties involved in attaining SFM.

So from this view of the NFP process, one can draw a set of specific "implementability questions" which can be generally stated as follows:

a) Whenever an NFP establishes a duty for some stakeholder, does it provide for appropriate compensatory rights?
b) Does the NFP states the rights and duties of the concerned stakeholders simply as "background" and "abstract" rights and duties or does it make steps forward towards their institutionalisation and concretisation?

If the answers to these questions are negative then one can expect that there will be implementation failures.

6.3 Controllability, individual rationality and incentive compatibility of policy instruments

Supposing that the NFP includes policy instruments to internalise externalities and provide public goods, as well as compensatory rights for the new duties imposed on some stakeholders, there are further "implementability questions" to be addressed. We can summarize most of these questions by the following one: are the NFP policy instruments likely to be effective in reaching the NFP targets?

A first check for the effectiveness of the policy instruments can be made on the basis of the nature of the specification of the NFP targets: quantitatively fixed or flexible. In the first case, if the NFP does not include, at least, as much policy instruments as fixed targets, the instruments will not be effective (Tinbergen's rule). If there is possible substitutions among targets this problem will not arise.

A second type of check for the effectiveness of NFP policy instruments, especially in countries where forest ownership is predominantely private, is to address the questions:

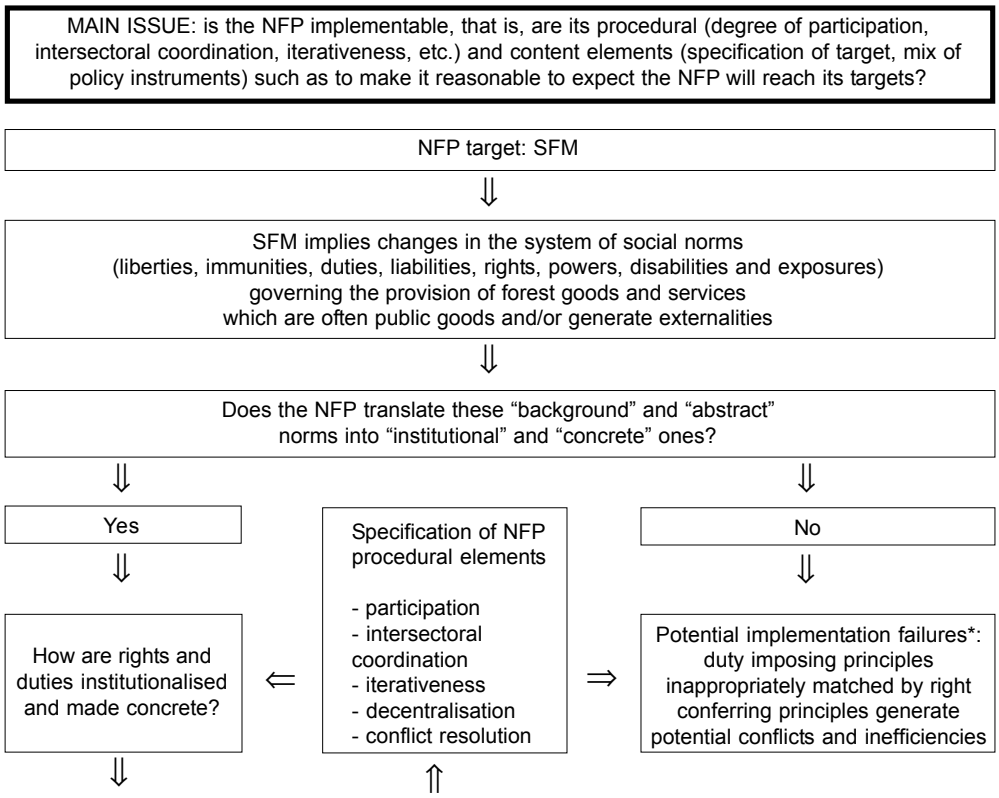

Figure 1. Summary of the analytical framework for the analysis of nfps at the policy formulation stage(implementability or ex ante evaluation analysis).

a) are the policy instruments included in the NFP controllable by the policy makers or not?
b) if they are controllable, can they meet the following implementability constraints (Mendes 2000):
   - individual rationality: are they likely to make the target population better off?
   - incentive compatibility: if they make the target population better off, is this population going to behave in a way consistent with the NFP targets?
c) is there enough and appropriate monitoring, assessment and review mechanisms to cope with failures to meet these constraints, if they arise?

If the answers to these questions are negative, then one can expect that there will be implementation failures.

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Financial Incentives in Greek Forest Policy – Implications for Financing an NFP

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Abstract

The present papers attempts to outline the financial incentives in state and private forestry during the 1990s in Greece and how these influence the formulation and implementation of the Greek National Forest Policy. Following the Rio Conference in 1992, the EU has instituted a grant aid scheme for forestry measures in agriculture to control agricultural production and increase forest cover. Most of afforestation practices are largely EU grant driven either through Reg. 2080/92 and reforestation of burned areas provisions included in the Regional Operational Programmes financed under the Structural Funds. Subsidies are seen as necessary to buy contributions of forests to society, are highly supported by rural communities, but what remains controversial is how strong the role of this economic policy instrument should be. Recent research findings have associated the limited success of afforestation schemes with small-size forest aids, long driven agricultural character in most rural areas in Greece as well as weak experience in forestry and lack of extension services provided to farmers by the Forestry Service.

The same holds true for other forestry projects in Greece, such as forest road construction and improvements and forest and wildlife reserves, whose implementation has been, to a great extent, co-financed by the EU. Subsequently, the available national financial resources are there only as the matching funds needed for the co-financing percentage. Only a fraction of forestry projects and mainly research and education is financed by national sources. Thus, the fulfillment of forest goals, set by the Greek administrative authorities, is hindered upon fiscal weaknesses, which poses severe threats and drawbacks in the planning of forestry projects.

It is concluded that since the accession of Greece to the EU and especially during the last decade, when the regional planning has been changed based on the provisions of Structural Funds, Greece has used its finance only as supplement to the EU contribution. This practice has resulted in restricting the development of forestry projects only to the available tools in the various Community forestry regulations, thus allowing for a fragmented action framework and not allowing the development of coherent planning and programmes tailored to country's needs and aiming at enhancing sustainable forest management. Within the context of an NFP,

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this article establishes the financial incentives as a vital instrument to pursue the process of planning and implementing forest activities in the country.

Current state of forest policy in Greece

The official forest policy in Greece comprises a framework of defined goals and targets with respect to three major focus areas: economic, cultural and nature conservation (HMoA 1998). The goals and targets are pursued through a generic framework of implementation tools but are not quantitatively determined thus limiting their success measurement. Although however, the sustainability principle is well recognized and used in Greek forestry, there is not a clear definition of what constitutes sustainable forest policy. It assumes that the concept of sustainability has long been integrated in forest policy but only as regards to timber production. It now further extends the concept by emphasizing a shift from an economic centered forest approach towards a societal and multifunctional centered forest approach. It identifies therefore, the intimate link and relationship between sustainability and multipurpose forest management and it allows the latter to be used as synonymous to sustainable forest management.

The forest strategy plan comprises a set of proposals and includes some revised policy goals. Specifically, there are seven basic focus areas that the new forest policy should embark on action:

- Diversification at policy level: Reviewing and reforming the principles, objectives and goals of Greek forestry in the context of sustainable development.
- Forest authority: Redefining, upgrading and securing the role and responsibilities of the General Secretariat of Forests and Natural Environment, the central policy making body within the Ministry of Agriculture, in the formulation and implementation of Forest Policy.
- Policy implementation: Resolution of forest conflicts, problems and mismanagement pertaining to protection, management and development of forests.
- Investment program: Provide for infrastructural development needed, either of basic form or more elaborated elements like modernization and technology applications.
- Resource investment and financing program.
- Research: Forest research, forest applications and education.
- Upgrading the role of the 'Geotechnical' chamber of Greece, the chamber of professionals working in the agriculture, veterinary and forestry fields.

The main elements of the Greek forest policy, as described above, have in practice focused very much on government measures and a number of improvements in basic infrastructure, research and nature conservation within the context of the forest sector. Although the concept of national forest program is not introduced nor approached, this document represents partly a technical as well as a policy process in the sense of prescribed goals and targets, administrative and managerial improvements. Judged from an NFP perspective however, there are severe weaknesses that diverge the text from typical NFP procedures and elements. Specifically, the Greek forest policy does not offer concrete and rigid intersectoral associations and links with other bodies such as other ministries, NGOs etc to tackle issues of forest development and nature conservation. In this respect, the policy remains rather introvert and most of the institutional and administrative improvements refer to changes in the vertical organization of the Forest Service. Furthermore, the document does not reflect a holistic approach and is lacking of an active and elaborated participatory mechanism of all interested parties as well as reference to iterative processes. The basic recommendation lies in the reorganisation of administration structures is suggested at a regional and central level

representing thereby a strong top-down approach in policy matters. Vakrou (1998) notes the lack of a strategic long-term planning for Greek forestry among the major weaknesses for sustainable development and management of the Greek forests. She further argues that regulation and legislative measures apply where policy has not foreseen the economic and social needs of the people; it is thus the instruments that determine the policy than vice versa.

The state of forests in Greece

The current state of the forest cover in Greece has been particularly the result of land transformations occurred after the world war II where forests were cleared to make more land available for much needed agricultural production. As a result many forests have been wiped up entirely from lowlands and are confined in mountainous areas. Kokkinidis et al. (1984) have illustrated the impact of forest fires, overgrazing, indiscriminate exploitation of woody vegetation, socio-economic pressures and land-use conflicts, political and military events and finally the lack of an appropriate and effective forest policy for a very long time. Today forests occupy approximately 2.5 mill. ha (19%) of the land in Greece while another significant 6.4m ha include partly forested and wooded land. Furthermore, following the social changes in the community structure of rural areas, caused for example by rural-urban migration, agriculture and grazing have declined and forest has established in degraded land through the forest succession process.

A comprehensive account of the ownership type and species composition of Greek forests is given in Table 1.

The forest productive potential amounts to 154 mill. m^3 with an estimated annual growth rate of 1.8m^3/ha (2.3 m^3/ha in conifers and 1.5m^3/ha in broadleaves) or a total of 4m m^3/year. Less than two-thirds of timber production is firewood (63%) and only 37% is construction timber. Today forestry contributes 2 million man-days per year in terms of employment, opportunities that are essentially available to people in the mountainous communities. Economic valuation of forest functions estimates the total value of the available stock of 150 million m^3 worth of 2.6 mill. EUR. Additional estimates raise the value for recreation at 3.9

Table 1. Forest land by ownership type and tree species.

Forest ownership type	%
State forest	65.5
Communal forests (Municipal, monasteries)	16.8
Private	17.7
Species compositions	
Conifers	38.4
Firs-Sitca spruce	13.1
Maritime pine	18.9
Black pine	5.5
Other conifers	0.9
Broadleaves	61.6
Oak	29.8
Beech	8.7
Other Broadleaves	23.1

billion EUR/year, for protection functions at 1.1billion EUR/year and for bee-keeping at approximately 5.8 million EUR/year while other vital functions such as improvement of water and air quality, aesthetics and conservation cannot be easily assessed (Vakrou 1998). It is obvious from the structure of forest stands that the quality of forests is not satisfactory due to overexploitation in the past, devastating forest fires and overgrazing. Improving the forest management has been constrained in the past due to lacking financial resources and high cost of silvicultural treatments. In brief, a general account of the problems that Greek forestry face today can be summed up as follows:

- Degraded forest ecosystems.
- The lack of a central and regional land-use plan, which results in competition with agriculture and grazing
- A great deal of forest resources are out of management as a result of a timber production oriented legislation, which is not supplemented by adequate funding and of understaffing in forest district offices.
- Ownership status is not resolved in several cases
- Forest guarding, particularly of conservation/protected areas is inadequate due to scarce finance and lack of specialized personnel
- Administrative and managerial overlapping, due to new natural environment legislation
- General lack of financial resources, but also commitment for forest development and sustainable management.

Financial means available to the Greek Forestry

The implementation of major policy goals is realised through management plans, which are revised every 5 years. However, as a result of not secured and continuous funding for fulfilling all management goals, the revision of most plans is exhausted only in timber producing forest stands. According to Stamou et al. (1998) it is the scarcity of financial means that is recognised as a major element impeding the fulfillment of management targets.

The budget of the Forest Authorities was, until recently, the driving force of every project concerning forest management and remains to this day very important, although other sources of funding (mainly through the EU) have been channeled to forestry. Overall the budget is showing a deficit of income deriving from timber products, accounting for only one-third of the annual forest budget (Stamou 1990), with the remaining covered by government funds from the program of national investments. Table 2 illustrates the major funding sources for a series of forest measures in Greek forestry. As shown in Table 2 a great deal of initiatives have been funded outside national sources, mainly through the operational program for the environment and agriculture, the Integrated Mediterranean Programms (IMPs), the regional operational programs as well as through rural development initiatives like LEADER I and II. Although various integrated schemes have been applied in the mountainous regions through these programs, their results have not been evaluated in a manner that would have permitted to identify clear interactions and impacts in forested areas as well as implications for forest policy (Vakrou 1998).

Even though EU funding schemes have provided overwhelming support to the national budget lines for forestry in the 1990s, it has been argued that financing has not been stimulating for further forest development and has not fulfilled the enhancement of forest resource the and promotion of the multifunctional role of forests as described in the forest strategy plan (Stamou 1996).

Table 2. Financial means in Greek forestry.

	Programmes/regulations	Activities financed	Budget	EU Co-finance
National level (Second Structural Fund Programs, Period 1994–1999)	Forest measures included in various operational programs	Reforestation-afforestation, Forest nurseries, Forest roads, development of Grazing land, National parks, recreation	134 mill. EUR	75%
	EEC regulation 867/90	Improving infrastructure, equipment, support forest employment	26.4 mill. EUR	50%
Other EU Programmes	EEC regulations 2158/92, 2157/92 (1997–2002)	Forest fire protection measures, roads, infrastructure, studies	29.3 mill. EUR	50%
	INTEREG II (1997–1999)	Forest fire protection measures, forest management (regions of Macedonia, Thrace), flooding prevention measures	5.9 mill. EUR	70%
Regional operational programmes		Similar to those of national level	108.5 mill. EUR	
EEC 2080/92		Planting forest in agricultural land	67.5 mill. EUR	
Total			371.6 mill. EUR	

Table 3. Level of support for grant aid funding in forestry.

	Land owners (% of agreement)
Land owners would not plant their land if there were no grants or subsidies available	69.4
Grants are sufficient to successfully plant or manage forests	24.5
Private LO should be paid grants to plant trees	86.2
Private LO paid grants to manage and protect forests	77.8
Private forest owners should be paid grants to allow recreation	48.9

(modified from Kassioumis et al. 2002)

Afforestation in rural areas – A case study of financing forestry in Greece

Forest expansion for productive as well as recreation protection and environmental purposes remains a strategic approach in Greek forestry. Regarding afforestation and reforestation, the plan provides for four major interventions and policy measures (HMoA 1998):

- Increase of forest timber yield especially of broad-leaved forests, through the restoration of degraded forest stands, reforesting forest gaps and introduction of broadleaved species.
- Promote afforestation primarily for watershed protection, soil erosion and timber production in suitable soil conditions.
- Encourage reforestation, especially in locations devastated by fires.
- Create new peri-urban as well as urban forests for aesthetic and recreation purposes.

In a revised advisory document on forest policy, forest expansion comprises a core element with more explicitly set targets and goals. However, the annual afforestation target of 10,000 ha was never fulfilled. On average forests extent at a rate of 3,500 ha, a figure far below expectations due to financial and social weaknesses (Stamou et al. 1998). Most afforestation is confined in areas devastated by forest fires, some occurs primarily for recreation purposes in peri-urban areas while a growing amount of agricultural land is converted to forest. Almost all afforestation as a result of the implementation of the EEC 2080/92 regulation, has taken place in degraded, less productive and small size agricultural land. Overall, 6,234 ha or less than 0.05% of the total landmass has been planted with forest trees for the period between 1993 and 1996 (EEC, 1997).

Empirical evidence

Results of a research programme undertaken in Greece, has established subsidies and grants as financial incentives for turning farmers away from traditional agricultural activities in their land and increasing the forest cover of the localities. Kassioumis et al. (2002) suggest a high level of support among the landowners for grants and subsidies for the planting of land with forests (Table 3). As Table 3 illustrates, over two thirds of landowners in two rural areas in Greece have agreed that there would have been no planting without grants and subsidies.

Furthermore, the level of support for schemes subsidising the planting and managing of forests is overwhelming in these regions. It has also become apparent that it is the magnitude of derived economic benefits that lie at the core of landowners' decision to plant forests in the two study areas in Greece. Albeit afforestation policies such as the regulation 2080/92, are clearly supportive of measures aiming at improving also the ecological and environmental integrity of rural areas. Forest subsidies have not been successful in stimulating farmers' participation in afforestation schemes. Consequently, increasing the size of grants and subsidies for planting land with forests is imperative to augment participation in planting schemes among farmers. T can be politically justified when considering that the recipients of the environmental and aesthetic benefits include all members of local communities and not only farmers.

There are two straightforward implications associated with the above: firstly, findings suggest that the provision of subsidies results in an increased dependence of recipients on these payments. Secondly, afforestation is markedly grand driven and this establishes grant aid a potent regulatory policy tool for formulating and implementing forest policies in rural areas in Greece.

Further to that there indications of environmental problems associated with measures of these type, maybe not so obvious in Greece than in countries that have been overuse the measure for the afforestation with fast growing coniferous. Thus, it has been argued that

further consideration need to be given on the way that the regulation has been applied in the past and in its current application. It has been suggested that instead of using a standard value for the subsidies, it is better for the subsidy to be putted on the interest rate. In this way, an increment on forest interest rates will be achieved and this will make them more attractive to farmers. Also, a differentiation in the application of the regulation has to be made giving better incentives for mountainous marginal lands and to afforestation with broadleaves, rather than fast growing poplars and other species (Skuras 1994a).

Policy implications

Development of a forest economy mainly in the mountainous and semi-mountainous areas in Greece can play a vital role in the survival and sustainability of these areas. Nearly all of the land is under the jurisdiction, regulation and management of the forest service, either directly or in an indirect manner. Thus, this land represents the arena for the application of forest policy, which aims at the sustainable management and use of the forest resources throughout the entire spectrum of forest functions and at promoting rural development.

Financial resources are found to be instrumental in forest service's efforts to achieve the policy goals, but as the present analysis has shown, remain insufficient and scarce for a long-term integrated national forest strategy. EU sources provide a supplement to the national forest budget, but remain fragmented and support only forest actions that are determined in the context of EU measures, thus they cannot fully provide for the real national forest needs. Subsequently, in view of the limited national resources available to forests, it is the size and availability of EU resources that drive the implementation of forest policy rather than vice-versa.

Empirical evidences illustrate that funds for grant aid forestry is a continuous and potent impetus for farmers to participate in tree planting schemes in rural areas in Greece. However, the amount of incentives is not conceived sufficient and forest grants have not been successful in stimulating farmers' participation in afforestation schemes. On the other hand, forest subsidies face the risk of creating strong forest-aid dependencies, in the same way as it has occurred with agricultural aids. Continuing this dependency, without accounting for creating a forest mentality to the 'new' forest owners and managers, can lead to a failure of the afforestation measures in the cases that the objective was solely the creation of new forests and not the reduction of agricultural land use. While however, subsidies are seen as necessary to buy contributions of forests to society, what still remains controversial is how strong the role of this economic policy instrument should be. It was mainly seen as a short-term instrument to make changes in the right direction, but as Wildburger (2000) argues, in the long run, the mix of forest products and services has to be optimised to sustain the development of forestry in the context of rural development.

To overcome the above loophole rural policy should shift from an approach based on providing subsidies to one based on strategic investments on forestry to account apart from wood production for the provision of non-timber goods and amenity-related benefits. To achieve this, it remains pertinent to built into rural development policy more strongly the element of multifunctionality. This will allow rural development policy to built some elements and rationale deriving from other policies, like forest and natural resources policy. On this note, given the multifunctionality of forestry, there ought to be an increased emphasis on, and understanding of the full range of actual and potential benefits deriving from the forest. Allowing for broadening the scope of the policy that provides today the majority of the instruments for forests, can lead to the creation of a multifunctional rural development policy, which can more comprehensively account for forest policy needs.

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Theories of Institutions and National Forest Programmes

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Introduction

Creating new institutions or reforming old ones is an activity as old as organised society. So are the unexpected and usually unwanted consequences of newly introduced changes. The NFP process is yet another effort to get the broad developmental process of forest usages to fulfil agreed upon goals. Can we today do better than the trial and error process of history? We do not claim that there now exists a body of theory making purposeful institutional design or redesign feasible. But we do believe we today – in the best of circumstances – can predict the most likely path of development for new institutional elements introduced to a society. In this paper we want to discuss the institutional aspects related to NFP in view of what we know about the dynamics of institutional development. We would like to relate our observations into the institutional frameworks prevailing in Norway and Finland, and also draw some conclusions from the past. As we are aware that "the best of circumstances" do not obtain either in Finland or in Norway, what we can offer are not always theoretically based predictions but sometimes only what can be called theoretically aided guesswork. We begin by outlining some key element of the current theory of institutions, and then proceed to highlight some of the more obvious implications for the cases of Norway and Finland.

1. Theory of Institutions

1.1 Where do institutions come from?

"Institutions are the rules of the game in a society or, more formally, are the humanly devised constraints that shape human interaction", says Douglass C. North (1990:3). This is a convenient starting point but it is not the whole story. Arthur L. Stinchcombe (1997) reminds us that institutions are staffed and created to do a job of regulating organisations or individuals.

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Institutions are more than just rules. For a rule system to become an institution it needs guardians charged with interest and authority to monitor and enforce the rule system. Hence, whenever we find an institution we also find a group of people with a mandate to watch the performance of the rules. At the most elementary level the group of guardians will be the people who devise the rules. In modern states we expect in most cases to find a bureaucracy as guardians[1] . These guardians are human beings with beliefs and values, they have less than perfect knowledge and they have personal as well as class interests. Therefore, the job performance of the bureaucrats can be seen as a distinct and separate force besides the body of rules. But neither is this enough as a starting point. To understand institutions we also need to see the driving forces in their genesis.

The origin of institutions is found in the human need to safeguard life and livelihood. This is also seen in the development of the ideal – and an institution – of the sustainable forest management. The sustained yield of timber is an aspect of man's most fundamental need: to sustain life itself (Duerr and Duerr 1975). The solution involves many and pervasive problems of collective action[2] .

1.2 Safeguarding resources: the problem and the institutional solutions

While the single omnipotent and omniscient person would have no management problems at all, such a person would neither have fellows nor a society around. If we take as a starting point that fellow humans are around, that they are fallible learners competing in the acquisition of benefits from divisible and scarce resources, and that they also are concerned about the equity of the final distribution, certain problems follow inevitably:

- Allocation of benefits: who gets how large quotas from each resource?
- Allocation of costs: how do you distribute costs (monitoring, sanctioning, and other transaction costs)?
- Rulemaking: what are the procedures for (re-) negotiating rules governing the management of a resource?
- Enforcement: how do you get compliance to agreed rules, quotas and distributions of costs?

The outcome of the processes determining the allocations of costs and benefits is known as property rights. The major outcome of rulemaking consists of formal legislation and other binding norms produced ideally by democratic political institutions and processes but there are informal rules as well. Organizations that are mandated to enforce the legislated rules are called (public) bureaucracies. Informal rules with their self-enforcing characteristics belong to the informal institutions.

In the following we define and discuss all these major forms institutions in more detail and will sometimes illustrate the theoretical aspects with some empirical examples from Norway and Finland.

1.3 Perspectives on systems of property rights

The character of the property rights (their distribution, security of tenure, specific powers of management; etc.) is a fundamental force in shaping the performance of an economy (North

1 Rereading North (1990) with this in mind it is rather obvious that his concept of institution implicitly takes the existence of bureaucracies for granted.

2 The academic study of this problem is as old as social science, starting no later than Hobbes' (1651) study of "Leviathan". Elinor Ostrom's (1990) book on "Governing the Commons" is a significant contribution. It is not the last word, but eminently relevant for our interests here.

1990, Eggertsson 1990). Their formal logic is fairly well known, and the theory outlining this may be in the process of stabilizing (see e.g. Sened 1997). But their social dynamic and their real world mechanisms of stabilization are not well known. However, it is clear that the driving forces in our types of societies are channelled into politics. The rules – the institutions – for (re-) negotiating the property rights are the political institutions of a society. But these are in their turn founded on the more fundamental social institutions of the society. In democracies they are supposed to be promoting the basic shared values of the society, including, significantly, both protection of nature and economic performance.

The various approaches to the study of societal institutions in the various sectors of society give partial glimpses of the way they currently are working (Douglas 1986, Szompka 1994,). And the theoretical reconstructions of their internal logic give glimpses of why certain aspects of them are so persistent. But an understanding of the historical genesis of the current structures is not yet within reach.

According to Godelier (1984:76), "the concept of property may be applied to any tangible or intangible reality", and rules of property rights will "always assume the form of normative rules, prescribing certain forms of conduct and proscribing others under pain of repression and sanctions". But he also warns that "property only really exists when it is rendered effective in and through a process of concrete appropriation" (p. 81).

A property rights system can, therefore, short and imprecise, be defined as an institution determining who will legitimately benefit how much for how long and in what ways from which resource(s).

In the study of forest resources and their management the basic institutions are the various systems of property rights as these have been enacted in the various countries during their history. In the following, some historical changes in forest ownership institution in Finland are featured.

Communal social organisation and ownership of resources were the only ways for primitive societies to survive in the struggle against the dangers of the wild nature. Private ownership of land developed first for housing plots and permanent agricultural land. Jointly used communal (village) forests developed in areas close to the settlements. Hunting and shifting cultivation developed temporary rights of land based on occupation and use of work (Helander1949). Practically all other areas were open access resources until 1542, when Gustav Vasa, the King of Sweden, declared that the wilderness areas "shall belong to the God, the King and the Crown of Sweden"[3]. This move in forest ownership policy favoured the huge wood demand of the iron industry, although at the same time the Crown also had a major but conflicting aim to encourage settlement to widen the taxation base.

The increased dependency of peasants on the nobility, the taxation debts to the Crown, and the emergence of feudal ideology into Sweden worsened the situation and property rights of peasants in 17th and 18th centuries. Even inheritance (family) estates were regarded to have only use rights to the land that ultimately was considered to belong to the Crown. But in 1789 the farmers got full rights to their land similar to those the nobility had on their freehold estates. From 1757 privatisation of communal lands and marking of the boundary between more distant and "excess" private lands and crown land was initiated. The process was quite generous to "old farms" and those owned by the nobility. The system of small rented farms emerged on the peasant farms, which

3 At that time Finland was a part of Sweden. As the King also confiscated a bigger part of the wide land and forest estates possessed by the Church at that time, he apparently had more the other partners of the coalition than God in mind when giving the declaration.

alongside an increasing landless rural population was a factor of increased social tension leading to the Citizen War in 1918. This traumatic phase in the Finnish history resulted in land reform legislation (1918, 1919 and 1922), reallocating both state and larger private forests and agricultural land and also the restitution of forests bought earlier by forest companies from the farmers at excessively low prices. Land reforms were followed by an agricultural settlement policy in 1920s and 1930s. A new wave of settlement was due to the World War II, when people of ceded areas and the soldiers were to be settled (Tykkyläinen 1996). The agricultural farm structure created was not economically sustainable and since the late 1960s the continuous decrease of active farms, consequent rural depopulation and change of the structure of private forest ownership has occurred. Urbanisation furthered partitioning and fragmentation of forest ownership. Presently private non-industrial forest owners have 61% of (productive) forestland, state 25%, industry 9% and municipalities, parishes, and other collective bodies 5%.

The evolution of property rights to forests (as to land based resources in general) has gone through a long and sometimes painful history, and the structure of forest ownership (answering who has got how large quotas) has been formulated by political and economic factors largely external to forestry. The dynamic is encountered by tracing how the interests defined by property rights feed into political processes.

Property rights in the means of production are usually recognized as one of the major institutions of a society. As production systems change so do property rights. But property rights change and transform in response to more pressures than the forces of production. Also they comprise more than the formally legislated property rights including customary practices. Going by the theoretical definition it sometimes is appropriate to speak of property rights even though particular rights are unrecognised as property rights by the law[4].

The property rights to forestry resources are usually taken for granted and seen as immutable. They are based on customary practice partly defined and partly defended by the totality of civil law. Even if property rights are very seldom changed directly, they are in reality changing all the time at the margin both through regulatory measures of many kinds and through changes of customary practices.

The occasional direct redefinitions, like the one currently going on in Norway for the state lands in Finnmark, occur centuries apart and come at a political and social cost.
The public rights of access to privately owned lands in Norway and Finland are based on ancestral usufructs. Use of the rights presumes "reasonable" and "considerate" behaviour taking care to avoid damage to crops or other owner interests. Thus the Norwegian legislation introduces a distinction between "innmark" (arable lands, some grazing areas, the farm yard and garden areas) and "utmark" (non-arable lands not defined as "innmark"). In "innmark" one is only allowed to move on foot when the soil is frozen or has snow cover, and not between 30.4. – 15.10, and one is not allowed to have a break there. In "utmark" movements on foot have no limitations and outside a 150-meter circumference of any inhabited house one is allowed to camp for 2 days without permission. The picking of nuts, berries[5], mushrooms, flowers, or roots of herbs is allowed by default since the penal code (§400) expressly says that such activity will

4 Most obviously in the way De Soto (2000) outlines the development of customary property rights in the extra-legal sector of most of the third world and former communist countries, more subtly for example for some developments in organized labour-capital relations, social security (compare e.g. Reich 1964), or the rights, privileges, powers and immunities of the members of the more successful professions (see e.g. Perkin 1981).

5 In both countries there are some restrictions concerning the cloudberry (*Rubus chamaemorus*) – economically the most valuable wild berry – which is most abundant in the north. In Norway in 1854 a law was established that prohibited the picking of cloudberry on the land owned by another person in the three northernmost counties. Also the picking in public lands is allowed only for local people – not for outsiders.

not be persecuted. In reality the law code is more restrictive than current practice since it stipulates that the harvest is consumed on the spot. Today small quantities for personal consumption would be allowed, but perhaps not commercial quantities. In Finland the customary norm allows also picking for commercial quantities.

It is fairly obvious how customary norms and values interact with the formal rules in this case, for example through what is seen as "reasonable" and "considerate" behaviour, and also in the extensions of the possibility for removing valuable material from another persons land.

In general property rights "help man form those expectations which he can reasonably hold in his dealings with others" (Demsetz 1967:347). This means that property rights are a central part of human interaction. Even in situations where the actual on-going interactions have nothing to do with the distribution of benefits, one can see that the prevailing property rights affect the framework of interaction at least by defining and infusing the space-time setting of the interaction with particular meanings and classifications of events (Douglas 1986). This view of property rights means that they are a central part of all social institutions, and that institutional change means changes in property rights.

1.4 Formal institutions

Institutions consist of a rule system and an organization with a mandate to interpret and apply the rules. In democratic polities rule systems are either legislated or mandated by legislation and, in so far it is possible, founded on customary practices. Customary rules are more often designed to be self-enforcing. It is the actual practice, which both define and monitor the rules. Also customary rules are usually legitimised and monitored through local, neighbourly associations or assemblies.

The formal rule systems of developed countries consist of two types of rules: property rights and public regulations[6] . The two rule types could be said to define two types of regimes.

Property rights regimes
Rights and duties exist in the minds of people. They consist in what people believe they can legitimately do to the physical world. The precise limits to the rights and duties are the result of negotiations among stakeholders trusting that their agreements will be enforced by the state (or its equivalent for customary rules). The formal part of these rights is contained in the civil law of a society. Political processes will from time to time impose new rights and duties or alter the definition of old ones. Discrepancies in understanding the precise content of rights and duties in given situations may on the one hand cause conflict and sanctioning, but also on the other hand, learning and adjustment to the new content of the rights regime.

Regulation regimes
Most regulations promulgated by a government and its bureaucracy will be concerned with behaviour of actors in given conditions regardless of location and property relations to the physical world. Such regulations will of course have implications for our understanding of property rights, but the impact is indirect. Direct regulation of property rights may come in situations where property rights are absent or where the societal environment is changing so

6 For more extensive treatments see Eggertsson (1990) and Ostrom (1990) on property rights regimes, Kahn (1970/71) on regulation regimes, and Ostrom (1990) on bureaucracies.

rapidly that old rights become inapplicable. But in ordinary situations the state will promulgate direct regulation of activities (e.g. use of technology in harvesting, allocation of quotas from common pool resources, protection of endangered species or ecosystems). In time these regulations may stabilize as new or changed definitions of property rights. Also the system of property rights will invariably generate some negative externalities. These may be addressed by imposing regulations on activities regardless of established rights and duties (e.g. through legislation on tort). As such rulings are enforced, the perception of the world by owners and users, and hence their understanding of the property rights, will be adjusted. With new understandings of prevailing rights and duties behaviour changes.

Bureaucracies

Organizations that are mandated to implement legislated rules are called (public) bureaucracies. The bureaucrats will have the authority to monitor all actors subject to the rules and to initiate sanctioning of those who are not following the rules when they should[7]. The structure of power in such organizations, and the worldviews brought to bear on the perception of activities of owners and users of resources and the interpretation of the rules governing their activities, are critical for the long-term sustainability of the institution. Also the design of new and revised regulations needs commitment from people with power to monitor, interpret and sanction behaviour in relevant contexts.

Although it is generally true that bureaucratic institutions only change when they are forced by external (political) powers, there are examples of more proactive behaviour. One such can be seen in the recent evolution of state forest organisation in Finland.

> *In the late 1980s the Government set up the committee to study the possibilities to transfer some of state organisations having business activities into a new kind of institution called state business enterprise. National Board of Forestry was interested in the transition and initiated an intensive internal preparation, supported by outside consultant, for the change.*
>
> *The resulting piece of legislation, the Act on Forest and Park Service (1993) states that the Forest and Park Service is a state enterprise operating within the administrative sector of the Ministry of Agriculture and Forestry. Its tasks are to manage, use and protect in sustainable way and profitably natural resources and other property under its control. The conservation and improvement of biological diversity must be taken account sufficiently as an essential part of sustainable management of natural resources together with other aims set up for forest management and protection. This act was the first forest act in Finland to include the principle of biological diversity.*
>
> *One of the results of the proactive approach to the change was that the organisation – having increasingly enterprise orientation – has been able to continue of managing also the network of nature conservation areas established under the nature Conservation Act. The Natural Heritage Services is subordinated to the Ministry of Environment.*
>
> *Forest and Park Service has been pioneering in participatory planning in Finland since early 1990s. Participatory planning has been used in the development of Natural Resource Management Plans and also in Landscape Ecological Plans for state forests (Wallenius 2001). The experiences were available when the National Forest Programme adopted the participatory approach in 1998.*

7 Institutions are staffed and are created to do the job of regulating organizations and individuals. This staffing, and all the creative work that is involved in financing, governing, training, and motivating institutional actions by that staff, has been lost in recent institutional theorizing (see Stinchcombe 1997).

1.5 Informal institutions

All formal institutions are created, or grow, on top of a foundation of informal institutions. Thus resource management institutions comprise not only the formally created institutions (property rights and public regulations), but also comprise the customary practices based on local culture and perceptions, as well as the corporate culture of professional bureaucracies. As already illustrated above the customary rules may add to both property rights regimes and regulation regimes. These local social and cultural environments (customary rules) co-exist with, and work together with the formal institutions in framing the activities in relation to the forest. Without some degree of congruence between customary rules and formal rules the escalation of monitoring and sanctioning costs will make the formal institution ineffective.

The social construction of informal institutions can be seen as a solution to the second order collective action problem[8] . The existence of these institutions comes to be so much taken for granted that people can use them to overcome at least some of the first order problems[9] .

Institutions that are observed in practice have been constructed by trial and error throughout history. In both professional and non-professional contexts there have been established ways of perceiving and interpreting resource problems, developed a repertoire of procedures for deciding on solutions, and designed a set of feasible instruments for implementing the solutions. The institutions thus constructed are, however, in their turn shaped by impacts from availability of technology and strength of market forces.

1.6 Lock-in between institutions and organizations: path dependence

The social reality of institutions constructed around a resource use system embeds the thinking and informs the activities of the various resource users. Thus forest owners, local forest users, forest workers, professional forest managers, and firms of forest industries, or more generally: the forest stakeholders, all pursue their goals, values and preferences within the constraints of both a physical and institutional reality.

By assumption the various actors and interests groups organize their resources either to optimise their returns from resource use activities by conforming to and exploiting the existing institutional environment, or to change the resource policy in a desired direction if the expected outcome of a political effort is seen as cost effective.

The outcome from both activities will be to change the resource management institutions. The impact is immediate in so far as it affects the activities in relation to the resource. It is indirect if the changes affect the future action parameters through politically initiated changes in legislation and regulations. The competition among actors ensures that those who are best at exploiting the resources within the existing institutional system will prosper and become powerful. The historical dynamic of adaptation to an institutional structure among actors produces a lock-in between the population of actors and the institutional structure. Radical proposals for changes of the institutional structure will meet powerful opposition from those who are best at exploiting the resources within the old institutional structure (the population of organisations prospering from the old rules) [10] . And political powers responsible for the formal rule system will most of the time be sensitive to opposition a group of powerful

8 The second order problem: how do you manage to create rules to solve the first order collective action problem?

9 Examples of first order collective action problems: If the resources are insufficient for everybody, how do you limit the number of people with rights? If those with rights have incentives to overexploit the resource how do you stint their usage? If resources are needed for monitoring and sanctioning how do you get everybody to contribute? If effort is needed to keep up the productivity of the resource how do you get everybody to participate?

10 "In a zero-transaction cost world, bargaining strength does not affect the efficiency of outcomes, but in a world of positive transaction costs it does and given the lumpy indivisibilities that characterize institutions, it shapes the direction of long-run economic change." North(1990:16)

organisations form. Radical change becomes very difficult. This so-called lock-in between organisations and institutions produces what now is called path dependence in the development of a society (North 1990).

But the opposition to proposals of changes of institutions may come not only from the population of actors prospering from their usage of the resource system. If the proposed institutional changes entail major changes in the bureaucracy monitoring the rule system, such as changing the allocation of power, or changing the allocation of resources for monitoring and sanctioning, also the bureaucracy may take "political" action directed at minimizing the actual changes.

The most powerful resistance against changes in the institutional structure is achieved when the population of actors and the bureaucracy see a common interest in minimizing the changes. The role of the bureaucracy is also part of the lock-in between institutions and organisations and the path dependence of the development of a society.

2. Forestry Institutions and Institutional Aspects in Norway and Finland in Regard to the National Forestry Programmes

2.1 Introduction

With a basic background on what institutions are and how they work we shall now look briefly at the forest institutions in Norway and Finland, trying to see if the theory can tell us something about how the NFP-process is likely to play out.

The basic institutional structure of forestry both in Finland and Norway will be discussed in two parts: the formal and the informal structure. However, the formal structure consists of the discussion on the general regulations and the organisations as the property rights were considered already in the first part.

The informal institutions are found in the preferences and beliefs of forest owners and forest users assigning priorities to activities at the level below the formal structure, and, significantly, not necessarily according to the goals of the formal institutions. However, the distinction between formal and informal institutions should not lead us to believe that there is nothing in between. The "privately" developed certification system of forestry activities developed by the forest industry in cooperation with authorities and NGOs show that important new semi-formal institutions may arise independent of government initiatives.

Outlining the formal institutions is fairly straightforward. But the certification process and the informal institutions are less studied and statements will to some extent be theoretically grounded guesswork.

2.2 The institutional framework in Finland

In the country so dependent on forestry and forest industries as Finland one might expect that the formal institutional framework of the forest sector or the "forest cluster"[11] is "well-developed". No doubt there are many forest related institutions with concomitant

11 Forest cluster is a concept adopted in the 1990s to demonstrate the total significance and mutual interactions of forestry and forest industries related economic activities in economic and industrial policies. The cluster concept is used for other industrial entities as well and has evolved from the competitiveness studies of e.g. Porter (1989) Besides forestry and forest industries (the forest sector) it includes related metal engineering and metal workshops, chemicals production, energy production, transport, other service enterprises including R&D activities and consulting. It has been estimated that the entire forest cluster makes about 10 % of GDP and 30-35% of gross export earnings in Finland (Lammi 2000, Maa- ja metsätalousministeriö 2000).

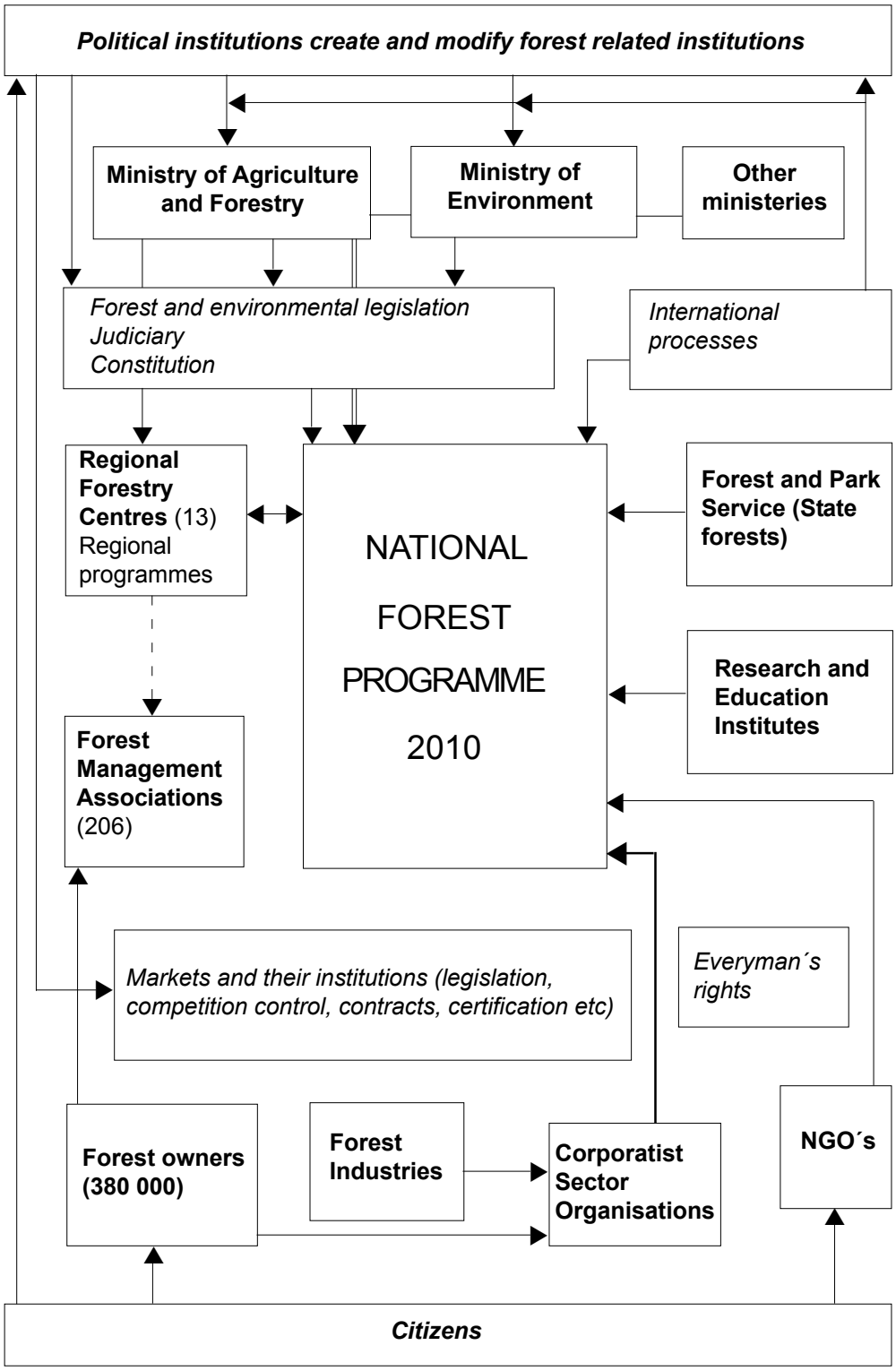

Figure 1. The institutional framework of the National Forest Programme in Finland.

bureaucracies in the country and many of them even used to have considerable implementation capacity to exercise the mandate they have been given[12]. The present institutional-organisational framework can be outlined by way of Figure 1.

2.3 Formal institutions in Finnish forestry

The Forest Act (1996) comprises the core of the new Finnish forest legislation. The Forest Act [13] applies to all ownership groups of forests. Earlier the state forests (Forest and Park Service) were under the internal control of the professional state forest organisation itself. One key features of the reform of the Finnish forest legislation was that the new Forest Act and the new Nature Conservation Act (1996) were prepared purposefully at the same time and so that they were co-ordinated and in close accordance with each other. Act on the Financing of Sustainable Forestry (1996) provides financial support for 1) ensuring the sustainability of timber production; 2) maintenance of the biological diversity of the forests; 3) forest ecosystem management undertakings; and 4) other promotional measures supporting the activities specified in 1–3. Financial support may be granted to private landowners based on application.

The core institutions consist of a structure with three levels of organisations. The forest management associations operate at local level connecting private forest owners and providing services for them. The origin of the field level organisation was informal, voluntary co-operation among forest owners. In 1950 the Act on Forest Management Associations was enacted in order to get their financing secured through a forest management fee (Linnamies 1970). The act was recently (1998) reformed, and although debated, the forest management fee was maintained.

The associations remain to be controlled by the intermediate level of organisations: regional Forestry Centres, having both public tasks of extension in private forestry and control of forest law. The centres shall also, in broad consultation with the stakeholders, prepare regional forestry target programmes and implement those programmes. The first regional forestry programmes were completed in early 1998 and provided input to the compilation of the "National Forest Programme 2010". After that, regional programmes were revised.

The forestry centres are now directly subordinated to the Ministry of Agriculture and Forestry. The Ministry of Agriculture and Forestry is responsible for the conditions for sustainable and diversified use of renewable natural resources.

All the major institutional changes occurring in the 1990s in forestry arena (the reform of forest legislation, the streamlining of the organisational structure, the National Forest Programme 2010) were prepared and implemented under the leadership of the ministry. However, the leadership of the ministry in forestry is of recent origin and reflects the institutional evolution in the forest sector. Two points are essential here. Earlier, particular in forestry, the state administration was weak in relation to corporative organisations. Secondly, also inside the public forest organisations the ministry department was weak. The institutional structure typical to corporatism was characteristic of Finnish forestry until the 1980s at least (e.g. Palo 1993, Ollonqvist 1998, Saastamoinen 2002).

12 In some critical comments, it has even been claimed that in the past the capacity might have been extended even "beyond the mandate" (e.g. Palo 1993 and Vaara 1995 talk about "planning economy in Finnish forestry," for counter argumentation see e.g. Saastamoinen 1996).

13 The purposes of the Forest law are formulated in the following way: "The purpose of this Act is to promote economically, ecologically and socially sustainable management and utilisation of the forests in such a way that the forests provide a sustainable satisfactory yield while their biological diversity is being maintained."

2.4 Informal institutions in Finland

Although the corporatist structures included a variety of partners in the course of time, at the core of the corporatist structure there were two strong interest groups: the Association of the Forest Industries representing the forest industries and the Association of Agricultural and Forestry Producers, representing the large number of forest owners. Closely related political parties were regularly supporting their initiatives. Compared to the social and political capacity of corporatism, the capacity of "independent" state leadership in forestry was rather modest, in particular at the level of the ministry. For many reasons, but perhaps mainly due to the decreasing role of the forest sector in the economy, compounded by a similar trend in agriculture, the institutions of the forest-based corporatism have been loosing ground in Finland, although they still are important.

In preparing the reorientation of the Finnish forest policy to respond to the domestic and international environmental demands the Ministry of Agriculture and Forestry was cooperating closely with, and also influenced by, the Ministry of Environment. The mandate of the Ministry of Environment in forestry related matters was not due the legislation, but rather derived from informal institutions, reflecting the *influence* of public opinion channelled through and effectively fostered by the non-governmental environmental organisations.

2.5 Private Formal Institutions in Finland

The Finnish Forest Certification System (FFCS) was developed during 1996–99. It has been accepted by Pan European Forest Certification System. The certification started in 1999 and over 95% of forest areas of Finland is certified. The system is based on group certification of private forests. The forest owners, the forestry authorities and the forest industry have almost unanimously supported the FFCS, but it has been criticised by the major environmental NGOs, which departed from the process of its development. The focus of criticism was the conservation of biodiversity in managed forests and a perceived lack of protection of old-growth forests and other key habitats (Greenpeace Nordic & the Finnish Nature League 2001).

2.6 The NFP process in Finland

National forest programmes (earlier forestry intensification programmes) have played a central role in Finnish forest policy since early 1960s. If revised or amended versions of earlier programmes are included, one could end with up to ten national scale programmes including the present National Forest Programme 2010. National Forestry Programmes would seem to have established themselves as an institution. But clearly, in particular the earlier ones, are not the result of a formal institution. This should underline the theoretical proposition that informal institutions may be just as important and influential as formal ones.

The need for NFPs has been based on a mix of professional, corporatist and political consensus, where the weights of the components of the consensus have reflected in each period the prevailing institutional framework. Similarly, the institutional framework including economic and social context has characterised the contents of each specific programme.

Due to the initiative and leadership of the Ministry of Agriculture and Forestry during the preparation process, the present National Forest Programme 2010 is more "official" and formal than its predecessors. It is also in many respects different from these (Reunala 1999, Saastamoinen 2000). It is characterised by a more explicit reliance on markets and

recognition of the autonomy of economic actors. Nevertheless, it contains public financial incentives and has made an effort to increase or stabilise these after years of decline. The programme reflects the increased needs for environmental concern in forestry although these needs were "institutionalised" long before the programme compilation. Furthermore, the programme makes an effort to promote multiple use orientation in forestry but seems to be a bit toothless in its concrete measures[14] . A real breakthrough has been done in introducing the participatory approach to national forest programmes, although the relatively short preparation period meant limitations in the actual participation. The process nature of the programme is an innovation and offers room for continued participation. The process approach similarly facilitates the degree of flexibility necessary in changing conditions.

The National Forest Programme 2010 has been able to bind together ideas, interests and actions in forestry, and to reach a reasonable consensus. One can claim that the consensus and commitment to the targets of the programme are not stronger now than during the first corporatist programmes, and that its mobilising capacity may not reach the level of the past. It may be so, but one should also understand that the range of values, conflicting views, participating groups and partners today is much wider than in the past. The implementation of the programme has similarly become less straightforward as the partners are more diverse and independent, reflecting a more complicated societal framework. Nevertheless, the sustainability lies not in the speed of the progress but in the course of the move. The wider the range of participants, the wiser the policy of "making haste slowly" will be. However, to expect everybody to move in the same direction at the same time might mean no move at all.

2.7 Formal institutions in Norwegian forestry

The Act of 21 May 1965, on forest usage and forest protection[15] , sets the following goals of Norwegian forestry:

- Forest production: Forestry shall provide acceptable results for those working in the industry
- Forest growth: Forestry shall provide efficient and steady supplies for the manufacturers of wood products
- Forest protection: Forestry must allow for the recreational use of forests, and for their contribution to landscape qualities.

To oversee that the act is enforced the act mandates as forest authorities:

1. The Municipality
2. The County Agricultural Board, and
3. The Ministry of Agriculture

The final authority in disputed cases lies with the Ministry.

The primary decision making power thus lies with the municipality. Any stakeholder dissatisfied with a decision may bring the decision up for the County Agricultural Board for review or even up to the Ministry. The County Agricultural Board also have an independent duty to review municipal decisions and may on its own bring questionable decision to the attention of the Ministry. The Ministry is the final authority and have to review the activities of municipalities to see that the purposes of the act obtain.

14 The Environmental Impact Assessment of the programme (Hildén et al 1999) contains argumented analytical criticism concerning, in particular, economic justification, employment and environmental issues.
15 A new act is just being drafted by the Ministry of Agriculture

2.8 Informal institutions in Norwegian forestry

The informal institutions in Norwegian forestry are harder to identify. On theoretical grounds we will expect that for example large forest owners employing people in their forestry activities at least must be expected to develop local operational rules adapting the national legislation and regulations to local conditions. Today professional foresters will usually be directing the workforce. And many smaller forest owners will have a professional education. Hence the professional interpretations of the various standards for what a badly or properly maintained forest look like, will play a crucial role. Such evaluations as preferences for size of cuttings in relation to landscape qualities, evaluations of the relative merits of different cutting and planting technologies, judgements on the relative merits of various forest qualities in relation to hunting and wildlife production, preferences for type of tree in plantings, or beliefs about the relative future prices of different tree species will all in some way affect the decisions of a forest owner. Over time rules of thumb – or more generally – local institutions develop. These local institutions change slowly. The basic input of new points of view comes form education, particularly the education of professional foresters, but also the occasional review of professional developments in newspapers and journals available to forest owners may at times have an impact. Also the growing sector of NGOs with views on forest and forestry activities are part of the complex of forces affecting the choices of those who actually appropriate the various goods produced by forests.

2.9 Private formal institutions in Norway

During 1995–98 Norwegian Forestry was changed through the "Living Forest" project. The goal of the project was to assist forest owners in developing sustainable forestry and to construct a national consensus on principles of sustainable forest management. However, the force precipitating the project was the perception among the Norwegian forest owners and forest industry of a growing market demand in Europe for timber certified as coming from sustainable forestry. Therefore the work on standards that could be included in a timber certification system came to be the main goal of the project. The outcome of the project, «Standards for Sustainable Norwegian Forestry», was presented in 1998 (Sanness 1999). The standards were confirmed on March 27, 1998, by the project board representing forest owners, forest industry, forest workers, environmental NGOs, consumer organizations and public authorities. Several NGO's have later withdrawn their support.

One theoretically interesting aspect of the "Living Forest Project" is its character of being a private institutional development. It is not only local communities that can make their own informal rules of behaviour, also a group of companies and associations are occasionally able to do that. But in the latter case, and in a large-scale society, it cannot be *only* informal or be expected to stay informal for very long. It has to be written down and promulgated. An agency needs to be mandated to enforce the rules. It becomes a full-fledged formal institution. It is not created by the state. But it can be co-opted by the state and made part of government policy. This is just what institutional theory recommends (Ostrom 1990).

Besides particular processes like the "Living Forest" project, we should not forget the many continuous activities of the Forest Owner's Association in forming opinions and beliefs about good forestry and promulgating it to its members, usually embedded in the professional language of forestry. Some of the activities of the NGO's also belong to a discussion of private formal institutions. By getting legal standing organizations such as the Norwegian Tourist Association are able to affect the development of formal institutions in more ways than through grassroots activities that slowly change values and priorities among voters or consumers.

3. Conclusions

3.1 The principles reviewed

Achieving a common goal of sustainable use of forest resources in a variety of social, cultural, and political settings is at best a difficult task. Any policy programme designed to do this has to be flexible enough to meet and overcome a variety of obstacles. Some of these may be found in the institutional structure of a given society and can be traced if one goes through the principles related to NFP (listed, for example in Egestad 1999:21–22).

Appropriate participatory mechanisms will in most cases imply a broader base of participants. Effective coordination and conflict resolution must involve local participation[16]. And the holistic inter-sector approach will require input from all stakeholders, not just the actors directly involved in forest exploitation and the regulatory bureaucracy. Thus, compared to the standard operating procedures of textbook policy development, a holistic inter-sector approach to forest policy with extensive participation of stakeholders resulting in partnerships in the execution of the policy will create new ways for the social and cultural environment to affect policy outcomes. And as decentralization and empowerment of local structures and recognition of customary and traditional rights are taken into the policy this will be even more pronounced. The conclusion must be that the power of established interest groups over the institutional development will be diminished as new groups enter the arena and new procedures for the aggregation of interests are taking hold. Likewise we see that the diversity of interests to be accommodated by the policy process will increase.

In fact, the principle that potentially may prove difficult, and perhaps more so in Norway than in Finland, is just the "holistic inter-sector approach". Currently there is no working procedure to ensure that local interests and activities aggregated through either bureaucratic sectors or through political processes really sum up to the national goals of a NFP. Regional as well as national coordination of sector-defined activities is a major problem of collective action in most democratic states. Taking the relationship between the government and the central administration as given, in general one might expect to find that factors such as strength of central administration relative to local governing bodies, strength and independence of local governing bodies relative to central governing bodies, and uniformity of social and ecological conditions are affecting the possibilities for a holistic inter-sector policy. On the other hand, the requirement of "decentralization, where applicable, and empowerment of regional and local government structures consistent with the constitutional and legal framework of the country" should point the way to an aggregation procedure sensitive to local conditions and customs. To develop such a procedure will be a major challenge for the success of a NFP.

3.2 Forest certification as an informal institution

The key to understanding the impact of existing institutional structures on the NFP process is to gauge the differences between the existing structure and the principles promulgated by the NFP. Depending on the political and social traditions, the more difficult principles may be open to interpretation, and practical procedures may be invented that minimize the change from existing procedures. It will require both a keen eye for the established procedures and a high level of political commitment to open up well entrenched and closed procedures for partnership and participation of genuinely new groups of stakeholders.

16 At least that is the advice of Elinor Ostrom's (1990) study «Governing the Commons»

Voluntary forest certification is an example of the emergence of informal institutions into the institutional framework of forestry. There is a close connection between the criteria and indicators of sustainable forest management and the emergence of forest certification. The authority of the former originated in their inclusion into the resolutions of the intergovernmental processes (e.g. Maa- ja metsätalousministeriö 2000). These intergovernmental processes are collective action at the state level, and the results legitimised and facilitated creation of the certification systems in collective action among market actors. Once the certification systems are developed and adopted they can be included into state policies at low cost. In many ways the process illustrates how institutional development uses established and related processes to overcome the dilemmas of collective action.

3.3 The extent of any lock-in

The institutions are not only rules, they are also people who know and believe in the rules and with a mandate to enforce them. The first agenda must be to persuade this group of people that the changes are necessary and desirable. In modern states this can usually be done. But there are also other obstacles. The old institutional structure will have created a population of (forest industries' and/ or forest owners') organizations very good at extracting a profit by playing the economic game according to existing rules. The degree of interdependence of profitability and particular institutional elements may be said to define the strength of the lock-in between institutions and organisations.

Therefore there are reasons to ask to what degree there in Norway or Finland is such a lock-in between the institutional structure and the organizations (North 1990). If the proposed institutional changes threatens the profitability of some group of organizations it seems reasonable to assume that these will react politically exerting whatever political powers they have to shape the new institutions so that their profitability can be maintained. This is where we may find the real obstacles to the NFP process. As Krott (1999) has pointed out, the reactions of the powerful groups can either be opposing to the formal planning or seeing it as a procedure for actively dealing with the new pressure and as an instrument for coping with political threats.

In Norway a kind of corporatist power structure for agriculture (including forestry) was more or less dismantled during the 80s lessening the political influence of the primary industries. Also, by the mid 90s environmental policy had less priority on the political agenda. This was one reason why there was no obvious constituency to profit from the NFP process.

In Finland the "powerful users" (the associations of forest owners and forest industries) have continued to be the active players in the national forest programmes because their interests for increased wood production. Even the significant role of environmental question in the new national forest programmes did not constitute an impediment for their participation. It was admitted that environmental management is not only a cost factor but also a necessity and possibility, especially so for the forest industries. Secondly, the national forest programme has been felt to be a home field in dealing environmental issues (Saastamoinen 2002).

3.4 The NFP and the reshaping of institutions

The NFP process is about reshaping institutions. How will the existing institutions of Finland and Norway react to the effort to transform them? For Finland we know the outcome. The theory presented points to the possibility of resistance from entrenched interests. Did this obtain?

Already before the eve of the NFP process, the corporatist power structure governing Finnish forestry was weakening mainly due to the strengthening position of the political arm

of the state – the ministry – in forestry. This mainly occurred at the cost of some central professional bureaucracies but also the regional forestry centres benefited in the process. At the same time the urban and public, largely environmental, interests in forestry issues were on the ascendance, and this raised the influence of the Ministry of Environment. Based on implemented reforms of legislation and administration, and backed by the regional forestry centres, and the international demand for NFP, the ministry continued to exercise its growing role in forestry through initiation of and carrying out the process of NFP.

Also commercial problems looming on the horizon had their impacts. The market was perceived to demand some kind of legitimisation of the forestry as being also environmentally sustainable and friendly. The established practices had to change and the changes proposed were seen as acceptable. Only the final formalization of the NFP process was kept at bay. The door was kept open to less costly modifications and further institutional changes were postponed to see a later date to prove their necessity.

Norway and Finland share similar political and institutional structures in society in general and have many common features in the evolution of forest policies (Tikkanen and Solberg 1995) . The expressed goals of forestry institutions are largely the same. The countries also share the common external impacts to institutional changes for sustainable forest management (Rio, IPF/IFF, Ministerial Conferences etc.).

However, the activities related to the National Forestry Programmes have had a very different trajectory in Norway compared to Finland. In Norway the first reactions would seem to have resulted in the Living Forest programme and a government white paper promising new legislation on forestry. But the specific relations of these to the National Forestry Programme are unclear. Why do we find the difference? Could the institutional or political structures explain the difference between the countries, or is it a pure coincidence? The particular impact of EU membership in this context does not have a role.

Despite similarities there are also differences between the two countries besides the EU membership. Forestry never was as important to Norwegian economy as to Finnish. And while there was a kind of corporatist power structure for agriculture (including forestry) this was more or less dismantled during the 80ies by a political (instead of an administrative or institutional) reorganisation, lessening the political influence of the primary industries. By the mid 90ies also environmental policy had less priority on the political agenda. Thus for politicians wanting to profit from championing the NFP process there was no obvious constituency. However much the administration felt it to be a moral duty according to the participation in the international processes, the lack of a political constituency resulted in slow going.

On the other hand, it may also be said that in Norway business as usual is not that far from the ideals of the NFP. By co-opting the certification process initiated by the “Living Forest” project, the government might, with some justification, feel no need to hasten the legislative process. The difficulties encountered in rewriting the law to fit the NFP principles will most probably concern the distribution of power along the central-local axis for the administration and along broad participation versus special interests for the political system. The presentation of the new act on forestry will show the result of these struggles.

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Institutional Aspects as Supporting and Impeding Factors on the Process of Finnish National Forest Programme

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Abstract

The paper evaluates the institutional aspects that have supported or impeded the preparation of the substantive national forest programme and its implementation in Finland. Institutions analyzed here are key organisations involved in forest policy, their coalitions and distribution of power between them, and measures that have been provided to implement forest policy. The time span of the study covers the period from the Rio Declaration in 1992 to the present. The Environmental Programme for Forestry accepted in 1994 can be seen as a basic definition of Finnish forest policy towards sustainable forest management and it also paved the way for participation and intersectoral co-ordination. The commitment of the Government and parties in power into the preparation and implementation of the National Forest Programme has given better chance to incorporate expenses, e.g. indirect and direct public subsidies, into the State budget in order to enforce the programme. The close link between the national and regional forest programmes has helped the commitment of provincial actors to the National Forest Programme. However, the long corporatist tradition in forest policy planning, strong organisations of key stakeholders and an inadequate conflict resolution scheme have hindered consensus, especially, on ecological issues.

1. Introduction

Since the Rio Declaration in 1992, there was a comprehensive need to transfer the Finnish forest policy and forestry practices from the modes of progressive timber management to those of sustainable forest management. Ecological, social and cultural aspects had to be included into forest policy objectives. The sequence of actions was enforced, among the biggest the environmental programme for forestry (1994) and the reform of legislation for forestry and nature conservation (1996). The Government in 1997 made the initiative of preparation of a national forest programme and the programme was accepted early in 1999.

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The intermediate period, from the Rio Declaration to the initial of national forest program process, is an inseparable part of Finnish forest policy transfer to sustainable forest management. The National Forest Programme 2010 can be seen as a part of this transition.

Institutional aspects can have supporting or impeding influences on the process of formulation and implementation of a national forest programme. The aim of the paper is to evaluate the institutional aspects that have supported or impeded preparation of the substantive national forest programme and its implementation in Finland. The evaluation is limited on institutional changes made due to the transition from progressive timber management into sustainable forest management, and on their effects with respect to the core elements of a substantive national forest programme. The core elements – participation, intersectoral co-ordination, adaptiveness, conflict resolution, decentralisation and delegation – has been adopted in the Rio and IPF/IFF -processes and further developed in meetings of COST Action E19 (e.g. Hogl and Pregernig 2000). Substantive national forest programmes imply high values in all of these elements. The time span of this review covers the period from the UNCTAD resolutions in the Rio conference in 1992 to the present.

2. Concept of institutional aspect

It is difficult to define what is meant with "institutional aspects" because of ambiguous meaning of an institution. According to an institutional economist John Commons (1931), "if we endeavour to find a universal circumstance, common to all behaviour known as institutional, we may define an institution as collective action in control, liberation and expansion of individual action". Institutions in his specification cover unorganised customs up to the organised management of social life, such as the family, the corporation, the trade association, the trade union, the reserve system, and the state. The common feature to all of them is control: ways to arrange individual actions as parts of collective action (Commons 1931). Aoki (2000) specifies institutions to be shared beliefs, endogenous rules of the game, and summary equilibrium representations of the policy processes.

An institution is usually seen in neo-classical economics in a narrow perspective. The disciplines of economics dealing with transactions, market structures, prices and income distribution bound their interest into economic transactions. The rules and their enforcement characteristics that define the choice set of co-operative and competitive relationships are normally excluded (North 1981). Institutions are only understood as the necessary background conditions for managing the rationality of these transactions.

Institutions can be formal or informal. The norms (laws, acts and other statements formulating sanctions) and economic policy incentives are typical normative institutions that are formal (Samuels 1988, Hagenstein 1989). Norms typically define sanctioned economic actions whereas public payments and subsidies as a means of economic policy are intended to make agents to prefer one pattern of economic behaviour to another. Informal institutions arise from spontaneous interactions, which together with the formal institutions define the conditions for the interactions of the actors in the policy arena (North 1990).

These specifications do not exclude the fact that organisations are clearly institutions. Organisations as good institutions include good norms, people, policies, and rules. They are the necessary conditions defining the quality of the organisations and their components (Stiglitz 2000). Good institution evolves due to the exogenous changes or challenges for the new targets. The important issue for research efforts is how institutions change as the policy objective changes.

Elite – and forestry is not an exception – have a clear incentive to maintain their power. Their, often hidden, incentives in the formation of institutions and institutional arrangements is not necessarily the promotion of efficiency, but rather maintaining the existing power and distributional relationships. The crucial challenge to institutional changes is the solutions which are acceptable to the relevant power elite, or which can be forced upon them – in spite of their power – which will, over time, lead to dynamic changes in society, and, further, which will transfer this power adequate.

In this paper institutions analyzed are the coalitions and distribution of power among the key organisations involved in forest policy. The paper focuses on committees, work groups and other activities and arrangements to redistribute power, and those arrangements and measures that have been provided to implement forest policy.

3. Key participants in forest policy management in Finland

The Ministry of Agriculture and Forestry plays a central role in forest administration and policy. In the 1990s, four-level public forest administration was replaced with two-level structure. Nowadays thirteen regional Forestry Centres straight under the Ministry constitute the official organisation promoting non-industrial private forestry and enforcing the Forest Act concerning all forest owners. Forestry Centres have, however, rather strong autonomy and forest owners have large representation in their board. Due to the organisational reform, the significance of regional Forestry Centres in forest policy arena has increased thus fortifying the role of provincial aspects in national forest policy. Previously the Forestry Development Centre Tapio, between the Ministry and Forestry Centres, was a crucial player in forest policy arena but its role has weakened since organisational reform. On the other hand, the significance of the Ministry of the Environment as a party to forest policy has strongly strengthened in the 1990s.

State-owned commercial forests and conservation areas are managed by a state enterprise, the Forest and Park Service, in the administrating domain of both the Ministry of Agriculture and Forestry and the Ministry of the Environment. Under the control of these two powers, it has had to learn a dialogue in order to reconcile opposite demands concerning the management of the state forests. In forestry the Finnish Forest and Park Service have pioneered in developing and adopting the principle of public participation in its forest planning activities since the mid of 1990s (Loikkanen et al. 1999, Wallenius 2001).

The key corporatist players in forest policy arena are the Federation of Finnish Forest Industries and the Central Union of Agricultural Producers and Forest Owners, MTK. Their status has been dominant in all the committees and work groups concerning forest policy up to the beginning of 1990s. Concerning adoption of sustainable forest management practices and measures, forest industry's organisation has been more adaptable and agreeable than forest owners' organisation.[1] However, they share the common disagreement against enlargement of forest conservation areas. These organisations had their largest influence during 1960–91 as the major partner in the contracting delegation of stumpage price agreements (Ollonqvist 1998).

Since the 1980s delegates of unions of forest workers and forest machine entrepreneurs and in the 1990s non-governmental environmental organisations were engaged with forest policy formulation. The Finnish Association for Nature Conservation, the oldest one, with its

1 Forest companies revised their forest management recommendations in 1993–95 but forest owners' organisation did not publish its recommendation until 1996. Companies started also to train their employees earlier and more extensive than Forest Management Associations.

dogmatist youth organisation, the Finnish Nature League, WWF Finland and Greenpeace have been the main participants in the environmental debate. However, the status of Greenpeace has been diminished since the end of 1990s.

Forest research society, the Finnish Forest Research Institute, METLA, and the University of Helsinki, particularly, had previously leading role in programming forest policy (Metz 1993, Ollonqvist 1998). In the 1990s, the forest research society has been partially postponed into the background and has needed only temporarily for tasks of an expert.

4. Status of national forest programme

There is a long tradition of national forest programmes in Finland (Metz 1993, Ollonqvist 1998).[2] In fact, it can be said that the continuum of national forest programmes since 1960s have became an institution itself. Finland's National Forest Program 2010 (1999) is clearly different in this continuum because unlike the previous programmes it is the first one with governmental initiative, commitment of key ministries and parties in power, and acceptance of the Government.[3] This has given the programme a firm official status for the first time in Finland. The formal authorisation of the programme has made it a binding forest policy framework on the governmental policy arena. The commitment of the key ministries and parties in power into the preparation of the National Forest Programme has given better chance to incorporate expenses, e.g. indirect and direct public subsidies, into the State budget in order to enforce the programme.

5. From neo-corporatist dominance to participation and intersectoral co-ordination

5.1 Environmental Programme for Forestry pave the way for participation and intersectoral co-ordination

The external demand on the adoption of a mode of participatory approach into forest policy planning have been a challenging task in Finnish NFP-process due to the long and strict dominance of the neo-corporatist forest policy agenda. Traditionally, forest policy planning had also been made without systematic collaboration with the other sectors' policy makers.

Participatory approach was tested for a first time in Finland in community planning in 1980s, and later on it have been adopted in many other sectors in 1990s (Wallenius 2002). For instance, the revised Land Use and Building Act (2000) put increased emphasis on the possibilities of citizens to participate planning. The atmosphere for adoption of participatory approach has, overall, became favourable in Finland in 1990's.

The first notable step to adopt participatory elements and increase intersectoral co-ordination in forest policy were taken in the working process of the Environmental Programme for Forestry (1994) in which the strategy for sustainable forest management in Finland was outlined until 2005. The Ministry of Agriculture and Forestry launched the work

2 The first forest programme, HKLN-programme was launched in 1961. This was followed by Teho-programmes (1962 and 1964), the Mera programmes (1964, 1966 and 1970) and the Forest 2000 Programme (1985) with its revised version (1992). In 1970's, Consultative Committee of Forestry made annually timber production programmes for five-year period (Metz 1993, Ollonqvist 1998).

3 In the late of 1980's, however, the Government referred to the Forest 2000 Programme (1985) in its government platform as its strategy in forest policy issues (Palo 1993).

and they liked to collaborate with the Ministry of the Environment. At first, there was a deep disbelief between the Ministry of Agriculture and Forestry and the Ministry of the Environment, because there was a risk of restructuring of their administrative power: the Ministry of Agriculture and Forestry has the responsible of the public administration of commercial forests but the Ministry of the Environment administrates conservation areas. In the midst of the preparation, the Ministry of the Environment set in motion with preparation of its own strategy for preservation of biodiversity of forest ecosystem (Strategy for... 1994). In spite of this, however, the Ministry of Agriculture and Forestry succeeded to manage the joint work group of both ministries. This was the first remarkable joint venture of these two ministries in forest policy arena, and the programme was ratified jointly by the Ministry of Agriculture and Forestry and the Ministry of the Environment.

Beside the two ministries, representatives of various organisations and bodies including also a non-governmental environmental organisation were invited into the working process. In order to weaken corporatist power, number one managers were not invited into the work group. Later on, a more broad-based working group was appointed by the Ministry of Agriculture and Forestry to monitor the implementation of the programme. The monitoring group reported annually on progress and shortages during 1995–98 assessing in its final report development being fairly rapid and convenient (Environmental... 1999). The outcome – Environmental Programme for Forestry – became the basic definition of Finnish forest policy in the 1990s, and it also included an initiative for preparing a national forest programme. It was also adopted as an environmental guideline on forestry issues into a comprehensive national environmental policy programme until 2005 prepared by the Ministry of the Environment in 1995 (National Environmental ... 1995).

In the process of the environmental programme governmental and non-governmental environmental organisations were, for the first time, involved in the forest policy planning process, and their involvement was seen to be encouraging. Participation and intersectoral co-ordination was further exercised in simultaneous reform of the Nature Conservation Act and the Forest Act in 1994–96, and in developing the standards of Finnish forest certification system in 1996–97, and, finally, in the process of national forest programme from the beginning of 1998. On regional level the convention was adopted in formulation and implementation of regional forest programme since 1997.

In spite of a clear progress to adopt participatory approach, in none of these efforts, there has not been a transparent plan for participation, in other words, who and how can participate, and, further, there have not been composed well-defined procedures and rules for actors involved. In the nfp-process, however, there existed a simple plan for participation. In ideal situation stakeholders are afforded a possibility to participate shaping a participatory plan and procedures but, so far, this has not being a case in Finland.

5.2 The modes of participation and inter-sectoral co-ordination in NFP-process

In order to ensure the Governmental and political commitment to the preparation of a national forest programme, six key ministers were set to co-ordinate the preparation within the Government (Ministerial Group). Good experiences of the enlargement of participatory network in the preparation and implementation of the Environmental Program for Forestry encouraged enlarging the network also in the NFP-process. Therefore, the Steering Group consisting of 14 representatives from the key ministries and main interest groups, and an independent secretary general was nominated. For the concrete preparation was set up three work groups in which the traditional corporatist network accompanied with representatives of environmental organisations were given a dominant role but only a minor one was left to

research society. Three secretaries, representing various stakeholders, were appointed to each work group. An Executive Committee, consisting of all chairpersons, 1 to 2 secretaries of work groups and secretary general (in all 10 persons), was set up to make preliminary proposals for the steering group meetings. In addition, 16 permanent experts representing different interest groups were working within work groups, and 38 experts were also invited in meetings to give announcements.

While preparing the programme, free access to participate was provided through the Internet and the Public Forums. Two basic agendas were used in the Public Forums: those arranged according to preliminary plan twice all over the country in each regional Forestry Centres and the other, more ad hoc type of meetings. In spring the aim was to get responses on the vision and targets of the national forest programme, and in autumn forums concerned preliminary versions of the programme. Totally 59 occasion with almost 2,900 participants were organised generating 140 written announcements. The public at large was given an opportunity to influence the preparatory work via the Internet containing the minutes of the work groups, statements and a column for discussion. All the drafts of the programme were put on the web site at the very same time as they were handed out to the members in nfp-preparation bodies. During 1998, it was calculated over 6,800 visitors generating 44 writings (Reunala et al. 1999).

Internet discussion forum was totally new element in the institution of Finnish forest policy program formulation; however, it had only a little effect on the program preparation according to concluding ex-post evaluations published in the background report of the programme (Reunala et al. 1999). The access to participation through the web site remained ineffective because of the missing background papers of the three work groups, the outstanding consensus target from the very beginning and the dominance of rhetorical features in the public documentation of the programme. The response from the Public Forums has not been reported but the district organisations of the Finnish Association for Nature Conservation announced their disappointment on empowerment in the Public Forums.

The new enlarged Forest Council was nominated for the implementation of the National Forest Programme. The Council, lead by the Ministry of Agriculture and Forestry, continued the tradition of advisory board of the Ministry in forest policy administration. The nineteen members of the Council represent four ministries, trade unions in forest sector, forest industry's and forest owners' unions, environmental organisations, the Scouts, and women's advisory organisation for development of rural areas. The participation in the council is wider than ever before in Finnish forest policy. However, the members of the neo-corporatist forest policy network still have a wide dominance in the Council. The Council can have subordinate ad hoc work groups, and it has an Executive Committee with nine members accompanied with chairpersons of ad hoc work groups. Experts are to be invited in committee work when necessary. The Council makes an annual follow-up report on implementation of the nfp.

6. Decentralised power – regional base on the National Forest Programme

A clearly new and concrete forest policy institution established was a regional forest programme that was stated in New Forest Act in 1996. Each regional Forest Centre (13) shall draw up a programme in co-operation with all forestry and other relevant stakeholders in their territory. The programme shall include the targets for promoting the sustainable forest management, targets for publicly financed silvicultural and environmental measures, and overall targets for the development of forestry in the territory. The programme shall be revised at least on every fifth year. The Regional Forest Programmes were compiled for the first time early in 1998, and they were utilised as a basic background material in formulating the national forest programme. Thus

forest policy targets on national level will be based partly on the targets and restrictions determined by the regional forest programmes of thirteen provinces.

The Regional Forest Programmes were revised after the national forest programme was compiled. A project group set by the Ministry of Agriculture and Forestry supported the renewal. The revised programmes were completed early in 2001.

A Regional Forest Council was set up in each Forest Centre to support the implementation and monitoring of the Regional Forest Programme. The broad-based Council is aimed to act as an areal collaboration forum and as a link between the national and the regional forest programmes. The Ministry of Agriculture and Forestry appointed the members of the Council upon the proposal of the Forest Centre.

7. Conflict resolution schemes for forestry issues

Weak conflict resolution and poor conflict management has preserved as a typical feature in Finnish forest policy. Environmental conflicts (in chronological order clearfelling, drainage of mires, use of chemicals, old-growth forests, endangered species, conservation) have been centre stage in forestry, and authoritarian solutions have dominated in their management up to early 1990s (Hellström and Reunala 1995). Later on conflicts were understood as an important force behind social development and their constructive potential has been gradually recognised. However, there is no clear reconciliation mechanism in existence, nor has any instruction in negotiation procedures developed for forestry conflicts.

The major change in the conflict resolution of forest policy preparation can be identified in that of Environmental Programme for Forestry in 1993–94. The new mode was based on the participation of multiple interest groups, including one non-governmental environmental organisation, and the co-operation with forestry and environmental authorities. At the beginning of the work all the failures in forestry was listed and discussed thorough in order to make the process as transparent as possible. Concerning possible controversial issues during programme formulation phase, the chair of the committee thoroughly discussed the issues with key persons one by one before a proposal was introduced to the committee. The feasibility of the programme was, further, secured by an intensive monitoring with a broad-based monitoring work group during 1995–98[4].

For a national forest program preparation a single plan on conflict resolution was issued: The chairman in each work group had the duty to document the different values and views and provide time for discussions on them in the work group meetings. In cases consensus was unattainable, controversial issues were transferred first to the Executive Committee, then to the Steering Group and, finally, to the Ministerial Group. Forest conservation was a combustible issue throughout the program preparation, and two discussion seminars on forest conservation and ecological sustainability were arranged. No plan is available on conflict management to be applied during the implementation of the national forest programme.

The Forest Forum for Decision-Makers, a top level discussion forum for forest policy issues was established in 1996 as a new forest policy arena for identification and evaluation of conflict management. Biannual high-level forum, comprised of one-day indoor seminar and three-day field excursion, gathers together decision-makers representing various sector of society – politicians, executives, journalists and civil servants – in order to achieve interaction and dialogue between them. The structure for the forum was formulated in 1995

4 The number of representatives of non-governmental environmental organisations was increased in follow-up working group.

through the top level advisory group called together by the Prime Minister of Finland, and its management was entrusted to the Finnish Forest Association, a broad-based interest group of the whole forest sector. The forum has been a success story: an invitation to the forum has become top-rated, and the forum has no doubt supported mutual understanding on forestry and environmental issues in high-level of the society.

8. Institutional measures adopted to promote ecologically sustainable forestry

Since the mid-1990s, forest management recommendations for public and private commercial forests have been renewed in the spirit of the Environmental Programme for Forestry including instructions for maintenance and promotion of biological diversity. The maintenance of forest biodiversity was raised one of the key principles of the renewed Forest Act (1996) as well, and the Act on the Financing of Sustainable Forestry, reformed also in 1995–96, was included financial instruments in order to secure the management of forest ecosystems and the protection of forest biodiversity, however, the focus lies still heavily in timber production. Economic losses for private forest owners caused by the preservation of valuable habitats, such as dwelling areas for the flying squirrel, will be compensated for. The countrywide inventory of the habitats of special importance, listed in the Forest Act, will be carried out until 2003. Since 1995, the maintenance of biodiversity in commercial felling tracts has been monitored annually with a sample-based system developed by the Forestry Development Centre Tapio. Mainly the Forest Centres carry out the fieldwork in private forests, and the Forest and Park Service in the State forests. According to the monitoring results, felling of timber has been improved during 1996–99 in such a way that the characteristics of valuable habitats has been preserved better and better (Hänninen 2001).

The semi-public structure of the extension services for the private forestry was preserved in the organisational reform in the 1990s. The Act on Forest Centres and Forestry Development Centre (1995) preserved the authority of the regional Forest Centres to arrange forest management planning, to administer forest improvement work and to allocate public funds for the non-industrial private forest management as well as to supervise the Forest Act concerning all the forest owners, private and public. However, the supervision of the Forest Act was administratively separated from the other business. The Forest Centres have large decision autonomy among non-industrial private forest issues. The members of the board are nominated from the candidates proposed by the key forestry interest groups but forest owners' have the largest share.

The local Forest Management Associations play a central role in safeguarding the interests of non-industrial private forest owners. They are voluntary consortia of forest owners that have been granted the right to levy forest management fees, like taxes, from all the forest owners to finance partly their activities. Although they have judicial status of private bodies, the right of tax-like fees has involved them also to be a party to the management of forest policy objectives. The 1998 Act on Forest Management Associations redefined the duties of the Forest Management Associations. The associations must provide extension services in forest management and timber trade, however, the funds levied via the compulsory forest management fee cannot be used in timber trade issues. The Forest Centres supervise the use of funds. In practice, the focus of their business has strongly shifted to timber trade issues at the cost of promoting silvicultural management in the 1990s. The Central Union of Agricultural Producers and Forest Owners, the umbrella organisation of the Forest Management Associations, has encouraged them to prioritise timber trade issues and, further economic aspects in forest management.

The schemes for the ecologically sustainable forest management are based mainly on the Environmental Programme for Forestry and its follow-up reports in 1995–98. The National Forest Programme did not introduce any new measures for biodiversity conservation compared to it, but agreed to implement them. The environmental impact assessment of the National Forest Programme was set a precondition for its final approval and implementation, but the assessment being quite critical did not caused any changes (Environmental impact… 1999).[5] The question of enlargement of forest conservation in Southern Finland, where forested areas are mainly in the private ownership, was postponed to the implementation phase of the National Forest Programme. According to the programme, an ad hoc work group, consisting mainly of scientists, evaluated the needs and scale of the forest conservation from the ecological point of view, and thereafter, the other, broad-based work group appointed by the Government, began to evaluate social and economic possibilities and measures for implementation of the proposal. The ongoing work has proved to be extremely difficult, and has become a kind of battlefield of lobbyists. The forest research society was, again, left aside.

The large protected areas, i.e. national parks and nature reserves, are managed by the Forest and Park Service. This state enterprise is dualistic by nature: under the Ministry of Agriculture and Forestry it administrates the state-owned commercial forest, and under the Ministry of the Environment it is responsible for the greatest part of Finland's protected areas. The Forest Research Institute, METLA, controlled also a great part of the protected forests but the great majority of those forests were transferred in the cause of rationalisation to the Forest and Park Service in 2001. The contradiction between business and conservation objectives cannot be excluded because state-owned commercial forests are politically more potential areas for further conservation than private forests. In addition, the Forest and Park Service manages the wilderness areas, recreational areas and other areas of specific interest, and arrange recreational hiking services for the public.

Forest and conservation research society have responded to the need to produce comprehensive information on forest biology, forest biodiversity and its development, as well as on the environmental impacts of silviculture. The Finnish Environment Institute has developed and continuously maintains a register of endangered species in Finland (Rassi et al 2001), and METLA has included measures for biodiversity in the system of National Forest Inventory. Various research organisations have launched extensive multidisciplinary research programmes on biodiversity aspects such as follows:

- The Biological Diversity (LUMO, 1996), the Finnish Environment Institute
- The Forest Biodiversity (1995–2000), METLA
- The Finnish Biodiversity (FIBRE 1997–2002), the Academy of Finland

Concerning criteria and indicators of sustainable forest management in Finland, work for the preparation of national criteria and indicators was launched in 1994, and the first report was published in 1997 (Eeronheimo et al. 1997). In the following year, the Ministry of Agriculture and Forestry appointed a new working group to undertake the further development of the criteria and indicators, and the outcome of the second revision was published in 2000 (Mikkelä et al. 2000). The process has reinforced national consensus on the content of sustainable forest management and the indicators with which the sustainability can be measured and monitored. The monitoring has become a permanent institution in Finland.

Almost simultaneously to the work for defining criteria and indicators of sustainable forest management, was started the development of a national forest certification system. In 1997, a

5 An expert group of scientists made a background paper for environmental impact assessment of the National Forest Programme. They critiqued, especially, the poor economic calculations behind the suggested public subsidies and shortages of economic analysis. The scientists considered the programme to be too much oriented to timber production and utilisation, and the targets for increasing fellings and forest ditching to be in conflict with the targets of water protection programme (Hilden et al. 1999).

broad-based work group defined 37 criteria to be applied for a regional groups of forests in the area of Forest Centres or Forest Management Associations, and 23 criteria for a single private forest holding. The Finnish Forest Certification System, FFCS, launched in 1999, is based on regional group certification, and it was approved by the Pan-European Forest Certification system, PEFC, in spring 2000. Today, the Finnish forests are certified, and several PEFC logos have been issued to forest industry companies and forestry organisations (Mikkelä et al. 2000).

9. Conclusion

The Finnish National Forest Programme includes economic, ecological and social targets, although not of equal importance. The adaptive implementation with respect to the dimensions of sustainability can be identified as follows. The quantitative targets related to economic sustainability of forest management and the public financing to support activities in non-industrial private forests were accepted in the preparation phase but the concrete ecological and social targets were mainly left open. The measures to ensure biodiversity in the management of commercial forests were introduced already in the Environmental Programme for Forestry and those were agreed to implement, however, the other ecological component, the scale of forest conservation in Southern Finland, was too large a problem to be resolved in the preparation phase but was postponed to that of implementation. An environmental impact assessment of the programme was also postponed to the near future. Therefore, the process of the National Forest Programme can be seen to proceed sequentially. The strict separation of controversial issues, particularly in ecological sustainability dimension, and the sequential progression has helped to build up and implement the programme. The procedure was agreed also by the non-governmental environmental organisations involved, which was a crucial precondition for the acceptance of the programme within the schedule determined by the Government.

The major efforts in the preparation stage of the programme were issued on the activities of economic sustainability and, consequently, the implementation of policy actions towards economic sustainability was started immediately after the acceptance of the programme in March 1999. Public subsidies for forestry have been increased according to the programme, however, the largest majority of subsidies are still allocated to timber production measures. The Governmental commitment of the programme has strongly supported to achieving the large social consensus over and further, the preparation and implementation of the programme. The close link between the national and regional forest programmes in different stages of preparation and implementation has helped the commitment of provincial actors to the National Forest Programme. However, the long corporatist tradition in forest policy planning, strong organisations of key stakeholders and an inadequate conflict resolution scheme have hindered consensus, especially, on ecological issues. Recent conflicts concerning enlargement of conservation tend to challenge the National Forest Programme due to the lack of conflict management agenda.

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Institutional Aspects on National Forest Programmes: The Example of the Forest Programme of Baden-Wuerttemberg

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1. Institutions Relevant to the Forestry Sector in Baden-Wuerttemberg

1.1 The Forests of Baden-Wuerttemberg in the Focus of Public Attention

Baden-Wuerttemberg is one of the most richly forested German Federal States. Around 1.4 million hectares of forests cover 39% of the state's territory. The ownership structure is manifold. 24% of the forest area is owned by the state, 39% by municipalities and other local authorities ("corporation forest") and 37% by private owners. Also indicative of the characteristics of forestry in south-western Germany is an intensive mixture of different ownership categories combined with a high fragmentation of property: 89% of the private forest area is made up by holdings covering less than 200 hectares. Typically, these small-scale holdings average about 1.4 hectares.

At the same time, Baden-Wuerttemberg is very densely populated with 10 million inhabitants living within approximately 3.5 million km². Accordingly, the demands on forests and forest management are manifold. Forest management itself is considered to be of public interest. The economic function as well as the ecological and social functions of the forests have to be taken into account on the entire forest area. While the forest owners are confronted with escalating economic frame conditions, the demands for recreation and nature conservation are becoming increasingly important in the public debate on forests.

Considering this background, it is understandable that forests are placed in the centre of public debates and that numerous institutions, associations and interest groups critically examine forests and forestry in Baden-Wuerttemberg.

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1.2 Forestry Authorities

Responsibility for the implementation of the forest policy objectives and legal provisions in Baden-Wuerttemberg lies with the State Forest Administration. It is organised in three levels: the highest level, the department State Forest Administration functions within the Ministry for Food and Rural Areas. The middle level includes two Forest Directorates which act as higher authorities for mainly regional tasks (or the Corporate/Community Forest Directorates[1] as collegial authorities responsible for the corporate/community forest). The district level includes 163 State Forest Offices which cover the entire area of Baden-Wuerttemberg.

The State Forest Administration of Baden-Wuerttemberg is a so-called ”unified administration” combining operational, service-related, and governmental tasks under one authority. It is in charge of all types of forest holdings fully considering the rights of free disposal of the different forest owners. This includes in particular:

- management of the state-owned forest,
- forest operational units management and forest district service in the corporate forest,
- advisory service and technical assistance in the private forest,
- implementation of forest promotion measures in the corporate and private forest,
- forest-related framework planning,
- forest supervision in the corporate and private forest,
- forest protection,
- environmental education on forest issues,
- identification and preservation of forest protected areas and biotopes protected by law, and, in the state-owned forest, implementation of nature protection measures in the forest.

In addition to the State Forest Offices, there are 4 corporate forest offices in Baden-Wuerttemberg (Baden-Baden, Biberach, Freiburg, Villingen-Schwenningen), which also assume functions of the lower forest authority within their districts.

1.3 Forest Owners' Associations

The interests of the non-governmental forest owners are protected to by the Forestry Board, which is the association of forest owners of Baden-Wuerttemberg, as well as by the State Farmers' Association and the Agricultural Main Association of Baden. The convention of municipal and communal authorities of Baden-Wuerttemberg has a common Forest Committee that deals with the concerns of the community forest owners.

On the Federal level, all types of forest holdings are represented in the German Forestry Council. The interests of private and community forest owners are attended to by the Alliance of German Forest Owner Associations (AGDW). The Forest Committee of the German Town and Community Union works on behalf of the community forests in particular.

1.4 Environmental Associations

According to the Federal structure of Germany the big German ENGOs “BUND” and “NABU” are organised with their State level associations in Baden-Wuerttemberg. They

1 The Corporate Forest Directorates are responsible for all issues concerning corporate/community forests. These units are organised as collegial authorities. Members are three representatives of the State Forest Administration, three mayors representing the forest owning communities and one representative of the superior authority of public administration. The president of the Forest Directorate in personal union is president of the Corporate Forest Directorate.

routinely take environmental positions on questions of forest policy. Other environmental groups, such as the large hiking clubs, and the hunters' and fishers' associations, are organised within the State Association for Nature Conservation.

1.5 Trade-Union and Professional Organisations, Economic and other Federations

The Construction-Agriculture-Environment Union and professional associations not only express their opinions on management issues, but increasingly combine their social interests with general forest political issues. Thus they often become advocates to form alliances with different partners regarding various conflicting forest policy issues.

Additionally numerous other federations in, inter alia, the sectors of wood working and wood processing or sports express themselves on forest policy issues.

1.6 Other Governmental Administrations

Numerous offices and public authorities take decisions relevant to forests, or they are themselves concerned with decisions or measures taken by forest owners or forest administrations. These include communities, rural districts, authorities for nature conservation, water management or agriculture on the lower level as well as the superior authorities of public administration at the regional level or the various administration departments of the State Government. It is imperative that ongoing co-operation takes place between the State Forest Administration and the offices and public authorities which are concerned with forestry issues.

1.7 Research Institutions

The forestry research institutions located in Baden-Wuerttemberg are:

- The Faculty of Forestry of the Freiburg University
- The Technical College of Forestry in Rottenburg
- The Forest Research Institute affiliated with the State Forest Administration as an operations research institute.

These give important input into the forest management as well as into the forest policy in the state. Traditionally, they have strong connections to the State Forest Administration.

2. Co-ordination between the Federal Government and the States

Germany is a federal country whose constitution provides far reaching competences to the Federal States (Länder).

The competence for forestry and the formulation of forest policy lies with the Federal States. However, their authority must be governed by the frame of the Federal Forest Act. The States concretise in many sectors the framework directives of the Federal Government. These include international commitments, accepted by the Federal Government in co-ordination with the States through enacted Federal State Acts. The States are responsible for the practical implementation of these directives. Numerous programmes and activities are carried out either in concert or in close co-ordination with the Federal Government and other States.

In order to succeed, the activities of the Federal Government and the States require this intensive co-ordination. The States participate politically in the legal process through the Federal Council (Bundesrat, Upper House of the German Federal Parliament), administrations and associations at the same time co-ordinate their common objectives and current concerns on the Federal level. Therefore, regularly scheduled meetings take place, such as the joint committees of Forest Policy Divisions of the Federal Government and the State Forest Administrations or of the Heads of Forest Administrations of the Federal Government and the States. In the same way the panels of the German Forestry Council inter alia serve for co-ordination and information exchange between the Forest Administrations of the Federal States, the Forest Owners' and other Associations as well as science and research organisations.

Finally, a wide scope of action remains within which the Federal States may define and implement their own forest policy objectives. According to the broad range of political constellations within the different States Governments the landscape of forest policy in Germany is diverse.

3. Co-operation on the State Level

The basic lines of the forest policy of the Federal State of Baden-Wuerttemberg are set by the panels of the State Parliament and implemented by the State Government. In overall charge is the Ministry for Food and Rural Areas, department State Forest Administration.

The forest policy uses classical instruments like e.g.:

- shaping of the legislation relevant to forestry
- institutional support through advisory service and assistance by the State Forest Administration
- financial support with the participation of the Federal Government and the EU, to promote such things as silvicultural activities according to the principles of close-to nature forest management, or promotion referring to area in order to remunerate special protection functions based on the European Regulation (EC) 1257/1999.
- State sponsored creation of forest management associations in order to overcome the partially unfavourable structures mainly in the small-scale private forests.

Acting as an advisory institution for the Ministry for Food and Rural Areas the State Forestry Council was founded by the State Forestry Act. It consists of different stakeholders and interdisciplinary experts. It meets periodically and expresses itself on all issues of forest policy. Issues of the corporate and the private forests are addressed by a special panel. In addition to the representatives of the various associations, other experts can be appointed members of the State Forestry Council.

The formulation of forest policy at the State level requires an intensive co-ordination of the different departments of the State Government, as far as issues of basic importance are raised. For instance, aspects of technical environment protection have to be co-ordinated with the Ministry for Environment, while issues concerning the wood working and wood processing industry or tourism have to be discussed with the Ministry for Economic Affairs.

The co-operation of the State Forest Administration Offices and other authorities and administrations on the mid and lower government level normally takes place during project consultations and participation. It is regulated by official administration procedures. Additionally, consultations are carried out for co-ordination on a general level as well as to enhance understanding of different positions and promoting a constructive co-operation in spite of different interests.

The federations participate through routine meetings to exchange information and through involvement in committees like the State Forestry Council. Depending on the specific occasion, participation varies from information exchange to formal consultations. The degree of participation cannot be determined by the public administration alone, but is legally bound by procedures. In particular, the environmental associations enjoy a special position. Under the State Act for Nature Protection they are given the right of being consulted during permission procedures for projects like interventions into a nature protection area. The participation of the other groups mostly takes place informally in an advisory role, without authority to regulate.

These are well-established procedures which foster co-ordination and participation, and are accepted by the participants as a reasonable productive aspect of "administrative economy".

The State Forest Administration has traditionally taken a leading role among the various actors partly because it is a governmental institution, but also because an important part of forest is covered by the State Forests.

4. Forest Programme of Baden-Wuerttemberg – a new Approach toward Policy Formulation

4.1 The Objective of the Forest Programme

Baden-Wuerttemberg was the first Federal State in Germany to take up the innovative international concept of national forest programmes in 1999. It predated similar activities of the Federal Government. The Forest Programme is understood as an ongoing process of discussion of the groups interested in forests and forestry. The aim is to create and enhance a societal consensus to sustainable forest management (Reining 1999).

With its Forest Programme, Baden-Wuerttemberg has created an important building stone toward the subnational implementation of international commitments like the Convention on Biological Diversity, the Framework Convention on Climate Change or the Proposals for Action of the UN Intergovernmental Panel on Forests (IPF). This pioneer forest programme should be understood as a contribution of Baden-Wuerttemberg toward the implementation of sustainable development on national and international level.

4.2 Current State of the Forest Programme

During the first stage of dialogue in the year 2000 four topics of current international importance were discussed:

- Forests and climate
- Forests and biodiversity
- Wood as a natural resource
- Forest and society.

In working groups and Round Table sessions, guidelines of forest policy regarding these topics were formulated and adopted as a basis of forest policy by the Council of Ministers of Baden-Wuerttemberg on September 19, 2000 (Ministry for rural areas of Baden-Wuerttemberg, 2000; Reining et. al. 2000).

Currently the dialogue is being continued. Therefore, in April 2001 a Round Table session took place, where further proceedings and future agenda were adopted. The participants

agreed to keep the procedures used before, which consisted of working groups examining a single issue and Round Table sessions.

The guidelines already adopted should be developed into concrete proposals for action. Additionally, aspects of tourism and of the wood market should be discussed in depth in two separate working groups. In spring 2002, the Round Table is expected to formulate a report which had been requested by the Council of Ministers of the State.

4.3 Participants in the Process of Forest Programme

In the past, representatives of forest owners, the economy, environmental associations, trade union and professional federations, research, the State Forest Administration and other departments, associations and administrations on the State level and the Federal level have participated in the process of the Forest Programme (see table in the appendix 1).

The participants have been directly contacted and invited to participate by the State Forest Administration. The process has been opened for additional interest groups. To some extent, participation was first requested by different actors when the report was presented to the State Government and was voted upon. This showed the future importance of the process.

Altogether the Forest Programme consists of the ”classical” actors of forestry (including the associations of environment and nature protection), and, additionally, the representatives of the Ministry for Economic Affairs, the Ministry for Environment and the Tourism Association.

4.4 Steering of the NFP-Process

The initiative to elaborate a forest programme was launched by the State Forest Administration. The participants of the first Round Table agreed that the State Forest Administration would assume the following functions:

- Focal point for co-ordination of the process
- Organisation of the NFP-process (checking of dates, meeting facilities, appointment of moderators, co-ordination of working groups, editorship, budget).
- Information delivering to participants (mailing of protocols, invitations to meetings of the working groups and Round Table sessions, information via internet).

Thus the responsibility for the organisational steering of the whole process lies with the State Forest Administration. Participants did not assume accountability for any part of the task, due to the implicit expenditure of work.

The State Forest Administration at the same time is one participant of the NFP-process. To represent this position in a credible manner, external moderators working as scientists or being experts for international forest policy, were entrusted with the guidance of the working groups and Round Tables. These include:

- Prof. Dr. Karl-Reinhard Volz, Freiburg University
- Prof. Dr. Renate Bürger-Arndt, Göttingen University
- Prof. Dr. Gero Becker, Freiburg University
- Frank Hofmann, Freiburg University
- Dr. Bernd-Markus Liss, AGEG/GTZ.

Working groups were not at all limited in selecting the issues within each topic. The participants of the first stage of the NFP process welcomed this form of organisation. Therefore, it was continued during further process.

4.5 The Forest Programme as an Instrument for Policy Formulation

The Forest Programme is a new approach to shaping of forest policy. From the more than two years of experience in Baden-Wuerttemberg, the first reflections, concerning the significance of this concept and the impacts on involved institutions, are discussed below. The essential aspects, concerning the concept of national forest programmes, include the following:

- Participation
- Intersectoral approach
- Model of an ongoing dialogue
- Special features concerning the form and the organisation of the negotiations
- Decentralisation and co-ordination between Federal and State levels.

4.5.1 Participation

During the past years, participation has become something of a slogan when it is used in the context of policy shaping. Participation should be more than only ”listening”. Increasingly, this slogan is used to request the possibility of active contribution in shaping the processes and decisions.

The formulation of forest policy in Baden-Wuerttemberg has not, up until now, occurred in a ”vacuum”. A dialogue with important actors and partners is going on permanently and is also institutionalised to a significant extent.

The process of the Forest Programme of Baden-Wuerttemberg may be understood as an experiment in comprehensive participation. In comparison to previous participation, the following differences are visible:

- In the preliminary stages of the policy process, participants are given a forum to articulate their interests.
- The different positions can be quickly conveyed to an extensive circle of actors, thus permitting immediate discussion.
- The number of actors can be increased.
- The participants are given the opportunity to discuss their positions with actors with whom discussions were historically rare or non-existent.
- Because entire subjects are tackled, the discussion is not limited to single questions.
- The participants receive direct impact on the process’ results and of the reports created.

Participation in the context of a forest programme requires the willingness of the participants for increased involvement:

- The process does not replace existing mechanisms of co-ordination but is an additional element.
- Time is a limited resource for all actors. Many representatives of associations are working unpaid in an honorary capacity and, therefore, are time restricted in their possibilities for participation.
- Tasks are given out in the working groups, which require the corresponding amount of involvement.
- The willingness to discuss, not only questions related to current events, but also of broad political outline on a semi-abstract level must be ensured.
- The participants need to have a certain mandate for negotiations, which therefore requires continuous feedback within their institution.

Successful participation, which is satisfying to those involved, requires clearly defined rules. Because of this, such rules were previously agreed upon for the NFP process on the federal level (Hofmann and Liss 2001). The experiences of Baden-Wuerttemberg have been included in this analysis. Additionally, the working groups in Baden-Wuerttemberg initially adopted some main points for the procedure of participation. However, the Forest Programme cannot be called an institutionalised procedure.

Many participants welcome the prospect of organising participation with a new intensity. At the same time, clear expectations are connected to the instrument of a forest program. For that reason, some members have expressively made their willingness to co-operate conditional on the achievement of concrete results. Furthermore, it has been emphasised that a forest program only makes sense when real political relevance can be achieved. Different fractions of the group are hoping to enter into a broader discussion with political decision makers, thus going far beyond the decision of the state government on the Forest Programme.

Above all, for the smaller associations and for those who were only partly involved, participation in the Forest Programme offers the most effective possibility to forward their ideas. The Associations of Horsemen, for example, in addition to discussing issues of forests and tourism, can express its opinion on other issues, where previously it was not involved. In this way a broad range of issues can be discussed at the same time.

On the other hand, within the context of the Forest Programme, large members like the State Forest Administration and the Forest Owners' Associations must prove that they do not insist on exclusive safeguarding of forest issues. They must be willing to present their positions with convincing arguments.

The attitude of traditionally critical environmental groups, especially the internationally active NGOs, could be a problem. They achieve one part of their legitimacy by fostering opposing viewpoints, for example the governmental or forest owners' interests. It has to be seen, to what extent they will be able to agree on solutions, reached by consensus, to implement the intention of the Forest Programme.

4.5.2 Intersectoral Approach

Compared to existing policy approaches, The Forest Programme allows for the possibility of bilateral dialogues as between forest owners and ENGOs. It also initiates multilateral discussion, processes where many different representatives of interest groups can become involved at the same time. In that way, the range of positions, which should be introduced in the process of policy formulation, can be considerably enlarged.

Until now, this can be achieved only to a limited extent. The forest issue does not have the same political relevance to all possible interest groups. In the same way, the interest to participate in the process is influenced by individual concern. If a certain institution cannot expect any added reward through involvement or if the loss of personal positions is feared, it will be impossible to motivate any representatives into participating.

4.5.3 Ongoing Process and Consensus Building

The model of an ongoing dialogue process is a new element of the formulation of forest policy on the State level. The traditional way of working which leads to the elaboration of comprehensive programmes must be distinguished from the dialogue process as a matter of principle. However, according to the ideas of the NFP process of Baden-Wuerttemberg, that

traditional approach would not correspond to the concept of NFPs, where an iterative approach is seen as a basic principle.

However, by using this approach it will be difficult to exactly define the relevance which could possibly be achieved through the results of the process. For many interest groups there is still some uncertainty as to whether involvement could be profitable. Given that, the readiness to participate actively in working groups is rather weak. On the other hand the participation in the Round Table sessions is considered important as a means to prevent positions that are contrary to own interests from being included in the Forest Programme.

Finally it should be acknowledged that the political process of the Forest Programme in Germany and even more so in the German States was not started from ”zero”. This means that, by the elaboration of the Forest Programme, the opportunity of leading a forest policy dialogue was not being offered for the first time. Most of the positions of interest have been exchanged many times, for many years. Completely new aspects and arguments, therefore, are hardly to be anticipated. In the best case-scenario, new approaches to the solution of existing conflicts of forest policy can be expected.

4.5.4 Form of negotiations, Working Groups, Moderation, the Round Table

The formulation of forest policy by working groups leads to changed roles of the different actors. The traditional leading groups (State Forest Administration, forest owners) must discuss their policy ideas in a plenary meeting with a large number of actors. In this way, possibilities for policy shaping could be restricted. Critics of the Forest Programme regard this to be a loss of power for traditional actors.

Out of this situation a growing necessity appears for participants to arm themselves with new strategies. More important than before is the establishment of temporary alliances, already on the working level, in order to achieve the political partial objectives.

Considering the discussion above, the various problems of the NFP concept become obvious both in Baden-Wuerttemberg and on the federal level. These include:

- The problem of participants’ mandate
  Do the participants really have the clear mandate to vote on far reaching decisions within a working group? Hofmann and Liss (2001) referred to that problem in their analysis.
- The problem of decision making
  An agreement on voting rights and on the weighting of votes would be necessary to create well-balanced and comprehensible decisions. However, the fair allocations of voting rights appears to be an insurmountable obstacle. What weight should be assigned to votes of various interest groups? What would be suitable for hiking club, for the forest owners, for the ENGOs?

  Indeed no agreement can be reached because the process itself does not have any democratic legitimacy. The decision making, concerning the shaping of sectoral policies, is only given to the government and the parliament. But the Forest Program, itself, could undertake the task of delivering a rounded picture of necessities and social expectations to decision makers. These should be discussed further in the political sphere.

  On the Federal level, during the second stage of the Federal Forest Programme, the ENGOs engage through an intensive participation at the Round Table sessions and through an overtaking of leadership in the working groups. Because no voting rights are fixed, the possibility arises for them to dominate the negotiations and to push back the influence of other traditional actors like the forest owners.

4.5.5 Decentralisation, Co-ordination of Federal and State Level

The Forest Programmes of the Federal level and the States were closely co-ordinated throughout their first stage through the previous pilot work of Baden-Wuerttemberg. Nevertheless the significance of the German Federal Forest Programme to the State level never has been sufficiently clear. From a today's point of view the present German Federal Forest Programme 2000 has reached mostly symbolic significance without concrete consequences for actions to be taken.

A change can be expected during the second stage of the German Federal Forest Programme because of the significantly higher commitment of the ENGOs. In fact, even in the future, the results will not have any direct legal consequences. But they could become a politically important basis of argument and further professional discourse.

During the second stage of the German Federal Forest Programme a co-ordination with the Forest Programmes of the States, regarding content, can no longer be observed. It has also not been clarified, who should be in charge of such a co-ordination, as the State Forest Administrations themselves are only participants of the process. But the Administrations, as representatives of the States, are present at the Round Tables and in the working groups. From the administrations' part, an important matter of concern is to ensure that the given competences of the Federal Government and the States are kept. The responsibilities of the States should be dealt with exclusively on the subnational level.

This corresponds to the concept of the IPF (United Nations CSD 1997) regarding decentralisation, which is considered to have positive effects. In this way a redundant work on different levels can be avoided. Otherwise, there is danger of developing non-congruent contents and objectives in the Forest Programmes of the Federal and the States level.

5. Relevance of the Forest Programme to the Involved Institutions:Some Conclusions

1. In the long run the State Forest Administrations in Germany cannot close their mind to the growing necessity of new forms of enlarged participation in regard to the formulation of forest policy.
2. More than before, in the context of the NFP process, traditional participants can show an openness to the social expectations. They should assume no longer a claim of sole representation of forest issues.
3. The Forest Programme provides an opportunity for the State Forest Administrations and the Forest Owners' Associations to take an active role in the shaping of policy. This would counter fears of the forest owners and foresters that forest policy would behave passively and would only react to claims formulated by third parties such as ENGOs.
4. In the context of the Forest Programme, all participants expose themselves to the risk of a loss of power, if the process is dominated by one or several groups.
5. Smaller interest groups could be empowered through the ability to participate in working groups and Round Table discussions, which would examine all issues.
6. Out of this situation, there appears a growing need for participants to create new strategies. The establishment of temporary alliances with new partners will now be more important for the achievement of political partial objectives.
7. The representatives welcome the initiation of a Forest Programme. However, they remain restrained concerning its importance. They demand more concrete results with a higher degree of commitment, as well as a broader discussion in the political sphere.

Monitoring and evaluating of the results of the NFP process are considered the necessary first step. In that way, the participants could control one another regarding the implementation of agreed objectives.

8. From the various viewpoints of their members, some ENGOs get one part of their internal legitimisation through the formulation of opposing standpoints, for example to governmental or forest owners' interests. Therefore, their agreement to solutions of common consent will at least be called into question.
9. The involved administrations do not close their minds to cooperation. However, in order to deal with orders and decisions, they refer to institutionalised procedures of coordination. In this way, they prevent the Forest Programme from becoming so concrete that the existing mechanisms would be eliminated. In this way, the importance of the Forest Programme is weakened.
10. A real impact on the role of institutions has so far not resulted from the Forest Program in Baden-Wuerttemberg. On the federal level, however, it is obvious that the influence of the prior domination of the State Forest Administrations is reduced by ENGOs, Federal Governmental Administrations and other interest groups.
11. It cannot be assumed that any State Government in the future would leave the formulation of forest policy to a large extent to the interest groups. However, the Forest Programme of Baden-Wuerttemberg could be an essential basis of action to be taken by political decision makers. Through this process, in a unique way and on a broad basis, social expectations toward forests and forest management are formulated which hardly can be ignored.

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Appendix 1. Forest Programme of Baden-Wuerttemberg 2000: Involved Interest Groups and Institutions.

	Information and invitation to collaborate	Consultative collaboration	Working Group	Final Round Table Conference	Comments in the course of the process
AG Wälder im Forum Umwelt und Entwicklung, Working Group on Forests in the Forum of Environment and Development	X				
AG der Bauernverbände, Joint Committee for Farmer Associations					X
Baden-württembergischer Forstverein, Forest Association of Baden-Württemberg	X		X	X	
Badischer Zimmerer-und Holzbauverband, Federation of Carpenters and Timber Construction Trade of Baden	X		X	X	
Bund Deutscher Forstleute (BDF), German Association of Foresters	X		X	X	X
Bund für Umwelt und Naturschutz Deutschland (BUND), German Association for Environment and Nature Conservation	X		X	X	
Bundesamt für Naturschutz, Federal Agency of Nature Conservation	X			X	X
Bundesministerium für Ernährung, Landwirtschaft und Forsten, Federal Ministry of Food, Agriculture and Forestry	X	X		X	
Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit, Federal Ministry of Environment, Nature Conservation and Nuclear Safety	X				
Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung, Federal Ministry of Economic Cooperation and Development	X	X		X	

	Information and invitation to collaborate	Consultative collaboration	Working Group	Final Round Table Conference	Comments in the course of the process
Forstkammer Baden-Württemberg, Forestry Board Baden-Württemberg	X		X	X	X
Forstliche Versuchs- und Forschungs-anstalt Baden-Württemberg, Forest Research Institute Baden-Württemberg	X	X	X	X	
Gesellschaft für technische Zusammen-arbeit (GTZ), Corporation of Technical Cooperation	X	X		X	
Industriegewerkschaft Bauen–Agrar-Umwelt (IG Bau), Industry-wide Union of Construction. Agriculture and Environment (IG BAU)	X		X	X	X
Industrie- und Handelskammertag Baden-Württemberg, Chamber of Industry and Commerce Baden-Württemberg	X		X		X
Landesnaturschutzverband, State Association for Nature Conservation	X		X	X	X
Ministerium für Umwelt und Verkehr, Ministry of Environment and Transport	X				
Ministerium Ländlicher Raum, Ministry of Rural Areas	X		X	X	X
Landesanstalt für Umweltschutz, State Office for Environmental Protection	X		X	X	X
Naturschutzbund Deutschland (NABU), Association for Nature Conservation in Germany	X		X	X	X
Papierverbände Baden-Württemberg, Federation of Paper Manufacturers Baden-Württemberg	X		X	X	X
Staatsministerium, State Ministry	X				
Tourismusverband Baden-Württemberg, Federation of Tourist Industry Baden-Württemberg	X				

Appendix 1. continued

	Information and invitation to collaborate	Consultative collaboration	Working Group	Final Round Table Conference	Comments in the course of the process
Universität Freiburg, Freiburg University	X	X	X	X	
Verband der Säge- und Holzindustrie, Federation of Sawmills and Timber Industry	X		X		X
Wirtschaftsministerium, Ministry of Economics	X		X	X	X

Programme

EFI Forest Policy Research Forum
Cross-Sectoral Policy Impacts on Forests

4–6 April 2002 • Paviljonki, Savonlinna, Finland

Thursday 4 April

9:00 – 9:15 Opening words
Chairman of the event, Prof. Dr. Peter Glück, Agricultural University Vienna, Austria, Chairman of the COST E19 Action
Ilpo Tikkanen, European Forest institute

Session 1 – Cross-sectoral Policy Impacts – a Worldwide Challenge for Research and Policy Development (Moderator: Ilpo Tikkanen, European Forest Institute)

9:15–9:45 National Forest Programmes as a Holistic Approach to Address Inter-Sectoral Impacts on Forests – Opportunities and Challenges with a Reference to Norwegian Experiences. *Knut Øistad, Ministry of Agriculture, Norway*

9:45–10:15 Theoretical Approaches to Understanding Intersectoral Policy Integration. *Margaret Shannon, SUNY Buffalo School of Law, USA*

11:15–11:45 Knowledge Sharing for Cross-Sectoral Linkages in National Forest Programmes. *Lennart Ljungman, FAO*

11:45–12:15 Interaction of National Forest Programmes with Comprehensive Development Frameworks. *Christian Mersmann, Profor / World Bank*

Session 2 – Cross-Sectoral Impacts on Forests – European Policy Perspective (Moderator: Heikki Pajuoja, Finnish Forest Research Institute)

14:15–14:45 Finland´s National Forest Programme 2010 – a Policy Framework to Balance the Demands for Socio-Economic and Ecological Sustainability.
Aarne Reunala, Ministry of Agriculture and Forestry, Finland

14:45–15:15 Inter-Sectoral Linkages and EU's Forest Strategy.
Robert Flies, European Commission

16:15–16:45 The Pan-European Approach to NFPs Current State of MCPFE Work.
Peter Mayer, MCPFE

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16:45–17:15 IPF/IFF Proposals for Action and their Implementation by National Forest Programmes by National States and the European Union.
Helga Pülzl, Agricultural University Vienna, Austria

Friday 5 April

Session A, WG1: NFP – Essential Inter-Sectoral Approaches (Moderator: Ine Neven, Alterra, The Netherlands)

9:30–9:45 1. Research papers
• Reflections on Inter-Sectoral Co-ordination in National Forest Programmes.
Karl Hogl, Agricultural University of Vienna, Austria
• Inter-Sectoral Co-ordination: State of the Art and Beyond.
Evelien Verbij, Wageningen University, The Netherlands
• Iterative Planning Processes; Supporting and Impeding Factors.
Johan Barstad, Møre Research Volda, Norway

11:00–11:45 2. Research experiences: Inter-sectoral – advocacy coalition approaches
• Institutional and Intersectoral Aspects of the National Forest Policy in Portugal. *Pedro Ochoa de Carvalho, Portugal*
• Intersectoral Co-operation and NFPs – Experiences from Finland.
Heikki Pajuoja, Finnish Forest Research Institute
• The Status of Inter-Sectoral Co-ordination in SFM in Catalonia – Lessons Learnt from an Experimental Qualitative Research Design.
Gloria Dominiguez, The Forest Technology Centre of Catalonia, Spain

14:00–15:30 3. Discussion in sub-groups and drafting a list of propositions
• Reflections on the presentations in the plenary session of 4 April
• Propositions and key variables from the presentations in sub-groups
• Reflections on the reports from the sub-groups

Session B, WG2: Influences of Financial Incentives and Institutional Aspects on NFPs (Moderator: Americo M.S. Carvalho Mendes, Universidade Católica Portuguesa, Portugal)

9:10–10:30 1. Presentations on Financial Incentives

9:10–9:25 Conceptual Contributions for the Analysis of the Effects of Financial Incentives on NFP Processes.
Americo M.S. Carvalho Mendes, Universidade Católica Portuguesa, Portugal

9:25–10:10 Case Studies on the effects of financial incentives
• Financial incentives in Greek forest policy – implication for financing an NFP. *Kostas Papageorgiou, Agricultural Research Station of Ioannina, Greece*
• A Spanish Experience: The Forest Plan of Catalonia and its Consequences for Private Forest Management.
Eduardo Rojas Briales, Polytechnic University of Valencia, Spain

10:10–10:30 Discussion

11:00–12:30 2. Presentations on Institutional Aspects

11:00–11:15 Theories of Institutions and National Forest Programmes.
Erling Berge, University of Science and Technology, Norway

11:15–12:00 Case Studies on the Effects of Institutional Aspects
• Institutional Aspects on National Forest Programmes in Portugal
Inocêncio Seita Coelho, National Institute of Agrarian Research, National Agricultural Research Station, Portugal
• Institutional Aspects as Supporting and Impeding Factors on the Process of Finnish National Forest Programme.
Pekka Ollonqvist, Finnish Forest Research Institute, Finland
• Institutional Aspects on National Forest Programmes: The Example of the Forest Programme of Baden-Wuerttemberg.
Karl Volz, University of Freiburg, Germany

12:00–12:15 Discussion

12:15–12:30 A first global look at some main propositions for discussion drawn from the presentations and discussions since the 1st WG2 meeting. Contributing material for the remaining WG2 discussions was made available in the COST website before the meeting. Material prepared by the WG Chair in consultation with the other authors, was drafted in view of the conceptual and operational framework for the analysis of the effects of external factors on NFPs consistent with the WG1 programme.

14:00–15:30 3. Sub-group discussions of the main propositions

14:00–14:20 Initial list of main propositions for discussion
• From paper presentations
• New relevant ideas proposed

14:20–15:30 Discussion focused on the initial list of the main propositions (two sub-groups)

Saturday 6 April

WG1: NFP – Essential Inter-Sectoral Approaches

8:30–10:30 4. Working on the list of propositions and variables (in smaller groups)
• Working out the list of variables and propositions
• Adoption of the results in Savonlinna
• Inter-relation between the results of the meetings 1–5

11:00–12:00 5. Discussion on the relation between the results in Savonlinna & the common framework
• Preparation of the contribution to the joint WG1 and WG2 meeting
• Summary discussion

12:00–13:00 6. Preparation of the next working group meeting in Porto, Portugal
• Products of the COST E19
• Other topics

WG2: Influences of Financial Incentives and Institutional Aspects on NFPs

8:30–10:30 4. Conclusion of the sub-group discussions and final drafting of the main propositions

8:30–9:45 Continuing the sub-group discussions on main contributions for a conceptual and operational framework for analysis of the influences of external factors on NFP processes. Each sub-group deals with one external factor: financial incentives or institutional aspects.

9:45–10:30 Final drafting of the main propositions drawn from the sub-group discussions presented as contributions for a conceptual and operational framework for analysis of the influences of external factors on NFP processes consistent with WG1 programme.

11:00–13:00 5. Plenary Session of the WG2 (Moderator: Americo M.S. Carvalho Mendes, Universidade Católica Portuguesa, Portugal)

11:00–11:30 Conclusions from the sub-group discussions

11:30–12:30 Discussion of the sub-group contribution

12:30–13:00 6. Preparation of the next WG2 meetings in Sopron and Porto

7. Joint session of the WG1 and WG2: Towards a common conceptual and operational framework for the formulation and implementation of NFPs (Moderators: Ine Neven and Américo Carvalho Mendes)

14:30–14:50 Conclusions on the proceeding of the WG1.
Ine Neven, Alterra, The Netherlands

14:50–15:10 Conclusions on the proceeding of the WG2: contribution towards a conceptual and operational framework for the analysis of the influences of external factors on NFP processes consistent with WG1 programme.
Américo Carvalho Mendes, Universidade Católica Portuguesa, Portugal

15:10–16:30 Discussion: WGs' contributions towards a conceptual and operational framework for the formulation and implementation for NFPs

17:00–18:00 Conclusion of the discussion on the WGs' contributions towards a conceptual and operational framework for the formulation and implementation of NFPs

6th Management Committee Meeting, Thursday 4 April, 18.00 – 19.00 (Moderator: Peter Glück, Agricultural University Vienna, Austria, Chairman of the COST E19)

18:00–19:00 Preliminary Agenda

1. Opening
2. Adoption of the agenda, proposal of new items
3. Approval of the minutes of the 5th MC Meeting
4. Status of signatories, new applications
5. Chairman's report
6. Consequences from mid-term evaluation
7. Coordination of WG1&2 (common concept, mutual information needs)
8. Short term scientific missions
9. Future meetings (Porto, Vienna)
10. Mid-term evaluation on the need for 'guidelines' for the formulation and implementation of NFPs (according to COST E19 work programme)
11. Deliverables
• common report of WG1&2
• special issue of Forest Policy and Economics
• book on country reports
12. Proposals for EU projects
13. Other topics
14. Closing

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