



European
Research
Area



Forest governance and the role of forestry research

Edited by
Helga Pülzl

PROCEEDINGS

EC/FTP Workshop

Kranjska Gora, Slovenia 19-21 May 2008

European Commission
Directorate E – Biotechnologies, Agriculture, Food
Unit E.4 - Agriculture, Forestry, Fisheries, Aquaculture
http://ec.europa.eu/research/agriculture/index_en.html

European Commission
Contact: Tomasz Oszako
B-1049 Brussels
email: Toamsz.Oszako@ec.europa.eu

Forest governance and the role of forestry research

PROCEEDINGS

EC/FTP Workshop

held in

Kranjska Gora, Slovenia

Content of the report

1	PREFACE AND INTRODUCTORY REMARKS.....	5
1.1	WORKSHOP PURPOSE	5
1.2	OVERVIEW OF THE CONTENT OF THE PRESENT REPORT	5
2	DIFFERENT FORMS OF COORDINATION, COOPERATION AND COMMUNICATION FORMS APPLIED TO FOREST GOVERNANCE IN EU FOREST POLICY	7
2.1	COORDINATION, CO-OPERATION AND COMMUNICATION: FOREST POLICY WITHIN THE EUROPEAN UNION	7
2.2	PRESENTATION OF RESULTS OF THE PROJECT ON GOOD GOVERNANCE, "CHANGE OF GOVERNANCE, GOVERNANCE OF CHANGE: THE CASE OF FOREST POLICY IN EUROPE	11
3	ACTIVITIES RELATED TO NFPS: EXAMPLES FROM FINLAND AND POLAND (HOW SCIENCE AND RESEARCH IS TAKEN INTO ACCOUNT DURING PREPARATION AND IMPLEMENTATION OF NFPS)	12
3.1	INTEGRATION OF SCIENTIFIC WORK INTO POLICY FORMULATION AND IMPLEMENTATION PROCESS: NATIONAL FOREST PROGRAMME OF FINLAND 2015.....	12
3.2	METHODOLOGICAL ASSUMPTIONS IN NATIONAL FOREST PROGRAMME IN POLAND.....	14
4	SCIENCE-POLICY INTERFACE: WHAT DO SCIENTISTS THINK OF OTHERS AND HOW OTHERS RELATE TO SCIENTISTS; COMMUNICATION BETWEEN SCIENTISTS AND POLICY MAKERS; SOCIAL SCIENCE AND FOREST POLICY INTERFACE	16
4.1	POLITICIANS, JOURNALISTS UND PRACTITIONERS FROM A FOREST SCIENCE VIEWPOINT. IMPLICATIONS FOR FOREST SCIENCE COMMUNICATION	16
4.2	NEEDS IN THE SCIENTIFIC/POLICY INTERFACE FROM THE STATE FORESTRY PERSPECTIVE	20
4.3	FOREST SECTOR, FOREST POLICY AND FOREST SCIENCE – HOW THEY COMMUNICATE?	22
4.4	SOCIAL SCIENCES AND FOREST POLICY INTERFACE: IMPLEMENTATION ANALYSIS OF FOREST PROGRAMMES.....	23
5	THE FOREST-BASE SECTOR AND RESEARCH.....	25
5.1	FOREST-BASED SECTOR RESEARCH AND INNOVATION NEED FAR-REACHING POLICIES	25
5.2	POTENTIAL CONTRIBUTION OF RESEARCH TO POLICY FORMULATION AND IMPLEMENTATION PROCESSES.....	28
6	POSSIBLE RECOMMENDATIONS FOR IMPROVING THE SCIENCE / POLICY INTERFACE	30

1 Preface and introductory remarks

1.1 Workshop Purpose

The workshop on forest governance and the role of forestry research held on 19 May 2008, in Kranjska Gora, Slovenia has been organized by the European Commission together with the Forest-based Sector Technology Platform (FTP) in order to explore the possibilities for better coordination and communication at the research / policy interface. The overall objective of the workshop was to facilitate discussion on the role of forestry research in the context of forest governance, particularly at the research / policy interface in the European Union. It provided an ideal opportunity to present the state of the art in the implementation of the National Forest Programmes and assist in fulfilling current EU Forest Policies, as outlined in the EU Forest Action Plan, particularly Key Action 14: coordination between policy areas in forestry-related matters, and Key Action 16: [to] strengthen the EU profile in international forest-related matters.

1.2 Overview of the content of the present report

The present report contains the summarized presentation of the invited speakers. Some include recommendation for improving the science / policy interface. It is structure into four main parts.

Part One introduces the concepts coordination, cooperation and communication and presents the result of a project on good governance. Pülzl specifies the theoretical differences between the concepts coordination, cooperation and communication. She gives some examples of how these concepts are used in forest policy within the European Union and makes recommendations on how scientists and forest policy makers could make better use of coordination, cooperation and communication. Buttoud presents the results of the GoFOR project carried out from 2005 to 2007. He shows that all European countries at a different speed have introduced new modes of governance. Following this he outlines two preconditions for the integration of science and policy-making.

Part Two provides examples of how science and research are taken into account in National Forest Programmes: Kokkonen shows how science and scientific work have influenced the formulation and implementation of the Finish NFP. Thereby she explains that science and research have an important role to play in every stage of the programme cycle. Paschalis Jakubowicz outlines problem areas for a Polish National Forest Programmes as well as he makes several assumptions underlying the Polish NFP. Hereby he draws the readers' attention to the fact that NFPs in general suffer three vital weaknesses, among those the absence of an operational definition of Sustainable Forest Management.

Part Three relates more specifically to the science / policy interface. Suda and Goodwin review on the one hand scientists' perceptions of journalists, politicians and practitioners and on the other hand they investigate what those think about scientists. They thereby outline four solutions for science to overcoming communication difficulties. Kosenkranius presents the result of a survey

regarding the research and development priorities of the members of the European State Forest Association (EUSTAFOR). As a problem area he addresses the lack of knowledge on the impact of climate change on forestry and vice versa; secondly a targeted communication strategy for ensuring the distribution of scientific results to practitioners on the one hand and the distribution of practice stories to scientists on the other hand. Janse analyses the way policy-makers and scientists (in the forest sector) communicate with each other. He shows that policy-makers have considerable difficulties in getting access to available information. He stresses that there is a discrepancy between what policy-makers find important and what scientists believe is important to policy-makers. Mendes describes how economics and social sciences may support the implementation analysis of National Forest Programmes. He gives some examples that support this argument

Part Four summarizes the needs of the forest-based industries and outlines how research could be taken better into account during policy formulation and implementation. Vorher describes various forms of competition the European forest-based sector is facing today. Thereby he outlines four factors for maintaining a sustainable and competitive European forest-based industry. Päivinen sees research as integral part of every phase of policy formulation and implementation processes. He outlines four main phases in developing a 'policy-relevant research agenda'.

The present report of this workshop provides some recommendations for possible action at the forest science/policy interface with its implications of both existing and new RTD initiatives in this important business sector.

Salzburg, 02 / 10 / 08

Report has been compiled by Helga Pülzl (University of Salzburg)

2 Different forms of coordination, cooperation and communication forms applied to forest governance in EU forest policy

2.1 Coordination, co-operation and communication: forest policy within the European Union

Helga Pülzl¹

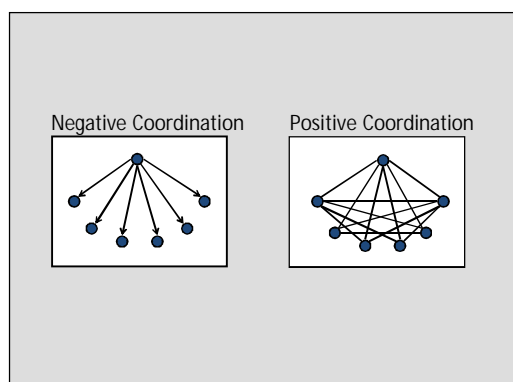
Abstract of presentation

1. Coordination, Cooperation and communication – some theoretical aspects²

Coordination can be defined as “act of harmoniously working together” (Pülzl, Nussbaumer 2006:19). It involves actors, administrative units, or organisational entities that coordinate their activities for the achievement of certain goals and for reaching common outcomes. Besides also policies of different kinds may be in need for coordinative activities, especially if they are interrelated. The aim of coordination can be three folded:

- mutual adjustment of actors’ positions or administrative units’ points of view with regard to a policy.
- mutual adjustments of different sectoral policies (c.f. Meijers and Stead, 2004: 5) (whose main goals might be in opposition to each other) in order to improve their consistency and coherence.
- multi-level coordination comes into play as multiple levels of government (European, national, regional, and local level) are involved. Vertical and horizontal coordinative activities, as Hogl (2002: 6) shows, especially take place in supranational and federal political systems.

The two modes of coordination are either hierarchical or network-based: Hierarchical modes of coordination reside typically on formal power and authority requirements and they are supposed to decrease transaction costs within organisations, but at the same time risk at creating motivation and



information problems (c.f. Scharpf, 1996: 503ff and 1993:131ff in Hogl, 2002: 7). Coordination by way of negotiations on the other side is performed in actors’ networks that are typically composed by governmental and private actors. Difficulties might arise if the number of participating actors is excessively large and if actors are unable or unwilling to compromise. In addition, while positive coordination (see Fig.1) involves all of the concerned actors on an interactive basis in order to

¹ Contact: Helga.puelzl@sbg.ac.at, Department Political Science and Sociology, University of Salzburg, Rudolfskai 42, A-5020 Salzburg, Tel.: + 43 - 662 - 8044 – 6602, Fax: + 43 - 662 - 6389 – 6602.

² This paper draws on a pilot study: Pülzl, H., Nussbaumer, E. (2006). Modes of governance for European Forest Policy. Coordination, co-operation, and communication. edited by the Federal Ministry of Agriculture, Forestry, Environment and Water Management, Vienna.

reach the highest collective benefit, negative coordination involves only those actors on a bilateral basis selected by a superior unit (see Scharpf, 1996 in: Hogl, 2002: 9f). Both models are presented in Fig.1 below.

Negative coordination is a form of hierarchical coordination that enables a central authority to clarify its points of concern with selected actors on a bilateral basis. Positive coordination allows e.g. a central authority to involve other actors in the decision-making process on a multilateral basis. Contrary to the negative coordination, actors also interact amongst themselves and not only with a central authority. It should be added here that positive coordination is oriented towards choosing "those options with the highest collective benefit"

Co-operation can be defined as an inter-actor or inter-organisational relationship where participants do not rely on market or hierarchical modes of control, in which negotiation plays an important role (Hardy et al. 2005: 58). It is concerned with the relationship of actors including e.g. institutional units. In the absence of control, effective co-operation depends on the participants' relationship. Actors tend to co-operate as a result of a) mutual interest, b) concerns about the future, c) high number of actors already involved in the process. This means that actors tend to co-operate in the absence of a central authority when all sides can benefit from co-operation, when e.g. long-term actions are to be decided upon and when the number of actors involved is considerably low (Kooiman, 2003:99). Co-operation can be found on and across all levels of government.

There are two modes of co-operation: a Public-Private-Partnership (PPP) presents one form of a joint initiative of public and private actors. Several prerequisites for PPPs are essential: mutual trust, common objectives, division of responsibilities as well as authorities and dispute settlement should be installed (c.f. Kooiman, 2003: 102). A second form of co-operation is co-management; a shared form of management of natural resources by public agencies and users following a participatory approach (see Schans van der 2001 in Kooiman, 2003: 103).

Co-operation is to be differentiated from coordination as in the first case two actors or e.g. governmental units are working together to reach their own goals, therefore the outcomes may be different. In the second case, co-ordination results in joint decisions and therefore also in joint outcomes (see Meijers / Stead, 2004: 5).

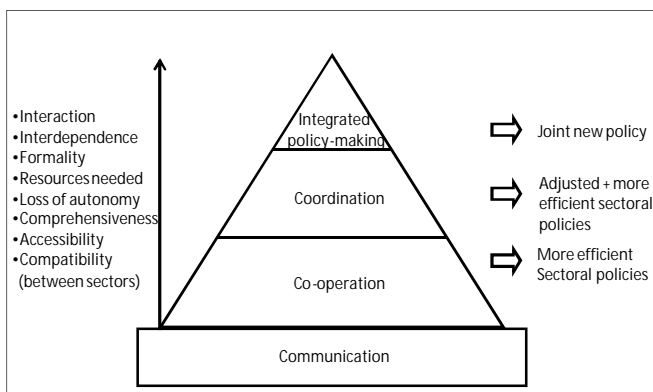
The simplest way to depict communication is offered by Shannon and Weaver (1949) who describe communication as a process in which information is passed from a sender to a receiver (signal transfer-model). Here the question of whether the content of the information is meaningful or not, does not arise (Griffin, 1997: 48-56). Compared to the signal transfer approach, the models of Watzlawik and Schulz von Thun (2005) are more sophisticated since they picture communication as a two-way process that transmits or creates meaning. For example Schulz von Thun distinguishes the following four aspects in his communication model: 1) Content: means the obvious content of the message; 2) Self indication: means that the message implicitly contains information about the sender; 3) Relationship indication: explains the relationship between the sender and the receiver; 4) Appeal: appeals to the receiver to act. Misunderstanding happens when the sender and the receiver interpret one or more of these aspects differently. The following conversation provides an example: (Schulz von Thun, 2005: 23-63)

Person 1: "What's the green stuff in the soup?" Person 2 who cooked the soup: "If you don't like it you're free to eat somewhere else."
--

The interpretation reads as follows:

content:	sent: there's something green in the soup. received: there's something green in the soup.
self indication:	sent: I don't know what it is. received: I don't like it.
relationship:	sent: you'll know, as you are the cook. received: you are a bad cook.
appeal:	sent: tell me what it is. received: leave the green stuff out, next time.

The only way to resolve this miscommunication is to talk about the different interpretations of the four aspects and thereby lay open the misunderstanding. Communication is not only a process between two people, although, one person can also communicate with a group, a group can communicate with a group and the addressee can also be a mass or "the public" as in mass communication or public relations.



Meijers, E. / Stead, D. (2004). Policy integration: What does it mean and how can it be achieved? A multidisciplinary approach. In: 2004 Berlin Conference of the Human Dimensions of Global Environmental Change - Greening of Policies - Interlinkages and Policy Integration, Berlin (modified by Pütz/Nussbaumer 2006)

Fig.3 summarizes the theoretical ideas that have been developed in the previous paragraphs. It shows that communication builds the basis for co-operation and coordination. It shows that co-operation in contrast to coordination is more efficient for the application to sectoral policies, while policy integration enables tangible change and/or reformulation of joint policies at the risk of losing autonomy.

2. Examples for some findings (drawn from pilot study)

Coordination between policies was not addressed as aiming at the mutual adjustment of actors' positions or the mutual adjustment of (opposing) sectoral policies as the theoretical chapter suggested, but the need for the coordination of policies was seen as a problem of competence between policies based on the European Treaty framework and a missing common legal authority for forest policy at the Community level; In addition, a need for rebalancing policy objectives was identified. In line with the theoretical chapter, it seems only weak forms of coordination (information exchange, consultation) were identified by the interview partners, while the setting of common parameters or the establishment of common selected priorities for reaching stronger forms of coordination for European forest policy that lead to common outputs do not seem to be an issue.

Co-operation was seen as a private-private mode of governance that works in the absence of hierarchical control. It turned out that cooperation and coordination are difficult to hold apart and therefore misunderstandings among involved actors may easily arise. Furthermore, it seemed that the mode of co-operation, for example to improve the efficiency of sectoral policies by working together, is currently less aimed at the European forest policy context. This might be explained by missing authoritative rules and a missing legal basis for forest policy within the European Union. On the other hand, it should be emphasized that co-operation by definition should not be understood as steered by a central authority, but in contrast, actors at the same level of interaction work together because of mutual interest and shared concerns about the future.

It seemed that the production of meaning for communication is a major issues of concern as for instance even the concepts coordination, co-operation, and communication where not identically interpreted by the interviewees. In conclusion, it should be said that communication was addressed as either internal or as external communication among concerned actors or the general public. The main problem however seems to be that failed communication or none at all takes place.

3. Recommendations for forest policy:

1) Coordination: application of positive modes of coordination are needed; this would imply the finding of an agreement on overall goals for European forest policy

2) Communication: need for improved of communication structures: internal/ external communication with general public need to be explicitly distinguished from each other and separated activities should be held to improve them.

Put more attention at the two-way communication process: mainly a one-way communication structure could be identified; it should be taken into account, that communication among actors is a two-way process and the production of meaning is crucial (see example of the soup above).

3) Cooperation: less used within the European context when it comes to European forest policy, but could serve to address shared concerns in the future e.g. biodiversity management etc.

4. How does this relate to the topic of the workshop?

Modes of coordination and co-operation as well as the establishment of good communication structures between science and forest policy communities are essential.

Coordination means mutual adjustments of common aims between science and & 'forest' policy; positive coordination involves establishment of networks between them;

Co-operation means while respecting each community's' goals mutual interest is invoked and concerns about future can be shared.

Communication between both employs the production of meaning; here both communities need to be aware of this; there is no linear relationship between the science / policy interface: Science does not produce ready-made products, that can then be used by policy-agents (Pülzl/Rametsteiner 2007); Science and policy together are involved in the production of meaning and it is important to make both community aware that there is no linear exchange of knowledge packages.

Further Reading:

Hogl, K. (2004). Policy Co-ordination in NFP processes: challenge, options and limits. In: Jansky, L., Nevenic, R., Tikkanen, I., Pajari, B. (Eds.), Challenges in Strengthening of Capacities for Forest Policy Development in Countries with Economies in Transition. Tokyo, New York: United Nations University, 51-64

Kooiman, J. (2003). Governing as Governance. London, Thousand Oaks, New Delhi: Sage Publication

Meijers, E. / Stead, D. (2004). Policy integration: What does it mean and how can it be achieved? A multi-disciplinary approach. In: 2004 Berlin Conference of the Human Dimensions of Global Environmental Change. Greening of Policies – Interlinkages and Policy Integration, Berlin

2.2 Presentation of results of the project on good governance, "Change of governance, governance of change: the case of forest policy in Europe

Gerard Buttoud³

Abstract of presentation

The results of the GoFOR project carried out from 2005 to 2007 by a consortium of 10 scientific teams from various countries in Europe lead to the following main conclusions:

(i) In all the European countries, at different speed depending upon the importance of forest and political system, new modes of governance are introduced, based on 5 elements: participation, intersectoral links, co-ordination between different levels of decision making, accountable expertise, iterative and adaptive management.

(ii) In most of the cases, there is still a lot of rhetoric, especially as regards participation, which has become a key-word through losing its real meaning, and sometimes even used as an alibi.

(iii) The change from conventional type of decision making (so called «government») to governance is a progressive one, based on the introduction of governance elements into the conventional system of decision making (more «clever» type of government). There is no radical change (adaptation through resilience of decision making systems to demands for change).

(iv) The new modes of governance as introduced in the forestry field often lead to a consolidation of the strongest stakeholders which in many case brings back to the timber production as the major function of forests.

(v) The main drivers of this progressive passing from government to governance are mutual learning and accountable expertise, where the scientists from various disciplines are called to play a major role.

Recommendations

Progress towards governance of sustainability may only come from a better linkage between scientists and decision makers at various levels.

The integration of science and policy making is the right direction, under two conditions required:

- (i) a rigorous approach of decision;
- (ii) a right balance (difficult to find) between: 1. engagement of scientists in supporting decision (limit: stakeholders) and; 2. an open minded policy system (limit: control through funding).

³Contact: AgroParisTech - ENGREF, Centre de Nancy 14, Rue Girardet, CS 14216, 54042 Nancy, France.

3 Activities related to NFPs: examples from Finland and Poland (how science and research is taken into account during preparation and implementation of NFPs)

3.1 Integration of scientific work into policy formulation and implementation process: National Forest Programme of Finland 2015

Marja Kokkonen⁴

Abstract of presentation

The forest sector is highly important for Finland, with a wide range of economic, social and ecological effects on the whole society and individual people. In our circumstances we have found the National Forest Programme a very good tool to achieve a balanced integration of the multiple uses of forests. Our first NFP (NFP 2010) was approved by the Finnish Government in 1999. The review of the programme was started in 2005, because many profound changes had taken place in the operating environment.

The up-building of NFP 2015 included a wide preparation process among researchers and various stakeholders. In autumn 2005 13 new Regional Forest Programmes 2006-2010 were concluded. Research organisations assisted the NFP organisations – the Forest Council chaired by the Ministry, Executive Committee and four working groups – in planning the national programme. First, in autumn 2006 the Forest Council finalized the Forest Sector Review (FSR), which contained an analysis of the operating environment and proposals for priorities, goals, main measures and financing. In spring 2007 a parliamentary election was held in Finland and we got a new Government. As set down in the Government Programme, NFP 2015 was finalized on the basis of the FSR and approved by the Government as a resolution in March 2008.

NFP 2015 includes six priorities, which cover sustainable forestry, forest industries, other related sectors, education and expertise, and Finland's international forest policy. The climate and energy benefits of forests are stressed. NFP is a multisectoral programme which contains concrete targets and key measures. It is financed by different ministries and the private sector, and it will be accompanied by a more detailed Action Plan.

Scientific work and researchers have had and will continue to have a very important role in every stage of the programme cycle. In general, scientists have an independent and, thus, reliable role, they have expert knowledge, and they can function as analysts and evaluators as well as present new proposals and observations. Multi-sectorality as well as transferring knowledge into practise and vice versa are very important.

⁴ Contact: Secretary General of Finland's National Forest Programme

At the planning phase of NFP 2015 the Forest Research Institute (FRI) prepared a review which included an analysis of the operating environment and 2 plus 3 scenarios: Development of current structures, Active change, and three scenarios for sudden major changes Wood imports collapse, Public support collapses and Surprising climatic changes. The FRI also made alternative calculations to help to choose the targets of NFP. The alternatives were business as usual, timber import down, import down and more protection, bioenergy and new products, maximum sustainable cuttings, and a recreation alternative. For each alternative, calculations or estimates were made on what would happen, for example, to cuttings, timber prices, value of forest industry production, stumpage prices, taxes, employment, volume of bioenergy, state of biodiversity, water protection, multiple use of forests, and CO2 emission of forests.

Both in the review and in the working groups the researches gave analytical proposals for measures, which were most helpful. They also contributed to the design of the set of follow-up indicators.

At the implementation phase, which has already started, the role of research is to be active in translating research results into practical actions (e.g. legislation, guidance, new technology and processes). Comprehensive research programmes and R&D programmes will also be carried out. The research institutes will be applicants for undertaking development projects, both at the regional and national level.

At the follow-up phase producing statistics and their analysis is very important. In Finland we follow the criteria and indicators for sustainable forestry, indicators of regional forest programmes and NFP, and indicators for state budgeting. It is essential that the main indicators are the same in all these processes and documents. Most of the statistical work takes place at the Finnish Forest Research Institute and Statistics Finland.

The evaluation on NFP 2015 was and will be carried by an independent, third research party. The ex ante evaluation took place in February-September 2007, alongside with the preparation of the programme. The content (coherence of vision, priorities, goals, measures and financing) and the implementing system were evaluated, together with an assessment of the environmental, equality and regional aspects of the programme. This kind of "sparring" ex ante evaluation was very interesting. It highlighted the need for change and regeneration of the forest sector and gave rise to fruitful discussions which contributed to the whole process.

The midterm evaluations will be carried out in 2010 and 2013 and the ex post evaluation in 2015-2016.

Forecasting must be a continuous activity in every organization in the forest sector, but especially in the research institutes. A long-term perspective is needed to survey what will or could happen in the future. It is also important to notice the weak signals. The Future Forum on Forests, with activities based on projects, has functioned as a kind of forecasting body Finland. Now its operations will be organized on a more permanent basis.

To conclude, several mechanisms for integrating science into NFP 2015 already exist. The Ministry of Agriculture and Forestry sees to the participation of researchers in the Forest Council, Executive Committee, working groups and regional forest councils. The Ministry also commissions surveys and reports when needed and organises competitive tendering for their evaluation and follow-up. Together with other ministries the Ministry of Agriculture and Forestry steers the allocation of

research funds, takes care of performance guidance of research institutes and implementation of the research strategy of the Finnish forest cluster (based on FTP). Financing of R&D programmes and Centres of Expertise as well as the support for Future Forum on Forests and Forest Academy for Decision-Makers are also important.

Research organizations themselves can and should also be active both at the planning and implementation phases. Networking for cooperation and communication is essential.

3.2 Methodological assumptions in National Forest Programme in Poland

Piotr Paschalis Jakubowicz⁵

Abstract of Presentation

At the implementation level sustainable forest management in Poland is executed according to the forest management plan or the simplified forest management plan. The forest management plan for forests owned by the state treasury is validated by the Minister of the Environment, whereas the simplified forest management plan is validated by the administration territorial. The execution of forest management plans for forests owned by the local government representative.

In European forestry there are two possible options with respect to NFPs. The first is to initiate an NFP process from first principles. The second is to argue that the existing forest policy meets, or in some cases is superior to, the requirements of a NFP, although this policy may require some amendment. In Poland the second approach has been adopted and a new National Policy on Forests has been worked out. This is expressed in the Regional Operational Programmes of the National Policy on Forests (RPO PLP).

RPO PLPs are currently considering three perspectives: short term (to 2012); medium term (2013 – 2025); and long term (2026 – 2050).

At the national scale the problem areas of a RPO PLP include: forestation of inefficient agricultural land, improvement of the species-related and functional forest structure, intensification of the role of forest ecosystems in atmospheric carbon uptake, improvement of private forests, wood promotion and marketing, specifying and improving the relations between forestry and other economic sectors in the context of regional development, cooperation between foresters and society, recreational utilization and management of forests, cooperation between foresters and the governmental administration at various regional levels.

Polish suggestions concerning the creation of the National Forest Programme are preceded by elaborations of Regional Programmes, which fulfil essential functions in the creation of new opportunities of forestry development, and ensuring the stability of the state's ecological security.

The role of the operational programme as an equivalent to an NFP for Poland is based on the following assumptions:

⁵ Contact: Warsaw University of |Life Sciences, Faculty of Forestry, Warsaw, Poland

1. The operational programme will apply both to PGL LP (the national state forest holding) and to forests of other ownership forms, particularly private forests.
2. The preparation and execution of the operational programme in relation to the National Policy on Forests cannot be an uncritical mapping of the tasks and methods applied in the other countries.
3. A preliminary condition for creating the NFP is the diagnosis of the current and future needs of society regarding the utilisation of the forest's economic and environmental functions, including the consequences of implementing these functions by the forest economy.
4. The NFP should not be closed within a finite time frame, but should have a paced structure.
5. The NFP should predict the future importance of forests in the nation's life and the future representation of forestry in governmental structures and administration. It should create conditions for ensuring continuity in implementing the accepted concepts and activity sub-programmes.
6. Diverse environmental conditions and the spatially differentiated role of forests in the landscape, the growing scale of the threats to forests and the different expectations and needs of local societies should take into account:
 - -types of landscape, the state of the natural environment and the current and future role of forests
 - -functions of the area and the needs of the local society
 - -functional relationships with the wood industry and other wood purchasers
 - -intersectoral arrangements as an integral part in terms of the state's ecological, economic and social policy
7. Mere acceptance of the concept of sustainable forest development does not rule out future forest conflicts.
8. The National Forest Programmes in Europe have three vital weaknesses:
 - the absence of an operational definition of sustainable forest utilisation,
 - differing interpretations of the basic NFP elements by different countries,
 - the market-oriented dominance of forest economies or environment concerns especially since the last decade of the twentieth century.
9. The implementation of all forest functions at the same time in the same place is impossible. The NFP should therefore seek to answer the following questions: which functions and where and when should they be implemented?
10. A challenge for Polish forestry and the most important economic and social task for the coming decades is the participation of the forest economy in the development of villages and rural areas.

4 Science-Policy interface: what do scientists think of others and how others relate to scientists; communication between scientists and policy makers; social science and forest policy interface

4.1 Politicians, Journalists und Practitioners from a Forest Science Viewpoint. Implications for Forest Science Communication

Michael Suda and Bernhard Goodwin⁶

Abstract of Presentation

1. Scope and method of this study

Societal and natural demands for forestry are subject to constant change. This is true for different situations in history, but especially the prospect of a climate change puts pressure on the forest sector. For this reason different societal groups need knowledge about forests. This knowledge can be provided by forest scientists. Providing knowledge to the society is a central function of science in general. With scientific knowledge growing the importance of science communication is growing, too. But science communication is special to other topics of communication in various aspects: (1) Scientific results are most of the time very complex. (2) Scientists as professional knowledge-workers are not necessarily skilled communicators. (3) Scientists do a lot of communication among themselves in a sophisticated way not open to people outside their specific community.

How people behave towards other people is largely dependent on what they think about the other. The communication behaviour is particularly related to the image of the communication partner. For this reason we focus on perceptions of other societal groups. First we briefly describe the image of forest scientists found in interviews with journalists, politicians and forest practitioners. Then we focus on scientists' perceptions of the other groups and their mental model of communication. In the end we deduce solutions for forest science communication. For this study 57 in-depth interviews were conducted in 2006 equally divided in four groups: scientists, journalists, politicians and forest practitioners.

2. Scientists' failure in communication

1. Scientists are perceived as a group highly oriented toward themselves. The scientific community is standing close together and doesn't seem to be interested in communication with other groups. That

⁶ Contact : suda@forst.tu-muenchen.de and goodwin@forst.tu-muenchen.de, Chair of Forest and Environmental Policy, <http://www.wup.wi.tum.de/>, Tel: +49 8161 71 4625 / Fax: +49 8161 71 4623, Am Hochanger 13 / D- 85354 Freising.

means they neither get information from other groups nor give information to other groups. The former relates to a perceived inability of scientists to react to “real-world” problems, the latter argument is a reference to the problems of scientists to communicate in general.

2. Scientists often hide themselves behind their specific terminology. For members of a special scientific community this terminology is necessary to expedite the process of communication. It is also helpful to distinguish members of the own science discipline from members of other groups (inside or outside the scientific community as a whole). For the respondents outside the scientific community the terminology sets up a serious barrier for communications, and this seems to them, as if scientists don't want to be understood by others.

3. From the point of view of the other groups, scientists are not able to reduce complexity. As stated above science most of the time deals with complex findings. But for purposes of a successful communication the complexity of these findings would have to be reduced, so that they are accessible by others. The effect is, that actors from outside the scientific community are not able to understand the conclusions. Often even other scientists are not able to understand the complexity of certain findings.

4. Scientists think that “truth” exists and can be recognized through scientific methods. Truth is a central value to scientific ethics. Facts are considered either “true” or “false”. But the scientific code true/false is not shared by all the members of the other groups. Indeed politicians and journalists emphasize the importance of interpretation of scientific findings, while practitioners stress the applicability as their way of evaluating scientific results.

3. Scientists' perceptions of journalists

1. In the view of some interviewed scientists the main objective of journalists and the media are sensations. They hunt stories like a wolf pack its prey. This attitude reflects a basic experience: Journalists select facts according to news factors. In these factors sensationalistic attributes play an important role like surprise, damage, negativity and relevance to the readers.

2. Bad journalists are described as three monkeys: The first want's to scandalize, the second is a fool, who is not able to understand the information given to him, and the third does not listen at all. The first behaviour is described above. The second refers to the inability of many journalists interpreting scientific terminology. The third behaviour relates to the fact that journalists perceive content not as newsworthy which is judged of great relevance by scientists.

3. Good media should translate all the scientific truth to the society without an own interpretation. The reason why scientific literacy in the population is lower than it is desired by scientists is often attributed to the influence of mass media. It doesn't occur to some of the interviewed scientists, that it is hardly possible for the society at large to know a lot of details from the body of contemporary scientific knowledge.

4. Scientists expect individual journalists to ask adequate questions. They judge reporters by their observable knowledge. If a reporter doesn't seem to know enough some respondents claim to shorten the conversation and to minimize their effort, while they willingly invest their time when they perceive a journalist to be prepared well. This behaviour might be counterproductive.

4. Scientists' perceptions of politicians

1. The main criticism of scientists towards politicians is that they seem to be primarily interested in their power. The scientists often do not understand the code of political communication through power/no power and the role of politicians in the society.
2. Politicians are perceived negatively when they don't listen to scientific results or act contrary to the benefits of the scientific community. For scientists this seems as if politicians put themselves above the truth and the science.
3. Politicians are criticised by responding scientists for accepting studies or scientific results, if the arguments fit to their position, while rejecting it in contrary situations. This cherry-picking behaviour is an abuse of truth for the scientists.
4. Good politicians would ask for scientific opinion before they decide, in the eyes of scientists. Especially in matters of great risk or immediate danger scientists perceive not to be requested enough by the politicians.

5. Scientists' perceptions of practitioners

1. The system of forestry is very indolent, in the eyes of scientists. There is no reaction towards scientific results, which can be observed. If a reaction by forest practitioners occurs, there is a large time lag between the scientific findings and the reaction. This indolence of forestry makes it hard for scientist to manoeuvre it through difficult situations like climate change or changing demands to forestry by the society – as they feel obliged to do.
2. The ideal forest practitioner (1) listens to the scientists, (2) is able to understand scientific findings and (3) recognizes the relevance of the scientific results to their every day work. Compared to journalists and politicians interviewees report such a positive behaviour more frequently with practitioners. The shared education of forest scientists and forest practitioners plays an important role for this positive attitude towards those who are able to apply scientific results directly.

6. Scientists' mental models of communication

A mental model is an internal representation of a process or object in the real world. It helps people to deal with this object or process. Mental model cannot be judged in terms of congruence to their real world counterpart. They should be evaluated though the behaviour they are producing. In this way a mental model cannot be right or wrong but functional or dysfunctional. We deduce the scientists' mental model of communication to understand their behaviour better.

If we look at the model of communication from the perspective of scientists, we can see the following aspects: (1) Scientists think, that there is a great influence between media and politicians in both directions. (2) The practitioners are mainly influenced by the politicians. (3) Occasionally the practitioners follow the suggestions of the scientists.

Another perspective on communication is the desired process. In this desired process scientific experts are in the centre. Their knowledge of the truth helps to form a better world without conflicts and without power. The desired communication is only directed from scientists to the other groups.

The comparison between the two models show, that the interviewed scientists widely ignored the codes of the other groups.

7. Solutions for science communications practice

1. The first step could be a critical self reflection about the situation and the role of scientists in the society. This would lead to a more realistic expectations towards the effects of the own communication and towards the behaviour of other groups in the society.

2. Scientists should leave their own domain more often. This can happen through more direct contact with other groups. This would help them to overcome their own terminology at least while communicating with other groups who are unable to understand it. Scientists would recognize that there are other rules and codes in other subsystems.

3. Another strategy is to invite the other groups into the scientific domain more often. This would include a real dialogue between scientists and other groups with the possibility of conflict about different points of view or perceptions. This kind of conflict should not be perceived as a failure of the communication but as a integrated element of successful communication among equals.

4. The experience shows that border organisations are able to translate between the scientific community and the other groups. A border organisation is an institution with relations to different groups in society. Within such these organisations an own interpretation is coming up. That means loosing control about communication for all participating groups. But loosing control is better than no influence at all. An instance of a border organisation is a scientific research facility of public administration.

Further reading

Försterling, Friedrich (2001): Attribution: An Introduction to Theories, Research and Applications. Hove.

Galtung, J. & Ruge, M. (1974): Structuring and selecting news. In: Cohen, S. & Young, J. (ed.): The manufacture of news. Social problems, deviance, and the mass media. London. 62-72.

Gieryn, Thomas F. (1994): Boundaries of Science. In: Jasanoff, Sheila; Markle, Gerald E.; Peterson, James C.; Pinch, Trevor J. (ed.): Handbook of Science and Technology Studies. Thousand Oaks et al. 393-443.

Rogers, Everett M. (2003): Diffusion of Innovations. 5th ed. New York.

Rouse, William B., & Morris, Nancy M. (1986): On looking into the black box: Prospects and limits in the search for mental models. Psychological Bulletin 100(3). 349-363.

4.2 Needs in the scientific/policy interface from the state forestry perspective

Erik Kosenkranius⁷

Abstract of Presentation

1. Introduction

The European State Forest Association, EUSTAFOR, was established in 2006 as a non-profit international organisation to facilitate cooperation and exchange of best practices between the state forest management organisations (SFMO). The 28 members of EUSTAFOR are responsible for an annual harvest of 117 million m³ and the management of 46 million ha of public forest land. EUSTAFOR is committed to promoting research in the forestry sector and are therefore a member of the Forest-Based Sector Technology Platform. SFMO's directly invest around 35-40 Mill € into research and development projects, provide research sites and are actively involved in research via their experts.

Here the results of a survey regarding the research and development priorities of EUSTAFOR members are presented and recommendations on how to improve the policy-science interface are given. The survey was carried out in spring 2008 and the results were presented at the European Commission and FTP joint workshop on forest governance and the role of forestry research, on 19th of May 2008 in Slovenia.

2. National research priorities and development activities in SFMOs

The majority of SFMOs are involved in the set up and adjustment of national research priorities. Adapting forestry to climate change and natural hazard management appears to be the main concern of governments as well as of SFMOs. This is understandable as the issue of climate change is high on the political agenda in the EU and in international discussions. New EU renewable energy policy, especially regarding bio-energy strategy, is big challenge for the forestry sector. Therefore the research topic of efficient and intelligent methods of harvesting, transporting and utilising wooden biomass is mentioned by several SFMOs as a national priority.

Increasing wood mobilisation may lead to conflicts with biodiversity targets. To properly manage this risk applied research is needed in field of biodiversity and ecosystems management (including efficient implementation of forestry operations in compliance with EU habitat and water directives).

The development of innovative forest products for changing market and customer needs is also highly quoted in national agendas. It was highlighted by several SFMOs, the topics of social and national economy aspects of forestry (overall performance of the sector), alternative and low impact silvicultural systems, forest health and protection, yield modelling and balancing economic and ecologic demands are relevant to the whole sector.

⁷ Contact: Erik.kosenkranius@eustafor.eu, European State forest Association (EUSTAFOR); The European Forestry House, Rue du Luxembourg 66, Brussels 1000, Belgium.

3. The SFMOs indicated that they are focussed on the following research topics:

1) optimisation of timber supply and marketing, 2) forest resource development and growth improvement (including achieving additional carbon sequestration), 3) adapting forestry to climate change, 4) developing wooden biomass supply for energy production, 5) management practices to preserve biodiversity (management of NATURA 2000 areas), 6) management of water quality after forest harvest, stump removal and forest fertilisation and 7) management of mountain watersheds. Ongoing development projects are at the same time dealing with organisational development and process management, improving logistics, improving forest growth, tree breeding and introducing new monitoring and protection methods against insects and fire. Generally we can state that national priorities and SFMOs R&D activities match well (even though currently there is a lack of initiatives to develop innovative forest products).

4. Indicated caps and problems

It was indicated that the main cap is knowledge on the impact of forestry on climate change and vice versa. There is a need for assistance in selecting the right tree species and in redesign management methods. SFMOs addressed the need to have a targeted communication strategy for reporting on research activities and the ensuing results to practitioners. Sectorial R&D activities were criticized as sometimes being without sufficient interlinking. SFMOs see an internal problem with a lack of championing and implementing the research results and communicating properly the results of the implementation back to scientists as well as to politicians. Non-appropriate and insufficient know-how transfer into line organisation is very much a cultural and organisational issue – absence of necessary supportive systems and structure to transfer and implement new research results reduce the return of investments to research activities. The opportunity to implement research results in forest enterprises depends also on the quality of the research and the relation to practice. The last issue was quoted as an increasing problem by several SFMOs.

It was also highlighted that lack of political will to change existing forestry legislation, even when there exists strong scientific proof for positive changes, or on the other hand lack of interest to carry out proper impact assessments before reshaping the regulations, may lead to a decrease in credibility of policy making processes and reduce the interest to investment to R&D.

5. Recommendations

The SFMOs proposed to carry out intensive research on the EU level on the following topics:

- Forest resource development - adapting forestry to climate change,
- Commercialising non-wood forest values
- Developing new "high value" forest products and increasing the value of existing products to customers,
- Using forestry to mitigate climate change,
- Optimising the carbon balance of the forest cluster and efficient participation of forestry projects in the Emission Trade Scheme,
- Advancing knowledge on forest ecosystems and efficient protection of biodiversity,
- Technology transfer to improve efficiency of wooden biomass harvesting, transportation and utilisation.

To improve the policy-science interface there is a need to focus on integrated topics to guarantee harmonised cross-border know-how exchange. From the policy making point of view it may be valuable to publish guidelines for implementing proper forest policy/legislation impact assessment and facilitate exchange of best practises among EU members.

A recommendation was to make research programmes easier to access in areas that are relevant to practitioners, or develop new financing models for forestry applied research. Strong support was given to High level sectoral conferences, like the FTP annual conferences, with good representation of interest groups, politics and scientists.

4.3 Forest sector, forest policy and forest science – how they communicate?

Gerben Janse⁸

Abstract of Presentation

In recent years, a manifold of policy statements and scientific studies have identified several needs with regard to strengthening communication:

- First, the need for sound scientific information in forest policy deliberations.
- Second, the need to improve communication between science and policy.
- Third, the need to strengthen communication within the forest sector as well as with other sectors.

In the frame of several research projects I have been able to study these needs for strengthening communication. The approaches taken in these studies comprise questionnaires to and expert interviews with forest policy-makers *sensu lato* – i.e. bureaucracy in (inter)governmental organizations, European level forest-based industries and forestry sector interest representation organizations, and forest science.

It was shown that personal communication with peers is the most important source of information for forest policy-makers. The main problem for policy-makers in gathering information lies in the excess of available information, websites that are difficult to navigate through, and limited access to online journals and databases. As regard improving communication between science and policy, both actor groups feel that scientific information should be presented in shorter and easier to comprehend formats. They also stress that scientists should be involved more in policy advisory meetings (i.e. be invited more often by policy-makers and be more active themselves in getting involved) and that networking (i.e. personal contact) between scientists and policy-makers should be increased. There only appears to be one discrepancy between what policy-makers find important and what scientists believe is important to policy-makers. Policy-makers consider information on forest policy and forest resources most important, whereas scientists believe that information of forest ecology and management and on forest products and socio-economics is most important for policy-makers. Although scientists and policy-makers may have different opinions on some aspects of what

⁸ Contact: Dr. Gerben Janse, CEPF – Confederation of European Forest Owners, Rue du Luxembourg 66, B-1000 Brussels, Belgium, email: gerben.janse@cepf-eu.org.

is pertained by good communication between science and policy, their overall ideas are more or less the same. In addition, they both address the same issues when asked how they would want to improve communication in the science/policy interface. As the spirit is already present, the only thing missing is stronger and more continuous action.

Internal communication in the forest sector at the European (i.e. mainly EU) level is generally well developed formally as well as informally, but the desired strengthening of communication with other sectors (and the public at large) is perceived as difficult. Forest sector core actors' ideas on external communication differ. Ideas range from an instrumental approach to image improvement; being more successful at lobbying with other sectors and high-level policy-makers; up to building long lasting relations and two-way communication processes with other sectors. This makes it difficult to come to coordinated action among forest sector actors. A more active exchange of information (networking) on best practices in forest communication between national as well as European level actors and increased coordination of communication efforts is desired.

4.4 Social Sciences and forest policy interface: implementation analysis of forest programmes

Américo M. S. Carvalho Mendes⁹

Abstract of Presentation

Implementation analysis of a programme consists in two things:

- Identification of the implementation gaps (successes or failures) in the programme's own terms, that is, taking its targets and given
- Explanation of those gaps

One possible theoretical framework to explain the implementation gaps is the agency theory where the implementation process is seen as a relationship between two players:

- The principal (policy maker) who sets the targets and the programme instruments
- The targeted stakeholders who react to the programme instruments in ways that the principal cannot fully control and observe

In this kind of setting, implementation gaps can be explained as follows:

- Feasibility constraints: the instruments and the resources available to the players may not be enough to reach the targets

⁹ Contact: Faculty of Economics and Management, Portuguese Catholic University

- Targeted stakeholders' rationality constraints: the instruments may not make the stakeholders better off if they participate in the programme, compared to the situation where they opt to stay out;
- Incentive compatibility constraints: the targeted stakeholders may use the instruments in a way that is not compatible with the targets.

Feasibility constraints are the ones that are checked more often to explain implementation gaps, forgetting that the other two types of constraints may also be relevant.

Also, when feasibility constraints are considered, what is checked more often is the "amount" of resources (financial, human, etc.) made available for the implementation of the programme. What is forgotten here is to look at the interdependencies (substitutabilities or complementarities) between those instruments and to look at the adequacy of the instruments to the targets (e.g. there may be too many targets and not enough controllable instruments to meet those goals; too much emphasis on command and control instruments instead of economic incentives in a social setting where private forestry is largely predominant; no mechanisms to internalize positive forest externalities when one of the targets is to promote those externalities). In economics and in other social sciences there is research which can be useful in examining those kinds of interdependencies between instruments and their adequacy to the targets.

The analysis of stakeholders' rationality is very often missed in the explanation of implementation gaps. One relevant example of this kind of analysis is to check all the transaction costs that targeted stakeholders have to cope with in case they participate in the programme. In some cases these costs weigh more than the benefits derived from that participation and this is the reason why a programme may fail. Often those costs are not taken fully into account in the programme design. Here again, economic science may be useful for policy design.

Another example of how this kind of analysis is missed in policy design is when it does not take into account the fact that new policies or policy changes also change the targeted stakeholders' rights and duties, sometimes in an irreversible way, if they participate in the programme. Therefore, potential participants may opt to stay out of the programme in order to preserve their initial choice space. Here again Social Sciences may help in characterizing targeted stakeholders' behaviours, how their choice space changes with the intended programme and how they react to those changes.

The analysis of incentive compatibility checks whether or not the targeted stakeholders behaved according to the programme goals: What is done here more often is the "administrative" monitoring of the programme that is, checking whether or not the beneficiaries of the programme used the incentives or other instruments according to the programme rules.

What this kind of analysis misses is an "economic" monitoring of the programme, that is, an analysis of the impact of the programme in the targeted stakeholders' behaviours to check whether or not they were effectively changed by the programme in a way consistent with the targets set for the programme. Here again social sciences can help through studies on the impacts of the programme in "treatment" populations, compared to "control" populations.

5 The forest-base sector and research

5.1 Forest-based sector research and innovation need far-reaching policies

Wilhelm Vorher¹⁰

Abstract of Presentation

Forests in the European Union cover more than 170 million hectares - 42% of the land use. This means that forests in their diversity are the second largest land use category in Europe after agriculture. Europe's forests are multifunctional. They are delivering a wide range of goods and services to society. When sustainably managed, they contribute to the creation of value and to the economic prosperity of Europe.

Europe's forest-based industries very much rely on wood resources to produce building materials, boards, packaging, furniture, paper, etc., hence contributing to human welfare, literacy and education, culture and hygiene. These industries contribute to the European Gross Domestic Product by some 120 billion EUR annually.

The forest-based industries, with a production value of 365 billion EUR, give jobs to more than 3 million people in 344,000 enterprises of all sizes, ranging from global companies, to very local SMEs. Mostly, the forest products mills are located in rural areas and contribute to rural employment and livelihood.

With more than 16 million private forest owners, more than 340,000 mills, 27 national - sometimes even subnational - forest policies, the forest sector in Europe is highly fragmented. This fragmentation is a major weakness in an emerging global market.

Today, the European forest-based sector is facing increasing competition in various forms:

Our sector has to compete with overseas players – like China, India, and South America – that are quickly developing, taking advantage of lower production costs and very dynamic economic growth. Advantages which sometimes lead to less stringent requirements in terms of environment and social performance: Those regions often benefit from different forest types (for example intensive plantation), management conditions and ownership structures (large forest concessions). They enjoy climatic conditions with positive impact on annual growth, as well as better resource availability (e.g. access to energy, manpower, etc.) and lesser policy and regulatory burden. Not everything is rosy there, but all this might represent a significant competitive advantage compared to Europe.

The forest-based sector also has to compete with non-renewable raw materials. The plastic, steel, concrete, IT industries and others are heavily communicating at the detriment of the forest-based sector, even fuelling the misperceptions about deforestation and the negative environmental impacts of forest activities. To take an example, the Green public procurement policy, places much more constraints and restrictions on the use of wood than to any other competing material.

¹⁰ Contact: Chairman of EU Advisory Group on Forestry and Cork and FTP Project Director

The European forest-based sector has to compete with misleading campaigns and negative perceptions:

- There are still people who believe that deforestation is going on in Europe.
- There are still people who don't know about the efforts and commitments made by the sector as a whole to improve its environmental, economic and social sustainability.
- There are still people who don't know what certification means and stands for.
- People still believe that the industry is contributing to the destruction of the lungs of our earth.

The European forest-based industries' competitiveness is also challenged by policy developments - outside or within the EU. A few weeks ago, Russia further increased the export duties with a view to stop any export of wood by January 2009. At the same time, the ambitious policy targets set by the European Union in terms of emissions' reduction and renewable energies' share are endangering existing raw material procurement chains. Subsidies and support mechanisms are opening access to raw material, the industry needs. Biodiversity protection policies are asking for even more set aside areas in European forests.

In such a context, the responsibility of maintaining a sustainable and competitive forest-based industry in Europe depends on a series of factors that have to be secured:

1. The entire forest-based sector needs to know itself better. There is still a considerable lack of harmonised data, facts and statistics on the forest-based sector in Europe. Moreover, inventories are carried out in different ways. The social and economic contribution of the our sector and its interactions with others are hardly covered by any robust set of figures. How can we promote a sector that doesn't know itself what it does represent?

2. On a global market, the EU forest-based sector needs fair competition, both - we need a level-playing field inside and outside the EU. When policies are creating trade distortions, or treating some sectors in a discriminatory way (e.g. forest industries vs. bio energy), it forces our sector to fight for survival, rather than contribute to our overall competitiveness.

3. Finding the qualified people who want to work in the forest, in a mill or in any other part of the forest-based sector is increasingly difficult. On top of misperceptions fuelled by campaigners, young people see our sector very much as old-fashioned, low-tech and conservative. The best engineers prefer working for other sectors, where innovation does look much more "sexy". We all know that using wood requires innovation and technological progress, but we never managed conveying the message to younger generations so far.

4. An enabling policy and regulatory environment is also an indispensable pre-condition for a competitive industry that invests in its future. Short term policies and changing priorities are not compatible with a sector where trees take decades to grow and where investments are made for 30 years and more. The politicians' time - cadenced with elections every 4 or 5 years - doesn't match with 'rotation time' in forestry. Legal and political certainty must be ensured to help our sector in developing and adapting to the market needs.

Of course, forest owners and industry must not rest on their past glory. They have to invest in the future. Global competition requires the European forest-based sector to always be one step ahead. Innovation and investments would be the logic consequence of enabling policy and legal conditions, of a motivated workforce, of fair competition and of a much better knowledge-base.

What is the policy response to these challenges at EU level?

Of course, we have the Forest Action Plan. Of course, we have the more recent Communication on Sustainable and Innovative Forest-based industries that also recommends a set of actions. But besides this, and in absence of any clear mandate given to the EU on forestry, Europe's forests and related sectors are subject to a multitude of non-forest policies and regulations that impact on them. This policy fragmentation is reflected by the numerous Institutions that have more or less a say on forests and forestry. Forests in the EU are in fact not seen as a self-standing sector delivering many goods and services. They are rather as a bit of biodiversity, a bit of carbon sinks, a bit of water protection, a bit of renewable fuel for energy, a bit of raw material for goods, etc. For each of these bits, there is a policy or regulation. Nowhere - except maybe in the Ministerial Conferences on Protection of Forests in Europe - are forests addressed in a holistic manner, taking full consideration of the different interactions that are involved. Setting aside more land for biodiversity means less biomass for energy and products. Storing carbon in trees for longer periods means fewer raw materials for the economy and less growth of wood, sequestering additional carbon.

In fact, forests and forestry in Europe need a visionary and enabling policy context.

There is some light in that rather dark tunnel. And this is the Forest-Based Sector Technology Platform. This is a concrete example of a full sectoral approach, in which all interested parties have taken part, including policy makers. It gathers under the same umbrella the subnational, national and European dimensions. Its Vision 2030 was developed in a participatory way, involving and endorsed by stakeholders representing industry and research. The FTP aims to enhance funding for joint international research and innovation in the sector. First successes have already been achieved. Under the first call of the European Commission's 7th Framework Programme, the sector secured at least 45 million EUR in European funding for larger-scale projects, plus 20 million from WoodWisdom and 30 million stakeholder contribution, summarising to 100 million EUR from the first round.

With its current network of 24 National Support Groups, its Vision and Strategic Research Agenda, the FTP provides the reference at the forest-based sector level of what the EU should deliver to society at large:

- Jointly building a vision for Europe and providing for the strategy and means to get there, whilst respecting national specificities.

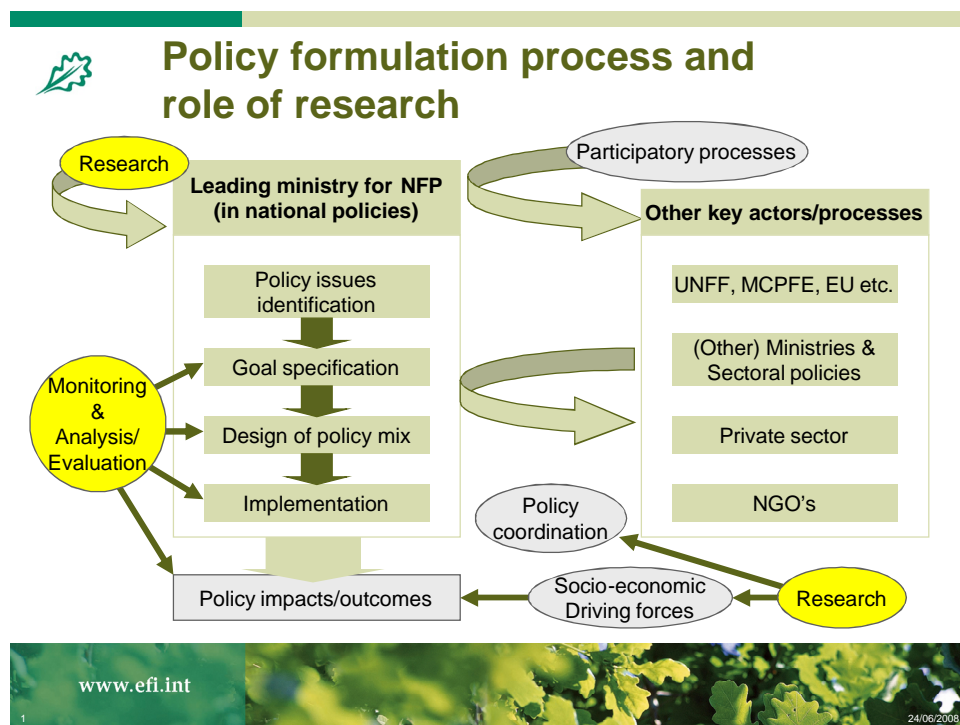
Creativity and shared commitment would then bring the forest-based sector to offer its full contribution to the European agenda and to societal well-being.

5.2 Potential contribution of research to policy formulation and implementation processes

Risto Päivinen¹¹

Abstract of Presentation

As expressed in the statement scientific community at Vienna MCPFE Summit: research should be an integral part of every phase of policy formulation and implementation processes. It includes many types of research, such as trend analysis and foresight studies on future 'business environments' and preparations by forest sector to those, ex-ante analysis of various policy options and trade-offs between policy goals. Research should also develop methodologies and carry out monitoring of the effectiveness of implemented policy instruments. Research community may provide a neutral platform for facilitation of participatory processes between policy-makers, stakeholders and scientists. In addition, the analysis of cross-sectoral impacts of policies are of interest for the scientific community (see figure below).



An essential element in systematic approach in promoting for efficient science / policy interface is 'policy-relevant research agenda'. Here are four main phases in developing the agenda:

1. Identifying policy-relevant topics and questions where science can contribute
2. Analyzing existing scientific information regarding those topics
3. Defining the gaps between knowledge demand and existing information supply
4. Formulating research topics based on identified gaps

¹¹ Contact: Risto Päivinen, European Forest Institute, risto.paivinen@efi.int.

If we look at three policy processes: EU-Lisbon strategies, EU forest action plan, and the MCPFE process, we can make following observations:

Forest Based Sector Technology Platform has developed policy relevant 'strategic research agenda' at European level (2005) and further at national level in several countries. The aim of the research is to contribute in achieving strategic goals of EU – competitiveness and sustainability – within forest sector. The four steps above have been taken in the process.

The EU Forest Action plan includes different types of actions; actions in policy development, communication, research, etc. The steps from policies to research have been considered, but the different four phases are not as visible as in the case of FTP.

In the MCPFE process, at declaration level, the signatory countries commit themselves to “take effective measures ... to better use scientific knowledge and research results relevant to forests and the forest sector as a sound basis for decision making” (Warsaw Declaration 24.). The implementation of Declaration takes place through work programme, which indeed includes some research topics, but the approach cannot be said to be systematically. Also the implementation of that research often requires voluntary contributions from the participating organizations and countries.

6 Possible Recommendations for improving the Science / Policy interface

Some recommendations on how to improve the science / policy interface are summarized below. Those are drawn from the abstract of presentations provided by the invited speakers of the workshop organised by the European Commission and the Forest-Technology Platform.

Part 1: Forms of coordination, cooperation and communication in forest governance:

1. Use forms of coordination to mutually adjust common aims of science and & 'forest' policy; positive coordination involves establishment of networks between them; for forest policy in European this would imply the finding of an agreement on overall goals.
2. Use forms of co-operation where each community's (different) goals are respected, but mutual interests could be invoked and concerns about future could be shared. Co-operation could serve to address shared concerns in the future e.g. biodiversity management etc.
3. Be aware that there is no linear relationship between the science / policy interface: Science does not produce ready-made products, which can then be used by policy-agents; Science and policy together are involved in the production of meaning. Put more attention at the two-way communication process as between both science and policy are involved in the the production of meaning;
4. Progress towards governance of sustainability may only come from a better linkage between scientists and decision makers at various levels. The integration of science and policy making is the right direction, under two conditions required:
 - a rigorous approach of decision;
 - a right balance (difficult to find) between: 1. Engagement of scientists in supporting decision (limit: stakeholders) and; 2. An open minded policy system (limit: control through funding).

Part 2: NFPs and the science / policy interface:

1. Involve scientists in the respective NFP process from beginning till the end; they can for example contribute in evaluation, design of follow-up indicators and forecasting activities.

Part 3: Communication between scientists and policy-makers:

1. Scientists should critically self-reflect upon their role in societies. This would lead to a more realistic expectations towards the effects of the own communication and towards the behaviour of other groups in the society.
2. Scientists should leave their own domain more often. This can happen through more direct contact with other groups. This would help them to overcome their own terminology at least

while communicating with other groups who are unable to understand it. Scientists would recognize that there are other rules and codes in other subsystems.

3. Invite other groups (policy-makers, journalists, practitioners) into the scientific domain more often. This would include a real dialogue between scientists and other groups with the possibility of conflict about different points of view or perceptions. This kind of conflict should not be perceived as a failure of the communication but as a integrated element of successful communication among equals.
4. The experience shows that border organisations are able to translate between the scientific community and the other groups. A border organisation is an institution with relations to different groups in society. Within such these organisations an own interpretation is coming up. That means losing control about communication for all participating groups. But losing control is better than no influence at all. An instance of a border organisation is a scientific research facility of public administration.
5. To improve the policy-science interface there is a need to focus on integrated topics to guarantee harmonised cross-border know-how exchange. From the policy making point of view it may be valuable to publish guidelines for implementing proper forest policy/legislation impact assessment and facilitate exchange of best practises among EU members.
6. Make research programmes easier to access in areas that are relevant to practitioners, or develop new financing models for forestry applied research.
7. Give strong support to High level-sectoral conferences, like the FTP annual conferences, with good representation of interest groups, politics and scientists.
8. Make excess of information available to policy-makers (websites that are difficult to navigate through, and limited access to online journals and databases)
9. Scientific information should be presented in shorter and easier to comprehend formats.
10. Involve scientists should more in policy advisory meetings and increase networking (i.e. personal contact) between scientists and policy-makers.
11. A more active exchange of information (networking) on best practices in forest communication between national as well as European level actors and increased coordination of communication efforts is desired.
12. In involve scientists both from the economic and social sciences for the implementation analysis. An ex-ante analysis is understood as improving a stakeholder support.

Part 4: Forest based sector and research:

1. Better knowledge of the entire forest-based sector needed. There is still a considerable lack of harmonised data, facts and statistics on the forest-based sector in Europe. Moreover, inventories are carried out in different ways. The social and economic contribution of the sector and its interactions with others are hardly covered by any robust set of figures.

2. The EU forest-based sector needs fair competition (inside and outside the EU). When policies are creating trade distortions, or treating some sectors in a discriminatory way (e.g. forest industries vs. bio energy), it forces the sector to fight for survival, rather than contribute to the overall competitiveness.
3. Finding the qualified people who want to work in the forest, in a mill or in any other part of the forest-based sector is increasingly difficult. On top of misperceptions fuelled by campaigners, young people see our sector very much as old-fashioned, low-tech and conservative.
4. Create an enabling policy and regulatory environment as pre-condition for a competitive industry. Short term policies and changing priorities are not compatible with a sector where trees take decades to grow and where investments are made for 30 years and more. The politicians' time - cadenced with elections every 4 or 5 years - doesn't match with 'rotation time' in forestry. Legal and political certainty must be ensured to help our sector in developing and adapting to the market needs.
5. Develop a 'policy-relevant research agenda' for the science / policy interface that applies a systematic approach. Here four steps outlined for reach such an agenda:
 - a) Identifying policy-relevant topics and questions where science can contribute
 - b) Analyzing existing scientific information regarding those topics
 - c) Defining the gaps between knowledge demand and existing information supply
 - d) Formulating research topics based on identified gaps