

T. Tuomasjukka
(ed.)

Forest Policy and Economics in Support of Good Governance



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Tuomasjukka, Tomi (ed.)

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Foreword

Ilpo Tikkanen

European Forest Institute

Forest-related policy issues have become ever more complex, multifaceted and are both an outcome of several underlying causes and driving forces and subject to influences of several policy sectors. If we explore this complexity from comprehensive policy perspective and try to evaluate the roots and reasons for success stories or policy failures, studying of the existing governance patterns is a useful scientific approach and framework. In addressing the dominant issues influencing forest policy arena, such as climate change, inequality and poverty, forest fires, loss of biodiversity, or forest-based sustainable development, the concept of governance has become an inevitable and overarching tool.

The employment of a broad and modern concept of governance, as fruitfully discussed in many articles of these proceedings, can also help in revealing the basic causes for policy failures, like low effectiveness and efficiency in implementation of policies or lack of relevance regarding policy aims and means. By using good forest governance as the analytical framework, policy failures can easily be ascribed to several governance-related factors, such as weak policy design processes, limited capacities in policy implementation, or lacking communication, follow-up and monitoring. These identified factors, however, contain also the ways and means towards better governance. Enhanced national, regional and international networking, partnership and capacity building are needed and science-policy-practice interaction must be strengthened in support of governance development.

These deliberations formed the basis and frame for EFI's international seminar on Forest Policy and Economics in Support of Good Governance, held in Dubrovnik, April 2009. The Seminar was built on FOPER-project and its evolving network and partnership within South-East Europe and with rest of Europe. The event for its part contributed also to the implementation of EFI's strategy in terms of capacity building, networking, science-policy interaction and advocacy in pan-European region. The event provided a beneficial platform for the dialogue between policy-makers, decision-takers and scientists, regional and international, senior and junior participants to learn from each others.

It is my pleasure to use this opportunity to warmly thank the hosts of this Seminar, both Ministry of Regional Development, Forestry and Water Management of Republic of Croatia and the Croatia Forest Research Institute for the excellent arrangements and the warm Croatian hospitality with its well-known atmosphere. I also thank the keynote speakers and all of you who made this event a success. I am thankful for the FOPER Team for your

commitment and dedication to work for future good governance in your home countries. Tomi Tuomasjukka deserves special thanks for coordinating FOPER and editing these proceedings.

Without proactive science-policy interaction there is no good governance.

Executive Summary

Governance as Choice of Policy Options

Peter Glück

BOKU, Vienna, Austria

1. Definition of “governance”

The overarching theme of the International Workshop is “Forest Policy and Economics in Support of Good Governance”. According to the United Nations Development Programme (UNDP), good governance “ensures that political, social and economic priorities are based on broad consensus in society and the voices of the poorest and the most vulnerable are heard in decision making over the allocation of development resources. It includes essential elements such as political accountability, reliable and equitable legal frameworks, bureaucratic transparency, effective and efficient public sector management, participatory development and the promotion and protection of human rights.” It may be assumed that the organizers of the workshop had this definition in mind when they planned the program. However, as the discussions revealed the participants had difficulties with the term and asked for clarification. One reason could be that the normative term ‘good governance’ begs the all-important question about good and bad to whom and to what; such questions cannot be answered by positivist science. Another reason for the confusion about the term ‘governance’ is the move from governing by government (‘old governance’) to governing by networks (‘new governance’, Kooiman 1993, Rhodes 1997, Peters 2000, Mayntz 2004). This move originates in the perceived failure of nation states’ hierarchical top-down style of policy formulation and implementation to address policy problems, characterized by complex issues and the presence of multiple actors seeking to achieve their own goals (Glück et al. 2005:53). Authority and control of social relations is increasingly exercised through non-government entities than through formal government bodies and bureaucracy, and through a reliance on self-regulation. In this sense, Eising and Kohler-Koch (2005:5) define ‘governance’ as “the structured ways and means in which the divergent preferences of inter-dependent actors are translated into policy choices to allocate values, so that the plurality of interests is transformed into coordinated action and the compliance of actors is achieved.”

In the following, I am going to adopt this definition of political science because it is not normative and avoids controversies about the right values. Furthermore, it places emphasis on preferences about goals and instruments.

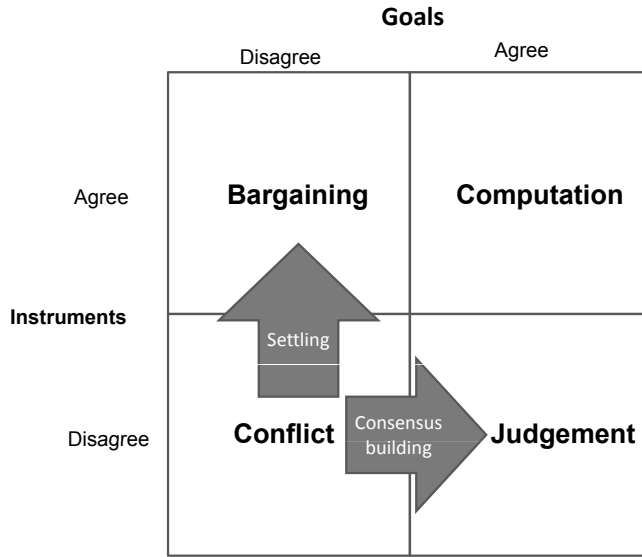


Figure 1. Decision Making-Modes According to Agreement on Goals and Instruments. Modified from Lee (1993:106)); based on Thompson and Tuden (1959).

2. Theoretical Framework

The subject of this summary for which a framework of reference is sought are the three keynote presentations of the morning session, the nine presentations in the afternoon, and the proposed major issues of forest governance in the South-Eastern region in the evening. The keynote presentations deal with sociological aspects of governance and forest policies at the European and international levels that have already been passed, or are on the agenda. The afternoon's presentations grasp quite different issues from a thematic point of view but conclude with proposed policies. Finally, the identified forest policy issues of the seven working groups refer to disagreement about goals (e.g. conflicts between institutions, conflicts within and outside the forest sector), disagreement about policy instruments (e.g. lack of education and training, lack of participatory planning methods in forestry), and disagreement about both the goals and instruments (e.g. illegal practices in forestry, restitution of nationalized forest property).

All presentations have in common that they match policy goals with appropriate policy means. The complicating factor introduced by a realistic appraisal of values and beliefs of policy-makers and target groups are the possibilities of various kinds of disagreement about goals and instruments. In Figure 1, Lee (1993:103) suggests a typology of decision-making modes based on preferences about outcomes (goals) and beliefs about causation (instruments). I am going to apply this typology for achieving a theoretically based understanding of the presented forest policy issues and their proposed policy means.

In the ideal case, all parties agree on the goals and share similar beliefs about the reasons why these outcomes are not being achieved and how to remedy the situation. Policy-making in such circumstances – Lee calls it ‘computation’ – is routinized decision-making by bureaucracy. At the other extreme, participants may disagree about both outcomes and causation – this situation is Lee’s ‘conflict’ – and the best that can be done is to use

procedural instruments to reduce the scope of disagreement and move into one of the other quadrants for resolving the conflict over goals and instruments.

Lee (1990) identifies two other possibilities, together with strategies for reaching them from the worst-case scenario. In a process, which Lee calls 'settling', participants may agree to disagree about outcomes and seek more information about the efficacy of different policy instruments in different circumstances, leading to consensus positions on causation. Often the latter are arrived at by local experiments and innovation. To continue moving forward in this situation, the main effort will have to be placed on bargaining about preferred outcomes in an overtly political context. On the other hand, a process of 'consensus-building' may be able to achieve some agreement on desired outcomes, even as participants continue to disagree about causation and hence about the relative importance of different policy instruments in the mix. Often, as Lee notes, the key move is to devise a relatively ambiguous goal or set of goals, such as sustainability, that can command wide, if shallow, assent, and then to make the goals more concrete step by step. To move forward in this situation, the policy community will have to be prepared to rely heavily on expert judgment and on consensus positions in science to substitute for the missing agreement about causation. As we shall show, all these strategies are addressed by the presentations.

3. Examples of Policy Options

In the following, I am going to allocate selected examples of the keynote presentations and afternoon presentations to one of the governance strategies in Figure 1. The examples should make clear the strength of the theoretical framework for devising appropriate policy decisions. It is left to the reader to allocate the remaining afternoon presentations and working group proposals to the appropriate quadrants.

3.1 Computation

Agreement on goals and causation is the precondition for computation. The dominant instruments are regulatory instruments and the market place for marketable goods and services. For example, if there is agreement on the detrimental effects of huge clear-cuts on steep slopes in mountainous terrain one can easily agree on regulations in the forest law that prohibit them, assuming that there is agreement on the goal of forest maintenance. However, if there is no agreement on causation, as in the case of impacts of climate change on forests at the stand level because the predictions of scenario models are uncertain, legal regulations are inappropriate.

Presentation by Ramcilovic and Mavsar delivers a nice example for computation by employing the market place. If foresters are able to transform non-wood forest goods and services into toll goods (e.g. bear watching, game hunting) consumers can be excluded from consumption if they are not prepared to pay a price. In this way problems can be diverted into a source of income.

3.2 Bargaining

Bargaining seeks compromises for competing ends. At the national level, in national forest programmes (NFPs) elected representatives from forestry and all sectors interested in forests

work together to represent the divergent concerns of their constituents. The NFP is the core instrument of new forest governance at the national level. It is a commonly agreed framework for sustainable forest management which is applicable to all countries and to all types of forests. The main instruments used by NFPs are participation of the relevant actors in the policy-making process instead of hierarchical governing; adaptive and iterative learning processes instead of long-term, scientifically poor forecasts; comprehensive ('holistic') inter-sectoral coordination of actors; and decentralization in order to facilitate the implementation of policy outputs. Many of these instruments are employed in traditional governance. However, in a new governance approach, the single-instrument approach is set aside in favour of considering a mix of mutually supportive instruments. For example, traditional inter-sectoral coordination of the kind described above takes a sector-by-sector approach. A well-designed NFP will attempt holistic coordination amongst all relevant sectors.

At the international level, there have been bargaining processes since the late 1980s targeting a legally binding instrument on forests. The result of these negotiations is the Non-Legally Binding Instrument on All Types of Forests (NLBI), adopted by the UN General Assembly in December 2007. It superseded about 270 'proposals for action' that were the output of the IPF (Intergovernmental Panel on Forests) and IFF (Intergovernmental Forum on Forests) processes. Under the overarching goal of SFM, the NLBI establishes objectives and policies to promote SFM at the international, regional and national levels. There are similar bargaining processes on pressing topics at the European level from one Ministerial Conference on the Protection of Forests in Europe (MCPFE) to the next.

Another example of bargaining may be expected if the huge number of voiceless private forest owners in the SEE region is empowered by the formation of private forest owners' interest associations (presentation by Petrovic). The powerful public forest administration and the state forest companies in the region will not be prepared to give up influence without resistance.

3.3 Collegial Judgement

Based on the results of the First Assessment Report 1990 of the International Panel on Climate Change (IPCC) that climate change is caused primarily by the emission of greenhouse gases, the international negotiations led to the UN Framework Convention on Climate Change (UNFCCC); it was opened for signatures at the Earth Summit in 1992 and entered into force in March 1994. Its goal is "stabilization of greenhouse-gas concentrations in the atmosphere at a level that would prevent dangerous atmospheric interference with the climate system." Article 2 of the convention specifically refers to adaptation, stating that "such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and enable economic development to proceed in a sustainable manner."

The Convention on Biological Diversity (CBD) was also adopted by the UN Conference on Environment and Development (UNCED) in 1992 at the Earth Summit and entered into force in December 1993. The Convention has the following three main goals: (1) conservation of biological diversity (or biodiversity); (2) sustainable use of its components; and (3) fair and equitable sharing of benefits arising from genetic resources. The main challenge involves addressing the general market failure to value biological services and will necessarily involve the provision of financial incentives and compensation. Again, agreement on the goals of the convention is accompanied by significant disagreement about means.

Presentation by Krilasevic deals with the changed role of the state in new forest governance from formulating substantive policy means to a facilitator of network governance by power sharing with civil society and regional or local networks.

3.4 Conflict

Conflicts follow from incompatible interests or values of policy actors and from disagreement about appropriate policy instruments. In democracies, conflicts are normal, ubiquitous and permanent. They follow from freedom of behaviour and are the source of social change if the conflicts can be regulated. For this purpose we return to Lee's two strategies: consensus-building and settling.

3.4.1 Consensus-building

Consensus-building will be necessary if adaptation of forests to climate change becomes an additional goal of NFPs. Compared to the general economic, ecological and social goals of SFM, which drive NFPs, combating climate change has deferred questions of the specific objectives that should be achieved. NFPs, by contrast, are specifically designed to enable participatory discussion of goals – i.e. Lee's consensus building. The ongoing discussions out of which criteria and indicators of SFM have emerged provide the best example. While there is still disagreement about the best way to implement SFM, widespread agreement on specific objectives has been achieved. Adaptation to climate-change impacts urgently needs such consensus on goals, such as targets for reducing deforestation and criteria of forest health or integrity. NFPs could produce them.

Consensus-building is also required for the implementation of environmental policies through established environmental aid transfers in order to overcome the constraints regarding governmental concern, contractual environment and building some technical capacities at the national target groups, as described in presentation by Krilasevic.

3.4.2 Settling

The issue of reducing emissions from deforestation and forest degradation (REDD) that was not included in the Clean Development Mechanism (CDM) of the Kyoto Protocol due to political and technical problems was reopened in December 2008 in Bali. The Bali Action Plan includes consideration of policy approaches and positive incentives to reduce emissions from deforestation and forest degradation. The severity of the problem is compounded by the weakness of the international forest regime and its current lack of effectiveness in combating existing drivers of deforestation: "deforestation is a symptom of a multi-causal disease for which a proven cure does not yet exists" (Streck et al. 2008:247). Thus, efforts must be directed towards obtaining agreement on the causes of deforestation. As Lee (1993:108) argues, "this strategy launches a process of bargaining and negotiation, usually by representatives of larger groups or interests." He calls this intervention method 'settling', "since the aim of the negotiation is not to achieve final resolution of conflict, but rather to hammer out joint actions within a relationship in which all parties are aware of and retain opposed interests" (ibid.).

Another example of settling delivers presentation by Secco. The forest fires issue in Mediterranean countries is characterized by disagreement on goals and instruments, represented by competing advocacy coalitions (Sabatier and Smith-Jenkins 1993); their 'policy core beliefs' impede them from reaching consensus in the short-term. However, there is the chance to agree on 'secondary aspects' such as various measures to combat fires once they have broken out if these measures serve both interests.

4. Conclusions

Based on the empirical examples of forest policies we can draw some preliminary conclusions from Lee's typology of decision-making modes to be applied to forest governance. Firstly, there is a coexistence of old and new governance, each with its own distinct sources of legitimacy. Wherever there is agreement on goals and causation, old governance has its place. Secondly, due to the adoption of SFM as an overriding goal of forest policy at the national, regional and international levels, forest policy has moved from a one-sectoral (sustained yield of timber) to a multi-sectoral policy area that requires inter-sectoral coordination, policy integration and regime interaction (Glück and Rayner 2009). The new modes of governance striving for resolution of goals and instruments have in common that they are processes. Thirdly, NFPs as key instruments of new forest governance are challenged by all kinds of constraints, e.g. the legacy of the Yugoslav Socialism era, power endowment of existing institutions, etc.; in the short- and medium-term these constraints cannot easily be overcome by participatory approaches, network governance, etc. Thus, NFPs are often not able to bring about substantive changes towards SFM, but remain symbolic. Fourthly, research and the rapid dissemination of research findings does not only facilitate agreement on causation in the context of 'settling', but may also contribute to policy learning in the context of 'consensus-building'. Finally, the state accrues the new role of a facilitator of new governance in addition to its traditional role to regulate forest issues given that there is agreement on goals and instruments. The result has been a distinctive pattern of new forest governance, in which old and new actors work side by side in new relationships, rather than one supplanting the other.

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Conclusions on Capacity Building and Governance

Tomi Tuomasjukka

European Forest Institute

The presentations and discussions of the second day of the workshop on capacity building and governance made it very clear that there is a need for studies related to good governance throughout Europe. Governance is a cross-cutting issue which is applicable to a multitude of sectors and businesses, and those professionals with an in-depth knowledge on good governance are likely to be increasingly attractive employees in the future.

More importantly it was recognized in the discussions that forest policy and forest economics are appropriate and relevant tools in enhancing good governance, both through research and education. This is likely to be related to the fact that forest products, particularly timber, are relatively valuable and their harvesting closely related to land use. These characteristics ensure that various stakeholder groups are interested in the governance of forests and trade of forest products. In simple terms, there is a lot of work to do with respect to governance in forestry. Furthermore, forest policy and forest economics intrinsically deal with issues which are in the core of good governance, like transparency, accountability and rule of law, just to mention a few.

It became clear during the discussions that other themes may also be needed for building good understanding of governance issues. Themes like management science, sociology, and ethics were identified as complementary to the forest policy and forest economics. It will be interesting to see how the curricula of relevant educational programs will develop, and whether, for example, the issue of forest ethics will gain more momentum in this context.

Exposure of students to different working environments was clearly found to be important for learning about governance related social aspects, like business culture, ethics and values. In order to achieve this exposure mobility schemes are required: traineeships, exchange, connecting the teaching to real cases of working life like industries, governments, forest administration, NGOs, international processes. When theoretical education is well connected to practical, real life applications, learning is likely to be more profound.

Raising awareness on governance is on the agenda of many international processes. Today's discussions suggest that educational programs are a useful tool for raising awareness in the long term, and can be used to reach large audiences. In building educational programs the value of training needs assessments was recognized, particularly in the sense that if the assessment addresses governance specifically, the curriculum arising from the results is also likely to do this.

Opening and Keynote Addresses

Opening Address

Biserka Šavor

Head of Directorate for Forestry
Ministry of Regional Development, Forestry and Water Management, Republic of Croatia

Distinguished Guests, Dear Colleagues, Ladies and Gentleman,

I am pleased with this pleasant duty to welcome you on behalf of the Ministry of Regional Development, Forestry and Water Management, Minister Petar Čobanković and myself.

Let me also commend the organizers for their hospitality and excellent organization.

Allow me to express my satisfaction to participate in this event, here in our beautiful Dubrovnik. By its mission the European Forest Institute is a leading research institution in Europe, which conducts and represents research processes in forestry, and it is also an initiator of the FOPER project. In close cooperation with Forest Research Institute Jastrebarsko, they gathered here regional policy makers and representatives of national and international institutions related to the forest policy and research.

In today's modern world it is crucial to recognize the important links and interactions between capacity building of forest policy, education and economic research as supporting good governance in the forest sector. The permanent, high quality education of forestry experts, such as provided through the Master's Degree Program on Forest Policy and Economics, is one way to respond to the challenges currently faced in forests and forestry.

Global economic crisis, climate change, vital need for sustainable forest management and preservation of biodiversity, are just the peak of the worldwide agenda that is troubling forestry experts. How to address to these questions and provide practical guidance for the improvement of governance in the forest sector are very important tasks of this project.

In this light, the initiative for continuity in education forest experts related to forest policy and economic research gain a special meaning.

The Republic of Croatia has recognized these issues and following the initiative and substantial contribution of Forest Research Institute Jastrebarsko, has supported the foundation of a Regional Office of the European Forest Institute for Southeast Europe in Varaždin. This office will also deal with these problems from a scientific – research aspect.

Forest Research Institute Jastrebarsko is the main link between Croatian forestry and the European Forest Institute. As a confirmation of the good work of Forest Research Institute Jastrebarsko and appreciation of tradition of competent and scientifically based forest management in our country, the Republic of Croatia has gained the honor of Chairmanship of Council of the European Forest Institute in the period 2011–2014.

The foundation of Regional Office of the European Forest Institute for Southeast Europe reveals the importance of coordination and promotion of research, scientific work and connecting of the forestry in the region. Southeast Europe countries share the same historical, political and cultural environment which is a good base for common development of the forestry in the region.

Joint action is necessary for the implementation of strategic projects such as this one, and also the development of forestry sector, science and forest management, as regards the regional development.

I believe that this conference is an indicator of the forestry sector orientation in the region, but also of the richness of the forestry, which we must continue to look after and treat with respect.

Thank you for your attention.

Objectives of the Workshop

Miroslav Benko

Forest Research Institute, Jastrebarsko, Croatia

Ladies and gentlemen, dear colleagues and friends,

On behalf of co-organizers, the European Forest Institute, as a member of its Board as well as Forest Research Institute, Jastrebarsko as a director I have this unique pleasure to welcome all of you to our country.

I would like to begin with few words about EFI which has been supporting forest policy research and research networking since its foundation. Policy analysis, now renamed as Policy and Governance, is one of the four research programmes addressing in particular forest policy issues of European significance. Recently through its FOPER-project – with an aim to strengthen forest policy and economics education and research capacities in the south-east European region this interest has been widened to a whole new region; all institutions and researchers are warmly welcomed.

By organizing this workshop here, in the region, EFI shows that this interest is even wider and in spite of significant results of the FOPER project there is so much more to do in this field. The connection between forest policy and economics and governance sometimes seems not to be very clear, but there is strong and direct connection between those two different areas of concern.

Governance – About the concept

As a concept, governance is by no means a new one, but received a variety of definitions throughout the times.

The word governance derives from the Greek verb κυβερνάω [kubernáo] which means to steer and was used for the first time by Plato.

As a process, governance consists of assuring, on behalf of those governed, a worthy pattern of good while avoiding an undesirable pattern of bad.

The role of politics is to provide a means by which the governance process operates.

Some definitions:

The World Bank defines governance as the exercise of political authority and the use of institutional resources to manage society's problems and affairs.

An alternate definition sees governance as the use of institutions, structures of authority and collaboration to allocate resources and coordinate or control activity in society or in the economy.

An important role of governance is in solving or avoiding conflicts of interests between different interest groups.

Further discussions suggest that there is a clear distinction between two concepts: governance and politics. From politics we can derive policy – e.g. as a means of enforcing of collective decisions. From governance, on the other hand we can draw the administrative or process-oriented element of governing.

Those arguments lead to the traditional separation between politics and administration, which contemporary governance practice and theory sometimes questions, premising that both governance and politics involve aspects of power.

About some of those aspects you will hear more later today and tomorrow.

What is the connection between forest policy and economics and good governance?

Forest policy research through forest policy analysis can help policy makers to formulate and implement more effective and efficient forest policy means, programmes and processes in addressing emerging societal, economic and environmental issues.

Forest economics research is even easier to connect to society's needs and allocation of resources.

In other words, forest policy and economics research can help us to improve governance as a process and also give valuable inputs to governing authorities on how to allocate resources, address society's needs and issues, coordinate society and the economy, manage conflicts, and many other things.

The objectives of this event are:

1. Present the recent developments and contributions of forest policy and economics research in support of good governance in the European forest sector;
2. Map the linkages between capacity building and good governance;
3. Link this interaction of capacity building and new governance to broader frameworks (such as National Forest Programs), processes and international forest policy processes.
4. Enhance interaction between forest science and policy actors at the European level.

Ladies and gentlemen, dear colleagues. I wish you all the success for this important event for improving the proactive interaction between science and policy, in contribution towards good governance of the European forest sector.

Thank you for your kind attention!

Governance as an Element of Global Political Agendas

Eva Müller¹ and Tomi Tuomasjukka²

¹Forest Policy Service, FAO

²European Forest Institute

1. What is forest governance?

There is no internationally agreed definition on governance. Originally, the term was understood as being almost synonymous with government or the way that the government ruled. Today, there is a broader vision of governance, which takes into consideration the new roles of civil society and the private sector. Important aspects of this new meaning of governance are multi-actor, multi-level (local, national and international) and multi-meaning (i.e. different stakeholders have different views, values and interests).

Good governance is often used to describe desired qualities of governing institutions such as transparency, lack of corruption, effectiveness and adherence to the rules of law. Recognizing that the above is something of an ideal state that can rarely be achieved under the real conditions and constraints of developing countries, the concept of good enough governance has been developed. Good enough governance is understood as a minimally acceptable level of government performance and engagement of non-state stakeholders in decision making.

In the forest sector the issue of governance is gaining importance. Different governance related problems in the sector can be listed. These include, among others: corruption, political instability, weak institutions, lack of capacity, lack of transparency and accountability, low level of motivation, unclear regulations, and conflicting laws. The impacts of these phenomena are also variable. They range from high levels of illegal activities, like illegal logging, to socio-economic and environmental consequences. In general poor governance in the forest sector leads to a negative image which in turn negatively affects the willingness to invest in the sector.

This article focuses on governance as an element of three important international forestry-related initiatives: (i) the United Nations Forum on Forests, which is the main political body in forestry at the international level; (ii) the climate change agenda; and (iii) forest law enforcement, governance and trade.

2. United Nations Forum on Forests and the Non-legally Binding Instrument on all types of Forests

In April 2007 the international community agreed on a non-legally binding instrument on all types of forests (NLBI) in the seventh session of the United Nations Forum on Forests (UNFF). The Instrument was formally adopted by the United Nations General Assembly (Resolution 62/98) later the same year. The agreement on this instrument is a historical milestone in the international forest policy process which started in 1992 from the World Summit in Rio de Janeiro.

The NLBI has three basic objectives: (i) to strengthen political commitment and action to implement sustainable forest management (SFM); (ii) to enhance the contribution of forests to internationally agreed development goals, including the Millennium Development Goals, and making special reference to poverty eradication and environmental sustainability; and (iii) to provide a framework for national action and international cooperation in forest-related issues. The NLBI is voluntary and does not bind any signatory countries legally.

Governance features prominently in all components of the NLBI. The preamble emphasizes that implementation of SFM also critically depends upon good forest-related governance at all levels. Good governance is one of the main principles for achieving SFM.

One of the 26 national policies and measures agreed in the NLBI is to

"review, and as needed, improve forest legislation, strengthen forest law enforcement, and promote good governance at all levels in order to support SFM, create an enabling environment for forest investment and to combat and eradicate illegal practices in the forest and other related sectors".

One of the means of implementation of the NLBI is to

"strengthen countries' capacities to address forest-related illegal practices according to domestic legislation, including wildlife poaching, through, inter alia, enhanced public awareness, education and law enforcement."

Forest law enforcement and governance (FLEG) is one of the cross-cutting issues that will be discussed in each session of the UNFF.

3. Climate change and forests

3.1 Funding for sustainable forest management

The Stern-Review¹ in 2006 brought to global attention the fact that deforestation is one of the main driving forces of climate change.

Deforestation accounts for up to 20% of global emissions of CO₂, making it the second most important contributor to climate change after the combustion of fossil fuels. A major part of the emissions from deforestation comes from tropical forests.

The Stern-Review, together with elaborations of the 13th Conference of the Parties of United Nations Framework Convention on Climate Change (UNFCCC) in Bali in 2007, started an unforeseen debate on how to finance SFM with the aim of mitigating climate change. As a result, funding is increasingly becoming available for forests and climate change. The latest estimations on funding needs are in the range of billions of dollars.

¹ The Stern Review on the Economics of Climate Change is a 700-page report released on October 30, 2006 by economist Lord Stern of Brentford for the British government. The review discusses the effect of climate change and global warming on the world economy.

The following chapters describe the most important funding mechanisms under development and discussion and address the specific governance aspects of each.

3.2 Reduced emissions from deforestation and degradation

Currently the concept of REDD (Reduced Emissions from Deforestation and forest Degradation in developing countries) is seen as the most promising forest related way of addressing climate change. Proponents of REDD see it as a low-cost option for reducing global emissions which could also alleviate poverty and protect biodiversity. The principle is that by putting a value on the carbon in standing trees, the current economic incentives for deforestation could be reversed.

However, there are concerns related to use of forests and forestry in the mitigation of climate change. For example, social and governance dimensions currently seem to be underestimated and some countries with high potential income from climate change mitigation score very low in governance. So, if money is made available to manage forests, how certain is it that the money will reach its intended recipients, and will the forests actually be maintained?

There are still many open questions, particularly related to REDD and governance. The most commonly cited are perhaps the following:

- How to ensure permanence of forests in the long term? Economic incentives may work in the short term, but without effective institutions, law enforcement and judicial processes it is unlikely they will work in the long term.
- How to ensure the rights of forest users? In many countries, land and forest tenure are not well defined, especially for local, forest dependent people who are the most vulnerable. In REDD there will be the additional question of who owns or has the right to the carbon stored in the forests.
- Institutional capacity in many potential REDD countries is rather low and many of those countries struggle with problems related to illegal logging.
- Who should be compensated: those who use the forest or those who own it? This comes back again to the tenure question.
- How to avoid corruption and leakages? If certain forests are protected, will the deforestation and degradation just move on to other forests?

The mechanisms for operationalizing REDD are now under development and are considered, with a reason, a great challenge.

3.3 World Bank – Forest Carbon Partnership Facility (FCPF)

The purpose of the World Bank Forest Carbon Partnership Facility is to build capacity in developing countries in the REDD efforts and tap into future positive REDD incentives. The Facility consists of two components, a readiness mechanism and a carbon finance mechanism.

The readiness mechanism assists developing countries in tropical and sub-tropical regions to prepare themselves to participate in a future, large-scale system of positive incentives for REDD. This includes (i) establishing a reference scenario for emissions from deforestation and forest degradation, (ii) preparing a national REDD strategy, and (iii) establishing a monitoring system for emissions and emission reductions.

The second component is a carbon finance mechanism for those countries that have successfully participated in the readiness mechanism. It provides positive incentive payments for REDD policies and measures.

The operating principles of the FCPF do not include any reference to governance issues. Governance issues are addressed in the readiness mechanism of the FCPF, but do not figure prominently in the readiness mechanism. The readiness mechanism is expected to involve consultative processes with civil society, indigenous peoples organizations, and the private sector. A readiness plan consists of nine major components, of which the first one is a quick assessment of land use, forest policy and governance, including an analysis of governance and legal issues related to land use pertinent to REDD actions.

3.4 UN-REDD – Development of capacity for implementing REDD and supporting international dialogue

The UN-REDD Programme is a collaborative initiative by UNDP, UNEP and FAO. Its main aim is to contribute to the development of capacity for implementing REDD and to support the international dialogue for the inclusion of a REDD mechanism in a post-2012 climate regime.

The Programme will assess a wide range of pressing issues, including how best to counter the forces that are driving deforestation and how best to ensure that the needs of local and indigenous peoples are addressed in a post-2012 climate agreement that may include payments for standing forests. Other issues that will be addressed include the development of rigorous monitoring, assessment, reporting and verification systems that can demonstrate that actual emission reductions have been achieved.

UN-REDD is working with nine pilot countries.

- Africa: Democratic Republic of Congo, Tanzania, Zambia
- Asia-Pacific: Indonesia, Papua New Guinea, Vietnam
- Latin America and the Caribbean: Bolivia, Panama, Paraguay

The UN-REDD Programme has developed Operational Guidance on the Engagement of Indigenous Peoples and Other Forest Dependent Communities. It is intended to inform the design, implementation, and monitoring and evaluation of UN-REDD Programme activities at the global and national level, which may impact upon the rights and livelihoods of Indigenous Peoples or other forest dependent communities.

The UN-REDD Programme Policy Board has decided to establish a Civil Society Advisory Group that may, among other issues, provide advice on how to operationalize governance reforms in programme countries.

In a number of the UN-REDD programme countries, governance and FLEG issues have been recognized as an important contributor to actually achieving reduction of emissions. For example, in Indonesia the Government seeks to ensure that REDD activities support on-going improvement in forest governance. These include combating illegal logging and promoting SFM.

In Vietnam, the UN-REDD activities include identification of opportunities for linkage with initiatives to reduce cross-border flow of illegal timber, including a review of progress in FLEGT/FLEG (see sections 3.5 and 3.6) and identification of gaps as well as organization of workshops to identify opportunities for mutual support

3.5 EU FLEGT Action Plan

The EU FLEGT (forest law enforcement, governance and trade) Action Plan is an EU contribution to addressing illegal logging with emphasis on trade. The formal action plan

was enacted by the European Council in 2003. The plan aims at improving governance and capacity building in timber producing countries, as well as regulating public procurement and private sector purchasing policies in timber consuming countries.

The aims relate very strongly to governance. They include issues like strengthening land tenure and access rights, strengthening stakeholder participation, increasing transparency, reducing corruption, engaging the private sector in combating illegal logging, and addressing the financing of violent conflict.

The main instrument of the FLEGT Action Plan is a Voluntary Partnership Agreement (VPA). A VPA is a binding agreement between the EU and a Partner Country by which both parties undertake to work together to support the aims of the FLEGT Action Plan and to implement a timber licensing scheme. VPAs aim to contribute to timber-producing countries' commitments to promote SFM by supporting improvement in forest law enforcement and governance.

3.6 FLEG Initiative

FLEG (forest law enforcement and governance) is an initiative coordinated by the World Bank since 2001. The FLEG work focuses on regional political processes, ministerial declarations and action plans. Its most important achievement to date is likely the ministerial declaration of the Bali 2001 meeting, which was the first high-level meeting ever to identify and condemn illegal logging. Since this East Asian conference, similar work has been facilitated in Africa, Europe and North Asia, the Amazon region and Central America.

In 2006, the World Bank² published a report that takes stock of five years of work on forest law enforcement and governance. Some of the main messages related to governance are:

- Weak governance is not a problem of the forest sector alone and cannot be solved by the forest sector alone. Therefore, governance issues must be addressed in a broader way.
- Visible short-term impacts in forest law enforcement are often needed to create and maintain a momentum, but the underlying governance problems need longer-term solutions.
- For effective improvement of forest law enforcement and governance it is not enough to strengthen the enforcement side, but also the laws and policies that form the basis for enforcement.

4. Research needs

In the context described briefly above, there are several issues which may be worth exploring further through research. Some key items are listed below for the consideration of the scientific community.

First of all, there is no internationally agreed definition of governance or of good governance. While these concepts are used frequently in daily discussions, interpretations of their meaning may vary widely. There may be value in developing a common standard which is accepted worldwide, although this may be difficult to achieve for political reasons. The standard would most likely have to be voluntary in nature.

² The World Bank. 2006. Strengthening Forest Law Enforcement and Governance. Addressing a Systematic Constraint to Sustainable Development. World Bank, Washington. Report no. 36638-GLB

Related to this, we would also need a set of agreed indicators to be able to monitor progress on improving governance, especially in view of the international initiatives mentioned before. There may also be merits in further exploring the concept of good enough governance, for example, by identifying the minimum criteria countries would have to fulfill.

Another, more obvious line of thought is: what can we learn from FLEGT for REDD on governance issues? It is rather important to avoid reinventing the wheel in the forthcoming engineering of REDD mechanisms. For example the multi-stakeholder processes are a common feature present in many other processes and should be looked upon as a bank of lessons learned. Also, the open questions related to REDD, listed earlier, are all rather important research issues. FAO and ITTO recently published a policy brief³ which discusses the possible links between FLEGT and REDD, which could be used as a basis for further research.

A third important issue is how the international initiatives can be integrated into policy processes at the national level, especially national forest programmes (NFPs).

Much research will be needed to address all of these issues.

3 FAO/ITTO. 2009. Forest governance and climate-change mitigation. Policy brief. FAO, Rome

Preparing for the 22nd Century: Anticipating Surprise and Planning for Uncertainty

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PUZZLES



- The world was a set of puzzles that could be solved with enough information.
- Science necessary to create knowledge to solve puzzles -
 - “pure science” – expanding knowledge within an area
 - “applied science” – using knowledge to solve a problem

Natural Resources

- Solving puzzles meant that it was possible to manage and control the future – choose desired future conditions and develop strategies for achieving them.
 - Equilibrium
 - Stability
- Solved puzzles created social conditions of –
 - Security
 - Predictability

Professional Puzzle Solvers

- Forestry and natural resource management professions evolved as knowledge of how the world worked increased and formal knowledge was valued over experiential understanding.
- Education – one-way street – ‘teachers’ and ‘learners’ – exams test students’ ability to remember ‘facts’ and apply them to practical problems.



22nd Century?

- Embrace *Uncertainty*.
- Prepare for *Change*.
- Anticipate *Surprise*.
- *Interrogate* Knowledge Claims.
- *Deliberate* to Develop Judgment.
- *Legitimacy* is an emergent process.
- *Accountability* is system characteristic.

From Puzzle to

mystery

Malcolm Gladwell, Open Secrets: Enron, intelligence and the perils of too much information. The New Yorker, 1/8/07, 82 (44) 44-53.

Unraveling Mysteries

- Solving puzzles requires good information *producers*.



- Unraveling mysteries depends upon the skills and judgments of the *receivers*.

Public Problems as Mysteries -

- GOOD GOVERNANCE
- Global Climate Change
- Sustainability
- Health
- Sustainable forest management
- Environmental quality

More information is not the main problem –

Analyzing, interpreting and transforming information into understanding that can inform action under uncertainty is the problem.

NEW MODES OF GOVERNANCE

● POTENTIALS

- INSTITUTION BUILDING
- DURABLE AND ADAPTIVE CHANGE
- COMMUNICATIVE ACTION AND PUBLIC JUDGMENT

● PITFALLS

- GRIDLOCK AND CONFLICT
- COMMODIFICATION AND MONETARIZATION
- TECHNOCRATIC DOMINATION

INSTITUTIONS

● Social Institutions consist of --

- VALUES –
 - ARE DISCOVERED, NOT HELD
- NORMS –
 - REALIZED THROUGH CHOICES AND DECISIONS
- RULES –
 - AGREED UPON WAYS OF ACTING
- PRACTICES –
 - ROUTINES, EVERYDAY BEHAVIOR

NEW MODES OF GOVERNANCE

● POTENTIALS

- INSTITUTION BUILDING
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- GRIDLOCK AND CONFLICT
- COMMODIFICATION AND MONETARIZATION
- TECHNOCRATIC DOMINATION

Civic Friendship

In Book 8 of the Nicomachean Ethics,
Aristotle says
that

“Friendship holds political communities together, and law givers apparently devote more attention to it than to justice.”

Civic Friendship - Concord

- This civic friendship Aristotle calls concord, the goodwill and mutual affection that makes each citizen enter sympathetically into the concerns of his fellow-citizens and willingly exert himself on the whole community’s behalf.
- Modern liberalism tries largely to dispense with such moral and emotional supports to civic unity, but our civic life is in danger of fragmentation in the absence of any serious attention to cultivating concord.

Policy Process Typology	Awareness and Intentionality	
Initiator for policy/decision process	Conscious <i>(rational actor)</i>	Unconscious <i>(civic friendship)</i>
Exogenous	<i>Designed according to pre-existing institutional rules, norms, and discourse</i>	<i>Issue or Event creates forum for collective dialogue and search for concord</i>
Endogenous	<i>Problem-centered deliberation by experts and public</i>	<i>Generative politics creates a community of inquiry and social learning</i>

Policy Process Typology	Awareness and Intentionality	
Initiator for policy/decision process	Conscious <i>(rational actor)</i>	Unconscious <i>(civic friendship)</i>
Exogenous	<i>Puzzles</i>	
Endogenous		<i>Mysteries</i>

Anticipate Surprise

- Animation of actors arises from civil society
- Civic friendship defines relationship of actors
- Concord is the desired outcome
- Authenticity of actors (vs stakeholders)
- Context and history
- Culture and Identity

Governance and Uncertainty

- Governing capacity emerges from cultural practices
- Discourse of concord creates collective will
- Mutual dependence defines policy community
- Community of Inquiry emerges from mutual dependence, desire for collective action, and value of concord
- Social learning and reflexivity

GOOD GOVERNANCE

Based on understanding of mutual interdependence?

OR

Conscious regulation of 'rational' individual and social action?

GOVERNANCE

- Imagine as an assemblage of social practices
- Principles for conscious policy derive from practices of civic friendship
- Recognition of variety of social practices expand rules and norms, and thus support institution building
- Creativity through generative politics informs formal policy/political processes
- Institutions shaping individual intentions through discourse on practices, rules, norms, values

Mystery

New principles of governance –

- **participatory**
- **iterative and adaptive planning**
- **cross-sectoral collaboration**
- **accountable expertise**
- **multi-level coordination**

Surprise and Uncertainty – necessary elements of “Good Governance”

- **Sources of creativity and complex design**
 - Ecological design – principles of complex living systems
 - Political design – anticipatory policy institutions
 - Social design – strong civil society institutions

Contribution by the MCPFE to Good Forest Governance in the Pan-European Region

Malgorzata Buszko-Briggs

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1. Good forest governance

There are many ways to define and interpret the concept of governance. The general notion of governance has been defined by Mayers et al. (2006) as:

“the traditions, institutions and processes that determine how power is exercised, how citizens are given the voice, and how decisions are made on issues of public concerns.”

Pierre and Peters (2005) argue that:

understanding governance is basically a matter of understanding the nature of state-society relationship in the pursuit of collective interest.

Many aspects of governance affect forests, but only some of them can be said to be forest governance.

Governance has emerged as an important theme within the global forest discussion since the early 1980s along with other important themes such as biodiversity and sustainable development. In many parts of the world in the last 10 to 15 years forest governance appeared as a result of debates on corruption and illegal logging, globalisation, decentralisation, and market liberalisation.

Although the concept of forest governance still has different meanings for people, a shift in the paradigm of governance is observed: from a ‘top-down’ and a ‘command and control’ approach to ‘bottom-up’ and multi-structured, multi-actor and multi-level governance and policy making, network-like arrangements of public and private actors, public-private partnership, etc. Good governance is linked with the issues of relationships, rights, responsibilities and incentives among actors and on how forests are managed and used. It can also be achieved at different levels: local, national, regional or global.

In the pan-European region forest policy has been a matter of national responsibility and sovereignty. However, the European forest sector is endowed with a rich infrastructure of institutional frameworks and processes, which operate at the regional or sub-regional levels and contribute to forest policy development and its implementation.

Those initiatives, processes and institutions, including EU institutions (Forest Standing Committee, Council Working Party on Forestry), the FAO European Forestry Commission, the Timber Committee of the UNECE, and the Ministerial Conference on the Protection of Forests in Europe, have been created over the course of time due to the needs for forest protection and management of forests, information needs or to improve implementation.

In this paper, I will focus on the MCPFE process as a regional forest policy framework and a regional approach to improve forest governance in Europe. I will describe the MCPFE work and process in relation to some main characteristics of governance: participation and cooperation as well as the policy-science interface.

2. Justifications for regional approach to improving forest governance

Regional cooperation provides many possibilities for countries to strengthen their forest governance. Here are a few examples:

National – regional perspective:

- Many forest issues cross national boundaries e.g. forest fires, forest insects and disease, and forest products trade. It is easier to deal with them and recognise them at the international level.
- Countries can make joint efforts to pool resources to address problems that are too costly for one country alone.
- Countries can improve knowledge and capacity for action and create synergies by sharing information, experience and expertise e.g. through research networks or policy deliberations.
- Regional groups may carry more political and economic weight than individual countries.

Regional – global interface:

- Countries in a region are more likely to have common interests and therefore reach consensus on controversial policy issues (difficult to agree on a global level).

From the MCPFE experience, one of the most important benefits of regional cooperation is sharing experiences among countries and finding common solutions to equal challenges and opportunities.

3. The MCPFE process as a platform for regional forest governance

3.1 MCPFE in brief

The Ministerial Conference on the Protection of Forests in Europe (MCPFE), launched in 1990, provides a regional policy framework on forests and forestry in Europe. It involves 46 European countries and the European Community as signatories and around 40 organisations as well as countries from other regions as observers. It is a voluntary and non-institutionalised platform for dialogue and decision making on forest issues at the political level with the aim to protect and sustainably manage forests. The MCPFE also provides a forum for interaction between the ministers responsible for forests and the public, non-governmental and intergovernmental organisations. The involvement of stakeholders and the public is a fundamental principle of the MCPFE process which influences its decisions.

3.2 Characteristics of the MCPFE regional cooperation

Regional cooperation within the framework of MCPFE can be characterised as follows:

- The work of the MCPFE reflects political priorities;
- Focus is on activities with adding value at the pan-European level;
- The MCPFE has a tradition for transparency and flexibility with regard to developing, implementing and reporting on political decisions;
- The MCPFE contributes to the implementation of forest related global commitments and the achievement of relevant global goals;
- MCPFE works in close collaboration and partnerships with forest related institutions, processes and initiatives at global, regional and sub-regional levels;
- The work of the MCPFE builds on relevant scientific knowledge and a strong science-policy interface.

In summary, the cooperation aims at having a regional policy framework on forests and forestry in Europe, while ensuring participation and transparency. The collaboration is voluntary and non-legally binding and is not institutionalised.

3.3 Major policy achievements on sustainable forest management in Europe MCPFE input to regional forest governance

As a result of the MCPFE, the pan-European region has a common view on the principles and practice of sustainable forest management, which is comprehensive and balanced. The provisions of the MCPFE have been incorporated into national and local law and policies in European countries. Practice and institutions and results are monitored according to a common conceptual framework at both national and regional levels. Several policy concepts and tools have been developed at the pan-European level.

Concept of sustainable forest management

After the Rio Summit the pan-European region responded to the global discussion on sustainable development by defining and promoting sustainable forest management (MCPFE 1993). At the MCPFE conference in 1993 the countries in Europe agreed that:

‘sustainable forest management’ means the stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfil, now and in the future, relevant ecological, economic and social functions, at local, national, and global levels, and that does not cause damage to other ecosystems.

This concept was further developed through other political commitments, resolutions and declarations, including the policy guidelines for the sustainable management of forests in Europe (MCPFE 1993), and is accepted by many other organisations in Europe as a conceptual basis for their activities.

The concept of sustainable forest management in Europe also embodies forest protection¹, reforestation and afforestation², and degradation³. In this context, the MCPFE explicitly

¹ MCPFE, Helsinki Resolution 1, General Guideline 6 (MCPFE 1993)

² MCPFE, Helsinki Resolution 1, General Guideline 8, Future Action 14 (MCPFE 1993)

³ MCPFE, Helsinki Resolution 1, General Guideline 1 (MCPFE 1993)

also recognises the interlinkages with the commitments expressed in the UN Framework Convention on Climate Change and its Kyoto Protocol⁴.

Criteria and indicators for sustainable forest management

Six criteria for sustainable forest management and a set of associated indicators were politically agreed in Europe in 1998 (MCPFE 1998). The criteria and indicators aim to provide guidance for developing policies and to assess progress towards sustainable forest management. The indicators were further improved and endorsed by the ministers as 'Improved Pan-European Indicators for Sustainable Forest Management' in 2003 (MCPFE 2003a). They have been used as a basis for information collection, analysis and reporting at the national and regional level, most recently in the report State of Europe's Forests 2007 (MCPFE 2007a).

Operational level guidelines for sustainable forest management

A framework of recommendations for sustainable forest management for practical use on a ground level was developed and endorsed as the Pan-European Operational Level Guidelines for Sustainable Forest Management (PEOLG) (MCPFE 1998). These guidelines comprise Guidelines for Forest Management and Planning and Guidelines for Forest Management Practices.

Guidelines for Afforestation and Reforestation

The MCPFE and the Pan-European Biological and Landscape Diversity Strategy (PEBLDS) developed Pan-European Guidelines for Afforestation and Reforestation with a special focus on the provisions of the UNFCCC. The Guidelines were adopted by the PEBLDS Bureau on behalf of the PEBLDS Council on 4 November 2008 and by the MCPFE Expert Level Meeting (ELM) at its meeting on 12–13 November 2008. The Guidelines can be used as a set of recommendations for consideration in afforestation and reforestation programmes that aim *inter alia* at carbon sequestration and reduction of CO₂ emissions, including woody biomass production.

Common approach to national forest programmes in Europe

An MCPFE approach to national forest programmes in Europe has been politically agreed⁵. There is a common understanding among the European countries on national forest programmes as participatory, holistic, inter-sectoral and iterative processes of policy planning, implementation, monitoring and evaluation at national and/or sub-national level. National forest programmes are frameworks for continuous work towards the further improvement of sustainable forest management at the national level and for cross-sectoral coordination, and as a means for coherent implementation of forest related international commitments, including the UNFCCC, CBD, UNCCD and the UNFF commitments.

⁴ MCPFE, Vienna Resolution 5 (MCPFE 2003d) and Vienna Resolution 4, Annex 1, (MCPFE 2003c)

⁵ Annex to MCPFE Vienna Resolution 1 (MCPFE 2003b)

Sustainable forest management and ecosystem approach

Following a dialogue between the European forest and biodiversity sectors to clarify the conceptual basis of the ecosystem approach in relation to sustainable forest management, it was agreed that the pan-European concept of sustainable forest management is consistent with the application of the ecosystem approach (as defined by CBD) to forest ecosystems in the pan-European region. The MCPFE tools⁶ are considered as appropriate for implementing the ecosystem approach in Europe's forests⁷.

Regional-global interface: contribution to the NLBI

The pan-European process is a regional contribution to the implementation of global commitments, including the Non-legally Binding Instrument on all Types of Forests (NLBI). The main purpose of the NLBI is to strengthen the political commitment and action at all levels to implement effectively sustainable management of all types of forests and to achieve the shared global objectives on forests. Forty-five commitments out of 60 operational paragraphs of the NLBI are of full relevance to the MCPFE. Of these 45 fully relevant commitments, the MCPFE already contributes to the implementation of 37 commitments, through its ministerial declarations and resolutions.

4. Science-policy interaction in the MCPFE

One of the main attributes of the MCPFE has been to promote a structured dialogue and interaction between policy making processes and the science community. Mechanisms for this purpose include joint policy events and workshops, and they are included in the MCPFE Work Programme.

Several MCPFE commitments address science-policy interaction specifically. For example, in the Vienna Declaration (MCPFE 2003a) the ministers committed themselves to making forest related decisions based on science and taking measures that strengthen, support and increase research.

At the last Ministerial Conference in 2007, Warsaw, Poland, ministers committed themselves to:

take effective measures to improve understanding between policy makers, practitioners and the scientific community in order to better use scientific knowledge and research results relevant to forests and the forest sector as a sound basis for decision making” (Warsaw Declaration, 2007, §26) (MCPFE 2007b).

Multi-stakeholder dialogues, arranged at both the Vienna and the Warsaw Ministerial Conferences, have also provided for a stronger science-policy interface. At these conferences, the European Forest Institute (EFI) acted as focal point for the global science community (representing also IUFRO, IIASA, UNU and Bioversity International). The importance of science and capacity building for knowledge-based, inventive formulation of forest policy and its successful implementation was a main message stressed by the scientific community at these events.

⁶ The MCPFE Work Programmes, the Framework for Cooperation between the MCPFE and the Environment for Europe/PEBLDS, national forest programmes, criteria and indicators for sustainable forest management and PEOLG

⁷ Joint position of the MCPFE and the E/E/PEBLDS on the pan-European understanding on the linkage between the ecosystem approach and sustainable forest management, 2005 – 2006

At the Warsaw Conference in 2007 the ministers also expressed their priorities on research needs and agreed to:

promote research, especially on the role of forests in climate change mitigation, adaptation of forests to climate change as well as the use of wood and biomass, the relationship between forest and water and functioning of forest ecosystems.

5. New challenges and new developments in the MCPFE process

The severe consequences of climate change and its pressure on forests require robust political solutions and effective means. Policies and policy instruments should be fine tuned to respond to increased disturbances (e.g. rapid changes like storms, insect infestation, fire risk, or gradual ecosystem changes), to increased demands on forest management practices and on forest owners (e.g. issues such as ecosystem adaptation, provenance choice of species, damage risk control), to deal with impacts of globalisation and impacts on societal benefits and provisions of forest services (e.g. forest resource use, recreation, protection, welfare), to manage issues arising from urbanisation and demographic changes and their pressure on forests, as well as demands for alternative energy (e.g. issues related to land-use changes and its impact on forests and sustainable forest management), and finally governance challenges (e.g. local-global connectivity, participation, actively and effectively shaping policies on emerging secular issues).

Over the last 15 years remarkable progress has been made in developing a conceptual frame for sustainable forest management in the pan-European region. However, this frame of declaratory instruments may not be strong enough for effectively addressing the new challenges for European forests and the forestry sector.

At the last Ministerial Conference held in Warsaw in November 2007 several ministers and heads of delegations argued that it is time to consider new and innovative forms for cooperation in order to meet challenges ahead. As a consequence, the ministers decided on two important actions:

1. To carry out an external review of the MCPFE process by the sixth ministerial conference. The review was recently initiated and the main focus is set on the relevance, effectiveness and efficiency of the MCPFE and its work.
2. To explore the potential for a legally binding agreement on forests in Europe, as one option for future cooperation. As a follow up of this proposal, the MCPFE has established a working group on exploring the potential added value of and possible options for a legally binding agreement on forests in Europe.

The scientific community participates in both ongoing activities, which is worth noting at this forum: discussing today contributions of science for better forest governance. Results of both the MCPFE external review and the working group will be delivered in the fall this year, and will provide a basis for a discussion and decisions on the role and strategic direction of future work of the MCPFE.

6. Conclusions

1. Good forest governance should use the research/science input;
2. Policy-science interface is one of the principles of the MCPFE and it will continue;
3. Regional cooperation in Europe improves forest governance;
4. Challenges and emerging issues that affect forests in the Pan-European region call for revisions and adaptation of cooperation and improvement of governance. MCPFE contributes to this through review and work on exploring legally binding agreements options and research community provides input to both activities.

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**Recent Contributions of Forest Policy and Economics
towards Good Forest Governance**

Development of Private Forestry in Southwestern Europe: the Role of Forest Owners' Associations

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RELEVANCE OF PRIVATE FORESTRY

• Distribution of forest landownership in 1995:

- Private (individually owned): 93,8%
- Private (community owned): 5,4%
- Public: 1,2%

(Source: Mendes, own estimation)

DYNAMICS OF PRIVATE FORESTRY

- In the last 150 years **forest land tripled**, almost entirely as a result of the individual initiative of private forest owners:
 - 1867: 1 240 000 ha
 - 2005: 3 412 300 ha

DYNAMICS OF PRIVATE FORESTRY

- **Main driver - Increase in market demand:**
 - Cork: stoppers for wine bottles
 - Pine: wood for construction
 - Eucalyptus: pulpwood

DYNAMICS OF PRIVATE FORESTRY

- **Main supporting factors:**

- Very little role played by forest policy: almost no incentives for private forestry (started in the 1980s)
- Abundance of cheap labour in rural areas until the 1950s
- Complementarities with agriculture

FOREST POLICY

- **Bad governance:**

- For most of the 150 years, forest policy and the Forest Services have focused their attention mostly on **public forests**, or looked at private forests as if they could be promoted through **direct public intervention** instruments

FOREST POLICY

- **Why? “Path dependence”:**
 - **Initial missions** of the Forest Services (created at the end of the 18th century):
 - protect and expand public forests
 - Afforestation of private land through direct public intervention

FOREST POLICY

- **“Lock in factors”:**
 - Type of education of foresters: no training to deal with private forestry
 - Authoritarian political regimes
 - No demand for public intervention from private forest owners
 - No interest of forest industries in the collective organization of forest owners

CRISIS SINCE THE 1950s

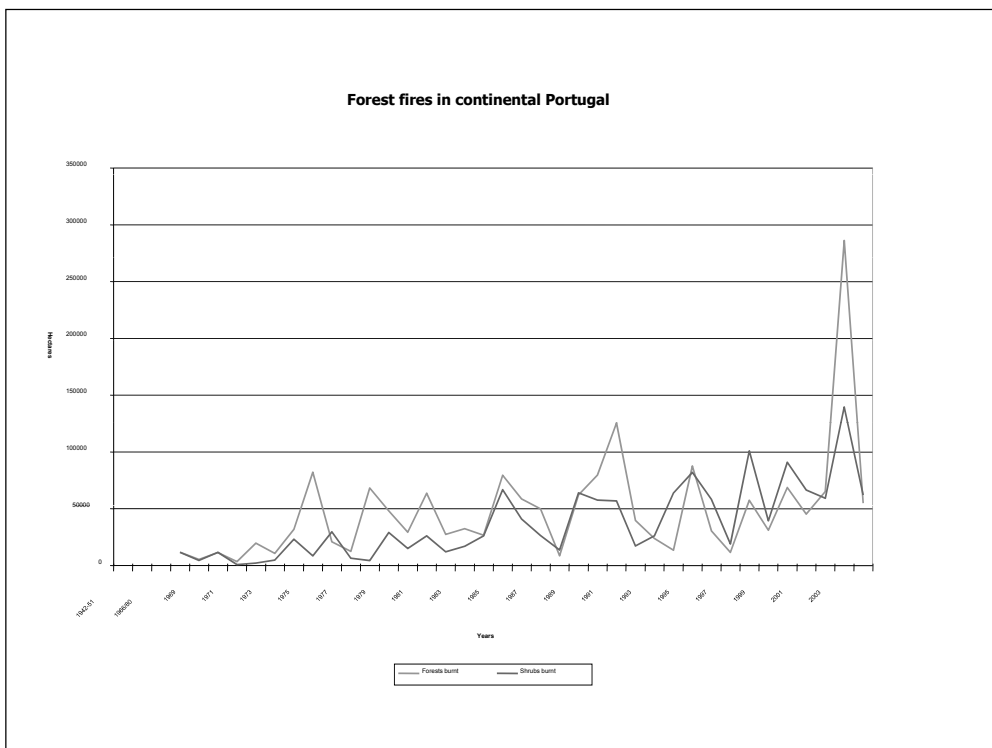
- **Decline in agricultural labour force:**

- Increasing costs of forest management for private owners
- Prices of forest products did not compensate for increasing costs
- Negative private profitability in private forestry

CRISIS SINCE THE 1950s

- **Consequences:**

- Bad management of private forests
- Increasing risk of forest fires



CRISIS SINCE THE 1950s

- Faced with a **social risk** (increasing risk of forest fires), private forest owners need some form of **collective organization** (e.g. Forest owners' associations)
- With negative **private** profitability and positive **social** profitability in private forestry there was a case for **public incentives** to support that collective organization

FOREST POLICY UNTIL THE 1980s

- **Bad governance / Path dependence:**
 - No support for collective action of private forest owners
 - No priority given to the protection of existing forests
 - Priority given to afforestation through direct public intervention

FOREST POLICY SINCE THE 1980s

- **Crisis in the centralized organization of forest policy**
 - Democratic political regime since 1974
 - State Forest Services in crisis
 - Forest fires getting worse
 - Municipalities gaining importance (civil protection, fire fighting)

FOREST POLICY SINCE THE 1980s

- **New possibilities for external funding of forest policy**
 - World Bank
 - EU structural funds
- **Public financial incentives** to private forest owners for afforestation and protection of existing forests

DEVELOPMENT OF FOAs

- Forest owners' associations appeared in the 1990s
- Not with direct support from forest policy
- Rather as a side-effect of the public incentive schemes for forest investment

DEVELOPMENT OF FOAs

- Owners of small forests needed technical support to prepare applications for public incentives for forest investment
- FOAs could apply for public support available to agricultural organizations

MAIN SERVICES DELIVERED BY FOAs

- **Interest representation** of private forest owners
- **Technical advice**
- Almost no intervention in forest product markets
- Very strong reliance on public financial support

PUBLIC POLICY FOR FOAs

• **Bad governance:**

- Room for **opportunism**:
 - FOAs with strong lobbying power get more support
 - Weak monitoring and evaluation mechanisms
- High **transaction costs** to apply for public support
- No medium- or long-term contractual arrangements between the State and FOAs
- “**Municipalization of forest policy**”: Municipalities are supported often as competitors or substitutes for private forest owners and not as complementary to FOAs

FOAs: AN INCREASINGLY IMPORTANT STAKEHOLDER

• ... In spite of that, FOAs are making progress:

- Increasing number of members
- Increasing direct intervention in private forest management: ZIFs (“Forest Intervention Zones”)
- Stepping into forest product markets: certification, forest biomass for energy production
- Increasing influence in forest policy making
- ... but divided, affected by opportunism and without a unified representation at national level

Outlook for the Formation of Private Forest Owners' Associations in the Western Balkan Region

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Abstract

The private forest owners in Bosnia and Herzegovina, Croatia, Macedonia and Serbia are not organized in strong independent interest organizations, although their forest cover varies between 10% of the total area in Macedonia and 52% in Serbia. Private forest owners' interests are weakly represented in national forest policy and most of the power is still in the hands of the public forest administration. This situation does not comply with democratic political systems. The PRIFORT project tries to provide a better understanding of the characteristics of private forest owners in the region. Prevailing interest group theories are scrutinized by surveys of private forest owners and in-depth interviews of forest policy decision makers. The results indicate that although the number of private forest owners is large, there are good preconditions for creating independent private forest owners' interest associations (PFOAs). There is a clear demand of forest owners in an interest organization for services in sustainable forest management and better representation of their interests in national forest policy. Furthermore, many private forest owners in each country are prepared to engage themselves in the formation of independent interest groups. Finally, there is empirical evidence that the attitudes of forest policy makers have changed in favour of PFOAs in all four countries.

Keywords: forest policy, private forest owners' interest associations, interest group theories

1. Introduction

The Western Balkan countries – Bosnia and Herzegovina (B-H), Croatia, Macedonia and Serbia – have in common that their forests are significant resources for the development of the market economy and private ownership. The share of private forests as part of the total

forest area in these countries varies between 10% in Macedonia and 52% in Serbia, and the number of private forest owners varies between 240 000 in Macedonia and 800 000 in Serbia. Although the share of private forest is quite large and probably will increase when the restitution and privatization process is finished, the private forest owners are not well represented in national forest policy due to the lack of independent interest associations.

Private forest owners' interests are mainly in the hands of public forest administration, and compared with state forests, the lack of private forest owners' interest associations (PFOAs) is clearly reflected in silviculture and forest legislation. The silvicultural situation is characterized by low volume and annual increment per hectare, a higher proportion of coppice forests and low access roads density. Regarding forest laws there are all kinds of prescriptions such as levies for timber harvests and restrictions of entrepreneurial freedom such as permission for harvesting trees. Private forest owners are still captured in the era of the past socialist period.

The starting point of the paper is the fact that there are almost no voluntary interest associations of private forest owners in B-H, Croatia, Macedonia, and Serbia. This is surprising as interest associations are key players in democratic political systems, and almost two decades have passed since the transition of these countries from the Yugoslav socialist period to democracy. The PRIFORT (Research into private forest owners organizations in the Western Balkans) project aims to overcome this failure and to enable policy makers to apply appropriate policy tools¹. The objective of this paper is to reveal the preconditions for the formation of independent interest associations of private forest owners in the Western Balkan region by theory-oriented empirical social research. For this purpose quantitative door-to-door surveys of randomly selected private forest owners and qualitative in-depth interviews of selected forest policy decision makers were applied.

2. Theoretical background

The huge number of private forest owners shares a few but strong common interests, which can be summarized in two groups. The first group refers to support in forest management (extension service), the second group refers to the representation of interests in the political process (interest representation).

From a pluralist view, interest groups are the organized reflection of the underlying society with the various interests of its members (Truman 1951). Faced with the situation in the Western Balkan region, the group theory of pluralism fails to explain why the private forest owners are largely unorganized. Olson (1965) explains this failure by the theory of collective action. Large 'latent' groups of potential members have no incentive to join their interest group because they enjoy the result of successful interest representation ('collective good', such as subsidies, tax relief) anyway once the collective good has been supplied (H1). As a remedy for joining the interest group Olson recommends 'selective incentives' that can be either positive (e.g. advantages just for members) or negative (coercion by compulsory membership). However, the preconditions for forming them do not only depend on the number of potential members but also on the relative size in terms of heterogeneous or homogeneous group members (H2). A review of the interest group theories (Glück et al. 2009) found that potential members with primarily economic interests are easier to organize than others (H3). In addition, it is

¹ In concurrence with the European Forest Institute and the FOPER (Forest Policy and Economics Education, Training and Research) project for the Western Balkan region, the Austrian Ministry of Agriculture and Forestry, Environment and Water Management financed a two-year research project (from May 2007 until April 2009) on the Formation of Private Forest Owners in the Western Balkan region (PRIFORT). The final report will be available in June 2009 at EFI's website.

particularly important to know more about the readiness of respondents to engage themselves in the formation of the interest association as political entrepreneurs. Is there a critical mass of those members who are highly engaged and well endowed with resources for the formation of a PFOA? (H4) According to Salisbury's (1969) exchange theory, in order to be successful a PFOA has to meet the clients' needs by supplying appropriate services. Finally, much depends on the forest policy decision makers whether they are prepared to promote the formation of PFOAs. In this context their attitude towards voluntary or compulsory membership is crucial. In the following sections the hypotheses above (underlined and marked with (H1) etc.) are scrutinized using empirical evidence from survey and field research results.

3. Methods applied

The random samples for quantitative door-to-door surveys of private forest owners in each of the four countries are drawn from overlapping areas of highest percentage of forest area and highest share of private forests (Neuman 2006; Malhotra 2007). The sample size of 350 respondents is based on a level of precision of 5% and a level of confidence of 95%. The surveys were conducted in May and June 2008 using a common questionnaire comprising 42 questions (Q1–Q42). The questionnaire aims partly at the description of the status quo, partly at scrutiny of the hypotheses below. The data of the survey results were imported into Microsoft Excel sheets in a form suitable for further analysis by SPSS, version 16.0. The data analysis contains frequency distributions, cross-tabulation, correlation analysis, cluster analysis, factor analysis and non-parametric tests.

Based on the main results of the surveys of private forest owners, focused qualitative interviews (in-depth interviews) were conducted from November 2008 to January 2009 to get more information about the attitudes of forest policy decision makers towards the formation of PFOAs (Miles and Huberman 1994; Glück and Mayer 1996; Silverman 1997; Denzin and Lincoln 2000). Qualitative interviews were unstructured and non-directive. The interviewees were visited at their working place by senior researchers who tried to create a trusting and friendly atmosphere. An important part of the qualitative interviews was the selection of interviewees; these were chosen from institutions which influence the formation of PFOAs. In each of the four countries those were representatives of the ministries responsible for forestry, timber trade, commerce, nature conservation, state forest companies, local PFOAs, Chambers of commerce, environmental NGOs, main political parties, associations of forest professionals, hunting associations, research institutions, etc. The total number of interviewees was limited to 20–25 persons for budgetary reasons.

4. Main results

4.1 Silvicultural and sociological aspects

Small-scale forests are the most common in all countries, but there are significant differences among the four countries. The mean forest size is 4.1 ha in Serbia, 3.6 ha in Croatia, 3.2 ha in B-H, and 2.3 ha in Macedonia. The number of forest owners according to forest property size classes is presented in Figure 1.

Most forest owners have properties smaller than 1 ha. This is especially the case in Bosnia and Herzegovina (B-H), where more than 60% of forest owners own properties smaller than

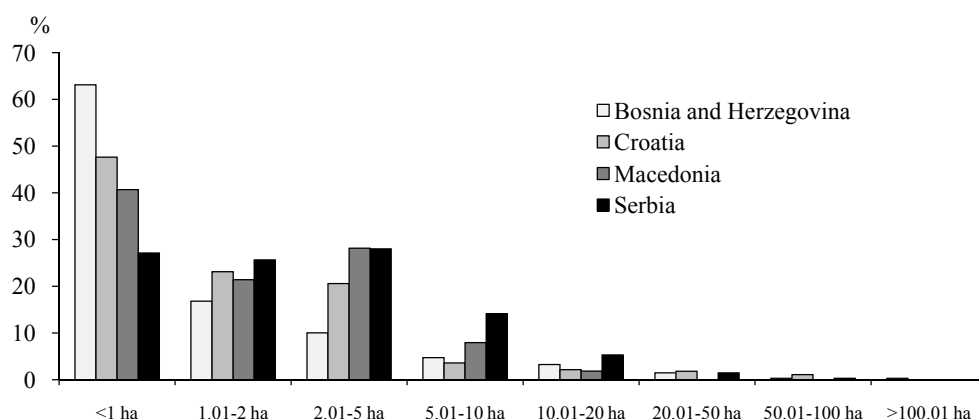


Figure 1. Number of private forest owners according to forest property size classes.

1 ha, followed by Croatia (48%) and Macedonia (40%); in Serbia only 27% own properties smaller than 1 ha. As shown in Figure 1, the properties of Serbian forest owners tend to be larger. About 25% of forest owners in Serbia and Macedonia owned properties in the class from 2–5 ha (about 25%), whereas the share of owners in properties in this class was lower in Croatia (about 20%) and B-H (about 10%). Only a few owners in all countries (less than 10%), own properties larger than 10 ha.

Private forest owners also differ with regard to their education and occupation. There are significant differences among the countries regarding owners' occupation. In B-H unemployed people and pensioners account for more than 50% of forest owners. In Croatia, farmers, lower-level employees and manual workers prevail with more than 60% of the respondents. In Serbia, farmers and other occupations (including pensioners) dominate with more than 60%. Macedonian forest owners are mainly unemployed (33%), lower level employees (21%), or farmers (17%). In regard to education, most forest owners in all countries have high school education, followed by vocational school (17%), and elementary school qualifications (25%). About 6% of the forest owners have university qualifications, and about 6% have vocational school qualifications. The results of the in-depth interviews of forest policy decision makers in all four countries also confirm that private forest owners are a very heterogeneous group in terms of silvicultural, economic and socio-demographic aspects.

4.2 Economic aspects

Although the majority of respondents declare to like their forest much, the level of expressed appreciation significantly differs among the countries. This result is shown in the answers concerning whether the forest is seen as a benefit or a burden for the family. The forest is a benefit for more forest owners from Macedonia than for forest owners from the other three countries. However, the forest is a supplementary source of income for most forest owners in all four countries. The main uses of forest (Figure 2) are different in all four countries.

Fuel wood and saw logs for domestic purposes are the most frequent uses in all four countries. The highest percentage of forest owners use forests for fuel wood production in Serbia (98%), followed by Macedonia (95%) and Croatia (90%) and B-H (90%). Other main uses are found in varying intensities in the countries. Saw log production for domestic use

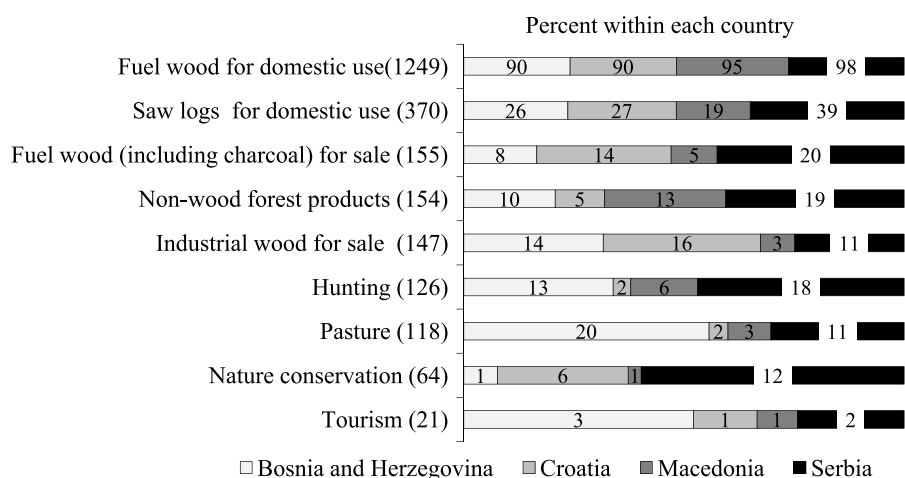


Figure 2. Main uses of private forests.

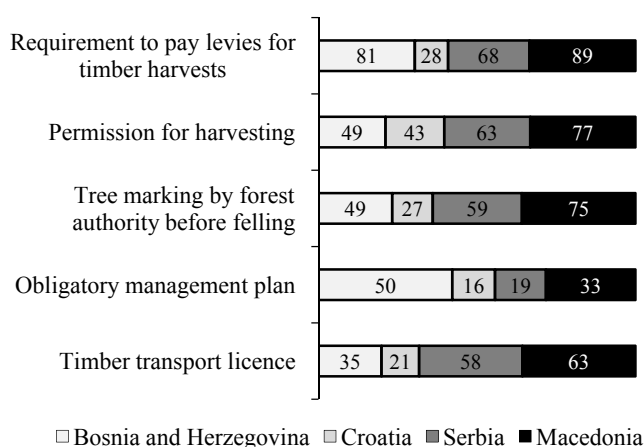


Figure 3. The most pressing legal regulations.

is the highest in Serbia (39%) along with fuel wood production for sale (20%), provision of non-wood forest products (19%), hunting (18%) and nature conservation (12%). While Croatia has the largest share of forest owners using their properties for production of industrial wood for sale (16%), B-H has the largest share of owners using forests as pastures (20%) and for tourism (3%).

4.3 Institutional aspects

With regard to forest regulations, about 70% of forest owners stated that they are not aware of such regulations. In contrast to the answers to the question about awareness of forest regulations, the respondents also mentioned that they suffer from pressing legal regulations concerning private forest owners (Figure 3).

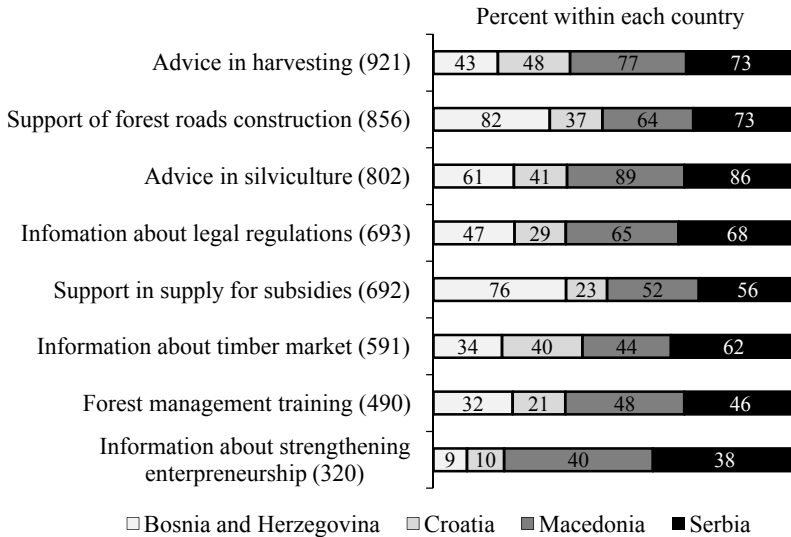


Figure 4. Expected services of a PFOA for improving forest management (Q 8).

Requirement to pay levies for timber harvests and permissions for harvesting and tree marking by forest authority before felling are regarded as the most restrictive ones. The perception of individual legal regulations significantly varies in the four countries: the requirement to pay levies for timber harvests is viewed as the most pressing regulation by 89% of respondents in Macedonia, 68% in Serbia and 81% in B-H, permission for harvesting is viewed as the most pressing regulation in Croatia (43%).

4.4 Attitudes on private forest owners' interest associations

In general, the respondents miss having a PFOA for forest management (extension service). The intensity of their need differs among the countries: Macedonia (74%) and B-H (77%) miss the PFOA most, while the percentage is lower in Serbia (51%) and Croatia (55%). In a similar way, the respondents miss having a PFOA for lobbying their interests in the political system (interest representation). The percentage of those private forest owners who miss interest representation of a PFOA is highest in Macedonia (77%), followed by B-H (70%), and Serbia (52%), while the percentage is lowest in Croatia (46%). The respondents have very clear expectations about the services of PFOAs regarding extension service. For all four countries, advice on harvesting, support for forest road construction and maintenance, and advice on silviculture are at the top of the shopping list. However, the preferences within the countries vary (Figure 4).

Similarly, they share a few priority areas regarding interest representation: provision of subsidies (21%), tax relief and exceptions (18%), and the reformulation of the forest law (15%) are the most valued services (Figure 5). The focus on economic performance is also confirmed by the responses to the question under which conditions the respondents would be prepared to join a PFOA voluntarily: 68% are prepared to become a member for economic reasons, 63% if the association's performance is positive, and 59% if the fee is small or zero.

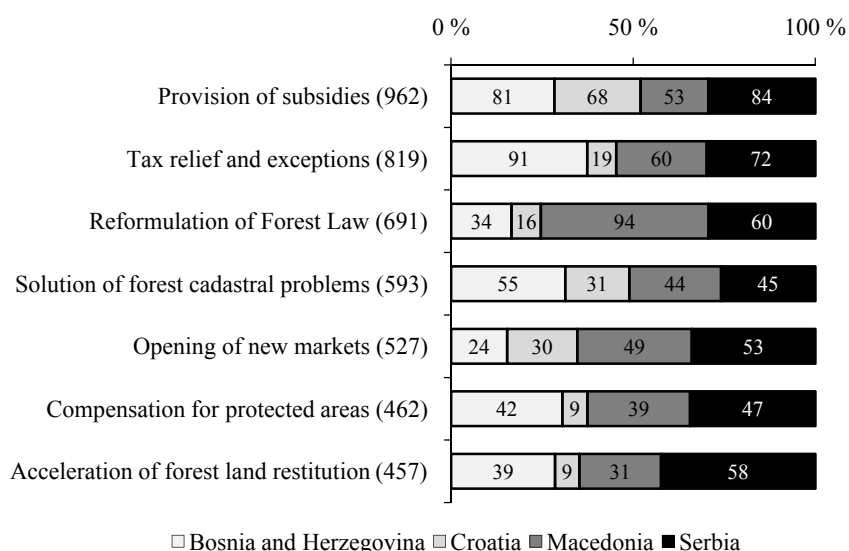


Figure 5. Expected lobbying activities of a PFOA (Q 9).

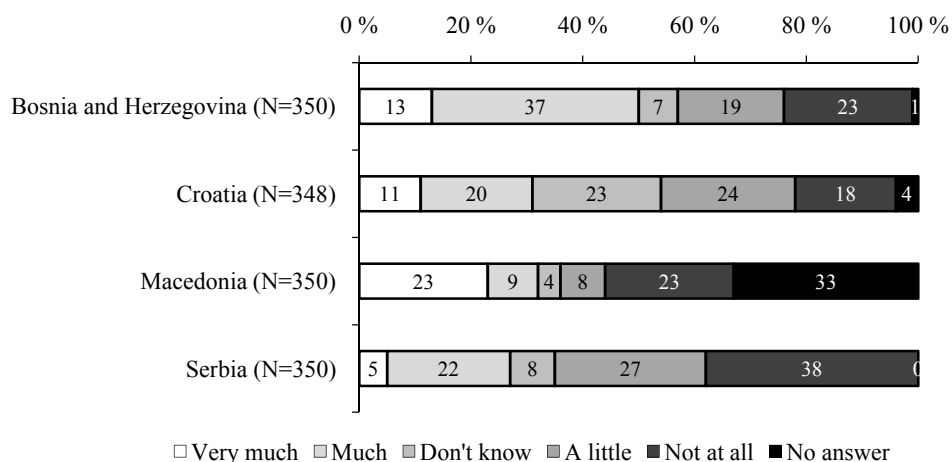


Figure 6. Engagement in the formation of a Forest Owners' Interest Association.

Regarding the readiness of the respondents to engage themselves in the formation of a PFOA (Figure 6.), one-third is very much prepared, but more than 25% of the respondents are not prepared. The situation differs among the four countries: about 50% of Bosnian owners are prepared for engagement while less than one-third of Serbian owners are not prepared. More than one-third of the respondents from Macedonia and Croatia are prepared to engage themselves in the formation of a PFOA.

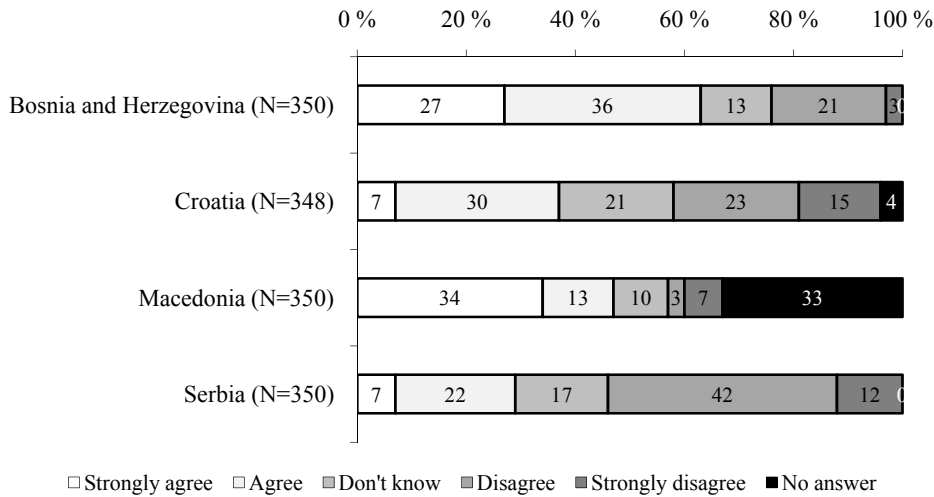


Figure 7. Support for compulsory membership.

There are also differences related to compulsory membership (Figure 7). Compulsory interest groups find the strongest support in B-H, while they are almost unanimously opposed in Croatia and Macedonia. In the latter two countries, PFOAs are in a development phase and supported by the State. Serbian forest policy decision makers also support almost unanimously voluntary interest associations, but many of them also endorse the idea of compulsory membership. Apart from some decision makers, there are no convincing arguments for the formation of compulsory PFOAs in Serbia.

The determined readiness of a large number of private forest owners in each of the four countries to engage themselves in the formation of a PFOA finds a favourable climate in the political system of their countries: almost all forest policy makers in the four countries support the idea of strengthening the position of private forest owners by establishing an interest association; some consider the establishment of a PFOA as a key issue. However, many decision makers share the opinion that this is a challenging task due to the lack of tradition and negative experiences with cooperatives in the former socialist period. Nevertheless, it is the only way to improve the position of private forest owners in the political process in general, and with regard to forest legislation in particular.

4.5 Critical mass of drivers

Cluster analysis of the survey results for each of the four countries reveals three homogeneous sub-groups of private forest owners regarding the formation of PFOAs; there are differences only in details. We call them drivers, supporters and free riders. The proportion of each group varies from country to country (Figure 8).

The ‘drivers’ strongly support an association of private forest owners; they are the biggest group in B-H (55%). The most expected services regarding forest management depend on the national needs and these vary between. With regard to lobbying activities, the drivers expect mainly tax relief and provision of subsidies. The private forest owners within this group expressed high readiness to be engaged in the establishment of an interest association;

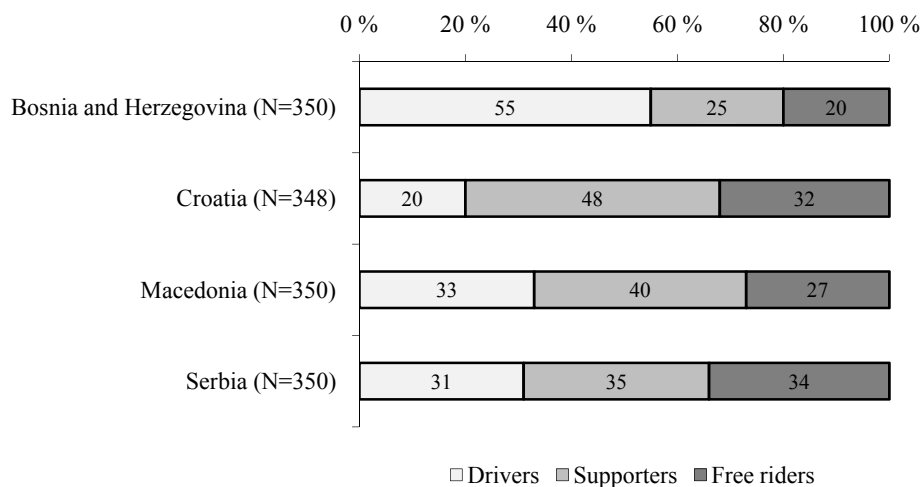


Figure 8. Critical mass of drivers.

in B-H and Croatia they even support obligatory membership. The drivers are the owners of relatively large forest estates and regard their forest as a benefit. Correspondingly, they are prepared to cooperate with other private forest owners in all kinds of forest management activities with the exception of Serbian private forest owners who are ready to cooperate only with regard to forest road construction and maintenance.

The 'supporters' also express a need for an interest association providing services in forest management and lobbying, but not as strongly as the drivers. They are only moderately prepared to engage themselves in the formation of associations. One part supports obligatory membership, another part is undecided in this respect or reluctant. They own relatively small properties and find their forest neither as a benefit nor a burden. Only in Serbia, is the size of forest property is about the same as that of drivers. Thus, most Serbian forest owners from this group consider the forest as a significant source of the household income.

The 'free riders' do not see a significant need for an association of private forest owners. In B-H, Croatia and Serbia their readiness to play an active role in the establishment of PFOAs is low. They disagree with obligatory membership in such associations. They own small forest properties on average and usually do not use them at all. Thus, they regard their forests rather as a burden than a benefit. On the whole, the level of interest for cooperation with other forest owners is small. However, in Macedonia the free riders are very much prepared to be engaged in a PFOA. They strongly agree with obligatory membership in such an association. Finally, they are very much interested in all kinds of cooperation.

Corresponding to their characteristics, the drivers accommodate the critical mass of private forest owners striving for the formation of PFOAs in their countries. Together with the supporters in all four countries, there is a large majority of private forest owners who wish better services in forest management and a self-supporting organization for representing their interests in the political system.

5. Conclusions

The large number of private forest owners in each of the four countries may partly explain the lack of PFOAs in accordance with Olson's logic of collective action, but it is not a sufficient explanation. Although twenty years have passed since the transition from the Yugoslav socialist period to a democratic political system, the power of the main actors in forest policy is almost unchanged and situated in the public forest administration and state forest companies. This is reflected by forest laws that do not recognize private forest owners as self-supporting entrepreneurs who are responsible for the sustainable management of their forests. Thus far, no serious actions have taken place from the governments' side to organize the private forest owners in a powerful independent interest organization and to give them a voice in forest policy. The results of the surveys of private forest owners and the in-depth interviews of forest policy makers indicate that the chances of success are favourable.

It was found that in all four countries economic interests of private forest owners prevailed focusing on the domestic provision of fuel wood and saw logs. Compared to private forest owners in Western European countries, nature protection and recreation are low on the list of priorities (Lönnstedt 1997; Karppinen 1998; Harrison et al. 2000; Schraml and Volz 2003; Ziegenspeck et al. 2004; Hogl et al. 2005). Corresponding to the prevailing economic interests, the private forest owners expect from a PFOA extension services regarding forest management such as advice in support of forest road construction and maintenance, silviculture and harvesting. In addition, they also expect the representation of their interests in the political system. There is an almost unanimous demand for tax relief and exceptions in case of salvage timber harvesting after catastrophic damage, subsidies for sustainable forest management, solution of cadastral problems, and reformulation of the forest laws in the interest of private forest owners.

The economic basis of private forest owners facilitates the formation and administration of an interest association and makes it more stable once it has been established. Furthermore, it was found that the individual private forest owners were far from being a homogeneous group. They differ in size of their forest property and its fragmentation into a number of parcels, the contribution of their forest to their household income, awareness of political constraints such as legal regulations on forest management, but also with regard to their education and occupation.

Heterogeneity of members is a further favourable condition for the formation of an interest association, because it provides the possibility that highly engaged 'large contributors' occur who provide resources to the interest association. Such a (hypothetically) high engagement for a PFOA was found in all four countries, and in particular in B-H. This is supported by the results of the cluster analysis which reveals a strong critical mass of drivers of a PFOA in all four countries.

The research results of the PRIFORT project can be summarized as follows:

- The private forest owners in each country build a large 'latent' group in the sense of Olson's theory of collective action.
- Large latent groups can be organized by positive or negative (compulsory membership) incentives.
- It is evident that in each country there is a sufficient number of entrepreneurial private forest owners. This is a critical precondition for the formation of a PFOA, particularly at the local level (exchange theory and critical mass theory).
- Private forest owners express a clear demand in PFOAs for services regarding sustainable forest management and interest representation in national forest policy.
- The attitudes of forest policy makers have changed in favour of the formation of PFOAs in the last years in all four countries.

- The formation of independent PFOAs may change the distribution of power in national forest policy, but can increase accountability, responsibility and legitimacy of forest policy decision makers.
- Although the preconditions to form PFOAs in the four countries seem to be favourable in the light of the surveys of private forest owners and the field research (in-depth interviews of forest policy decision makers), much still depends on the ruling policy makers to devolve responsibility to PFOAs.

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Forest Policy Experiences on Private Forestry Development in Selected South East European Countries

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Abstract

The information presented here is available from a project addressing the South East European (SEE) sub-region's forest policy within country national forest programmes (NFP) in Albania, Macedonia and Serbia. In SEE non-state forestry organisations are still less developed and forest owners have difficulties in adequately participating in policy setting. In general, non-state forest property in the SEE countries faces the common problem of an inadequate policy framework for its proper functioning. This and management overregulation make the forest owners often uninterested in sustainable forest management and policy making. In this situation several governance issues arise that need to be addressed e.g. in NFP processes.

Keywords: non-state forestry, forest policy, private and communal property, governance

1. On the Confederation of European Forest Owners

CEPF is a non-for-profit and non-governmental organisation founded in 1996 as a successor organisation to the Central Committee of Forest Owners (CCPF) established in 1961.

The CEPF is an umbrella organisation of private and community forest owners in Europe, assembling national forest owner associations from 23 European countries (see Figure 1). CEPF is the voice of some 16 million family forest owners in Europe owning on average less than 13 hectares of forests.

The main objectives of the organisation are:

- To further the sustainable forestry management by representing the interests of family forest owners across Europe;

- To enhance the values of private property through sustainable forest management;
- To enhance the information flow between family forest owners and European Union (EU) institutions.

The main tasks, which CEPF carries out, are:

- Represents the interests of family forest owners and provides expertise to family forest owners vis-à-vis the European Institutions (in particular the European Commission, the European Parliament, the Economic and Social Committee);
- Assists and strengthens national forest owners' organisations in Europe through partnership and collaboration;
- Takes part in network/collaboration activities with other international or national organisations (CEI-BOI, CEPI, FAO, IUCN, PEFC...etc.);
- Participates in international and global forest policy fora (e.g. MCPFE, UNFF, UNFCCC, WSSD) representing Europe's private forestry sector.

The experiences in Central and Eastern Europe (CEE) are gathered through:

- Networking with member and other forest owner organisations.
- Other partners (ministries, international organisations).
- Projects:
 - o World Bank PROFOR – CEPF project on “Private and community forestry – developing livelihoods on the basis of secure property rights in selected countries of South East Europe (SEE)”, 2008-2009 (http://www.cepf-eu.org/profor.cfm?ID_kanal=120).
 - o FAO – IUCN – CEPF framework project on “Private and community forestry in Central and Eastern European Countries (CEEC)”, 2003 – ongoing (<http://www.fao.org/forestry/site/12508/en>).

2. Governance issues in forest policy experiences from SEE

The information presented here is available from the project “Private and community forestry – developing livelihoods on the basis of secure property rights in selected countries of South East Europe (SEE)” coordinated by CEPF and financed by the World Bank PROFOR Programme. It is addressing the South East European (SEE) sub-region's forest policy development concerning private and communal forests. The project deals with this in all three target countries (Albania, Macedonia, Serbia) within the policy frame of the respective national forest programme or strategy processes. Its activities started as of January 2008 and will be terminated by July 2009.

In SEE, non-state forestry organisations are still less developed and are generally in need for policy assistance and capacity building. Private and communal forest owners have difficulties in adequately participating in the policy setting of national and cross-sectoral dimensions such as e.g. national forest programme (NFP) implementation. This is even the case in Albania and in Macedonia, where national level organisations of forest owners for interest representation already exist (see Lako 2008; Trendafilov et al. 2008).

To address the low-level ability of forest owners to act at the national forest policy level, the project coordinated and organised different events in the target countries as follows:

- In Macedonia a dialogue between different stakeholder groups and different forestry institutions took place in the form of five regional meetings with the participation of the major forest policy organisations and stakeholders. The meetings were recognised as part of the National Forestry Strategy (NFS) Action Plan's activities (Action nr 27).

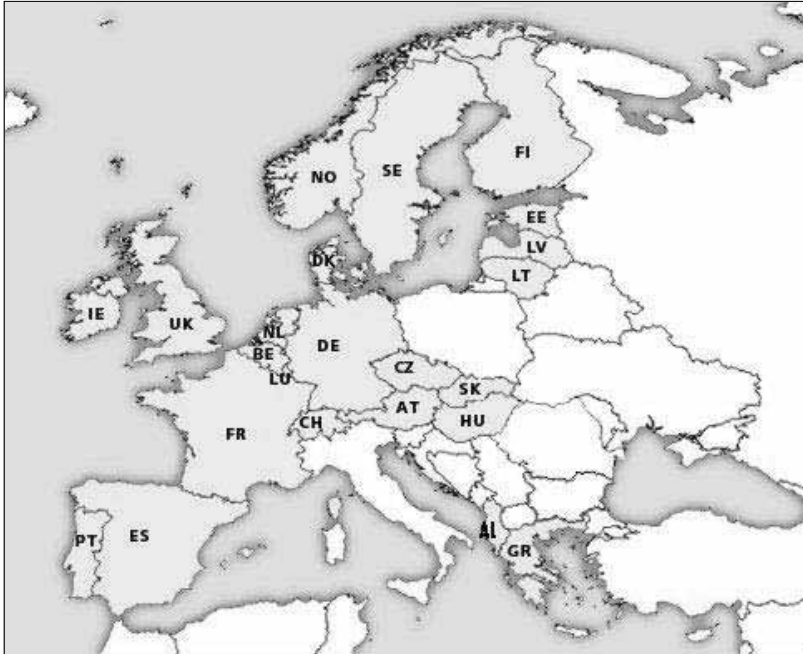


Figure 1. Countries with national member organisation in CEPF (marked in grey, 2009). Source: CEPF, 2009.

- In Serbia the capacity building provided to local forest owner associations took place in the form of four meetings. They served for mobilisation of interested forest owner groupings and triggered their exchange to forest administration. The activities concluded in the establishment of the National Federation of Forest Owner Associations in Serbia, and addressed National Forest Programme elements on private forestry.
- In Albania the two capacity building workshops for the Regional Private Forest Owner Association of Korca provided exchange opportunities between different stakeholder groups on forestry. They also addressed a target group in the sense of the national forest policy, which has received less attention in the reform process so far due to the fact that private forestry in its extent is small and at a very early stage of development in Albania.
- Within the project two international conferences were also arranged. The conferences were: (a) “The status of non-state forestry management in South East Europe” in Skopje in 2008; and (b) “Policy options for non-state forestry in South East Europe” in Fruska Gora in 2009. The conferences provided direct exchange opportunities on selected forest policy issues concerning non-state forestry for about 110 experts from eight countries from the sub-region and neighbouring countries.

In Europe NFPs/NFSs processes are widely seen as tools for new modes of governance for forest policy (BOKU 2008). Considering this, it can be concluded that the project assisted the following governance elements in the NFP processes of the respective country:

- The enhanced participation of a specific stakeholder group of the private forest owners in the process;

- This enhanced participation served the objective of exchange and dialogue of this group to other process stakeholders and their organisations (state forest administration, state forest management organisations, other authorities, local governments, research organisations, etc.);
- The participants to these events clearly expressed their wish and willingness to continue this dialogue aiming for iterative policy action in the implementation of the concerned process.

These process achievements should be seen also among the specific actor setup influencing the governance element of participation by the distribution of influence and power. In the target countries – not surprisingly – a clear dominance of the state actors in the policy process as well in the forest management is to be encountered. In the policy process these are mainly the higher-level state forestry administration represented by one or more ministry departments and the state forest management organisations with authority functions and mandates in non-state forests (in Serbia the Public Enterprise Srbijasume, in Macedonia the Public Enterprise Makedonskij Sumi, and in Albania the District Forest Service). Nevertheless, by this it must be taken into consideration that non-state forestry is of varying importance in the forestry sector in the different countries (see Table 1). The uneven distribution of power and influence during course of the management and administration rule setting was visible from the initial analyses in the countries, and was confirmed by the participants at the conducted events (Nonic and Milijic 2008; Lako 2008; Trendafilov et al. 2008; Milijic and Miletic 2009; Rantasa 2009). Therefore, another governance relevant fact to be considered is that in the project countries the former role of public enterprises in non-state forestry with mixed responsibilities of management and authority functions, has been not yet totally overcome. However, among the different property conditions of today these systems are ineffective, loaded with problems of proper implementation resulting in poor quality of services provided to forest owners from the Public Enterprises. This results in ineffective procedures and technical implementation and conflicts of interests. Conflicts of interest again result from the mixed profile of non-transparent management and authority organisation of the public enterprises, which is clearly a governance problem in the forestry of the project countries.

On the other hand, it must be stated that non-state actors (forest owners) are less developed, and have weak organisational and human capacities and no resources to develop them. There is a very low degree of representation of organised forest owners among forest owners, especially in Serbia (see Table 1). Reasons for this will not be elaborated on here but can be seen in the country studies. However, it is to be stated that this results in limited ability of the partnership approach in decision making or decision preparation.

Another factor negatively influencing the effective participation in the process by the uneven actor dominance is that no institutionalised aspects of implementation of the new concepts of NFPs exist. In most cases there is a legal basis for the NFP but this is not followed by practical rules like the establishment of institutionalised consultative bodies with clear mandates or legally defined terms of reference for the existing ad-hoc bodies (What are the consequences of their action or inaction? And what are their responsibilities?).

These issues highlight that decisions concerning organisational changes for a better functioning governance in the forestry sector are mostly delayed in the project countries. This contrasts especially as in some other SEE countries they have been taken and in terms of non-state forestry show results (e.g. Croatia, Slovenia - Pleše and Zupanec 2009; Plah and Mori 2009).

One of the central issues of those changes should be related to the understanding of the role of non-state property in market economies and the role of non-governmental organisations in shaping policy (in this case mainly forest owner associations are referred to), like in the NFP processes.

In the current legislation in most SEE countries the issue of forest property rights is loaded by unclear terminology and contradictory formulations which enables only their inconsequent implementation – unsatisfactory for the forest owners and complicated for the state administration. Most frequently there is no clarity about the forest related uses being part of the property right; therefore forest management of non-state forests is complicated and bureaucratic and hindered by overregulation of tree marking, timber marketing, non-participative obligatory administrative actions and financial prescriptions. A number of uses like hunting and use of non-wood forest products are missing or if user rights are limited due to e.g. nature conservation regulation, no compensation is foreseen or thought about at all. In this way the forest owner does not have the range of user rights necessary to maintain his property and perform high-quality forest management on it and in many cases loses interest in his property. This could be avoided only if the forest management right in a comprehensive sense was seen as part of the property rights on forests, meaning that direct management of the forests should be responsibility and ability of the forest owners. For that the state should create an enabling and encouraging framework rather than a restriction based legal and institutional framework. However, at the moment the prevailing traditional administrative practice is that, to address issues of non-state forestry, the state administration makes use of clear overregulation instead of deregulation. This has however not yet shown the targeted results in SFM or avoiding illegal activities. Nor has there been substantial progress of non-state forest management.

Here the ‘former socialist heritage’ takes form in the tendency for untransparent policy or legislation setting in the project countries, even some initial signs of changes also can be marked (nfp, nfs formal participation of forest owners in Macedonia, Serbia or the active role in the property transfer forest owner associations play in Albania).

This should be summarised as “the missing or inconsequent acknowledgment of the role private and communal forestry plays in achieving national forest policy goals”.

Forest owner associations have the capacity to act as policy partners. In SEE and CEEC in general, however, they should gain further strength to be professional working partners to administration in governance processes.

This problem of a poor framework and the low capacity of private forest owners constitutes a heavy legacy for the forest policy of the countries. Policy makers must recognise that this is however a ‘vicious circle’ with policy and management consequences in forests and for the national and rural economies. Further, it is commonly accepted that this can be resolved either by ‘deregulation’ for private forest management or active, consequent and stable state financial or organisational supports for non-state forest property (e.g. Austria, Croatia). Therefore this vicious circle must be broken by “enabling decisions”.

3. Conclusions

The project experiences state in general, that non-state forest property in the SEE countries faces the common problem of not-enabling policy framework for its proper functioning. This situation is partly inherited from the former socialist times’ legal and financial practices which most of the SEE countries have not or are only beginning to overcome. Consequently, having not much space for action in management due to overregulation, forest owners are often uninterested in management of small-plots and are still hardly organised enough to influence policy. Their representation is comparatively weak in those few existing organisations stating that only little development of the non-state forestry has taken place.

However, the issue of private and communal forest management and their needs towards regulation are in almost all SEE countries of importance as the need from the forest owners

Table 1. Non-state forestry in overview in the project target countries, 2009. Sources: CEPF 2008– on basis of country information.

Country / Information	Albania	Macedonia	Serbia
Forest area (million ha)	1.498	1.040	2.252
Share of state forests (%)	64.0	90.0	52.2
Share of private forests (%)	1.7	10.0	39.8
Share of communal forests (%)	34.3	-	-
Estimated number of forest owners (103)	15	65	600
Local forest owner associations	400	0	16
National Forest Owner Association	yes	yes	no
Estimated number of members in Forest Owner Associations (capita)	n.a.	900	800

for participative regulation setting and for active management is stronger than ever. It calls for legal and administrative changes in policy making on forest land and forest management. This clearly constitutes a need for changed governance procedures and practices relating to organisations, effective use of financial means, and legal aspects of non-state forest management. Here a partnership approach between forest owner associations and forest administration has great potential to trigger the development.

As in most SEE countries NFP or NFS processes take place this could be seen as a promising framework for those necessary changes. However, it seems that for the necessary structural changes and decisions, the project countries need some more time. It will depend much on the time needed for the passing of the new forest laws, which address some of the governance issues tackled here and provide for options to break the vicious circle on non-state forestry development.

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Provision of Non-market Forest Goods and Services through Governance Perspectives

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Abstract

Forest ecosystems are of high importance for the human wellbeing. On the one hand, they enable important life supporting functions (e.g. photosynthesis, soil formation, water regulation). On the other hand they provide a multitude of goods and services (e.g. wood, food, recreation, carbon sequestration). An increased demand for ecological, social and cultural services derived from forests is observed.

This paper is based on the study on development and marketing of non-market forest goods and services (FORVALUE Study). It presents some of the key issues concerning the non-market forest goods and services, including: the importance of non-market forest goods and services in the EU; the challenge of marketability; and the role of new governance principles in the development and marketing of non-market forest goods and services.

It shows that non-market forest goods and services are considered important in the EU. It discusses different policy and institutional strategies to address the challenge of their marketability. Finally, it shows that development and marketing of non-market forest goods and services call for new governance principles, such as stakeholder participation, cooperation, cross-sectoral coordination and institutional arrangements.

Keywords: non-market forest goods and services, marketability, new governance principles.

Introduction

Forest goods and services are the benefits that human populations derive, directly or indirectly, from forest ecosystems (MEA 2005). There are various classification schemes that follow different dimensions of forest goods and services: (i) Functional classification (De Groot et

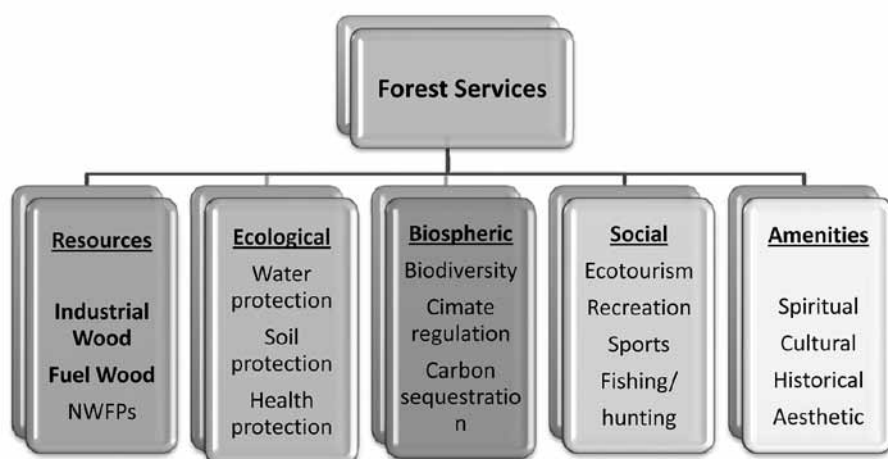


Figure 1. Major Classes of forest services (Source: MEA 2005).

al. 2002); (ii) Economic values and type of use (Merlo and Croitoru 2005); (iii) Public/private nature of the goods and services; and (iv) a holistic approach (Mantau et al. 2007).

In the FORVALUE study and this paper, a widely used approach based of the functional classification is adopted (MEA 2005) (Figure 1). According to this classification the forest goods and services are divided into five main categories (Figure 1): resources, ecological, biospheric, social, and amenities. The resources category refers to all goods that may be obtained from forests (e.g. timber, fuel); the ecological services are those related to protection of water, soil and health; the biospheric services are mainly climate regulation and biodiversity protection; while social and amenity services are comprised of different types of recreational activities and the cultural importance of forests (Figure 1).

For our purpose the division between market and non-market forest goods and services is particularly important. Market forest goods and services are traded on markets and their value is defined by the market price (e.g. timber, fuel wood, food). In contrast, non-market goods and services are not traded in traditional markets and their value is not defined by market price (biodiversity, watershed services, recreation). Aware of the risk of over-simplification and of a number of exceptions to this rule, we can assume that resources are market forest goods and services, while ecological, biospheric, social and amenity forest services are non-market.

Non-market forest goods and services are considered important and their importance and demand has been steadily increasing in the EU. On the other hand, the access to non-market forest goods and services is mostly unlimited and free and the providers of these services (e.g. forest owners) often not compensated for their provision. Consequently, there is a risk of an inappropriate forest management and under provision of non-market forest goods and services. To correct this situation various public and private financing mechanisms (e.g. taxes, subsidies, tradable permits, certification, etc.) are available and can be applied. However, their use should be objectively oriented and consider the interests of all main stakeholder groups. Therefore, it can be suggested that the development and provision of non-market forest goods and services is strongly related to some of the key governance principles, like stakeholder participation, cooperation, inter-sectoral coordination and institutional arrangements. To ensure consistency of the terms, we use the term 'new governance principles'. It refers to the shift from traditional governance (hierarchical steering) to new governance (self-organising society) (Jordan et al. 2005).

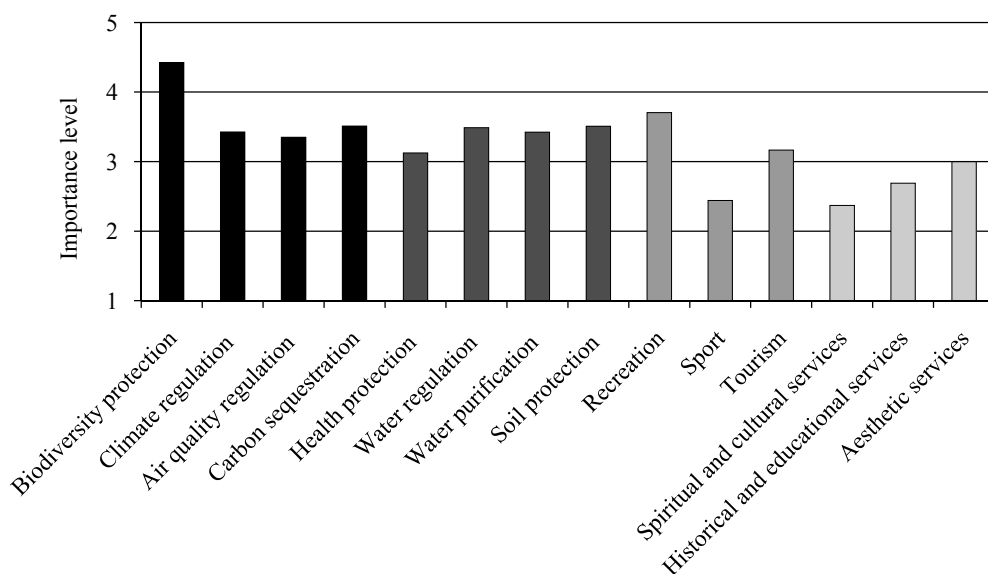


Figure 2. Importance of different non-market forest goods and services in the EU-27 (1-not important, 2-less important, 3-important, 4-quite important, 5-very important) (Source: FORVALUE 2008).

How important are the non-market forest goods and services at the EU level?

The availability of data on the importance of non-market forest goods and services and the future trends is limited to only some goods and services and some countries (MCPFE 2007). The questionnaire was distributed to all EU Member States (through their representatives in the Standing Forestry Committee at the EC), the Confederation of the European Forest Owners (CEPF), state forest enterprises (EUSTAFOR members) and environmental non-governmental organisations (ENGOS).

The questionnaire results on the 'relative importance' of non-market forest goods and services presents the respondents' perception of all the benefits derived from forest goods and services, and not the economic value of these goods and services in the respective countries.

Figure 2 shows that the relative importance of non-market forest goods and services at the EU level. Different groups of non-market forest goods and services are coloured with different colours (biospheric – dark blue; ecological – blue; social – light blue and amenity services – gray). Biodiversity protection is ranked as the most important of the non-market forest service, followed by recreation, carbon sequestration and watershed services (soil protection, water regulation and purification).

It should be noted, that these results cannot be taken as representative for all stakeholder groups, as they only reflect the perception of the respondents to the questionnaire. Furthermore, different forest stakeholder groups might differ in their preferences (MEA 2005). As mentioned above, the questionnaire also inquired about the future importance of non-market forest goods and services in the future. According to the survey, at the EU level, for most of the non-market forest goods and services it is expected that their importance might further increase, the only exceptions seem to be spiritual and cultural services and water purification, whose trends of importance are expected to remain constant.

In summary, the non-market forest goods and services are considered to be important in the EU, which proves that the lack of a market price does not mean that they do not have a value for society or that they do not contribute to the wellbeing of the people. Having said that, it is interesting to note the situation with regard to the access and use of non-market forest goods and services regulated in the EU. Even though, more than 60% of forests in the EU are privately owned (MCPFE 2007), the access to and use of the majority of forest goods and services (except market ones, such as resources) is unlimited or unregulated (FORVALUE 2008). This means that forest owners in most cases receive no monetary compensation for the provision of these goods and services, and thus they might be less motivated to manage their forest in a way that generates socially desirable quantity/quality of these goods and services. One of the possible solutions for this problem is to apply financing mechanisms.

What is the marketability challenge and what policy and institutional options exist to address the challenge?

In the previous section we discussed that non-market forest goods and services provide societal benefits and are seen as important in the EU. On the other hand, we also showed that their use and access is unregulated or free. As already mentioned, it can be assumed that forest owners are not compensated for the provision of forest goods and services. Therefore, they lack incentives in managing their forests in a way that stimulates provision of non-market forest goods and service; this may lead to an under-provision of the goods and services. In this section we explore the institutional and policy options to change the properties of these goods and services and increase their marketability.

The findings presented in this section are based on a literature review, the above-mentioned questionnaire, a large number of cases of application of different financing mechanisms in Europe and expert interviews on the application of these mechanisms. It discusses the challenge of marketability of non-market forest goods and services and different approaches and strategies to address the challenge. A number of recent studies focus on valuation and new mechanisms for compensation of these goods and services (Totten 1999; Mantau et al. 2001; Landell-Mills and Porras 2002; Powell et al. 2002; Koteen 2004; Spergel and Moy 2004; Smith et al. 2006; Savcor Indufor 2006; Bräuer et al. 2006; Bracer et al. 2007; Holopainen and Witt 2008; TEEB 2008).

The field of challenges related to markets and ‘marketability’ of non-market forest goods and services form a chain of interrelated issues; the most prominent are: their characteristic of externalities, public goods characteristics and unclear property rights and unavailability of information to all market participants. Many forest benefits have public good characteristics that make them difficult to market, and thus, justify public policies to secure their production (Ostrom 1990; Carvalho Mendes 2002). Non-market forest goods and services are often externalities of managed or unmanaged, natural forests. They commonly have public good characteristics, whereby they lack excludability and rivalry. This means that if users cannot be excluded from forest benefits (e.g. dispersed recreation in forest landscapes) and/or if users do not compete for resources (e.g. landscape amenities or protective functions) it is difficult to market them.

However, Mantau et al. (2001) argue that ecosystem services, including non-market forest goods and services, qualify as public goods not only due to their natural properties (that make them difficult to trade on markets), but also due to institutional frameworks and political regulations (e.g. regulations regarding public access). Mantau (1995) shows that there is a continuum between pure public and pure private goods. He argues that institutions as well as

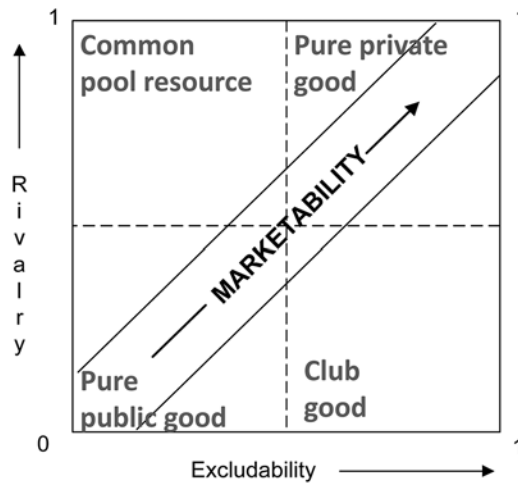


Figure 3. The marketability arrow: from public to private goods modified from Mantau (1995).

economic measures can change the characteristics of certain good – higher degree of rivalry or excludability – thus increasing the marketability (Figure 3).

Shifting the characteristics of a good from public to private may include one or both dimensions. If rivalry increases – e.g. through a significant increase in demand, the public good becomes a common pool resource, where the users compete with each other (e.g. popular recreational sites). The other strategy is to exclude users – e.g. through changes in the legal framework (right of access) or through the enforcement of property rights (fencing, or control of access together with entry fees or offering licenses). As long as customers do not compete the good is regarded a club good, but with increasing rivalry it becomes a pure private good (Figure 3). There are in addition a number of social and institutional factors that hinder the establishment of property rights and their enforcement (e.g. traditional user rights). Furthermore, institutional capacities need to be sufficient to enforce property rights.

How can the challenge of marketability be addressed? How can the provision of forest benefits be increased? What solutions can be applied? Public forest policy instruments can effectively deal with the problem of externalities, through regulatory financial and informational policy means (Weiss 2000). Regulatory policy means have long been applied in order to secure basic provision of certain ecosystem functions of the forests. Regulations, however, are also necessary as a framework for functioning markets – e.g. by clearly defining property rights (e.g. hunting or emission rights). Financial policy means (also called economic or fiscal instruments) include negative incentives (taxes, fees and charges) as well as positive incentives (subsidies and payments on a contractual basis). Informational policy means can be used, for instance, to make owners aware of marketing possibilities of forest goods and services. They may also be used for informing forest visitors about the values of forest ecosystem, ownership rights, or alternatively property rights and market offers.

In addition, there are market solutions, such as ‘transformation’ of goods or services by changing their institutional properties. This marketability approach (Merlo et al. 1996; Mantau et al. 2001) includes transformation of the goods and services and product development. The former concerns transformation of the institutional properties of goods and services (e.g. legal status, contractual agreements, etc.). The later concerns development of additional/complementary goods and services (e.g. marketing promotion). From this

follows that both, public policy and private owners, might take action to turn forest goods and services that are difficult to market into marketable products. While theoretical studies exist for both, policy and market mechanisms, their practical application is still rare. The lack of practical applications is reported repeatedly for new political instruments (Cubbage et al. 2007; Bräuer et al. 2006; Smith et al. 2006; Merlo et al. 1996) and also for marketing attempts of new products and services (Mantau et al. 2001; Rametsteiner et al. 2005).

In the framework of FORVALUE study, we studied the application of financing mechanisms – public, private, and mixed public-private – in the EU-27¹. More precisely, we analysed the application of: taxes, subsidies, public-private contracts, tradable permits, purchase of goods and services, land purchase, land leasing, eco-sponsoring, donations, and certification. By means of the described questionnaire, governments were asked how frequently these financing mechanisms are used in their countries. According to the opinion of government representatives participating in the FORVALUE survey, public financing mechanisms – taxes and subsidies – are the most frequently used financing mechanisms in the EU. Public-private contracts, trade of forest goods and services, eco-sponsoring and certification are also common. The other financing mechanisms – i.e. tradable permits, land purchase and donations – are found only in some countries (FORVALUE 2008).

Besides the marketability challenge, the limited use of new financing mechanisms can be explained by a governance approach. The entire study, in particular the part dealing with development and application of financing mechanisms, shows that difficulties in application of financing mechanisms call for new governance principles. The next section presents the main reported challenges of application of new mechanisms, suggests recommendations and brings in the perspective of governance.

What lessons governance research tells us about development and marketing of non-market forest goods and services?

Some of the key principles of good governance (World Bank 1994; UNEP 1997) – such as participation, partnerships, cooperation – have also become known as new principles of governance and/or new modes of governance (Glück et al. 2005; Rhodes 2005; Hogg et al. 2008; Humphreys 2004; Jänicke and Jörgens 2004; Krott 2008; Schmithüsen 2003). In this paper we use the term new principles of governance. The novelty of these principles mainly refers to the recent trend of their promotion and practical application in the policy processes. Many definitions about different governance types, modes, levels and elements have emerged in the previous decades (Rhodes 2000; Kooiman 1999; Kooiman 2003; Stoker 1998; Graham et al. 2003; Rosenau 2004; Smith 2005).

Forestry is one of the fields where new governance principles have gained particular importance. The idea of ‘new governance’ in forestry and forest policy originates from the perceived failure of nation states and the hierarchical top-down policy making to deal with the complex and multi-dimensional issues. The complex issues, such as climate change or biodiversity protection, require responsive, integrated, flexible and iterative policies. Glück and Rayner (2009) notes that traditional governance and the top-down style of policy formulation and implementation are incompatible for the emerging complex forestry issues. Unlike the traditional hierarchical governance, new governance embraces complexity, provides for cooperation and participation of different actors and remains flexible for new

¹ For further details, definition and classification of financing mechanisms see FORVALUE 2008.

ideas, policy learning and new challenges (Glück and Rayner 2009). In this paper we form the following understanding of forest governance:

Forest governance is about handling of forest resources and related issues in a way that provides for flexibility, cooperation and participation of different actors at different levels.

The FORVALUE study does not focus on the concept of governance explicitly. However, the conclusions about development of non-market forest goods and services show that new governance principles have a significant role in the process of application of various financing mechanisms. Similar conclusions have been formulated in earlier studies, such as those in innovation in forestry, including forest-related services (Rametsteiner et al. 2005; Weiss and Rametsteiner 2005; Weiss et al. 2007). This section reviews the FORVALUE study conclusions concerning the most common challenges in development and application of new financing mechanisms. It further suggests recommendations and elaborates on the relations to new principles of governance.

Challenges for application of financing mechanisms and recommendations: from a governance perspective

The following four groups of challenges in application of new financing mechanisms are identified as the most common ones:

- Lack of stakeholder involvement;
- Lack of knowledge, data and information about the existing financing mechanisms;
- Lack of cross-sectoral coordination;
- Unsupportive institutional structures.

Consequently, we have identified some recommendations, which directly link to the following new governance principles:

- Stakeholder participation;
- Cooperation and knowledge generation;
- Cross-sectoral policy coordination;
- Institutional arrangements.

Next, we discuss these challenges and provide some recommendations. In that discussion we particularly emphasise the role of new principles of governance in development of non-market forest goods and services. Figure 4 is a simplified illustration of the complex interrelations between the governance principles, the challenges and the recommendations. These correlations certainly indicate a beneficial role of new principles of governance in development of non-market forest goods and services. However, there is a need for further research about the role of new governance principles in development of non-market forest goods and services.

The first common challenge concerns the Lack of stakeholder involvement in development of financing mechanisms. It relates to one the key governance principles – stakeholder participation. The principle of participation directly refers to multi-stakeholder dialogue, conflict resolution and negotiation. The majority of the recent national and international forest policy processes emphasise the importance of multiple actors' participation in the identification of policy issues and implementation of policy goals. Development of new financing mechanisms involves different interests and policy issues and requires stakeholder involvement and participation.

Our study confirmed that currently limited application of new financing mechanisms in the EU is partly due to the lack of social acceptance and large uncertainties concerning the

effectiveness of new financing mechanisms. Stakeholder participation can address both of these issues. Furthermore, participation may: (i) increase public awareness of forests and forestry among the public; (ii) maximize the total benefits of forests, improve multiple-use of forest products and services, and jointly define how costs and benefits of forests may be equitably shared; (iii) enhance the social acceptance of sustainable forest management through better informed and more widely accepted forest management outcomes (FAO/ECE/ILO Report). In our study, we found the involvement of land owners in the marketing of goods and services and promotion of stakeholder dialogue and networks, particularly important for application of financing mechanisms.

The second difficulty concerns the Lack of knowledge and information but also weak exchange of existing knowledge and information. A lack of knowledge and information occurs at two different levels: (i) at the level of development of new financing mechanisms, and (ii) at the level of application of the existing mechanisms. The knowledge gap was observed in a number of issues: economic values of non-market forest goods and services; preferences and roles of different stakeholder groups; trade and financing of non-market forest goods and services. The first possible solution is a better cooperation and exchange of existing knowledge and experiences across national borders. This is because financing mechanisms are developed to a different degree and under a variety of measures throughout the EU countries. Second suggestion is that more research, economic valuation studies and databases should be developed.

A third challenge relates to the Lack of cross-sectoral coordination. The importance of cooperation and coordination between different sectors in the forest policy is well established. Policies in other sectors may directly or indirectly, intentionally or unintentionally influence decisions on forests, sometimes more than forest-sector policies themselves (Schmithüsen 2003). Glück and Rayner (2009) also observe that many actions taken within the forestry issues occur as a result of policies elsewhere in the economy. Policy coordination in the context of non-market forest goods and services is of high importance as well. Coordination of different policy areas should be assured in development of new financing mechanisms (e.g. economics, trade, markets, tourism, agriculture, energy, biodiversity). Accept of coordination at the policy level, coordination at the enterprise level is also relevant. The latter result in a stronger alliance of forest industry sector with other sectors from which new demands are expected (e.g. energy production, tourism, environmental protection and nature conservation).

The final challenge is that of Unsupportive institutional structures. The institutional arrangements directly link to all previously mentioned challenges and recommendations. Institutions are a wide concept, broadly and commonly defined as the 'rules of the game'. The discourse on the new governance goes hand in hand with that of institutional change. The rationale is that new emerging policy issues require new reflexive, flexible and transparent institutions. In the context of non-market forest goods and services, the role of institutional support is most prominent in defining and enforcing property rights, fair transactions and managing of externalities.

The FORVALUE study showed that the current institutions should be more supportive to development of new public and private mechanisms. Further, it shows that institutional arrangements were necessary in most of the cases of new financing mechanisms. Institutional arrangements are needed in terms of providing better incentives and support of stakeholders' involvement. Providing incentives for engagement of forest owners and support for their attempts to develop new forest products is highly important. Development of more flexible and transparent institutions and working rules that would support all the types of financing mechanisms (public, private and mixed) is required. Support may include the provision of information, creation of cross-sectoral contacts and provision of seed-money for development of new market opportunities.

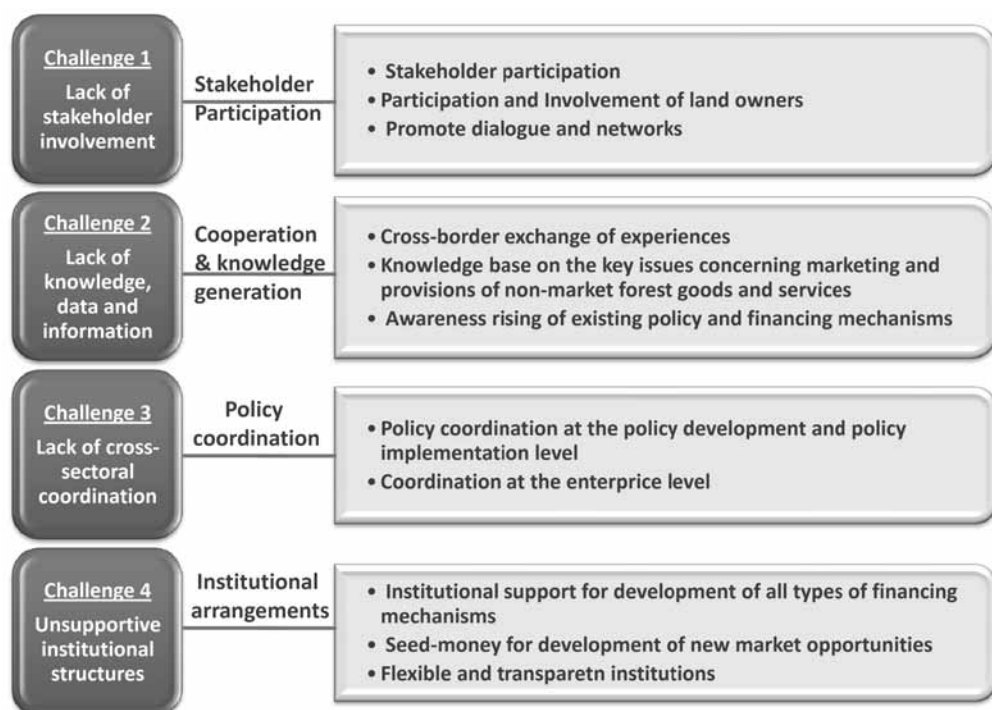


Figure 4. Relations between the challenges, the recommendations and governance principles in the development of non-market forest goods and services.

Conclusions

The issues related to non-market forest goods and services involve social, cultural and political dimensions. Developing markets for non-market forest goods and services is difficult for a variety of reasons, such as externalities and public good characteristics. We saw that number of public and private mechanisms can to a certain extent improve the provision and marketability of non-market forest goods and services. Nevertheless, development of markets and new financing mechanisms for non-market forest goods and services, a part of the economic approach requires a governance approach as well. Development and application of these mechanisms depend on many factors (social, political and institutional) and there is no simple and common formula for success. Purely economic approaches may fail their objectives if governance aspects are neglected. New principles of governance appear to have an important role in further development of many forest goods and services. Our research indicated stakeholder participation, cooperation and knowledge generation, policy coordination, and institutional arrangements to have an important role in development and application of financing mechanisms. However, further research is needed to assess and consolidate these findings and give more insights in the roles of governance principles in development of non-market forest goods and services.

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Forest Fires: from Economic Assessment to Governance

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Abstract

Forest fires have been defined by the European Environmental Agency as the most serious problem of governance of the forest environment in Europe. The problem is complex and challenging for a number of reasons, including the high number and diversity of involved stakeholders as well as of roots causes, and the unclear trade-off among investments in fire prevention and fighting. Weak governance of these issues is a key driver of failures in forest fire management, with the related risks of social conflicts, economic losses and environmental damages. These topics are explored with reference to governance key-issues at national level in Italy, focusing on the problems related to the economic assessment of the costs of forest fire damage and the potential to carry out a stakeholder analysis based on the Advocacy Coalition Framework approach. The forest fires sector in Italy, as in other European countries, is characterized by groups of stakeholders with different attributes and utility functions. The expected coalitions and/or conflicts that might arise among these groups are briefly described. On the other side, the analysis of fire damage costs methodologies developed so far suggests that the most uncertain and debatable forest-related services to be evaluated in economic terms are biodiversity protection, soil erosion control and water cycle regulation. These ecosystem functions are perceived to be among the most relevant and politically-sensitive ones in the Mediterranean.

Introduction

Forest fires have been defined by the European Environmental Agency (2007) as “the most serious problem of governance of the forest environment in Europe”. Considering the five European Union Southern member States (Portugal, Spain, France, Italy and Greece), since 1980 the yearly average total burned area has varied approximately from 450,000 ha up to more than 550,000 ha. In 2007, one of the worst years of recent decades, the total burned area in these countries was 570,000 ha (well above the average of the last 28 years) (JRC 2008) (Figure 1).

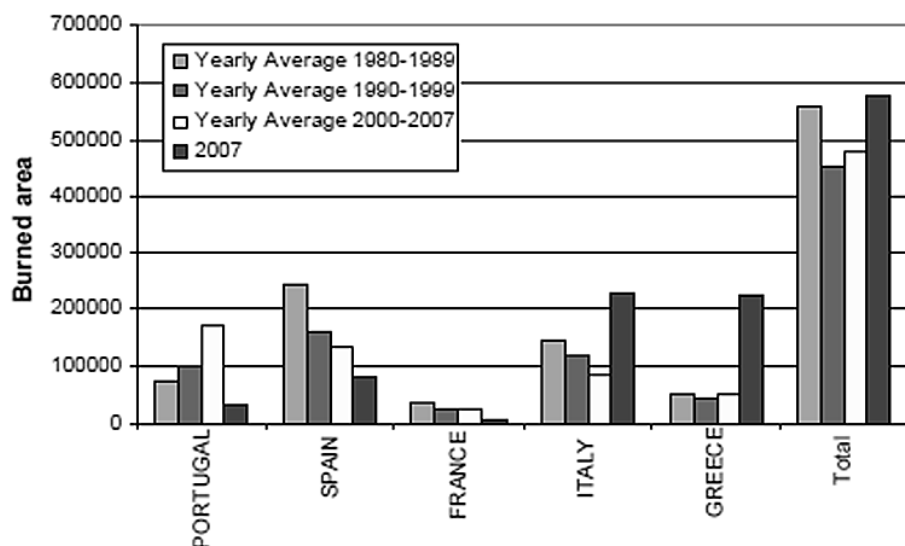


Figure 1. Total burned area in five EU countries since 1980. Source: JRC 2008.

The protection of woodlands from fires is therefore one of the common goals in Mediterranean national and regional forest plans. However, the traditional approach based “on fast ad hoc reaction” (Aguilar and Montiel 2009) to wildfires emergency and on total fire exclusion policies (Montiel and San Miguel 2009) is gradually changing, as the national and regional forest plans in most European countries are “increasingly including preventive and suppressive actions to mitigate wildfire hazard” (Aguilar and Montiel 2009). The idea of a socially and environmentally acceptable level of fire damage is becoming familiar among the decision makers. One of the underlying reasons of this new approach is the “paradox of fire prevention”¹ (Figure 2) i.e. the perception of the reduced risks associated with massive prevention investments, which actually might lead to the accumulation of huge quantities of potential burning material with greater economic losses when fire then occurs. In other words, the new attitude in forest fires policy is based on the concept of “Living with wildfires”, as stated in the title of the recent report published by the European Forest Institute (EFI) on this issue (Biot 2009).

One of the current challenges, with respect to the effectiveness of the adoption of this new approach, is the limited understanding of the socio-economic and cultural scenarios under which many forest fires occur. Different types of institutional, economic, social and environmental scenarios might lead to different governance mechanisms (i.e. different institutional and legal frameworks, varied forest and civil protection policies processes, different stakeholders, various levels of risks and potential damage connected to wildfires, etc.). According to Aguilar and Montiel (2009), three types of scenarios might be identified: (i) ‘rural areas’, where a well-consolidated socio-economic context exists and an important productive function is still recognized to the forests; (ii) ‘metropolitan areas’, which are particularly vulnerable to wildfires and where the economic and social costs of forest fires might be extremely high; and (iii) ‘rural areas in crisis’, where the processes of land abandonment and forest natural

¹ This concept has been investigated by the Integrated project “Fire Paradox”, Project no. FP6-018505 European Commission, at URL: <http://www.fireparadox.org>.

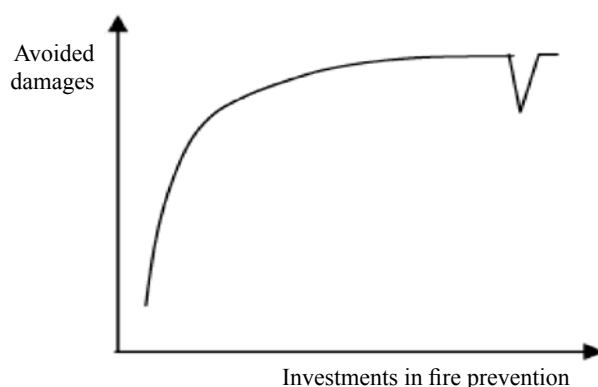


Figure 2. Relation between the avoided damages and investments in fire prevention.

expansion have already reached an advanced stage. Obviously, different groups of stakeholders should be identified and differently involved in forest fire management issues, both in policy making and in practice, depending on their attitudes, interests and capacity to participate.

Governance can be defined as the method or system by which the sector with all its components, processes and actors is managed. It includes “regionalisation, decentralisation and all the other formal (and informal) interactions between governmental institutions and other actors and the roles they play in delivering effective, accountable solutions to shared problems” (IIED 2009). The importance of ‘good governance’ is more and more recognized within various international arenas², including global forest policy. Key indicators to assess the quality of governance (for example in development cooperation³) are transparency, accountability, legitimacy, law enforcement, stability, public participation, real capacity of various actors to influence policy and regulatory processes, social justice, equity, and mainstreaming of environmental and social aspects (Secco et al. 2009). Especially in the field of forest fires, weak governance might determine social conflicts, economic losses and environmental damage as serious consequences. Mainstreaming good governance in forest fires sector should be a priority for the international, national and regional forest policy formulation and revision; however, forest governance is increasingly complex and prone to conflict for a number of reasons, including the weaknesses of the current legislation and policy instruments for wildland fire management (Herrero et al. 2008) and the growing array of stakeholders with diverse interests and uneven power (CIFOR 2009).

Forest fire management is a challenging and complex problem mainly for three reasons:

1. there are many root causes (e.g. abandonment of marginal land with ageing stands and increasing deadwood, increasing recreation activities in forests, climate change, etc.). That means there is a need for multi-sectoral and long-term policies, which should take into consideration at least the three different types of scenarios in forest fire policy development demanding different governance mechanisms (Aguilar and Montiel 2009).

² As in the case of participation and participatory approaches (based for example on Rapid Rural Appraisal – RRA techniques), the concept (and the term) of ‘good governance’ was first used in the context of development cooperation. Major donors and international financial institutions, like the International Monetary Fund or the World Bank, are increasingly basing their aid to Developing Countries on the condition that reforms ensuring good governance are undertaken.

³ The World Bank research project named Kaufmann-Kraay-Mastruzzi Worldwide Governance Indicators (in short, KKM Indicators) measure the quality of governance in over 200 countries with annual updating since 1996 on the basis of six key dimensions of governance (Voice and Accountability, Political Stability and Lack of Violence, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption) (Kaufmann et al. 2009).

2. Many stakeholders are involved, with open or latent conflicting interests, different beliefs and advocacy coalition resources. This aspect requires a broad and long-term analysis of stakeholders and their interdependencies/influences in decision-making.
3. Trade-offs among investments in fire prevention and fighting are not clear and social cost minimization strategies are difficult to define. That means there is a need for innovative methodologies (based on accuracy, transparency, simplicity, etc.) and data on fire damage costs on a broad scale.

Recent methodological approaches for economic-environmental evaluation of forest fires built largely on the concept of Total Economic Value (TEV) of an environmental good (forest) as the sum of the different types of values. These include the value of direct use (e.g. timber, non wood forest products, firewood, grazing, hunting and various services such as recreational tourism) and the value of indirect use (e.g. environmental functions such as hydrogeological protection, water cycle regulation, biodiversity conservation and carbon sequestration) (Turner et al. 2003; MEA 2005; Merlo and Croitoru 2005; DEFRA 2007; Florian et al. forthcoming). As reported by different sources, TEV can vary significantly (Table 1).

On the other side, studies have been carried out to estimate forest fire damage, which can be very high. For example, an average cumulated value of damage of 5.4 7.2 million Lire ha^{-1} (approximately 2790 3720 € ha^{-1} at a discount rate of 5%) has been estimated for Italian forests some years ago (Pettenella 1998). A recent review of a number of case studies world-wide, where the average fire damage costs assessed in various countries are reported and compared, has been prepared by Florian et al. (forthcoming).

While the aspects related to the economic-environmental evaluation of forest fire costs as a tool for improving transparency and accountability (i.e. governance performance) are already partially explored, those related to the stakeholder analysis in an increasingly complex world (by means for example of innovative instruments like the advocacy coalition framework ACF) (Sabatier 1998) are still at the beginning, at least in Italy. The paper provides a general overview of the ongoing research and makes proposals for future investigations in forest policy and economics as a contribution to support good governance.

The logical framework

To reach a 'good governance' or at least to pursue an improvement of governance conditions – within the forest fire sector can be considered a functional goal with respect to the overall aim of maintaining or improving forests (especially Mediterranean forests, which are particularly affected by degradation phenomena like fires). Understanding costs and benefits of forest fires, identifying root causes and analyzing the '4Rs' framework for involved stakeholders (i.e. their returns, rights/duties, responsibilities and relationships) (Dubois 1998; Vira et al. 1998) plus their resources, can be considered operational objectives to achieve such a general governance goal. With respect to this basic conceptual framework, our ongoing research can provide a contribution by describing possible methodologies for the economic assessment of the costs of forest fire damage as information tools to be used in more effective and socially-accepted policy processes. On the other hand, our future (possible) research is intended to adopt an ACF approach to stakeholder analysis for understanding the political context of forest fire policy within the Mediterranean Basin. Hereafter, the two mentioned research lines, and their links with changes in governance, are briefly described.

Table 1. Examples of estimated TEV of forests.

Estimated TEV	Source
940–1005 US\$ ha ⁻¹ year ⁻¹ (appr. 762 € ha ⁻¹ year ⁻¹)	Costanza et al. 1997 Bonnie et al. 2000
133 € ha ⁻¹ (overall average value in 18 Mediterranean countries; national averages weighted by forest area; varying from 8 € ha ⁻¹ in Albania up to 344 € ha ⁻¹ in Portugal)	Croitoru and Merlo 2005

Ongoing research: a model to quantify forest fires costs

In 2007 and 2008, a methodology for estimating economic damage from forest fires has been developed in Italy by the Italian Academy of Forestry Sciences (commissioned by the National Forest Service). This methodology addresses the three main components of economic damage (Ciancio et al. 2007):

1. costs of extinguishing fires (machinery, equipment and personnel used in fighting against fires);
2. environmental damage (the costs of goods and services connected to the TEV concept); and
3. special external costs (personnel injuries, infrastructure damage, general organizational costs associated to fight and eventual post-fire restoration).

The Italian model has recently been integrated within a modular approach adopted by MASIFF (Methodology for the Analysis of Socio-economic Impact of Forest Fires and economic efficiency of fire management), an EC Joint Research Centre project coordinated by EFIMED. According to MASIFF, costs can be estimated by using three different approaches depending on fire severity. When forest fire damage is limited, their costs can be estimated by adopting the rapid approach, based on reconstruction costs for synthetic evaluation. When forest fires, and therefore damage, are more severe, the intermediate approach based on MILVA (Mean Indicative Land Values) can be adopted. It calculates the average value per hectare in relation to ‘four plus one’ functions (Wood production, Recreation, Soil protection, Carbon storage, and Other values – in relation to regional characteristics and data availability) to be used for regional calibration of data. Finally, when forest fires are particularly severe, an analytical approach based on a protocol to carry out site-specific assessment named SAFE (Semi-Automatic Fire costs Evaluation) plus eventually a Contingent Valuation can be adopted. For more details on the methodology, see Florian et al. (forthcoming).

One of the mechanisms for introducing changes in governance is learning over long periods of time from the gradual accumulation of information (Sabatier 1987; Bennett and Howlett 1992), such as for example policy analysis, direct experiences of stakeholders, case studies analysis and other scientific studies. By developing environmental accounting systems with fire damage cost evaluation (which record growing stock, net annual increment, non-wood forest product values, etc.), changes in wildfire policy making processes (i.e. in governance) would be facilitated. Moreover the existing projects and guidelines for defining a common methodological approach within the European context, and identifying cost

Table 2. Stakeholders analysis: traditional approach versus Advocacy Coalition Framework (ACF) approach. Source: based on Weible 2007.

	Traditional approach	ACF approach
Substantive scope	Single alternative or venue	A policy subsystem
(Main) drivers of public policy controversies	(Often) Technical deficiencies	(Usually) Value differences
Utility over time	Short (easily outdated for rapidly changes in stakeholders, etc.)	Long-term perspective
Interdependencies among stakeholders key variables	Not explored	Explored
Structure of individual beliefs and motivations (to change policy)	Unclear categories	Deep core beliefs, policy core beliefs, secondary beliefs

components, methods for single damage evaluation and valuation protocols, which contribute to cost standardization and benefit transfer, might increase the potential in fire policy change based on European cooperation. Multilevel decision making processes, inter-sectoral links, interactivity, and sound expertise (i.e. a number of basic elements of governance) are required for improving wildfire management, monitoring and control in Mediterranean areas.

Proposal for future research: an Advocacy Coalition Framework (ACF) approach to stakeholders analysis

The ACF approach can be useful for understanding subsystem-wide dynamics with multiple actors motivated by their beliefs to structure their relationships into advocacy coalitions, and try to influence policy through utilizing multiple resources and venues. The ACF stakeholder analysis has some advantages with respect to a traditional stakeholder analysis; the two types of analysis are compared and synthesized in Table 2.

Key-differences are related to the substantive scope, the drivers of public policy controversies and the structure of individual beliefs and motivations. While the substantive scope is a single alternative or venue in the case of the traditional approach to stakeholder analysis (where a venue can be defined as an institutional arena within which stakeholders may influence policy making), it is a complex policy subsystem in the case of the ACF approach (where a policy subsystem can be defined as a set of policy participants and territorial and substantive scopes) (Weible 2007). In addition, within the ACF approach, “underlying causes of environmental/policy conflicts are value differences rather than technical deficiencies” (Weible 2007). The ACF approach also allows differentiation of “deep core” and “policy core beliefs”, which are likely to remain stable, with respect to ‘secondary beliefs’, which are more susceptible to change in response to new information and events (Sabatier and Jenkins-Smith 1993, 1999 – cited in Weible, 2007).

A tentative preliminary description for the main stakeholders in the forest fire sector in Italy, where “asymmetrical decentralization plus the existence of a wide array of forest regional and local offices with different tasks makes it very difficult to give an homogeneous

Table 3. Main stakeholders groups in forest fires sector in Italy.

Stakeholder	Utility function	Attributes
State Forest Corp (Corpo Forestale dello Stato)	Maintaining the centralized, traditional, strong role in forest protection.	8400 employees. A military organization with a strong internal hierarchy, a long history and tradition, very good links with the right wing political parties.
Local forest authorities	Maintaining their competencies in fire control at local level (responsibility for coordinating all relevant actors in case of fire).	21 Regional administrations with 21 different policies due to: local environmental conditions, role in direct employment of forest workers, involvement of volunteers
Forest owners	Maintaining the main production function. Some interest in fire spreading (grazing, land development, hunting, etc.)	600,000 private owners; 7.5 ha forest/unit 45% of the units: < 5 ha Problems of land abandonment: 4–5 million ha (more risks of fires). No strong representation: Italy is the only country in the EU15 with no representative among the CEPF (European Confederation of Forest Owners) members.
Fire industry	Maintaining business, selling equipments and technology	Strong links with the military industry (helicopters, trucks, retardants, IR technology, SW to attack forest fires, ...) Well established contacts with the potential buyers. Many semi-public companies.
Forest workers	(Seasonal) employment opportunities in forest maintenance, fire monitoring and fighting.	65,000–75,000 forest workers (mainly seasonal) employed by public authorities. There is evidence that some forest fires have been voluntarily caused by forest workers to keep their employment.
Volunteers	Participation of local communities in forest fires control (involvement of the civil society).	Approximately 3900 small local NGOs organized under the Civil Protection. They are equipped and compensated by public administration (i.e. they are not at zero costs for the public sector!) They represent an alternative to forest workers employed by local public authorities

picture of the scenario” (Aguilar and Montiel 2009), is reported in Table 3. The main utility functions and attributes which allow understanding of the main characteristics of each stakeholder group active in the country are briefly described.

A larger stakeholder participation and a growth in their learning capacity are recognized key-factors in moving towards more effective wildfire management practices in Mediterranean countries (Aguilar and Montiel 2009). First of all, because local communities and private forest owners can be more easily mobilized in case of fire; secondly, because some stakeholder groups, depending on their socioeconomic and spatial context, need to

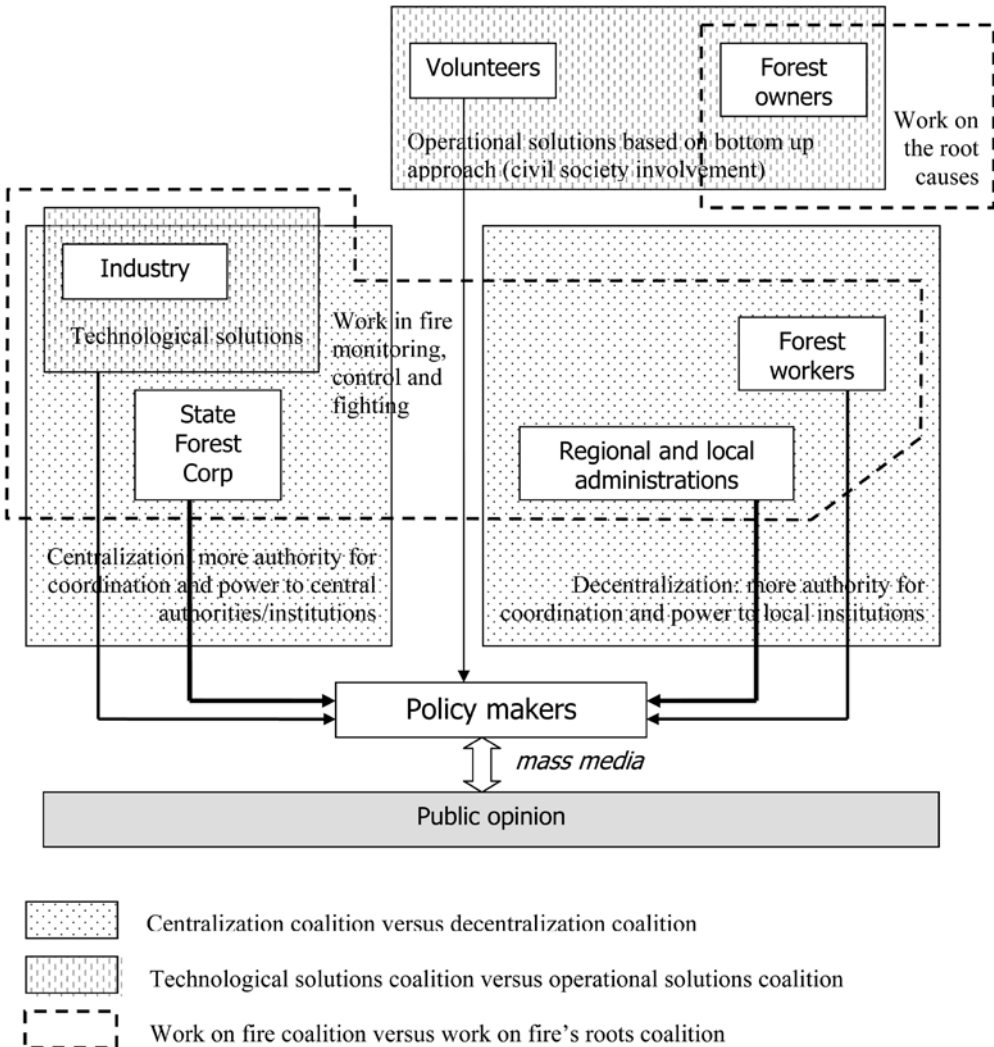


Figure 3. Potential advocacy coalitions (and associated reasons of conflicts) among the main stakeholder groups in the forest fire sector in Italy.

learn or recall how to manage fire in practice (e.g. for mitigating wildfire risks); and finally, because their economic, social, political and personal interests and relationship chains might influence policy making processes (and related decisions) on forest and forest fire issues. On the basis of the list and description of the main stakeholders related to forest fires in the Italian context, various possible coalitions scenarios and types of conflicting interests are identified (Figure 3).

First of all, the typical hierarchical-based conflict between centralization and decentralization. On one side, the forest fires-related industry at national level and the State Forest Corp might coalesce around the interest of maintaining more authority for coordination and power for the

forest fire sector in central authorities. On the other side, due to the strong but still incomplete process of decentralization – with the creation of 21 Regional public authorities (with 21 different regional forest programmes) but still some competencies maintained at State level – regional and local forest administrations are asking for transfer of even more authority for coordination to local institutions. Public institutions at regional and local levels, which top representatives (key policy makers) are elected by citizens through political elections every 4–5 years, try to maintain their political power by providing employment opportunities to local workers. In some Italian regions, the number of forestry workers directly employed by public forest authorities – mainly for forest fire monitoring and control – is enormous with respect to the total forest area (Pettenella and Secco 2004).

A second level of conflict is about the approach used in reducing or solving wildfire problems. Conflicting interests can arise between the forest fires-based industry and the presumable coalition between volunteers and forest owners. The two latter stakeholder categories may in fact decide to create a coalition because they both prefer operational solutions to prevent, monitor and fight against fires. This approach to forest fire management allows the direct, pro-active involvement of the local civil society in forests and local community protection, with a bottom-up decision-making process and a large participation. On the other side, the fire industry prefers technological solutions, which require large investments, external experts and a central-based decision making process (in fact, as already mentioned, the fire industry has strong connections with the State level authorities), to monitor and control wildfires.

A third type of conflict might occur because of different approaches to field work in forest fire management. While the fire industry, the State Forest Corp, the regional and local public administrations, and the forestry workers have more economic and political interests in acting by monitoring, controlling and fighting fires (and thus they might create an advocacy coalition to create pressure on policy makers in promoting this common approach in order to maintain the status quo in their authority, tasks and roles), forest landowners seem to be more interested in working in order to prevent emergency and to avoid the root causes of forest fires (i.e. to promote the active management on their forests to reduce land abandonment consequences, to implement silvicultural measures to improve forest resource stability and health, etc.).

Of course, the above-mentioned various groups of stakeholders have different power and authority in forest fire sector governance in Italy. Some of them are more powerful, having more resources and more potential venues to influence decision making. For example, the State Forest Corp and the Regional administrations have the highest capacity to influence policy makers and decision makers at all levels (see the largest arrows in Figure 3). Also the fire industry and the forestry workers, for their strong economic and social interests and relationship chains (based essentially on their voting power), can play significant roles. State-level institutions and regional administrations might have interests in justifying their activity and high costs in terms of public funds. Only a minor part is presumable for the volunteers, even if they also are important components of the civil society and thus might have influence on policy makers because of their voting power during elections. Italian forest owners have an extremely weak lobbying power, both at the national level and at the international level⁴. The most powerful stakeholders might try to convince policy makers, and consequently the whole public opinion, through the mass media and/or the institutional communication channels, that their approach to wildfire management is the most effective and suitable one.

⁴ At national level none of the three main landowners' associations has created an internal advocacy organization dealing with the forestry sector. Italy is the only country in the EU15 with no representative among the European Confederation of Forest Owners.

Final remarks

Contributes to governance improvement in forest fires policy in Italy can originate from both ongoing and future research. As regards ongoing research, by developing environmental accounting systems with fire damage cost evaluation, a change in wildfire management policy would be facilitated based on learning by accumulating information. In addition, the guidelines for defining a common methodological approach in the European context, as well as identifying cost components, methods for single damage evaluation and valuation protocols, can contribute to cost standardization and benefit transfer, thus improving the potential for changes in wildfire policy based on European cooperation. As mentioned, a number of key-elements of governance (i.e. multilevel and inter-sectoral decision making processes, interactivity, etc) are necessary for improving wildfires management, monitoring and controlling practices in Mediterranean.

As regards future research, it is recognized that stakeholder participation/consultation can be useful in focusing on forest values which can be different from those traditionally identified by experts and officials (value priorities can be different, revised or new data collected for assessing monetary values of damages, etc.), in defining planning and management priorities and local measures against forest fires and, finally, in properly using the economic-environmental assessment results to identify the root causes of wildfires. In other words, due to the social, economic and environmental risks related to wildfires and their consequences, participatory governance in wildfire management should be adopted at all stages of the policy making processes. However, the socio-economic, cultural and political conditions under which fires occur in different contexts are commonly neglected. As for other sectors, the ACF approach seems to be more functional for understanding complex contexts than the traditional stakeholder analysis approach, but additional investigations are needed. The various possible coalition scenarios and types of conflicting interests preliminarily explored in the paper among the main stakeholders related to forest fires in Italy can represent a sound basis for future research.

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The Value of Urban Forests in Residential Land Use

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Abstract

The diversity of management types of urban forests in Zagreb area creates a need for their thorough valuation. That process is usually performed by applying the contingent valuation method. The official method for valuation of non-timber benefits of forests in Croatia is the professional assessment, which has no special provision for forests in and around urban areas. This paper gives an overview of urban forests benefits, valuation methods applied in Croatia and uses a hedonic pricing method application for urban forests in the Zagreb area; the objective is to motivate the use of new econometric methods of valuation in Croatia and to make a contribution to the possibility of revising the official professional assessment method.

Keywords: Urban forests, urban forest benefits, total economic value, valuation

Issue of environment protection and evaluation

The environment is a public good, and the problem of environment management is universal for all public goods: no one can be excluded from using it, and there is no competition in the process of its consumption. There is a broad declarative support for protection of the environment, but who is going to pay for it? The costs are relatively easy to measure, but what about measuring the benefits? The issue of 'environment vs. development' has been one of the most important issues of the international policy debate; the outcomes of this debate follow the fluctuating status of the relation between man and nature (Pregering 2008). An associated problem is the 'free rider problem' (Olson 1971), which in the case of environmental amenities can be solved preferably by governmental regulation (Cowen 2008).

The first step is to define what the environment is by distinguishing it from the socio-economic system. Since there are several theoretical approaches about the boundary between the socio-economic system and its environment (Fischer-Kowalski et al. 1994), and several paradigms on the nature of the relation between the socio-economic system and its environment, it is easy to understand why the final decision about 'what to do' falls to the

Table 1. Division of goods.

		Exclusion in consumption of good	
		non-exclusive	exclusive
Rivalry in consumption of good	high	Common pool resources examples: fishing grounds, fresh water	Private goods examples: timber, house
	no rivalry	Pure public goods examples: Biodiversity, landscape	Club goods examples: recreation centre, cable television

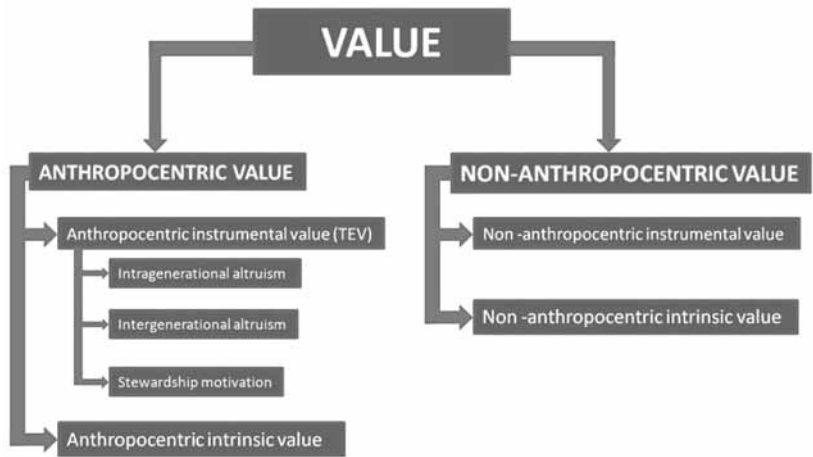


Figure 1. Typology of goods. Source: Hargrove (1992).

politicians – because there is no research that can fully interpret the situation in reality and because of the nature of the process of decision-making (Krott 2005). However, by estimating the ‘value’ of environment and its benefits, the researcher raises the level of awareness and understanding about the intrinsically non-monetary concepts of the environment. In order to do that one has to be familiar with the types of values associated with the environment and with the ways of assessing them. The general typology of values is presented in Figure 1.

Although there are many types of values, environmental economists have focused on anthropocentric instrumental value, which is widely known as total economic value (TEV). TEV can be separated into use (direct and indirect) and non-use (option, bequest and existence) value. The distinction between the categories of non-use values is not always clear, and the category existence value is somewhat outside conventional economic reasoning – the issue is whether it is viable or not to let individuals assign quantified monetary values to their intrinsic perspective of the nature or its components (Portney 1994; Turner et al. 2003).

Table 2. Dissemination of definitions related to urban forests (adapted from Dobbertin and Prüller (2002)).

	STRUCTURAL ELEMENTS				LOCATION			PURPOSE				PARTICIPATION	OWNERSHIP	
	Trees	Woodlands	Other	Open space	In cities	Around	Rural areas	Recreation	Wood supply	Ornament	Environment		Public	private
Urban forest(ry)														
Urban green(ing)														
Urban gardening														
Green belt														
Greenways														
Town forests														
(Urban) social forestry														
Community forest(ry)														

Defining urban forests

Urban forests in the USA cover 2.8% of the total surface area, and there are around 3.8 billion trees in these forests (Dwyer et al. 2000). This figure is very large, and it is obvious that urban forests are a category that requires special attention. But what does the term urban forest actually mean?

The answer is not so straightforward. The terms ‘urban forest’ and ‘urban forestry’ are applied in many different situations in a variety of countries; not surprisingly this has led to imprecise definitions. According to the studies performed on the scientific literature that used the term urban forests, its meaning varied from incorporating single trees, groups of trees, woody vegetation, city parks, green lawns, green space, woodland, across forests and forest ecosystems to all related vegetation and organisms (Dobbertin and Prüller 2002). The same authors compiled a table that sheds some light on the issue of defining urban forest(ry):

It is clear that urban forest can be anything from large peri-urban forest to collections of street and park trees. Whatever the accepted universal definition is, it is going to have to be vague. In-depth research by Brown (2007) suggests the usage of the following definition for the term urban forestry:

...is a specialized branch of forestry and has as its objective the cultivation and management of trees and forests for their present and potential contributions to the physiological, sociological, and economic well-being of urban society. These contributions include the overall ameliorating effect of trees on their environment, as well as their recreational and general amenity value (Jorgensen 1974).

Trends in urban open space management

Increasing urbanization puts pressure on open space as a place of alternative land use, but also lays out new demands. One of them is provision of accessibility to open spaces (Rogers 1999), for the reason of aging of the population, and increasing number of disabled people (in UK, 16% of population is disabled). In his work, Rogers presents a notion of open space networks with carefully planned social, ecological, health and life quality benefits. The author identified three sources of change:

1. the technical revolution, centered on information technology and global to local networks connecting people;
2. the ecological threat, with its implications for the importance of sustainable development;
3. the social transformation, with life patterns reflecting increasing life expectancy and new lifestyle choices.

A similar situation is also found in Zagreb, where a contingent valuation research (Franjić et al. 2009) has shown that there is a strong need to adapt the approach paths of forest destinations to the needs of the elderly and disabled.

Landscape and urban planning professionals have long recognized the needs of the urban population for ‘refuge’ and ‘contact with the nature’ (Kaplan and Kaplan 1989; Ward Thompson, 2002), although there are contrasting opinions about whether this should be a ‘beautiful, ornamental, horticultural’ (Worpole 2000), or a ‘wilder, untamed nature’ experience (Baines 1999), depending on the vision of optimization of the needs of different socio-economic groups.

Recreation, urban sprawl and many potential hazards (invasive species, fires, insects and diseases) put significant pressure on the normal management regime. The need to coordinate urban forest resource management with many other sectors, such as land use planning, residential development, environmental protection and education, is well recognized (Dwyer et al. 2000; Konijnendijk 2005). The factors of a fast changing city development and slow changing natural development create a need for careful planning of urban forests, and those areas that are managed to classical forestry standards require a shift in the management priorities.

The future urban forests management policies focus points are:

- integration of green space in market-oriented urbanization projects;
- creating empathy for urban forests by using symbolic communication among conflicting groups within population;
- recognizing urban forests as a tool of social policy relating fringe groups (Ottitsch 2005).

Benefits of urban forests

According to the different authors and methodologies, there are numerous benefits of urban forests. Any kind of classification is artificial since large synergy effect exists, but Tyrväinen (1999) provided a general overview:

- Social benefits: recreation opportunities, improvement of home and work environments, impacts on physical and mental health, cultural and historical values.
- Aesthetic and architectural benefits. landscape variation through different colors, textures, forms and densities of plants, growth of trees, seasonal dynamics and experiencing nature, defining open space, framing and screening views, landscaping buildings.

- Climatic and physical benefits: cooling, wind control, impacts on urban climate through temperature and humidity control. Air pollution reduction, sound control, glare and reflection reduction, flood prevention and erosion control.
- Ecological benefits: biotopes for flora and fauna in urban environment.
- Economic benefits: value of market-priced benefits (timber, berries, mushrooms, etc.), increased property values, tourism.

Many other benefits could be included, such as educational services, economic stability or bird watching, but the main point is that there are many (potential) benefits of urban forests. Depending on the situation, different values are taken into consideration, and the values can be measured or estimated using many different methodologies. The variety of groups of benefits illustrate the complexity of urban forest planning and management; this management has to take into consideration the influence of very strong city outspread and demands of divergent and often conflicting groups who emphasize different types of values of urban forests. When 'waging' these influences one has to bear in mind that economic valuation studies have indicated that on social grounds urban forests are cost-effective concept (Tyrväinen 2005). This concept is elaborated for a small number of urban forests across Europe, but given the many residents' high appreciation of urban forests benefits, it is worth accounting for them in detail.

Valuation of forests in Croatia

Article 52. of the Constitution of Croatia states that:

Sea, shoreline and islands, air space, ore and other wealth of nature, and also land, forests, plant and animal wildlife, other parts of nature, real estates and objects of significant cultural, historical, commercial and ecological importance are of special interest for the Republic of Croatia and are under its special protection.

The values of non-timber benefits (other used synonyms are non-market functions, non-wood services, multiple benefits, welfare functions, generally useful functions, long-term sustainable services) of forests in Croatia are categorized into the following groups:

- Ecological functions: erosion protection, hydrological influence, water purification, climate and agriculture influence, anti-emission role.
- Social functions: aesthetic scenery, influence on human health, recreation role, touristic role.
- Socio-ecological functions: preservation of the gene pool of the species in forest biocenose, maintaining biological diversity, supporting the protection of forest scenery, carbon sequestration, biological capital, benefits to national defense and municipal development.

There are many other types of valuation of forests used in Croatia, and they can be separated into (Posavec 2005):

- 'Classical' methods are focused on primary use value – i.e. wood, and mostly used when estimating forestry related projects, such as for charging compensation for easement of forest land.
- 'Modern' methods are focused on ecological, tourist and social values of forest. The prevailing method is the contingent valuation.

The special protection of forests by the State from the Constitution is among other ways provided by the green tax, popularly known as OKFŠ (the same abbreviation is used for the

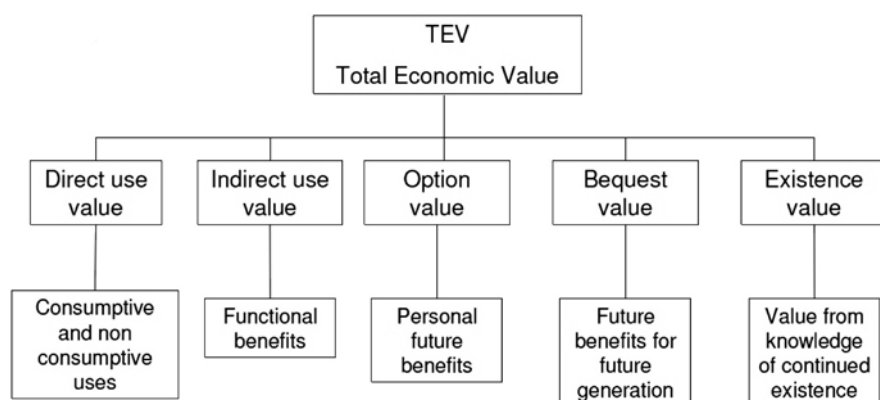


Figure 2. Total economic value. Source: Pettenella (2006).

Table 3. Division of forest non-market functions in Croatia according to the By-law on forest management.

Name of the function	Range of points
Protection of soil, roads and other objects from water erosion by storm water and floods	1–5
Influence on water regime and hydro-energetic system	1–4
Influence on soil productivity and agriculture	1–4
Influence on climate	1–4
Protection and enhancement of environment of man	0–3
Oxygen production and carbon sequestration	1–3
Recreation, tourism and health function	1–4
Influence on wildlife and hunting	0–4
Protective and special purpose forests	8–10

non-market functions of forests). This green tax is on the level of 0.07% of all revenues of all economic subjects registered in Croatia. The money originating from this tax is used for the enhancement of non-market functions of forests. These funds are transferred to Hrvatske Šume Ltd., a state forest management company which uses these funds for the designated purpose according to the management plans. Hrvatske Šume distributes the funds to those responsible for forest management in ideal proportions. The amount of funds designated for private forests (about 21%) goes to the State Forest Extension Service, which distributes the funds further on to private forest owners for operations like silviculture measures and forest road planning, construction and maintenance.

These values are stated in the Law on forests (2005). The methodology used for their valuation was developed by Prpić and Meštrović (1992), and set in law in the By-law on forest management (NN-111/06 and NN-121/97). It is a professional assessment method in which a forester, following the by-law guidelines, assesses every sub-compartment by assigning a point to every function within a given range of points. These points are then multiplied by the area of the given sub-compartment, and multiplied with the monetary equivalent of a single point, which is now 1 kuna (on 15.2.2009 1 € = 7.44 kuna).

The main role of this valuation is that it is one of the preconditions for performing any major intervention in the nature or as a starting point for spatial planning in some locations. However, this system takes no special account of forests in and around cities. The list of types of values and its span of points according to the By-law on forest management is given in Table 3.

Hedonic pricing method

The Hedonic pricing method (HPM) is a revealed preference method of valuation. Generalized, it is a valuation method based on multiple regression equations in which the dependent variable is the price of the product, and the independent variables are its characteristics. The analysis of the equations tries to explain (value) the preferences of the consumers. The preconditions for the application of the method are that the consumers are aware of the characteristics of the product that they are buying and that the market is in equilibrium. The main advantage of HPM is that it is based on real transactions.

HPM finds its roots in the Lancaster's consumer theory, in which utility of a good is derived from his characteristics (Lancaster 1966). The most basic form is $y = \beta X + \varepsilon$, where y is the vector of the selling price, X is a matrix of explanatory variables, and ε is the error. HPM may be used to estimate economic benefits or costs associated with:

- Environmental quality, such as air pollution, water pollution or noise.
- Environmental amenities, such as proximity to recreational sites or aesthetic views.

In the research connected to environmental quality or amenity, the variable through which it is valued is at the same time a variable of a product on a surrogate market that has an actual price attached to it. The most common surrogate market is the housing real estate market.

It can be said that the forerunner to HPM was the study of Waugh (1929), in which he was the first to provide analysis of the 'quality' on a price of a commodity, where he estimated the implicit price for each of the attributes. An important moment for HPM was when Ridker (1967), and also Ridker and Hening (1967) demonstrated that air pollution affects property values. Later on Rosen (1974) thoroughly elaborated the method, and since then it has been used in so many studies that Freeman (1993) presented an overview of environmental benefit studies using the HPM, along with issues connected to its usage.

The application of dwelling price based hedonic studies of the impact of environmental externalities can be divided into:

- Air quality studies (Murdoch and Thayer 1988; Zabel and Kiel 2000);
- Water quality studies (Mendelsohn et al. 1992; Leggett and Bockstael 2000);
- Undesirable land use (Kohlhase 1991; Smolen et al. 1992);
- Neighborhood variables (Uyeno et al. 1993; Garrod and Willis, 1994);
- Multiple environmental pollutants (Blomquist et al. 1988; Thayer et al. 1992; Clark and Nieves 1994).

HPM application

HPM was applied for the city of Zagreb, divided into seven city districts. The object of valuation were urban forests, which were categorized as follows:

Table 4. Division of variables from the HPM database.

Internal variables	Neighbourhood variables	Environmental variables
Apartment / House (0–1)	Population density	Distance to the centre of the city
Flooring area	Unemployment rate	Distance to the nearest park forest
Age of building	Crime rate	Size of the nearest park forest
Number of bedrooms	Kindergarten in 300 m radius	Distance to the nearest forest
Number of bathrooms	Primary school in 300 m radius	Size of the nearest forest
Number of balconies	Secondary school in 300 m radius	Percentage of park forests in 300 m radius
Number of garage places	Health institution in 300 m radius	Percentage of park forests in 1000 m radius
Basement/Shack (0–1)		Percentage of forests in 300 m radius
Garden (0–1)		Percentage of forests in 1000 m radius
Condition (0–3)		Percentage of green space in 300 m radius
		Percentage of green space in 1000 m radius

- forests – all forests according to the Law on forests (2005);
- park forests – forests within single management unit, with typical management plan, but containing elements of park architecture;
- green space – basically public trees outside forests, represented mostly by parks.

The surrogate market was the housing real estate market, and from which a database containing 855 cases with 31 variables was constructed. The data was collected from November 2006 to November 2008. The list of variables that might influence the price of the real estate can be seen in Table 4.

The variables were regressed against real estate prices. The optimal model structure was found to be a log-linear equation, in which the chosen key-variables were regressed against natural log of the real estate prices that were equated to June 2007 (real prices). This model structure was applied on the level of district, on a combination of districts, and on the entire sample, with usage of different types of environmental variables through which urban forests were valued. Some of the most important findings from the results of statistical analysis were:

- Value of non-timber benefits of forests per hectare in urban surrounding of Zagreb (42 202 €/ha) is much higher than their value on national level (17 428 €/ha). The value of non-timber benefits of forests in an urban surrounding was gained by HPM application, and the value of forests on national level was gained by official professional assessment. For that reason these figures are not entirely comparable, but it is clearly shown that forest in and around urban areas deserve special attention in the official professional assessment methodology. It is the intention of this paper to spark that change.

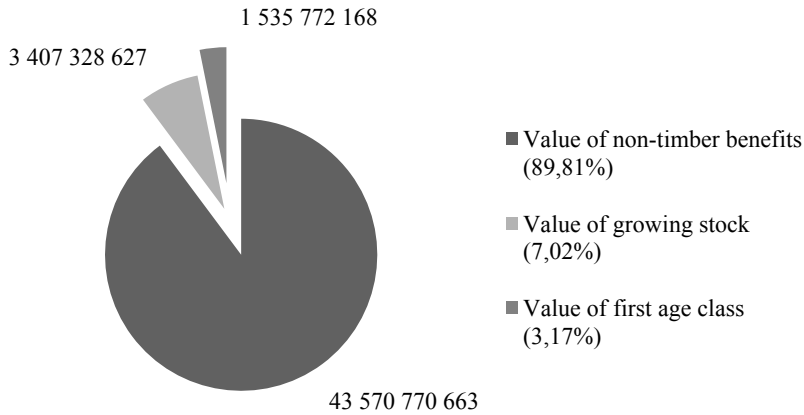


Figure 3. Total value of forests in Croatia, €. Source: General forest management plan for the Republic of Croatia 2006–2015.

- Value of park forests per hectare (134 900 €/ha) is approximately three times higher than the value of other forests (42 202 €/ha) in Zagreb area. Both figures were gained by HPM application, and these results show that park forests are the preferred form of urban forests by the inhabitants of Zagreb. From this statement, it can be suggested that, where it is found reasonable, forests should be converted to park forests.
- Green spaces (public trees outside forest) have no significant influence on real estate prices. Within the analysis no qualitative data about green spaces was used. This limitation may have led to imprecise results, and it is recommended that future researches proceed further on in exploring this issue.
- The positive influence of living close to urban forest is similar throughout Zagreb, but that influence is surpassed by the influence of distance to the centre of the city. Although the beneficial influence of urban forest on real estate prices is not negligible, the influence of distance to the centre of the city is approximately 40% stronger, with similar significance (in most of valuation cases under p-value was under 1% threshold, and minimal viability was 7%). Although the causes of differences in the perception of the values of the environmental characteristics of real estate are an object of a social research which surpasses this study, the following findings may shed some light on the issue:
 - The district with highest average real estate price has the shortest average distance to park forest, and the district with lowest average real estate price has the largest average distance to park forests.
 - Socio-economic variables, such as crime rate, unemployment rate, percentage of highly educated residents, are much more favorable in the districts with higher average real estate prices, than they are in the districts with lower average real estate prices.

Conclusion and future research recommendations

It is evident that, when it comes to valuation of forests, every methodology has its strengths and weaknesses:

- professional assessment is relatively easy to apply, and the results are easy to compare. On the other hand, the method is not flexible, so changes in the needs of different forest user groups that occur over time, as well as certain elements in the division of forest (like urban forest) cannot be easily taken into consideration.
- contingent valuation has very broad field of application, but its results are hard to compare and should be taken prudently.
- hedonic pricing method is based on actual preferences of individuals, but its application is limited to certain areas and is very resource consuming.

This is just an exploratory research, and there are still many issues that deserve attention. There are several directions that future research could follow:

- Including qualitative data about urban forests. Following this way would greatly shift the scope of possible conclusions, focusing them on the direction of recommendations for management of urban forests, with information regarding their preferred form, size and composition.
- Combining stated and revealed preference method. Following this way would increase the credibility of the research, and would broaden the scope of conclusions to an area beyond the one that can be reached just by applying HPM.
- Expanding the research to multiple benefits of urban forests. Following this way would enhance the applicability of conclusion further in the direction of physical planning. This presumes including compatible methods of valuation based on calculations for benefits with surrogate markets. These can be achieved by applying tools such as i-Tree software suite, out of which STRATUM methodology also allows cost-benefit calculations for institutions responsible for urban forest management.

Since no method can capture all aspects of forests benefits, combining them would create a more revealing model: contingent valuation could demonstrate the validity of results gained through application of HPM, and both of these methods could help to revise professional assessment in order to further adapt it to a diverse range of forest types and benefits.

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Forest-Related Conflicts in the South-East European Region: Regional aspects and Case studies in Albania, Bosnia and Herzegovina, Croatia, Macedonia and Serbia

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Abstract

This paper presents preliminary results from a first regional survey and a number of case studies conducted in five countries. The aim of the study was to identify the most pronounced forest related conflicts in south-eastern Europe (Albania, Bosnia and Herzegovina, Croatia, Macedonia and Serbia) at the policy and management levels in terms of types, conflicts dimensions, actors and their attitudes. Data were collected on policy level by semi-structured mail questionnaire with multiple-choice, ranking, and a few open-ended questions and on management level by face-to-face interviews in chosen case study areas. All collected data were assembled in a joint database consisting of 505 questionnaires and 111 interviews from case studies. Results revealed forestry related conflicts with significant differences between countries. The most often mentioned were: forestry vs. nature protection, forestry vs. wood processing industry, forestry vs. grazing and overgrazing, forestry vs. building and construction and forestry vs. water management. For case studies areas the Nature and National parks were chosen. In most cases conflicts appears between public forestry and environmental sectors. They were manifested in wide range of actions, from silent conflict far away from public, over disputes, argues and discussions on meeting and public forums up to intensive lobbying and political influence. Overlapping legislation, struggle for competencies,

different interests, values and attitudes of forestry and nature conservation sector is likely source of these conflicts. The conflict management was introduced either at the beginning of the conflict or when the conflict escalated, carried out by relevant governmental and public institutions which are at the same time stakeholders of the protected areas. Furthermore, respondents in cases employed in forestry sector are dominantly with forestry background, and in environmental institutions people have various professional backgrounds. Conflict parties show differing attitudes to conflicts. Some of them deny the very existence of the conflict; others find conflicts neither negative, nor completely positive. There are evident some improvement with regard to communication among, some policy changes have been reported, as well as changes with regard to legislation.

Keywords: Typology of conflicts, Conflict Management, Policy development, Questionnaire, Interviews, Case study, SEE Region

Introduction

There are very few studies of forestry related conflicts in south-eastern Europe. Apart from a few papers on environment protection, different legislative development which mentioned conflicts there are no papers which analyze or deal directly with conflicts in connection to forestry. Some authors mention ecological conflicts, define potential conflict areas (nature as a conflict area between humans and nature, like tourism and nature protection; economic conflicts as a result of desire for technological domination; social conflicts between groups or individuals and between generations) and propose nature and environmental protection as a conflict management mechanism (Cifrić 2000; Španjol 1997). Some authors examined the phenomenon of forest conflicts in one way or another, during few last years and forestry is recognized as one of the actors but it is not specifically mentioned or analyzed. Some potential conflicts in the context of different approaches in setting forest management goals were discussed in different papers (Avdibegović 2004, Avdibegović et al. 2005). Other papers related to the national legislation collisions in Bosnia and Herzegovina (B&H) have identified some disputes between foresters and environmental authorities, mainly related to lack of cross-sectoral dialogue and responsibilities in protected areas management (Avdibegović et al. 2006; Avdibegović and Srndović 2006).

Forestry and wood-processing industry are traditionally very important pillars of economies in this region. Its importance is strongest in B&H, slightly less important in Serbia and Croatia, and of relatively low importance in Macedonia and Albania where higher importance is given to non-wood forest products and their utilization. This is in strong connection to the post-war situation in respective countries where for example B&H emerged with its infrastructure and industry almost totally destroyed. In such circumstances, recovery of the national economy depends heavily on natural resources such as forests, water and minerals. On the other hand, some wider aspects such as globalization and transition as well as new political frameworks as restitution and privatization in the region significantly influence the society demands towards natural resources and their protection. This resulted in the appearance of new stakeholders with different and often conflicting interests, or newly re-empowered ones like communes in Albania or private forest owners in Serbia and Croatia. The process of participating in European integration, prevailing global trends for nature protection, seem to be a binding framework for creating environmental policies at the national level. New trends in environmental policies were in directions to enlarge protected areas and establish new ones without influence from forestry side. In many cases

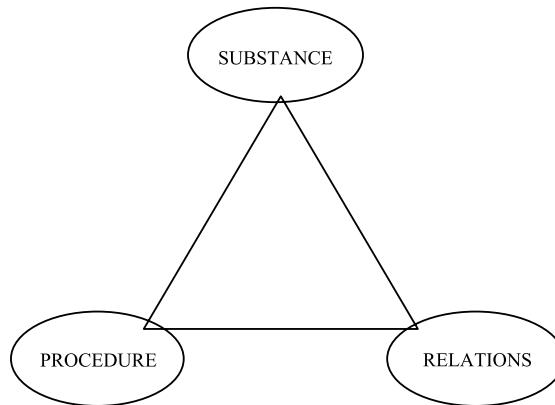


Figure 1. Conflict Management Progress Triangle.

foresters were considered as not capable for managing protected areas on proper way, which set the forestry sector in weakened position. The variety and incompatibility of stakeholders' interests as well as the changed power distribution among them creates the precondition for different types of forest-related conflicts.

The objectives of this research were to determine typology of forestry related conflicts in the region, main conflict actors and to map them horizontally and vertically. The research was organized on two levels:

1. decision-making level of administration in forestry and related sectors together with top level management; and
2. management level in chosen protected areas where overlapping of responsibilities among foresters and protected areas' managers was evident.

Special attention was given to main conflict dimensions and dimensions of applied management strategies. The cultural background has been also analyzed with regard to its influence on conflict management and policy development.

Theoretical framework

Theory behind this research leaning on assumptions that each conflict consists of main cause of disagreement, involved stakeholders, methods for conflict management, results and consequences of conflicts. According to Walker and Daniels (1997) all definitions of conflicts involve central elements of conflict: perceived incompatibility, interests, goals, aspirations, two or more interdependent parties, incentives to cooperate and compete, interaction, communication, bargaining/negotiation and strategy.

The process of conflict management starts by identification of conflict, involved stakeholders and taking the first steps in the establishing the communication between the involved stakeholders. The Conflict Management Progress Triangle (Walker and Daniels 1997) was adopted as conceptual theoretical framework of this research (Figure 1).

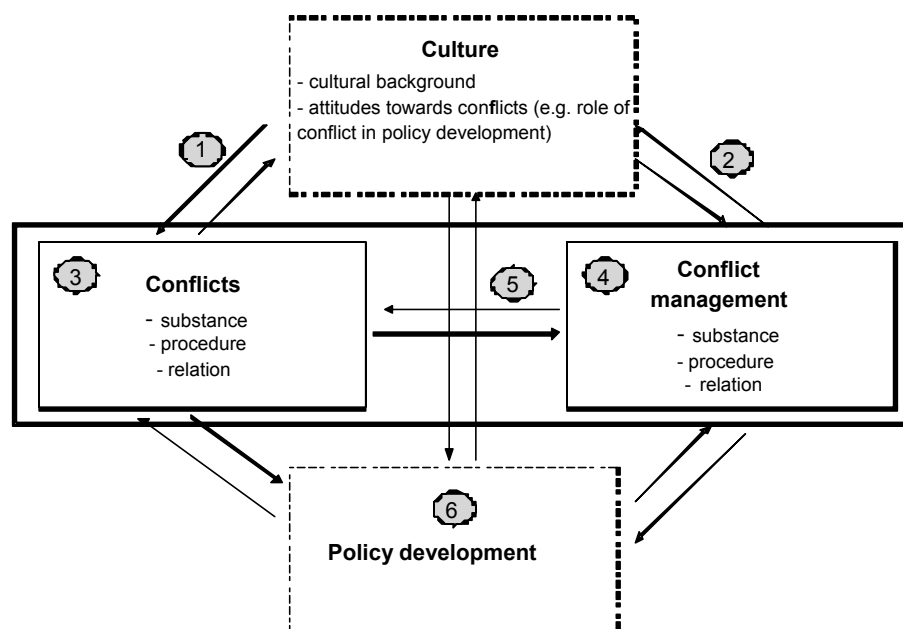


Figure 2. Theoretical framework of the research.

It will serve as a basic model for understanding the nature of a conflict situation. Its design suggests the importance of determining the substantive, procedural and relationship factors in any conflict. The substance dimension of conflict concerns the sources of conflicts and what the conflicts are about (money, power, emotions etc.). The procedure dimension concerns the way in which conflict has occurred, aspects of space and time, how it develops (institutionally or personally), and the possible consequences for policy development. The relations dimension includes actors and relations between them, power distribution, and the knowledge and skills they possess.

Conflict management approaches also have the same three main attributes. In successful conflict management the type of management approach corresponds to the main attributes of conflicts. Substantive conflict might be solved by substance-oriented approach. Procedure-oriented approach can be used to manage procedural conflict. Following the same logic, relations-oriented approach can be used to manage stakeholders' relations.

Values, policies, markets and resources all have strong cultural dimensions. Changes in any of these aspects result in changes in conflict culture. Differences between the parties involved in terms of attitudes, images, language and culture specific for each social group cause many conflicts. The cultural aspects also influence the type of approaches used by stakeholders to manage conflicts. Depending on how they are managed conflicts can affect policy development in a positive or negative way. The effect also depends on conflict intensity and its relevance in a given political environment. As has been already stated, the readiness of political actors to change the situation is the essential preconditions for any conflict impact on policy development.

The conceptual theoretical framework was modified and expanded with the cultural and policy development perspectives of the conflicts and conflict management (Hellström 2001) and on that basis the final theoretical framework in this research is developed (Figure 2.)

Objectives

The objective of the regional survey was to identify the most pronounced forest conflicts in the region at the policy level in terms of types, attributes, causes and actors as well to analyze the approaches used to manage them in order to contribute to further forest policy development. In that sense, the attitudes of the major stakeholders' towards the conflicts and views on conflicts' impact on policy development were investigated.

The main research questions were:

1. What types of forest-related conflicts exist in the region?
2. What are the attitudes of involved actors towards Forest Related Conflicts as a phenomenon?
3. How do Forest Related Conflicts and their management influence the policy development processes? and
4. Are Forestry Related Conflicts managed appropriately in terms of conflict management strategies?

Based on the objectives and chosen theoretical frame the following research hypotheses were developed:

1. Conflict's impact on policy development depends on how they are managed. Conflict management strategy/approach is successful if there is correspondence between main attributes (substance, procedure and relations) of conflicts and conflict management approaches.
2. The approaches used by different stakeholders to manage conflicts are dependent on existing cultural aspects. Different cultural aspects cause different perceptions of the conflicts and consequently influence management strategies.
3. Due to the changes in the society demands towards the forest, the most pronounced forest related conflicts in the region are those between the foresters and environmentalists (conflicts about protected areas).

Materials and Methods

In order to answer the research questions and test the hypotheses, the methodology was defined in a way to be applicative nationally and regionally and to provide comparative data on both decision-making and management levels.

Regional survey

A semi-structured questionnaire was chosen as the method to produce an overview of the conflicts in each country and regionally. The target group (survey population) was defined by a full list of top administration and top management in forestry and related sectors in each country (ministries of forestry, nature protection and physical planning at all levels, directors of public forest companies and public forest administration, directors of wood-processing enterprises, managers of protected areas and water management authorities, representatives of the most important environmental NGOs and professional associations, heads of forest research institutions, representatives of private forest owners associations, representatives of economy of chambers, and representatives of international institutions).

Before the questionnaire was sent to the representatives of the institutions, it was pre-tested and improved based on the feedback results (Neuman 2005). The survey was conducted during

Table 1. Case study specifications.

Country	Albania	B&H		Croatia		Macedonia	Serbia
Case study	Korca District	Kladanj	Foca	Kopacki rit	NP Velebit	NP Pelister	NP Fruska Gora
Acronym	ALB-KOR	B&H-KLA	B&H-FOC	HRV-KOP	HRV-VEL	MAC-PEL	SER-FRU
Field work	Oct. 2008 Jan. 2009	Oct. - Nov. 2008	Oct.-Nov. 2008	Sep. 2008	Aug.-Sep. 2008	July-Sep. 2008	Jun-Dec. 2008
Number of interviews	30	14	14	12	15	15	11

the period October–December 2008. Each country defined a final list of 160 names on decision level (B&H listed 200 names due to the complex administrative structure) which received mail questionnaire. The questionnaires were sent by mail together with the initial information about the project as well as an explanation of possible benefits the respondents might have from the results of the study. After the first round of answers all the respondents who did not react were reminded with a phone call. In total two reminders were sent to all the respondents who did not respond. The collected data were stored into an Excel spreadsheet and transformed into an SPSS document for further statistical analysis. Beside descriptive statistical methods of correlation, analysis of variance and different significance tests were applied.

Case study

The case studies has same objective but on the management level with aim to deduce if identified conflicts are managed properly. This research was conducted in the five countries in SEE region: Albania, B&H, Croatia, Macedonia and Serbia. Each country has one or two case studies. For that reason every country designed a specific open questionnaire depending from the type of the conflict in each case study (Denzin and Lincoln 2005). In the process of designing the questionnaires, a first draft was made and pre-tested. Pre-testing questionnaire included 5–10 people in each country. The questionnaire was modified based on the results of the pre-testing.

Details of the case studies are contained in Table 1. In all case studies the open questionnaire was presented during face-to-face interviews in as much as it was possible, a neutral location.

The main questions asked were:

1. Are there any conflicts in forestry sector?
2. How the conflicts are managed?
3. How should an organization react to the conflict? and
4. Did conflicts cause any changes in your organization and policy process?

Besides the data collected from the interviews, additional data related to the specific case study were collected. Additional data included: documentation, archival records, text analysis, interviews and surveys, direct observations and participant observation.

Analysis of the qualitative data included careful description, pattern identification, classification and reasoned explanations. In the analysis the interviews statements were: condensed (paraphrase), made explicit (intention), and structured (structural aspects). Qualitative analysis also included text analysis and interpretation.

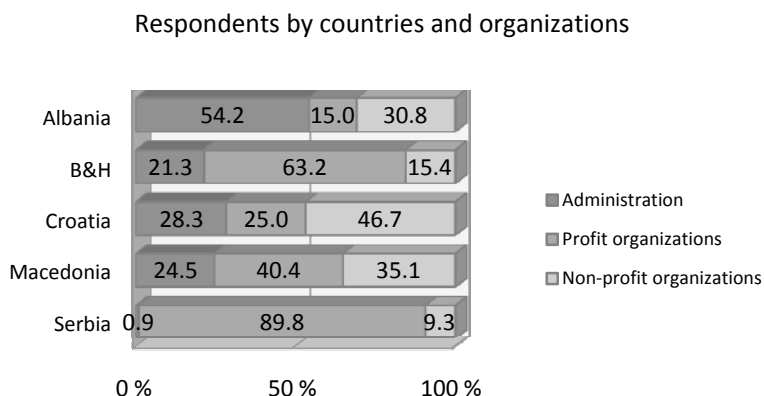


Figure 3. Sample structure by countries.

Results

Regional survey

From a total of 840 sent questionnaires 505 responses were received with different response rates among countries: Albania 66% (107), B&H 68% (136), Croatia 37% (60), Macedonia 58% (94) and Serbia 67% (108). All collected data has been treated as one sample which structure due to its complexity was grouped in three main groups: (1) Administration; (2) Profit oriented organizations; and (3) Non-profit oriented organizations (Figure 3).

The sample structure shows differences among countries which was taken into account during all further analysis. At the regional level 49.9% respondents are from profit oriented organizations and the rest is equally distributed among administration and non-profit oriented organizations. Macedonia and B&H are closest to that average; in Serbia most were profit organizations; in Croatia most were non-profit organizations; and in Albania most were administrative organizations. The significance sample structure was confirmed only for the procedural dimension of the conflict management.

To find out what types of conflict are present in the region, respondents were asked to choose from a list of eleven different conflicts those which they are aware of and to assess their frequency and seriousness on a scale from 1 (very often/serious) to 3 (rare/not serious). Interviewees could also answer that they did not know.

From that question we get the list of existing conflicts in the countries and region and from following question the importance of previously marked conflicts was defined.

According to their importance there are several important conflicts in the region (with important differences between countries):

1. Forestry and Nature protection;
2. Forestry and Wood processing industry;
3. Forestry and Grazing (overgrazing);
4. Forestry and Building and construction; and
5. Forestry and Water management.

Beside the five listed types of conflicts there are some conflicts which gain importance only in one country – like between forestry and using of non-wood forest products in Albania or between forestry and forest utilization and harvesting in Macedonia.

Overlapping dimensions of conflict and conflict management by countries

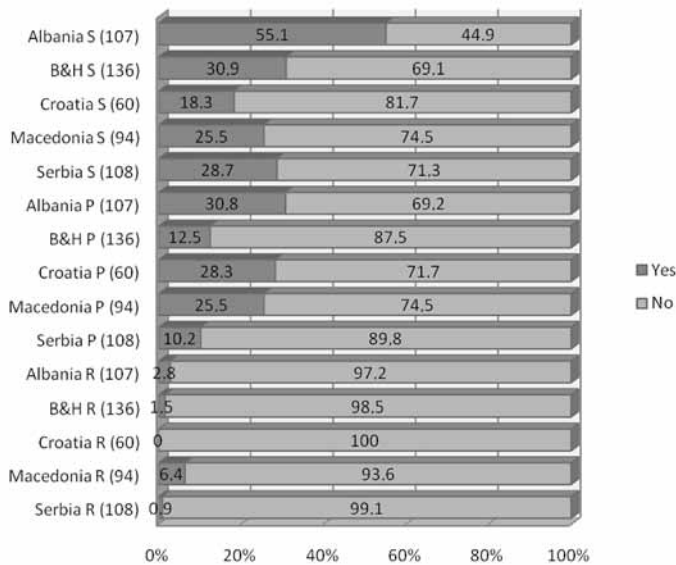


Figure 4. Corresponding of the dimensions of conflicts and conflict management.

The same position has wood processing industry which is most important in B&H but due to its expected development it was also considered of high regional importance. Based on these findings further analysis were concentrated on the most important conflicts and their management.

The following question was an open one from which the list of 26 different issues over which the parties disagree was defined; the list was based on which of the different dimensions of conflict were recognized. Results confirmed the hypothesis of three dimensions (Substance-Procedure-Relation) of conflict (C) and conflict management (CM) with the majority of conflicts in the substantive part (290 or 57.4%), some in the procedural part (171 or 33.9%), and a few in the relational part (21 or 4.2%). There were 23 (4.6%) unanswered cases. Conflict management has similar but more equal distribution which was gain from predefined list of possible CM actions. Respondents were asked to mark all applied CM activities and results show following distribution among dimensions: substance (284 or 56.2%), procedure (324 or 64.2%) and relation (364 or 72.1%). There were 70 (13.9%) unanswered cases. On average respondents chose four applied CM activities.

Corresponding of conflicts and conflict management dimensions (Figure 4) is one of preconditions for successful CM and occurrence of policy development.

On the regional level in substantive dimension 31.7 % of conflicts, and in procedural part 21.5 % matches with applied conflict management, which was recognized as grounds for policy development in those more often dimensions of all conflicts. In relational dimension situation is much worst but overall number of conflicts related to this dimension is also very small. Further thorough investigation of their interrelations and influence on policy development will not be discussed in this paper, but for now one can state that wherever there is CM the policy development can be expected in some form.

Cultural background was defined with eight variables: (1) Attitudes towards forest management; (2) Attitudes towards nature protection; (3) Attitudes towards participation; (4) Education background; (5) Professional competencies; (6) Communication skills; (7) Attitude towards conflicts; and (8) Previous experience. Respondents were asked to rank the importance of the variable as an influencing factor on conflict situations from 1 (very important) to 3 (not important).

The influence of each cultural variable was tested by Spearman's correlation test; statistically significant correlation has been confirmed only between procedural dimension of conflicts and Education background, Professional competencies, Communication skills and previous experience; Communication skills had the strongest correlation.

Different cultural background influence conflicts more strongly in its procedural dimensions affecting the way in which conflicts occur, aspect of space and time or its development than in substance or relation one.

Nevertheless, cultural influence is not limited only to procedural dimension of CM. Statistically significant correlation exists between variables of all three dimensions of conflict management and different cultural variables. The substantive dimension was correlated with education, competencies and experience impacting conflict management; the procedural dimension was correlated with competencies, experience and attitudes towards participation, and communication skills; and the relation dimension was correlated with education, competencies, and attitude towards conflict.

Case studies

Conflict – Substance

The majority of conflicts arise between public forestry and environmental sectors, except for the SER-FRU and ALB-KOR cases, where the conflicts are between public and private sectors. The substance of the conflict is as follows:

- B&H-FOC conflict over expanding the area of the Sutjeska National Park;
- B&H-KLA conflict over proclamation of the protected area Mountain Konjuh;
- HRV-KOP conflict over forest management in the Kopacki rit Nature Park;
- HRV-VEL conflict over forest roads in the Nature Park Velebit;
- SER-FRU conflict over meadow maintenance between private forest owners' association and Fruska gora National Park;
- MAK-PEL conflict over expanding the area of the Pelister National Park and exclusion of forestry professionals from forest management;
- ALB-KOR conflict over property rights in the Korca protected area.

In all cases several stakeholders/parties involved have been identified. Conflicts have been so far manifested in a wide range of actions, from silent conflict far away from the public in the case of SER-FRU, to disputes, arguments and discussions in public forums (HRV-KOP, HRV-VEL, B&H-KLA, MAK-PEL and ALB-KOR) up to intensive lobbying and political influence (B&H-FOC and B&H-KLA). Overlapping legislation, struggle for competencies, different interests, values and attitudes of forestry and nature conservation sector is the likely source of these conflicts.

According to Walker and Daniels (1997) public policy conflict issues often include all seven causes in varying degrees. Common denominators were in three cases (B&H-FOC, B&H-KLA, MAK-PEL) conflicts are related to increasing area of protected forest (i.e. decreasing area of commercial forest). These are strongly related to power, income and jurisdiction. In another three cases (HRV-KOP, HRV-VEL, SER-FRU) differing management objectives are the key. These can be related to values (forestry-nature conservation) and interests. In case of ALB-KOR conflict is legislation-based, caused by overlapping legislation regarding common property rights over private forests after the restitution process.

Conflict – Procedure

These conflicts are either in latent (HRV-KOP, SER-FRU, MAK-PEL, ALB-KOR) or escalating stage (B&H-FOC, B&H-KLA, HRV-VEL).

Ministries responsible for protected areas (in all cases) have jurisdiction over the substance of the conflict. There are no agreed rules between the parties regarding behavior in the case of conflict. In the cases (B&H-FOC, B&H-KLA, MAK-PEL) related to expanding of protected areas or proclamation of a protected area, the conclusion is that conflicts began with the very initiative. Conflict is ongoing in all cases. Insufficient vertical communication (e.g. between the rangers and management level) is present in the case of HRV-VEL. If vertical communication considers communication within each sector between higher instances e.g. between NP and Ministry responsible for protected areas and managers on the field, than in the case of HRV-KOP, respondents from NP stated they expect more legal advices as part of this vertical communication. A bigger issue is communication between the sectors in all case studies no matter on which level it happens.

Conflict – Relations

The main conflict in all case studies is between public forestry and environmental sector; except SER-FRU and ALB-KOR where conflict is between the public and private sectors. Ministries belong to the public sector, while environmental non-governmental organizations (NGOs) and Private Forest Owners (PFOs) belong to the private sector. Their role is related to legislation, which parties in the conflict are obliged to comply with.

The power in most cases is not equally divided between the conflict actors, with the exception of B&H-KLA and HRV-KOP, where the primary conflict parties are both equally powerful. The forestry sector is stronger in the cases of B&H-FOC and HRV-VEL, where power is on the side of Public Forest Enterprises (PFEs) and NPs are considered as less powerful parties. In three cases (SER-FRU, MAK-PEL and ALB-KOR) the environmental sector is more powerful. If we add cases where both parties are equally powerful, the conclusion is that the environmental sector has significant influence in forestry related conflicts with regard to protected areas.

The level of trust between the primary parties in these cases varies from distrust or very low level of trust (B&H-KLA, SER-FRU, MAK-PEL, ALB-KOR), to some extent of trust (B&H-FOC, HRV-KOP, HRV-VEL).

Conflict management – Substance

The conflict management in all case studies was focused to a substantial degree on the status of the area, different way of management, legislation and it's harmonization, overlapping of authority, communication and dissemination of information (MAK-PEL) and property rights (ALB-KOR).

Conflict management – Procedure

Conflict management was introduced either at the beginning of the conflict (HRV-KOP, ALB-KOR, SER-FRU and MAK-PEL) or when the conflict escalated (B&H-FOC, B&H-KLA).

In case study B&H-FOC Ministry of Civil Engineering, Spatial Planning and Ecology initiated conflict management by including Faculty, as an independent party to make a study. In B&H-KLA case study PFE started the certification process and lobbying activities and organized meetings and round-tables with all stakeholders included. The Ministry employed the Faculty of Economics to make a feasibility study. Also in other cases studies some forms of conflict management were employed, mostly joint meetings (HRV-KOP, HRV-VEL, SER-FRU, ALB-KOR). In case study MAK-PEL meetings took place, but not all of the parties were involved (exclusion of forestry professionals). In ALB-KOR discussions and one workshop including all stakeholders took place recently.

Conflict management – Relations

Conflict management was carried out by relevant Ministries (B&H-FOC, HRV-KOP, MAK-PEL), the Secretariat for Environmental Protection and Sustainable Development (SER-FRU), PFE (B&H-KLA, HRV-KOP), and NP (HRV-KOP). Independent parties (Faculties) were involved only in B&H-FOC and B&H-KLA, but not as mediators, they play advisory role as external experts.

Cultural background

In all cases people employed in PFEs are forestry professionals. There is similarity regarding professional background in B&H-FOC, B&H-KLA, HRV-KOP and HRV-VEL. In these case studies people employed in the forestry sector usually have a forestry education and in environmental institutions (e.g. Ministries related to protected areas, NPs) the people employed have various professional backgrounds, but not a forestry education. The people employed in NGOs also have different professional backgrounds. In these four case studies, the primary parties are PFEs and NPs. Conflict parties show differing attitudes to conflicts. Some of them deny the very existence of the conflict (PFE in case study HRV-VEL, both environmental and forestry sector in MAK-PEL case, NP in SER-FRU case), and some do not view conflicts as completely negative or completely positive (NP and PFE in case study HRV-KOP). In the cases of B&H-FOC and B&H-KLA the overall opinion is that conflicts are positive, because they could bring positive changes, but still the level of trust between the parties in case of B&H-KLA is very low. Forestry is perceived as tradition (B&H-FOC, B&H-KLA, HRV-KOP and HRV-VEL) according to interviewees. The forestry sector is still very traditional with regard to the organizational culture, and the environmental sector is showing tendencies to be modern. Case studies SER-FRU, MAK-PEL and ALB-KOR are similar regarding professional background. In all three cases in both forestry and environmental sector, forestry is the dominant background. The people employed in NGOs have no forestry background. The forestry sector is generally perceived as traditional. In the case of MAK-PEL Ministry of Environment and Physical Planning and in the case of HRV-VEL PFE Croatian Forests the general opinion with regard to conflicts is denial of conflict existence, and therefore no need for conflict management.

Policy development

In case studies B&H-FOC, HRV-KOP, SER-FRU there has been no changes in policy, during or after the conflict management. Some improvement with regard to communication is evident in HRV-KOP and SER-FRU case.

In case studies B&H-KLA, HRV-VEL, MAK-PEL and ALB-KOR, some policy changes have been reported. In the cases of B&H-KLA and MAK-PEL changes were made with regard to legislation (draft law regarding the protection of Konjuh Mountain was prepared but not yet adopted, and in the MAK-PEL case a law on enlargement of protected area NP Pelister was adopted.

Conclusions

Regional survey

Based on the results of this regional study some general conclusions can be made. The chosen methodology and theoretical frame were considered acceptable for identification of types of conflicts, recognition of the dimensions of conflict as well as of applied conflict management strategies, and following its impact to policy development under influence of different cultural aspects.

The most important conflicts were those between Forestry and (1) Nature protection, (2) Wood processing industry, (3) Grazing and overgrazing, (4) Building and construction, and (5) Water management. There were differences among countries involved.

The hypothesis of conflicts' (C) and (CM) conflict managements' three dimensions (substance (S), procedure (P) and relation (R)) were investigated and confirmed. The majority of conflicts (57.4%) were related to the substance dimension, followed by the procedural dimension (33.9%), and then the relation dimension (4.2%). Conflict management has more equal distribution between the dimensions. On average respondents marked four different CM activities per conflict of which 56.2% were related to the substance dimension, 64.2% to the procedure dimension, and 72.1% to the relation dimension.

At the regional level 31.7% of conflict in substance part and 21.5% in procedure part, matches with the conflict management strategy based on theoretical assumptions this should lead to policy development.

Cultural aspects of conflicts described with several variables were confirmed as an influencing factor on conflicts and conflict management. Different educational background, professional competencies, communication skills and previous experience were noted as the most important influencing cultural elements. This means that based on differences in cultural background, actors involved in conflict will react differently and this could even cause the conflict. Different cultural groups prefer different conflict management activities as part of conflict management strategies. Therefore culture is also considered to be an important influencing factor on policy development.

We conclude that this phenomenon is worthy of further research. The conflicts are complex but if they are managed properly could lead to policy development. This research shows that any conflict management activity leads to some policy development which is probably the result of the situation in this region. In many ways the situation is different from that in EU or USA, due to recent changes in societies and economies. It is of great importance to put more emphasis on this topic, and especially on conflicts in an emerging or latent phase which will escalate or emerge in the future.

Case study

The origin of the conflicts was related to overlapping or not harmonized laws and regulations, different ways of management of PAs or different property rights. It means that the majority of conflicts belong to the substance dimension, but in some case studies the procedure and relation dimensions were also stressed as components which can improve the substance issue.

In almost all case studies (except in B&H-FOC and B&H-KLA) there was no proper conflict management. It was pointed out that there were some joint meetings and discussions, but there was lack of mutual solutions or agreements in those meetings, which means that only the environmental sector as a more powerful party succeeded in achieving their goals.

Culture - Some of the actors interviewed in the case studies do not recognize the situation as a conflict. This is the case especially for the environmentalists because their opinion is that the nature should be protected. On the other hand the foresters also consider themselves as nature protectors and they follow the new approaches for managing the PAs because their opinion is that they are managing the area sustainably. It is interesting that the environmentalists consider themselves as ecologists who have the role to protect the nature and the foresters are 'destroyers' because they are just cutting the trees. This is a result of the different educational backgrounds and different attitudes of the employees in these two sectors.

During this research the main results about policy development showed that some changes in the regulatory law were made. In that sense conflicts strongly influence policy development, but the most important part is the appropriate conflict management and its three dimensions: substance, procedures and relations.

According to the theories of conflict regulation, conflicts per se should not be considered as problems. On the contrary, lack of conflicts can be the sign of a very undesirable and undemocratic development where the political system does not allow conflicts to surface (Pendzich 1994). On the other hand, intense conflicts can be considered a problem, if they create breakdown or rapid, uncontrollable changes in the society or if unmanaged and persisting conflicts create insecurity and frustration. If, however, conflicts – even intense ones – raise important political concerns, help to keep the administration alert, motivate creative planning and problem-solving and make sure everyone's opinions are heard, they can work as important catalysts for positive social change and development.

From this point of view, it is important to analyse the capacity of different planning and decision-making processes to work as conflict regulation mechanisms capable of utilizing the constructive potential of conflicts. Social institutions should be developed so as to react to conflicts constructively, and to make gradual social change possible. Conflict management can therefore be seen as an integral part of the functioning of democratic societies.

Recommendations for future research are quite clear. Within this research part of the conflict typology was determined and there are still some sectors that could be involved in future important conflicts. Besides that the in-depth analysis should also be done at the policy- and decision-making levels. More cases should be investigated and analyzed with the aim to make space for conflict management and to foster policy development. In some cases the interviewees pointed out that in spite of the fact that most of actors expected top-down policy development, they feel that better results could be achieved by implementation of bottom-up policy development but it seems that is rather early for that.

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The Role of International Organizations in the Implementation of Biodiversity Conservation Policies – The Case of Bosnia-Herzegovina

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Abstract

In the frame of international responses for dealing with global environmental problems, a number of International Organizations (IOs) support the implementation of multilateral environmental agreements. For the same reason of supporting environmental goals, environmental financial transfers are set in place, going from industrialized to developing countries and countries in transition. Along with administering such transfers, the IOs are considered to be important players who are able to affect national policy making. One of the key questions of the International Relations theory is how effective the IOs are in supporting the implementation of environmental policies through established environmental aid transfers. By applying a conceptual framework from International Relations theory, known as the ‘3C framework’, the IOs effectiveness is evaluated by judging the extent to which institutions’ performance boosts the 3Cs: (i) increase governmental concern; (ii) enhance contractual environment; and (iii) build national capacities. This paper examines the case of biodiversity conservation policy in Bosnia-Herzegovina and the role the IOs play in that process, namely the World Bank, United Nations Development Programme and United Nations Environment Programme.

Keywords: international organizations, effectiveness, biodiversity conservation, Bosnia-Herzegovina

1. Introduction

While environmental policy has been quite successful in some ‘traditional’ fields (like air pollution abatement) it failed to bring about any significant improvements for so-called ‘persistent environmental problems’, including the loss of biodiversity (Janicke and Jörgens

2006). The scholars of international environmental policy argue that if effective measures are to be taken to solve the global environmental problems the industrialized nations have to provide aid to poorer countries with “capabilities that only the wealthy can provide” (Keohane and Levy 1996). Financial transfers for environment, in combination with sufficient political pressure, is considered to be an appropriate measure in supporting environmental issues. Financial transfers for environment comprise a set of rules typically linked to one or more IOs, established to govern a flow of funds from richer to poorer countries in order to achieve specific environmental aims (Keohane and Levy 1996).

Contributing to the solution of global environmental problems, including biodiversity conservation, is a key objective for international financing institutions (such as the Global Environment Facility – GEF), as well as for the United Nations (UN) system and the International Bank for Reconstruction and Development (IBRD) (Zimmermann and Thilo 2002). The GEF funds for biodiversity conservation are being allocated mainly through three major international organizations: United Nations Environmental Programme (UNEP), United Nations Development Programme (UNDP) and the World Bank (WB). The role of these organizations goes beyond solely administering the projects and funds. In terms of number of projects financed and the amount of resources available, the WB is the most important and most influential multilateral development institution in the world (Matz 2005). Mee (2005) identified the following comparative advantages of WB, UNDP and UNEP: leverage of investment of the WB; linkage with country-rooted capacity building and development program of the UNDP; optimal access to scientific support of the UNEP.

The aim of this paper is to evaluate the effectiveness and impact of international transfer mechanisms on the solution of perceived biodiversity problems with respect to Bosnia-Herzegovina (BiH). According to the Dayton Peace Accords from 1995, the state of BiH is composed of two entities: the Federation of Bosnia-Herzegovina (FBiH) and Republika Srpska (RS). Besides the state-level bodies, both entities have their own administrative structure, including entity-level governments.

The research object or phenomena to be examined throughout the paper refers to IOs that fund or implement activities aimed at supporting biodiversity conservation efforts in BiH. Due to the fact that international funding and implementing agencies usually operate through projects as mechanisms for defining and implementing solutions to the specified environmental problems, the inquiry is focused on the project-level. The report will examine the effectiveness of three projects aimed at biodiversity conservation administered by WB, UNDP and UNEP, and funded by the GEF. These are at the same time the only three national projects approved by GEF council for BiH:

- Preparation of National Biodiversity Strategy and Action Plan, National Reports and Establishment of a National Clearing House Mechanism (GEF-UNEP);
- Forest and Mountain Protected Areas Project – FMPAP (GEF-WB) (WB 2008);
- Mainstreaming Karst Peatlands Conservation Concerns into Key Economic Sectors (GEF-UNDP) (UNDP 2008).

There is an exhaustive amount of literature dedicated to exploring and explaining the role of IOs in the international political arena, and assigning a level of significance of IOs in such processes to a greater or lesser extent (Karns and Mingst 2004). Few studies have dealt with the issue of effectiveness of IOs in directly shaping national policy responses for environmental protection. Haas et al. (1993), Levy et. al. (1993) and Keohane and Levy (1996) came to a notion that effectiveness of IOs in shaping national responses toward environmental considerations is difficult to determine due to many confounding issues. However, causal pathways have been identified which have to change in order for international environmental institutions to become effective:

any effective action of international institutions with respect to the global environment is likely to follow the path that increases concern or capacity, or improves the contractual environment (Haas et al. 1993).

This theoretical concept about 3Cs (concern, contracting and capacity) (Levy et al. 1993; Keohane and Levy 1996) is applied to the present case of biodiversity protection in BiH.

2. Methodology

The data gathering has been carried out by using two key methods:

1. qualitative interviews with domestic and international key persons involved in the projects; and
2. content analysis of relevant documents and reports available.

Emphasis has been given to the qualitative interviews carried out with 14 people: IO project managers and project contact personnel, independent experts working on the projects, ministry representatives on the entity and state level, representatives of civil society and relevant NGOs, academics, and representatives of private companies dealing with biodiversity conservation issues. All interviewees have substantial working experience in the environmental sector in BiH. The documents used in the document analysis come from official project documentation for the three relevant projects, unofficial documentation provided in the course of interviews, and country-relevant policies and strategies of the international organizations in question. The documents are used to evaluate and further investigate the issues relevant for the research questions. They have been triangulated with the interview results.

3. Findings

3.1 Increase Concern for Biodiversity Conservation in BiH

Concern is one of three main concepts used to describe and evaluate the existing level of effectiveness of IOs, or namely international financial transfers aimed at supporting biodiversity channeled through IOs in question. Keohane and Levy (1996) defines concern as interests in preserving the environment expressed by potential funders, recipients and governments involved in financial transfers. The level of existing concern for biodiversity conservation is evaluated as growing in terms of overall value of biodiversity. However, the existing level of concern is described as low and limited to a small group of institutions and individuals. The issue is low on the political agenda in BiH and there is no solid evidence which would indicate that the concern expressed by the governments is anything more than declarative. Although concern about the environment is reasonably high within the environmental administration, the overall clout of environmental policies is limited because environmental ministries play a somewhat marginalized role. Nature protection, including biodiversity conservation, has not had a high priority, even within environmental protection activities of the environment ministries of the entities.

The lack of concern by government is, in most cases, associated with a low degree of priority of biodiversity conservation for the BiH society in general. Biodiversity is not

considered as unimportant, but developmental issues are considered as far more important for fulfilling present societal needs. This situation is not surprising as there is a high unemployment rate, as basic infrastructure has not been fully recuperated yet, and as the economy is in stagnation or, in some cases, even in decline. Some 18% of the population is living in poverty and 30% are in danger of falling into poverty in the event of income shock (WB 2004). The entity governments are pushing far more towards delivering full-scale development projects for the BiH public, than towards projects for protecting the environment.

The low level of general awareness about biodiversity is evidenced by reports that the general public, as well as politicians, lack understanding and knowledge on the importance of biodiversity, as well as the possible outcomes of biodiversity conservation activities, i.e. proclamation of national parks. Local populations, living in the vicinity or within the borders of existing and future national parks, are concerned about having equal opportunities for development as the inhabitants of other, non-protected, areas would have. It has been noted on several occasions that the lack of institutional and human capacities of the entity environment ministries, as well as the lack of a state-level ministry for environment, reflects poorly on the promotion of biodiversity concern within BiH society. In addition, a lack of cross-sectoral cooperation between different ministries of the government also caused failures in promoting biodiversity concerns within strategic documents and in operations of other sectors. It is reported that the low level of overall concern is also a result of the change of demographic structure and cultural values in the major cities resulting from migrations in the wartime, as well as from extremely low social capital

Out of the three observed projects, the WB FMPAP project had the highest direct impact on increasing concern for biodiversity. Based on the number and diversity of participants who were following up the FMPAP (e.g. academic circles, government representatives, and domestic and international NGOs such as WWF) the project has established great interest. This appraisal is also confirmed by the responses of some major stakeholders. The WB has been making efforts to promote biodiversity concerns throughout other projects and activities that are not purely biodiversity-related. An example of that is the Forest Conservation and Development Project (FDCP), which has been under implementation since 2003. Financing for this project is in the form of a loan to BiH, and is primarily oriented towards implementation of legislative reforms in forest organization and management, increase of revenues, and improved forest management and biodiversity conservation (WB 2003). The biodiversity agenda is pushed forward here through including some measurements in forest inventory which go beyond just the technical forestry approach and are more ecosystem-related. This project also introduced the concept of High Conservation Value Forests (HCVF) to BiH forestry. All of these aspects are considered to be important for overall promotion of biodiversity. One of the government representatives noted that these projects are creating changes in the perception of biodiversity values in BiH, but the whole process is characterized as very slow.

A UNDP officer reported that UNDP has not implemented any activities on raising awareness about biodiversity to-date, simply because they were not active in the field of environmental protection in BiH until recently. UNDP was not involved in environmental protection in the last ten years since it did not have the capacity, and because it was dealing with more pressing needs of the BiH society immediately after the war, i.e. program for return of refugees and displaced persons to their prewar place of residence, clearance of landmines, etc. After the change of resident representative for BiH in September 2006, the UNDP's portfolio has changed. Additional personnel with skills and knowledge to deal with the issues of environmental protection were employed, and funding has been provided. An

additional reason why UNDP started dealing with environment is the change of BiH's status from being a postwar to being a transition country. However, UNDP plans to implement 3–4 large environmental projects in the future.

The biodiversity strategy and action plan, administered by UNEP, had created a momentum for raising concern, due to high level of involvement of local experts and other stakeholders for the preparation of this strategic document. Furthermore, the process of preparing the strategy involved all relevant parties from both entities and adoption of the document at the state level. When the document is endorsed by the state-level council of ministers, it will become a legally binding document for the whole country. This document will become the first state-level legally binding document that deals with environmental issues.

The degree of concern can also depend on how successfully the institution or the project linked the concerning issue that they attempt to promote, with other issues that are considered of high importance on domestic and local levels. As economic development and EU accession are high on the political agenda, the link between biodiversity and these two aspects has been made by all three projects.

3.2 Enhance Contractual Environment for Biodiversity

Contracting is seen as a second C in the 'path of effectiveness' for IOs according to the 3Cs framework. In order to examine the contractual environment for the implementation of biodiversity-related commitments, as well as the effects of IOs in enhancing the current state of contractual environment, several contracting-related topics will be examined: solving the problems in inter-entity cooperation for environment, improvements in monitoring of environmental quality and increasing government accountability for biodiversity protection.

State-level bodies do not have explicit authority over the environment, as the constitution assigned that authority to the entities. Given that BiH is a signatory country to several multilateral environmental agreements, an institutional setup allowing the implementation of such agreements had to be provided. The entities retain most of the responsibility for carrying out environmental policy, and the entity environmental ministries took over the obligations for implementing provision of international conventions. For instance, the FBiH ministry of environment has become a focal point for the implementation of Convention on Biological Diversity for the whole state, while the RS ministry for environment had taken the responsibility for UN Framework Convention on Climate Change (UNFCCC) for the whole state. The main problem identified regarding the administrative setup is a weak environmental policy-making administration at the state-level, which has to-date made it difficult to develop coherent policies for the whole state. It has been proved in the past that without organizing a general framework at the top level, it is hard to have a coherent vision for how to develop the overall system (IO representative). Entities possibly could have the opportunity to jointly define common policies that would be applicable for the whole state, but they lack the incentive to do so, while the state does not have the possibility to obligate them. The establishment of an agency for environment at the state level is described as possible solution to overcome the limitations of the existing system by a majority of respondents. About four years ago, the Regional Environmental Center for Central and Eastern Europe (REC) made an unsuccessful attempt to support establishment of such an agency. This idea never came to fruition mainly because of political reasons: the RS government finds the idea of transposing some of their competencies to the state level somewhat 'repulsive' (IO project officer), even though the establishment of such an agency would have been highly beneficial for the environmental sector as a whole.

Both entities are significantly lacking in capacity to monitor environmental quality. In the FBiH at present, there is no system set in place for monitoring environmental quality. The most urgent problems in terms of monitoring are serious lack of institutional capacities, lack of common databases, and non-existent exchange of information. Within the Biodiversity Strategy and Action Plan, plans for monitoring were envisaged. However, there has not been much progress made towards operationalizing those plans, as they require meeting several preconditions that are not possible to meet yet. Therefore it is not expected that a proper monitoring system will be deployed in the near future. At present, there is no monitoring of environmental quality at the state level, as the previous attempts to establish a state-level monitoring system had failed. IOs have taken up the monitoring challenge in some of their projects. Because state-level monitoring is not at present practical, the FMPAP does not attempt to establish a monitoring system for the state of the environment at the state or entity levels, but rather focuses on local monitoring of the protected areas (PAs) included in the project (IO project manager).

All interviewees have agreed that the projects are contributing to an increase of transparency through dissemination of information and newly-introduced mechanisms for participation. This judgment is probably best captured in the following excerpt from an interview about how an NGO representative saw the current work of IOs in increasing transparency of domestic players:

The projects have most certainly contributed to increasing transparency. When the international organizations launch a project and provide funding, they monitor the process and impose new rules that had not been present in the past. If the country is to have access to funding and support, it needs to accept new rules of the game. The IOs insist on transparency, and participation is a new rule brought upon the state by the projects... Large companies, such as electric companies, are communicating with local stakeholders and discussing the environmental impacts of their work mainly because the projects are backed by international organizations, i.e. the World Bank. If that were not the case, they would have probably ignored the local initiatives... All projects supported by the IOs promote transparency, tolerance and democracy – all that is currently missing in BiH. This is not to say that such norms would not be eventually introduced in BiH by the internal forces of the society, but it would take a long time for that to happen. The IOs are certainly facilitating that process. (NGO representative)

It is expected that the projects will increase the state's legal responsibility towards environment in several aspects. According to the respondents, the most important aspects in increasing this type of responsibility is seen in:

- (a) increased funding legal obligations for nature protection;
- (b) strengthening of the government's institutions for environmental protection that are expected to carry the legal obligations; and
- (c) adoption of legally binding documents for nature protection and biodiversity.

The IOs are in a position to enhance the contracting aspects of government financing for biodiversity through the project negotiations and signing the legal agreements for project implementation later on. Usually the projects require government co-financing in order to make foreign funding available for the same purpose. If the country signs on to such agreement, it makes legal commitments that it will allocate a certain amount of finances for the project goals.

3.3 Build National Capacities for Biodiversity Conservation

Within the 3Cs framework, the term capacity refers to capacities of recipient governments to implement policies designed to protect the natural environment and assure sustainability. Even if some state-level ministries have the coordinating role for the environmental issues that require involvement of the state as a whole, there is not a single state-level institution with implementing capacities for environmental provisions. The need for such a body has been recognized in the past, having been proposed in numerous strategic documents. It is also recognized as a requirement for further movement towards the EU. Even so, the initiatives to establish it in the form of the State Agency for Environment have failed so far. The reasons for this failure are primarily political. As noted earlier, the RS Institute for Protection of Natural Heritage is seriously understaffed and not able to provide the input for the tasks it has been assigned. This is especially the case with monitoring responsibilities and maintaining the databases on the state of environment. FBiH still does not have such an institution established even though there is a high demand for such professional support by the Environment Ministry.

It has been noted on several occasions by almost all respondents, that the environmental ministries are seriously understaffed, even to the point where carrying out of their mandate is in question. The RS ministry has only one person employed for nature protection issues, and few persons working at the Institute for the environment. Those persons lack sufficient equipment, and do not possess the updated information about the state of environment to allow them to work effectively. The FBiH Ministry for Environment employs only a few people. These employees are not in a position to follow up on all current and planned activities the ministry intends to implement.

The FMPAP contribution to building capacities for biodiversity conservation is set through strengthening institutions responsible for planning, establishment and management of protected areas in BiH. Since the project is initiating the establishment of new PAs, it will support building the management system on which the basic, and conservation, operations of the new parks will be based. Assuming that the new PAs will materialize, this would be a considerable contribution to nature protection in the country, as BiH has very little total land area under official protection. The BiH biodiversity strategy creates an important policy framework for biodiversity conservation in the whole country. The state-level impact on policy making is the most important trait of this document because it is the first and only strategic document in the field of environment on the state level. But the impact of the document might be quite limited if there are not proper technical and financial means to implement it.

It seems that the funding for nature protection, including biodiversity, will remain a major issue for both FBiH and RS. The government representative noted that in the last five years, the state has been allocating some resources within the budget for environmental issues. However, those allocations are not nearly enough, compared to actual demands. The greatest challenge in the RS is to provide funding for the national parks, and to change the legal framework that defines the work of those parks. The FBiH had laid out substantive plans for establishing new national parks and protected areas in its territory. It remains to be seen how much actual funding for those plans FBiH will be able to provide. The prevailing opinions about this aspect is that biodiversity, in the case of most countries, is not a high priority for government investments, and that specifically in BiH, it is always going to be low in the 'pecking order' (IO expert). As there are other priorities that the government considers important, it will always be difficult to provide additional funding for nature protection. The future prospects for nature protection could potentially be seen in the push from the tourism development, considering that this sector has a high importance for the state and that protected

areas could play an important role in that framework. International financial support given for the environment in BiH is considered very limited, as the interest of donor organizations for investing in this sector is not high (Government representative). This is mostly due to the focus of donor organizations and the government on development projects, in contrast with environmental projects, which usually do not bring large economic benefits (Environmental ministry representative). The relatively small number of projects implemented with the goal of biodiversity conservation coincides with the previous statements.

IOs representatives expressed the opinion that the amount of funds available is small but well-targeted. The funds are meant to enable the establishment of a general framework for nature protection, such as developing adequate policy frameworks, developing new capacities of government institutions, as well as public and private sector capacities. After that, it is up to the domestic actors to adequately address the existing problems. IOs intend to be further involved in providing assistance for biodiversity conservation efforts in the country, but the possibility to obtain funds for this purpose in the future might be limited. The highest prospects for significant sources of future foreign funds made available for nature protection in BiH may be the EU accession funds (Instrument for Pre-Accession assistance – IPA). As BiH moves closer to fulfilling the accession requirements, more IPA funds will become available for nature protection. It seems that some domestic actors have a somewhat unrealistic picture about the possibility to obtain GEF funding. The GEF allocations for biodiversity in BiH are not as high as the domestic expectations for GEF funding. Nevertheless, it is evident that even limited foreign funding makes a difference and has positive effects on improving the biodiversity considerations in BiH, especially because there are almost no government funds available for this purpose.

The evidence suggests that the transfer of policy relevant information and expertise has been a core part of all three projects and the IOs behind them. This includes both specific biodiversity-related information, and governance considerations, such as cross-sectoral cooperation, transparency and participation. The ecosystem approaches and sustainable use of natural resources were prominently exercised in FMPAP, while the mainstreaming of biodiversity into economic sectors is a core part of the Peatlands Project. The Biodiversity Strategy directly supported development of policy relevant information, which resulted in proposed future strategic activities for biodiversity conservation in BiH. According to the opinion of some interviewees, the Biodiversity Strategy will make a considerable impact on strengthening the position of the environmental NGO sector in BiH, especially through inclusion of this sector in government biodiversity conservation activities through partnerships and participation. The FMPAP will provide training sessions to public companies, conservation practitioners, local communities and NGOs. It will finance design and implementation of new management plans for PAs which are based on ecosystem approaches. An important aspect of this project is support given to local communities, in particular for providing development and income generation possibilities through sustainable practices in natural resources management. In the component for providing development opportunities to local communities, the project is providing specific support to ecotourism development, as well as necessary trainings and facilities. UNDP aims to build capacities of local authorities, the business sector, and local NGOs in managing biodiversity values of ecologically fragile karst areas in BiH. Building of such capacities are primarily going to be achieved through provision of trainings and professional education in planning, mainstreaming biodiversity aspects in other sectors, and providing technical capacities to backup the necessary activities. An important aspect of the Peatlands project outcomes will be remediation of karst areas that were previously subjected to mining activities. The possibility to replicate the methods and approaches developed by the project may have an important impact on management of all karst-located areas in BiH. Because the project

directly collaborates with local stakeholders, the impact of the project on the awareness about biodiversity conservation and adoption of sustainable management practices of natural resources could potentially be very high.

4. Conclusions

The research results showed that the three projects seem to be well-designed, and they are likely to have some positive impacts on improving the position of biodiversity conservation in BiH. However, significant constraints are present in each of the evaluative lenses (concern, contracting and capacity), and the projects and IOs had only limited ability to influence those constraints.

The existing level of concern for biodiversity issues in BiH is rather low. BiH society is struggling with numerous other important issues, and until those issues are seen to be improving, concern for nature protection among the wider population will remain low on the list of national priorities. On the other hand, if the projects under review can demonstrate that biodiversity conservation can be achieved alongside economic development, concern may be stimulated. Even if the impact on increasing the level of concern can be regarded as positive overall, such impacts have only been made to limited groups and are rather localized.

For the majority of aspects observed regarding the contractual environment, the IO activities have not made a substantial impact, particularly with regard to implications arising from the administrative setup of BiH, and the lack of a monitoring framework. The largest problems are seen in lack of cooperation and coordination between the entities whereas there are no state-level institutions to address this issue. Rather than effecting change within the state, the IOs for the most part adapt their practices to fit the existing administrative structures. Although certain types of IO interventions, such as high-level policy reform projects, might be able to leverage fundamental change in the country's administrative setup, it should not be expected that relatively small environmental projects will do this. In terms of the monitoring framework, none of the projects made a significant contribution to establishing state-level or entity-level monitoring systems. Probably the biggest contribution to building the contractual environment is increasing transparency and participation. These issues are especially important in the long term. Considering all stated above about the effects of IOs on the contractual environment, it can be concluded that the overall impact made by the projects is rather modest.

Building capacity is the most important issue, since the success of all projects, including their effects on concern and contracting, to a large extent depends on capacities of domestic stakeholders to implement the projects successfully. Even if there is an increasing amount of activities implemented with the goal of biodiversity conservation, there is simply not enough capacity to implement all stated requirements at all levels of administration. It can be concluded that the projects under review have the potential to be effective in building the capacity envisaged in their activities. Assuming the projects are implemented according to plan, some capacity for effective PA management and mainstreaming of biodiversity into economic sectors is going to be built. However, it is not possible at this point to fully evaluate how effectively the additional capacity will affect policy making in the future.

The IOs implemented activities can be more regarded as providing the initial support and seed money, rather than as attempting to build a fully effective biodiversity conservation framework at the country level. The IOs also have not placed biodiversity conservation in BiH high on their agendas, as their work is not primarily focused on environmental protection. The projects are only small interventions, and individually they do not have a

dramatic impact in improving the state of environment. Instead, the projects have created an enabling environment for biodiversity to grow as an issue. The support provided might have a ‘snowball’ effect and leverage some significant improvements in the future. The final effects of IOs work are very much dependent on how the ideas and approaches promoted within the projects will be picked up by domestic stakeholders and society in general, and on how they will continue to address the issue in the future. While this type of enabling environment, created by IOs for biodiversity conservation, is an improvement, it carries a high degree of uncertainty about what the actual effects on policy will be. Higher degrees of involvement of IOs in the environment sector in BiH, and more funds made available for implementing biodiversity-related projects would have decreased the existing gap, and would improve the effectiveness of IOs in bringing beneficial changes to biodiversity policy-making in BiH.

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Forestry Institutions: Learning in Governance

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Abstract

The introduction of governance mechanisms in forestry promotes changes in the policy objectives and measures, with consecutive changes in the roles and functions of the state forest service, as well as other bodies and structures. New actors from private and civil society domain come to the public forest sector, changing the role of the state as the former executor of planning and control and the main provider of goods and services. What is the reaction of the state forest service to such a challenge? What comes as a result of such reaction – a change of institutional architecture in the public forestry sector, or a distribution of responsibilities and empowerment of new actors? What is the impact of the internal context factors and external influence on the changes in the institutional set-up? What is changed through the governance mechanisms? Is governance in forestry different from governance in other sectors? An overview of changes in the forestry institutions in the Western Balkan countries (based on a literature review, including countries' official documents and scientific reports on the subject) provides some highlights on the general trends in reactions of forestry institutions to the governance process in the context of transformation of the former autocratic regimes into societies based on democratic principles. The challenge of joining the European Union with the need to satisfy corresponding conditions adds a special importance to this process.

Keywords: public forestry institutions, governance, Western Balkans, forest policy

Governance as a reaction to global changes

Promotion of governance may be considered as a general reaction to the globalization of sustainable development issues which has been triggered by several factors. Global economic changes is one factor, as an increased role of markets and production of marketable goods with a parallel increase of economic risks (like globalization and deregulation of markets, financial crisis, etc.). Another factor is the global societal changes with a general transfer

from industrial to post-industrial society, and as a consequence, redefined priorities and policies; with the new role of state and increased democratization processes in parallel with the sharpening of poverty issue and other social challenges. A third factor is the importance attributed to the environmental priorities, requiring a new approach to management and decision making considering conflicting (e.g. production vs. protection) values and demands related to resources and a new focus on biodiversity conservation, global warming challenges etc. Such global developments have required a re-definition of the role of the state, marked by a general tendency of a weakening capacity to steer their national economies, growing pressure of international obligations (even non-binding) for environmental priorities and development of new actors that challenge their (the states') ability to hierarchical government. Governance is getting broadly proposed as a solution for the weakening state.

As a mechanism of coordination other than state hierarchical steering, governance is based on self-organizing inter-organizational networks and opens the decision-making process to non-state actors (Heritier 2002), expanding communication and interactions between them. In this way governance is necessarily influencing the institutions. In the broad sense the institutions represent formal and informal rules and norms which are not necessarily codified, legitimized and enforced by formal structures, like the state, but come from self-organizing dynamics of social interactions and have a largely decisive role on the development of any changes, including in economic, organizational and political domains.

There are various interpretations and definitions of governance, but the term governance implies basic elements, like the involvement of multiple stakeholders through participation; plurality of decision making levels; representation of public and private institutions; intersectoral coordination; accountability of expertise and iterativity of the process, including regular evaluation and adaptation of policy decisions, as well as market-related mechanisms (White Paper on European Governance, see EC 2002; MCPFE approach to National Forest Programmes in Europe, see Koehl and Rametsteiner 2007).

Governance and forestry institutions

The introduction of governance mechanisms in forestry as a basic pre-requisite of sustainable forest management has a specific impact on forestry institutions, as it extends the resource vision of forestry to other multiple functions and values, both marketable and non-marketable, and promotes integration of forest policy into a broader social, economic and political environment¹. That is why the development of forestry institutions needs to be considered within a larger framework of general trends in the national social, political and economic contexts.

Unstable conditions of countries in transition (as is the case in the Western Balkans), from the centrally planned to market economies, create a favorable context for the introduction of governance. On the one hand, there is international interest in the promotion of transformations of such countries also linked with requirements from the European Union for the potential new EU member countries. Such attention and interest in the Western Balkan countries bring material and conceptual assistance together with the non-binding obligations. On the other hand, governance may be considered as an appropriate mechanism for changing from a totalitarian regime to a more democratic society. Besides, the political transition in such countries has often led to profound social and economic changes, involving a number of policy and macroeconomic reforms (e.g. privatization, changes in land tenure etc.), thus

¹ The EU GoFOR project 'New Modes of Governance for Sustainable Forestry in Europe' www.boku.ac.at/gofor

creating an internal context, both favorable for and even demanding the introduction of governance mechanisms. Changes in the forest sector are largely derived from these broader reforms.

Thus, under the influence of the general processes in the countries, democratization and transition to market relations the systems of management and administration in forest sector cannot stay unchanged. Two main developments could be mentioned here in this respect: (i) appearance of new actors with the development of private sector, and as a consequence (ii) redefinition of the roles and functions within the public forestry institutions.

Private sector as a new (re-designed) actor in forestry institutions

The period of transition and definition of an independent state is usually characterized by a generally decreased economic capacity of the state, and as a consequence, a reduced potential in financing forestry related activities. These changes promote the appearance of new actors with an increased role of the private sector, community groups, and civil society organizations. These new actors change the role of the public forestry institutions from the 'mono-deciders' to 'service providers'. In the Balkan countries the process of privatization, combined with the forest land restitution² to the former owners (individuals, communes, churches, etc.) is introducing new tenure arrangements, with an impact on management and planning practices. Promotion of private initiatives in the forest sector was one of the new policy objectives in most of the countries, although the implementation of this priority varies, depending on the internal context and economic importance of the forest resources. The challenge of introducing new commercial functions into the management of state owned forests (one of the last sectors to undergo privatization in most of the cases) where competition is limited and where the state is often the dominant forest owner, depends on the economic importance of the forest resource (UNDP 2005). Thus, in Croatia, where 94.3% of the forests are categorized by their primary function into commercial (exploitable) forests (FAO/UNECE 2007) the government has transferred the management of the forests to the state holding companies, gathered on the basis of their business results and the quality of their forestry administrations (MAF 2003). The creation of such state holding enterprises is a way to avoid privatization and a complete devolution of forest management.

On the other hand, when the forests are not a development priority, in the cases where the forests are mainly under the state ownership (e.g. Macedonia), the participation of private sector in forestry development is often seen as a means of promotion of sustainable environmental management through involvement of privates in forest plantations and protection. In the countries with a considerable share of private forests with a high economic potential, a special role is given to the re-building/development of private capacities in wood processing. Such reforms are accompanied by new investment strategies thus preparing the basis for the competitiveness of processed forest products in the European market (e.g. Montenegro).

These changes require a revision of roles between the public and the private sectors and a re-distribution of functions and responsibilities. Under the former institutional arrangements a forest administration, as part of its enforcement responsibilities, used to combine the functions of control, production, management and protection. Some first efforts of separation of policy, regulation, control and management functions have been made in the Western Balkan countries. In Albania, for instance, this process is marked by the devolution of

² The return of state assets to their former owners, a process which is underway in most of the Western Balkan countries

the management and control rights to the non-state actors, effectively limiting the state's dominance in the forest sector, although this transformation does not give clear signs of the withdrawal of state agencies, rather of the acceptance of new functions, as service providers (Savcor Indufor Oy 2005).

Decentralization and re-definition of roles and functions

Multi-level governance in the forest sectors of the related countries often involves decentralization which is commonly understood as the transfer of the role of central state in managing forest under specified terms and conditions to local government units and communities. Such decentralization is often motivated by the need to overcome increasing forest degradation due to the government failure in forest protection, management and conservation; by the need to reduce costs of forest management and central bureaucracies; or by external requirement (often by the international donor agencies to increase access and control of local community and to ensure equity), especially as a condition from the EU.

The primary rationale for decentralization is to overcome the failure of central government in addressing local needs and priorities while adapting to the general changes in the socio-political context. Decentralization is also supposed to lead to the achievement of allocative efficiency in resource distribution and maintain equity and social justice. In the changed context the state is not any more the only provider of goods and services and executor of central planning and control of development activities, so decentralization brings up to the public sector new and important actors from the private sector and local public authorities. The forest policies of most of the countries declare an important role of the local governments in the realisation of forest policy objectives (e.g. Serbia, Macedonia) without going further to the concrete actions, although specifying the need for capacity building.

A common feature for forestry institutions in all the Western Balkan countries is the treatment of the issue of participation, which even at the declarative level does not go beyond exchange of information, provision of consultative services, and participation in activities (like forest plantations).

Re-definition of policy objectives and means

The combination of the generally increased social awareness/activeness, a new vision of the forests, as well as increased demands for specific forest products and services from various actors, including an increased importance of environmental issues, have urged a re-definition of forest policy objectives and policy means. Most of the countries have established a revised policy framework and plans for forest sector development. These initiatives have often been integrated with a range of national environmental planning strategies, such as biodiversity strategies, national conservation strategies, and environmental policy and planning activities, National Forest Programmes (NFPs), certification process, etc., whereas forests are considered as part of a broader context and NFP development is seen as a process in the interaction with other sectors and stakeholders.

Environmental priorities are marked as new forest policy objectives in all the Western Balkan countries, although, a closer look at the declarations show that the interest in forests is still mainly economic.

Is governance a solution for forestry institutions?

The introduction and practice of governance, especially in the societies with the background of totalitarian regime is not an immediately achieved result. Governance in forestry may sharpen the existing conflicts as it brings up the opposite visions on the forestry priorities. Probably due to this capacity governance may be a good solution for forestry in the context of countries in transition as it helps adaptation to societal changes, giving a voice to all the emerging stakeholders, and thus bringing legitimacy to the decisions. The application of various elements of governance promotes the appropriation of forest policy, making new actors responsible for their actions and, eventually, empowerment of various stakeholders. As a 'side-effect' such openness brought by governance to the usually 'restricted to technical expertise' forest management decisions may create a good image (popularity) for the forestry administration and contribute to the further institutional building and sustainable development of the sector.

At the same time, the road to achieve this eutopia is long and troublesome. The switch from 'command and control' to 'coordination and connection', from specific forestry to general (regional/rural) approaches, from 'controllers and guards' to service providers does not happen with just a wave of a magic wand. The changes redefined and changed functions, changed responsibilities, empowerment of new actors, sharing decision making power, increased protected areas lost monopoly in forest policy and management all risks to reduce the power of the public forest service (Kouplevatskaya 2006; Kouplevatskaya-Buttoud 2009). From this point of view, governance is a risk for the public forestry institutions. That is why participation, promotion of new actors, intersectorality and priority of environmental issues still remain at the level of declarations in most of the studied forest policies.

However, governance may still be a solution for forestry institutions, when is it working as a reaction to fundamental changes in its economic, political and social environment, not just diminishing the role of the state, but promoting an interaction between the state and society, challenging traditional expertise, and searching for a compromise between conflicting values in a continuous process with a necessary adaptation.

Research perspectives

Analyzing the changes triggered by the introduction of governance mechanisms in forestry on the example of several Western Balkan countries it is obvious, even without a detailed and profound study, that regardless of a common background, the present development of the forestry institutions varies considerably. The same is true for the development of governance and its impact on the institutions. In this light, the following issues would be interesting to study:

- (i) If governance is introduced as a reaction to various changes in the internal and external contexts when the former steering of a certain society is not effective, then what is changed through and due to the governance?
- (ii) Is governance in forestry different from that in other sectors? What is this sector specificity?
- (iii) Governance as a process: why and when does it not work? What are the causes?
- (iv) Governance as a process: why and when does it work? What are the drivers?

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Capacity Building and Governance in Forest Sector

Building Capacities for Good Governance through Forest Policy and Economics

Ilpo Tikkanen and Tomi Tuomasjukka



**”Without science,
without pro-active science–policy
interaction,
there is no good governance”**

(Shannon and Tikkanen, 2009)

www.efi.int



Science-policy interaction recognised at international level

UNFF8, 2009 Multi-stakeholder dialogue, priorities:

- Enhancing the interfacing of science and policy in forestry
- Strengthen the contribution of science and research in advancing sustainable forest management

MCPFE, Warsaw declaration,

- "take effective measures...in order to better use scientific knowledge relevant to forest sector as a sound basis for decision making"



Essential elements of good governance as defined by OECD

- Transparency – *openness to scrutiny*
- Accountability – *ability and willingness to show that decisions are consistent with agreed objectives*
- Efficiency and effectiveness - *Quality outputs at best cost, meeting policy original intentions of policymakers*
- Responsiveness – *to changes in society, reacting to public interests*
- Forward vision – *anticipating issues and problems, developing responsive policies*
- Rule of Law – *enforcement of legislation*



Relation of governance and forest policy and forest economics

Element of governance (OECD)	Relevant themes in forest policy and economics
Transparency	Forest policy processes, participation, communication, public relations, ethics
Accountability	Management skills, accounting, business administration
Efficiency and effectiveness	Forest economics, productivity, competitiveness, business administration, policy analysis and evaluation, Cost–benefit analysis
Responsiveness	Negotiation skills, policy analysis and evaluation
Forward vision	Public planning, economic analysis, managerial economics, forecasting
Rule of Law	Forest legislation, governance studies, policy impact analyses

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Relation of governance and forest policy and forest economics, cont.

Other elements of governance	Relevant themes in forest policy and economics
Professional skills and knowledge	Management skills, analytical skills, social skills, policy learning
Professional ethics	Ethics, cultural history
Participation	Forest policy, stakeholder interests
Corporate social responsibility	Business management
Communication and public relations	Communication skills, public relations management, advocacy

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FOPER – building capacity in forest policy and economics (FPE)

Science community's contribution to political commitments/UNFF, MCPFE, in support of good governance

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FOPER is a project supporting FPE capacity development in SEE region

- Objective: To strengthen the capacity of modern forest policy and economics education, training and research in the South East Europe region
- Funded by the Finnish Government
- Duration FOPER I: 2004 – 2009, FOPER II 2009-2011
- Consortium: EFI + 3 international partners + 5 SEE Forestry Faculties + 3 SEE Research Institutes

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FOPER components/outputs

- 1) International **Master's Program** on forest policy and economics
- 2) **Professional training** courses – life-long learning in forest policy and forest economics
- 3) Strengthening the **science–policy - interface** in the region

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1) International Master's Degree Program in Forest Policy and Economics

- Bologna compatible
- 120 ECTS, full time studies
- 24 students from 6 SEE countries
- Teaching in Sarajevo and Belgrade
- Graduation due in 2009 (About 20)
- Teachers: international experts and regional counterparts (twin teaching)
- Curriculum – based on a training needs assessment of 2005. Balancing policy and economics.

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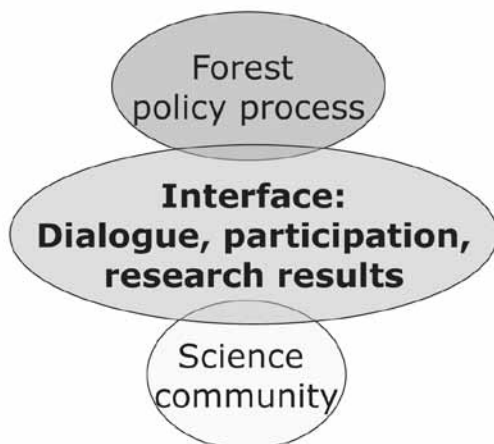


2) Professional training

- Short courses (3-5 days)
- For professionals working in ministries, companies, organisations, associations, faculties, institutes in forestry sector
- Practical policy and economics topics, e.g.:
 - Development of private forestry
 - SME development
 - National Forest Programs
- Have trained 70 trainers and some 200 professionals, 25 promoters



3) Science–policy interface (SPI)





Roles of parties in SPI

Forest policy makers

should:

- identify relevant societal and economic issues → Research agenda (RA)
- provide resources
- promote research which is useful for policy formulation.

Forest science

community

should:

- design useful and policy relevant RAs
- provide useful information for ongoing forest policy processes

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Vicious circle of deficient research capacities

FOPER Approach:
TRAINING
of researchers



Limited
research
capacities

Limited
applicability
of research
results

Low demand
for research
results

Low funding
for research

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Outputs from SPI component by FOPER

- ❑ 17 researchers trained in practical policy research
- ❑ 5 national case studies on forest related conflicts about to be published
- ❑ 2 regional overview studies on forest conflicts being prepared for peer-reviewed publications
- ❑ Practical science–policy interface created in two major international events
- ❑ Linkages between scientists and policy-makers created in the SEE-region
- ❑ Awareness about SPI development needs



Governance is a challenge for FOPER II (2009-2011):

FOPER II could be a catalyst for:

- Further development of policy relevant, future-oriented research agendas
- Building pan-European research networks and consortia
- Developing institutional solutions to improve science–policy interaction

Innovative and Integrated Approaches for Improved Management of the Mediterranean Forest Ecosystem

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Abstract

The forests in the Mediterranean region are not only a vital element of the environment, but are an important provider of a wide array of goods and services. Thus, they can be considered as being crucial for the development and the wellbeing of the society. However, the intense use, harsh climatic conditions and absence of adequate management endanger the sustainability of these forests. Part of this problem is also the lack of capacities which could contribute to the improvement of the current situation and enable good governance of these forests. Thus, the Mediterranean Regional office of the European Forest Institute launched a TEMPUS project on innovative and integrated approaches, methods and tools for Mediterranean forest ecosystem management.

Keywords: Higher Forestry Education, multifunctional forest ecosystem management, Mediterranean region

Introduction

In the rapidly changing societies of the Southern and Eastern Mediterranean region, forestry faces many great challenges. This area was among the first where man started to practice agriculture and to actively use and pressure natural forest resources. This long-lasting and intense use of forests for timber, firewood and grazing, together with the harsh and unpredictable climate, the current difficult socio-economic conditions, and the absence of adequate forest management and policy measures has led to an increasing problem of deforestation, degradation and over-exploitation of forests. On the other hand, forests fulfill numerous economic, social and environmental functions crucial for the sustainable development and welfare of the rural and urban communities. Hence, the multiple

functions of Mediterranean forests need to be taken into account in the decision making process of forest management and planning. In addition, many of the services provided by Mediterranean forests are external to the existing markets (forest externalities) and, thus, they also need to be clearly identified and quantified through economic methods in order to adopt suitable policy measures for their internalization.

In this context, what is needed is:

- a direct understanding and economic valuation of the full range of forest goods and services;
- multifunctional forest ecosystem management approaches, methods and tools, to ensure the conservation and sustainable management of forest resources through adequate policy measures and optimal forest management and planning.

Therefore, there is an urgent need to concentrate on the development of forestry education in those areas that provide tools for the design of national and regional forest planning and programs.

For the development and implementation of adequate policies and optimized management practices, first the basic conditions have to be established; namely relevant and up-to-date knowledge about the ecological characteristics and socio-economic importance of forests and forest management. Since Higher Forestry Education institutions in the Southern and Eastern Mediterranean region have difficulties in responding individually to these emerging needs due to the lack of resources and personnel, the Mediterranean Regional Office of the European Forest Institute (EFIMED) started the project 'Innovative and integrated approaches, methods and tools for Mediterranean forest ecosystem management' (MEDFOREM hereafter) to improve the current situation.

The MEDFOREM project was carried out to use existing resources more efficiently through international cooperation among partner countries and with European institutions in order to organize a new specialization course on Mediterranean Multifunctional Forest Ecosystem Management which should transfer new knowledge in key subjects, methods, tools and topics, such as forest inventory and modeling techniques, multi-objective forest planning models, forest economic methods for valuing forest goods and services, and the design and implementation of forest policies in developing countries.

The MEDFOREM project

The MEDFOREM project was a 2-year Joint European Project funded by the TEMPUS programme of the Directorate General Education and Culture (2005–2007).

The consortium members were: Tishreen University and Aleppo University (Syria), Lebanese University (Lebanon); National Institute of Research on Rural Engineering, Waters and Forests – INRGREF, and National Institute of Agronomy of Tunisia – INAT (Tunisia); University of Tuscia (Italy); and the MEDFOREX Project Center of the Forest Technology Centre of Catalonia – CTFC (Spain) as the project coordinator. MEDFOREX later became EFIMED.

The aim of the MEDFOREM project was to improve the situation of Higher Forestry Education in the three partner countries (Lebanon, Syria and Tunisia), by transferring the knowledge from the European to the non-European partner countries. To achieve this aim, the two main objectives of the project were to:

- (i) update and improve teaching knowledge, methods and tools as well as to provide teaching material on Mediterranean Forest Ecosystems Management for Lebanon, Tunisia and Syria; and

- (ii) develop a new international specialized Master Course on Mediterranean Multifunctional Forest Ecosystem Management for Lebanon, Tunisia and Syria with the aim of ensuring the conservation and sustainable management of forest resources in the respective countries.

Knowledge transfer from Europe to partner countries

The first objective of the project has been successfully met through an intensive upgrading of the knowledge of forestry teaching staff from Syria, Lebanon and Tunisia. This update was achieved through a three-week Advanced Course focusing on the multifunctionality of Mediterranean forests, forest economics, and management and planning. These topics were identified as those where there is a significant lack of knowledge in the partner countries. The course was designed in a way that an important part was devoted to practical exercises, presentations by the participants and open discussions. This favoured the integration of the participants, exchange of different views and finally it was a way to see the progress of the teaching staff in relation to the new knowledge they acquired. During the Advanced Course, new material (articles, presentations, contact information from experts, etc) was delivered in a CD-format. In total 20 lecturers from the partner universities participated in the course.

In addition to the course, also new books (presenting the newest approaches in forest management and forest economics) and IT equipment were provided to the partner institutions to continue the upgrading in a continuous and sustained way. All the books are available in the libraries of the institutions to any staff member and students. Furthermore, after completion of the course the best course participants were offered grants to visit a selected European expert. These visits enabled the participants to further specialize in a selected topic and to establish contacts with experts working in the same field.

The second objective of the project was successfully conducted and tested with 22 students coming from the partner institutions. In the course the newest approaches, methods, techniques and tools on forest management and economics have been explained and demonstrated. During the course the students were evaluated and the most successful were offered grants to further explore some of the topics taught in the course. In addition, some of the teachers from Syria, Lebanon and Tunisia who were trained the previous year also participated in this course as assistant lecturers; this further ensured their involvement in future editions of the course.

Future prospects and sustainability

The MEDFOREM project has established the basis for future cooperation in Mediterranean Forestry Education as all the partners stated the need for a Mediterranean International Master on Forest Ecosystems management and conservation. Such initiative will overcome the problems of lack of resources, fragmented human resources and lack of critical mass in most partner countries for providing efficiently forestry studies.

The project has had a direct impact on the reform of higher education, as the teachers and heads of the partner institutions were acquainted with the Bologna Process and the requirements for adjusting their curricula. Further, they obtained knowledge and material on topics that had not been taught in their institutions, but are of crucial relevance for sustainable forest management in their countries. No formal institutional changes were

introduced. However, the curricula of the Master programs of the partner institutions in Syria and Lebanon were revised and updated with the content of the MEDFOREM course. Furthermore, INRGREF has included the contents into their PhD courses.

The key successes of the project have been:

- (i) the successful upgrading of knowledge of teaching staff through an Advanced Course, Individual Grants and new teaching material;
- (ii) the design of a new innovative and modern Advanced Course addressing the main topics required for ensuring a Sustainable Forest Management in the partner countries.

In addition, a very successful Final Dissemination Meeting was organised in Syria. In this meeting representatives of the involved partner institutions, International organizations (FAO and the European Forest Institute), as well as the policy makers acknowledged the MEDFOREM project as being very successful, not only from the technical point of view, but also politically, since it favoured international cooperation and communication in a region, where this is often difficult.

In terms of the sustainability of the project, the main project activity that should be maintained is the MEDFOREM Advanced Course. The Course has already been integrated into the curricula of each of the partner institutions; Tishreen, Aleppo and Lebanese Universities have included the course within the Master Degree, while at INRGREF and INAT it forms part of their PhD courses. This ensures that the main achievements of the project will be sustained, contributing to an improved education of foresters and ensure a proper forest management in the partner countries.

Improving the education in forestry will contribute to a better governance of the forest resources in Lebanon, Syria and Tunisia, which are important for the economic, social and ecological sustainability of these countries.

The project has allowed the establishment of a strong network of Forestry Education experts and institutions, and by this to create a forum of stakeholders discussing the future needs and challenges of Higher Forestry Education in the Mediterranean region.

All the activities of the project and the course material can be found in the project website <http://www.medforex.net/medforem>.

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Tempus FORPEC: Developing a New Master Program “Forest Policy and Economics” at Saint-Petersburg State Forest Technical Academy

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Abstract

The Tempus FORPEC project is devoted to a new MSc curriculum in forest policy and economics development in accordance with Bologna principles by specialists in teaching forestry and forest policy and economics from four European countries. The program introduces a modular structure of studies and innovative teaching methods, integrates policy and economic sciences, and advances the internationalisation of higher forestry education.

Keywords: curriculum development, Bologna Process, Russia, forest policy, forest economics

Background

At an increasing pace, all European countries are facing several remarkable developments that open up new possibilities but also pose challenges for forestry education. Globalisation encompasses increasing flows of capital, people and information across the national borders and brings about numerous effects and controversies, from economic benefits due to reduced protectionism to cultural assimilation. The Bologna Process both is sparked by globalisation and acts as an engine for globalisation within higher education. Whether we like it or not, it forces transformations starting with more student-oriented teaching at a course level, curricula adaptations to implement the two-tier (Bachelor/Master) structure and ending with Pan-European frameworks for quality assurance (Brukas 2008).

Remarkable changes in the social perception of forest towards more natural-oriented values and increased environmental concern have been taking place for several decades. Forestry and, inevitably, forestry education should evolve from managing forest resources to managing the relationship between nature and people (Koch 2008). This tendency brings

about a great challenge of broadening the forestry curricula to include social disciplines and improve transferable skills, and at the same time maintaining knowledge of core forestry subjects. Forestry curricula need to incorporate social sciences, so that graduates are able to carry out policy and economic analyses, possess entrepreneurial skills, and are able to act under conditions of a market economy.

Project description

Starting in 1990, the Trans-European Mobility Program for University Studies (Tempus) has been introduced by the European Union to support the modernisation of higher education in several partner countries, including Russia. In the framework of Tempus, a so-called Joint European Project (JEP) for curriculum development was launched in December 2007 to establish a new Master program 'Forest Policy and Economics' at Saint-Petersburg State Forest Technical Academy (FTA). The program is being developed by a consortium, consisting of FTA as the core partner, the Swedish Agricultural University (SLU) as the grant holder, the Estonian University of Life Sciences (EMU), and Technische Universität Dresden (TUD, Germany).

The main objectives of Tempus FORPEC are:

- (i) To develop a 2-year MSc curriculum in English at FTA according to the Bologna principles, focusing on forest policy and economics contents, and to start the lectures in September 2009;
- (ii) To quantitatively and qualitatively advance international educational activities at FTA during the 2-year project.

FORPEC program

The most extensive project output is a new MSc curriculum in forest policy and economics. It is the first Russian MSc program in Forestry in English, developed in accordance with Bologna principles by specialists in teaching forestry, and forest policy and economics from four European countries. The program introduces a modular structure of studies and innovative teaching methods, integrates policy and economic sciences and advances the internationalisation of high forestry education.

Structure of the course

The program consists of four semesters: three semesters of course activity and one semester of MSc thesis work. FORPEC introduces a modular structure of studies serving as a pilot project at FTA. Individual courses in the new MSc program extend from 2 to 10 ECTS credits, depending on course topics and teaching forms.

Some courses and topics are new for forestry education in Russia; however, in order to use the available capacity in the most efficient and effective way, FORPEC also incorporates

components from the existing courses where relevant and possible. The contents of the program is organised around three central themes, each roughly corresponding to one semester of studies:

1. Russian and International Forest Policy
2. Management Planning for Sustainable Forestry in Russia
3. Modern Economics for Forestry in Transition

PART 1: International and Russian Forest Policy

Part 1 provides students with a thorough knowledge of national forest policy in Russia with focus on the institutional framework and actors in the sector; regional-supranational, Pan-European and global forest policy regimes, skills in policy analyses, etc. Lectures and seminars are the prevailing teaching form, and visits to relevant stakeholder organisations are integrated into the programme.

Examples of envisioned courses:

- pan-European forest policy and multi-level governance;
- policy tools for sustainable forestry in Russia;
- forest certification, forest governance, and combating illegal logging.

PART 2: Management Planning for Sustainable Forestry in Russia

Students develop knowledge and skills in forest management planning on various temporal and spatial scales. The starting point of the theme is the perspective on planning as decision support. Besides more traditional approaches, this block employs components of problem-based learning and case studies, where students work with real planning examples.

Examples of envisioned courses:

- methods and tools for decision support
- tree cover modelling on stand, forest and landscape level
- planning for multi-functional forestry – a case study

PART 3: Modern economics for forestry in transition

This part introduces the economy theory as applied under market economy conditions. Applications of the theory in an economy in transition are examined using hypothetical and actual examples, employing discussions, exercises and simulations.

Examples of envisioned courses:

- economics of forestry at stand level;
- market/profit oriented management of forest enterprise;
- environmental economics.

Achievements

Up to now, some important results have been achieved. These include: MSc curriculum that was developed and adopted both by Scientific Board of Forestry Faculty and Scientific Board of FTA; the staff mobility programme was organised; progress in administrative affairs; and the launch of the program website. Certainly, some challenges still have to be addressed. Notwithstanding, now the cooperation between project partners has stimulated invaluable processes of mutual understanding and learning.

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Responses to the Capacity Needs of Governance by Educational Programs – MSc in European Forestry

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Abstract

The MSc European Forestry provides academic education in forestry focusing on the international dimension of sustainable forest management issues. The programme's main aim is to provide a multidimensional learning environment with a European perspective in forestry above the classical nation-states; the programme focuses on the issues laid down in the EU's sustainable development strategy. The expected learning outcomes, skills and competences of the graduates have been defined in six basic statements which emphasise the importance of good governance in education. The dimension of the ethical responsibility in forestry has been taken into account in the contents and methodology of two compulsory courses which comply with the Dublin descriptors. In their feedback a great majority of the students evaluate this sort of education on forest ethics as important/good for their future career.

Keywords: forestry, education, ethics, good governance

Introduction

The MSc European Forestry (MSc EF) provides academic education in forestry focusing on the international dimension of sustainable forest management issues. In this programme, European forestry universities collaborate intensively to offer joint courses, in addition to their existing curricula, based on the knowledge and experience of forest management for which European forestry has been the cradle for centuries. The MSc EF programme responds to the increasing number of issues in forest and nature management; these issues are providing a whole range of new challenges and demands for policy and management at the national, European, and wider international level. The capacity needs of governance have been taken into account in the development of the programme.

The MSc EF is co-organized by six European universities: University of Freiburg (Germany), University of Natural Resources and Applied Life Sciences (Austria), University of Lleida (Spain), University of Joensuu (Finland, Co-ordinator), Swedish University of Agricultural Sciences (Sweden), Wageningen University (The Netherlands). In addition there are three non-EU partner universities: University of KwaZulu-Natal (South Africa), Federal University of Parana (Brazil) and Northwest A&F University (China).

The programme's main aim is to provide a multidimensional learning environment with a European perspective in forestry above the classical education provided by nation-states, thereby focusing on the issues laid down in the EU's sustainable development strategy. After successfully completing the MSc European Forestry programme, graduates have gained skills and competences to widely understand sustainable forest management and a strong knowledge in his or her specialization (MSc European Forestry...2008).

Cross-cultural approach and increasing awareness towards inter-connectedness

During the first year of the programme, the students attend common courses of the MSc EF organized by the different partner universities. The cross-cultural aspects related to studies and group dynamism and development are taken into account during the introductory course (Trends in European Forestry) in Garpenberg in Sweden and during a four month joint study period in Joensuu during the winter semester. In addition, during the first year the students are required to carry out the Applied Period (practical training) at an international forest organization or company. Furthermore they participate in the European field course that takes place during six weeks in the home countries of partner universities. Thus, the first year provides the students with exposure to a variety of elements of inter-connectedness between different cultures and beyond the nation-states.

During the second year, the students have the chance to specialize in their field of interest by taking obligatory and elective courses and carrying out the Master's Thesis at one of the six partner universities. The students, after completing the 2-year Master Course, will obtain the MSc in European Forestry degree, which is officially awarded by at least two of the organizing universities (double degree), and a diploma supplement describing the contents of the programme.

The expected learning outcomes, skills and competences of the graduates have been defined in six statements. Two out of these six statements include aspects of good governance:

1. Master communication techniques, e.g. through presenting their own and other people's findings, taking into account the ethical principles and codes of conduct related to global forestry.
2. Critically reflect upon, apply and expand knowledge of European level topics of forest policy, social dynamics, business management, market and trade, legislation and taxation, aspects of cultural diversity, resource management, ecology and biodiversity.

The Dublin Descriptors are general statements of the expected attributes of skills and competences which students need to meet in the European higher education. Although the Dublin Descriptors were published after the foundations for the curriculum of the MSc European Forestry programme were established, the curriculum reflects the idea of the Dublin Descriptors. In fact the aspects of governance are taken into account in even more detail in the original aims of the MSc EF than in the Dublin Descriptors. The capacity building for good governance can be found in one statement in the documents related to the Dublin Descriptors for the second cycle (Shared 'Dublin' Descriptors...2004):

Students have the ability to integrate knowledge and handle complexity, and formulate judgements with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgements.

Ethical approaches in MSc EF

Two of the study modules of the MSc EF have clear connections to the capacity building for good governance. During their Applied Period the students will learn practices of good governance in various European organizations. Additionally they take part in the course entitled Ethical Approaches to Forest Management which guides the students through a variety of ethical questions and problems related to their professional field.

According to the study guidebook (MSc European Forestry...2008) the aim of the Applied Period (12 ECTS) is to learn how an organization operates on the European and International levels through working as a part of a team; business, culture, values, team working, project and organizational management are important. The study module is based on the 'learning by doing' principle. Students and the employers have great flexibility in organizing the module, but at the same time the university in charge, together with the coordinating unit of the programme, provide students with detailed guidance. According to the instructions, the students need to carry out discussions related to governance, administration, management and leadership with the directors of the organization. The students share their experiences and learning outcomes with their peers and teachers in the seminar during which they make presentations and participate in the discussions. Finally, each student must write a report about the Applied Period.

The following comments of two students represent typical experiences from the Applied Period:

During my AP, I learned about the organization of Swedish Forestry, from the decision making to the stand. This AP has given me an opportunity of learning about International agreements on both the Swedish and European levels. Also, I have acquired an open and wide ranging view regarding Swedish Forestry administration, providing an invaluable insight into hierarchy and how National Policies are coordinated and implemented. (Spanish student 2002–2003)

The working approach, management system and procedure are incredible that I adopted in METLA. The duration that I spent in METLA was fully to understand European culture and values, and European organizational Functioning system. (Nepalese student 2005–2007)

According to the study guidebook (MSc European Forestry...2008), the section on 'Ethical Approaches to Forest Management' (5 ECTS) aims to provide a thorough understanding of ethical principles and codes of conduct related to global forestry. The course provides an introduction to basic concepts of forest ethics and ethical conflicts in global forests. Seminars on various facets of forest ethics are part of the course including the importance of the four dimensions of sustainability (environmental, social, cultural, and economic), as well as the ethical responsibility of various forest stakeholders. For instance, in 2009 the main course contents were:

- Basics of ethical thinking in forestry
- Sustainability in forest ethics
- Forest ethics in practice

- Why spirituality is needed in sustainable forestry
- Reality in environmental conflicts
- Impact of an ENGO campaign
- Business ethics
- CSR in the pulp and paper industry
- Corporate Responsibility in UPM-Kymmene
- Ethical codes of conduct for the Finnish Forest and Park Service

Lectures for the three last topics were given by experts from industries and for other topics by university teachers.

In addition to the lectures the students participate in the following study modules of the Ethical Approaches to Forest Management:

- Forest ethics workshop
 - Problem identification (Upper Lapland conflict)
 - Introduction to group project (subject, resources, results, presentations methods)
- Group work for problem solving
- Group project (presentation of results)
- Panel discussion regarding group project (University professors, representatives from ENGO, Forest and Park Service, Forest Industries, Regional Authorities)

Concluding remark

On the basis of the feedback about 80% of the students have evaluated this sort of education as very important/good or important/good for their future career. According to the teachers' comments there is a real and clear need for studies related to good governance in forestry education.

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Master Courses in the Forestry Sector: Recent Experiences in Governance of High Education Systems in Europe

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Abstract

Higher education in forestry, as well as in other fields of science, is undergoing a remarkable process of internationalization. In this paper we analyze this process with reference to the European context, describing the main initiatives related to higher education in forestry and trying to identify the main problems of governance of the educational system.

The paper is organized in five chapters. In the first one the driving forces of the internationalization process of the higher education initiatives are briefly described. In the second part some recent experiences in internationalization of forest teaching are presented. The following chapter is devoted to the discussion of the problems of governance related to the process of internationalization. In the fourth chapter the responses to the capacity building and educational needs for governance in particular by two MSc courses (SUTROFOR and SUFONAMA) are described. At the end, some concluding remarks are presented.

Keywords: education; international MSc courses; SUTROFOR; SUFONAMA

1. The driving forces

The whole educational system in Europe is moving towards the so-called European Higher Education Area. The driving factors of this process are both external and internal to the forestry sector (figure 1): market globalisation and integration, and the increasing exchange of product, services, knowledge and information; the new challenging role of forests in supplying not only rough material but also services that are considered essential to the society, like biodiversity protection, carbon sequestration, water cycle regulation, soil protection, landscape conservation, etc. All these newly acknowledged services are changing also the labour market for highly educated foresters. Like rough materials and capitals, also

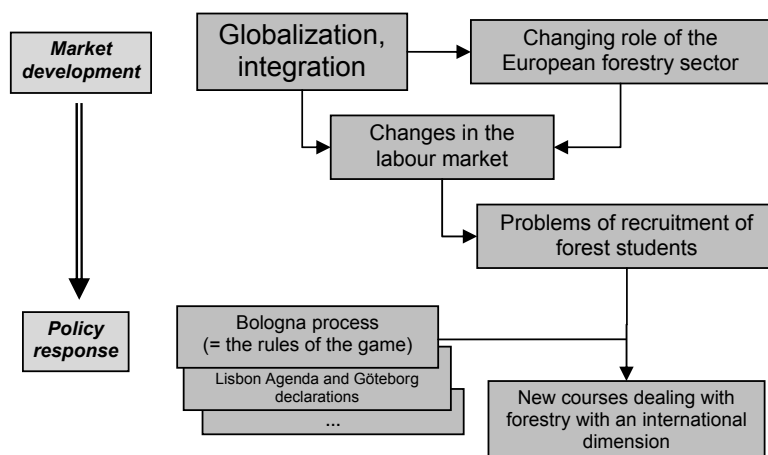


Figure 1. The driving factors of the internationalization process of the forest-related higher education institutions.

highly educated foresters are factors characterized by an increased mobility. These new developments are increasing competition among forest schools along with the need for a radical reform of the traditional curricula.

As a consequence of the interaction of these factors “higher education has been undergoing major changes in the past few years. Comparability, compatibility of studies, cooperational activities and wide access to education have been the key ideas of educational strategies and discussions. The focus is on an open and dynamic European educational area and finally better competence in global educational markets” (Tahvanainen 2003).

The action lines of this reform have been defined under the Bologna process¹. The main components of this process are:

- a common qualifications framework: the Three-Cycles System (3+2+3; Bachelor + Master + PhD);
- the introduction of the double degree as a transitional step towards a system based on the joint degrees;
- the mobility recognition, clearly defined by the Council of Europe/UNESCO Convention on the Recognition of Qualifications concerning Higher Education in the European Region (the Lisbon Recognition Convention) which define two fundamental tools to support mobility programmes:
 - the European Credit Transfer and Accumulation System (ECTS) and
 - the Diploma Supplement (DS);
- the adoption of Quality Assurance systems based on:
 - the European Quality Assurance Register for Higher Education (EQAR) set up on March 2008 and
 - the European Standards and Guidelines for Quality Assurance in Higher Education;
- the attention given to the problem of employability and to lifelong learning, as stated and promoted by:
 - the European Universities’ Charter on Lifelong Learning (2008) and
 - the European Association for University Lifelong Learning.

¹ See <http://www.ond.vlaanderen.be/hogeronderwijs/bologna/ActionLines/index.htm>

As we will see in the following chapter, the European forest higher education system has been able to promptly react and to internalize these new challenging action lines.

2. Recent experiences in internationalization of forest teaching

For the needs of presenting a brief overview the recent experiences in internationalization of forest teaching, High Education Initiatives (HEIs) in Europe can be classified in four groups:

- multi-HEIs international programmes (2.1),
- bi-lateral international programmes (2.2),
- international programmes run by single institutions (2.3),
- short international courses (2.4).

Most of the initiatives under 2.1, 2.2 and 2.3 are related to the organisation of Master of Science (MSc) programmes. We have no information about joint PhD programmes organized in a systematic way² as well as international bachelor courses. There are no experiences (similar to those of some business management schools) of HEI organising MSc courses in foreign countries, neither MSc programmes developed by an international board that are delivered by two or more HEIs in different European countries.

2.1 Multi-HEIs international programmes

Multi-HEIs international programmes can be organised in three clusters: the MSc courses financed under the Erasmus Mundus programme, those launched under the Tempus programme, and other initiatives.

Under the Erasmus Mundus Programme about 100 selected International MSc have been approved and financed by the European Commission (EC) with a total budget of 230 million euros for the period 2004–08. Seven MSc programmes in agricultural and forest sciences have been launched and three of them are dealing exclusively with the forestry sector (a remarkable performance for a relatively small segment in the European economy):

- AGRIS MUNDUS – Sustainable Development in Agriculture Masters Course,
- European Master in Animal Breeding and Genetics (EM-ABG),
- IMRD – International Master of Science in Rural Development,
- International Master “Vintage” – Vine, Wine and Terroir Management,
- MSc EF – Master of Science in European Forestry,
- SUFONAMA – Sustainable Forest and Nature Management,
- SUTROFOR – Sustainable Tropical Forestry Erasmus Mundus Masters Course.

MSc EF is coordinated by the University of Joensuu and run together with other five higher education institutions (Freiburg, Garpenberg, Lleida, Vienna and Wageningen; Arevalo, 2008).

MSc SUTROFOR involves five high education institutions (Copenhagen – the coordinator, Bangor, Dresden, Montpellier and Padova) as well as the SUFONAMA MSc (with Copenhagen again as coordinator, associated to Alnarp, Bangor, Gottingen and Padova).

² This condition could be changed in the near future with the recent development of the Erasmus Mundus programme that, starting from 2009, is financing joint PhD programmes.

A detailed description of the three forest MSc courses is available in their web sites (Table 1).

The EC Tempus Programme has financed several projects to support the reform of HEIs in Eastern Europe related to the forestry sector. At least two of them aimed at the organization of totally new MSc programs have to be mentioned³:

- the MSc Environment and NATural REsource ECONomics (ENARECO): a post-graduated study programme at Ukrainian State University of Forestry & Wood-Technology in Lviv; the programme has been launched in 1998 with the assistance of the Universities of Freiburg, Gent and Padova;
- the MSc FORest Policy and ECONomics – FORPEC, started in 2007 with the objective to launch in September 2009 a MSc programme on modern forest policy and economics at the State Forest Technical Academy in St. Petersburg with the support of three European Union's higher education institutions (Alnarp – coordinator; Dresden and Tartu).

Among the other initiatives it is worth to mention three multi-HEIs international programmes:

- the MSc Forestry and Environmental Engineering, started in 2007 by a consortium of five universities involved in the Cross-Border University (CBU) network: University of Joensuu (acting as coordinator), University of Helsinki, Lappeenranta University of Technology, Petrozavodsk State University and St. Petersburg State Polytechnic University (Valsta and Orenius, 2007);
- the MSc Forest Policies and Economics, the main component of the project Forest Policy and Economics Education and Research (FOPER) started in 2004 with funds by the Finnish Ministry for Foreign Affairs. The aim of the project is strengthening the capacity of modern forest policy and economics education, training and research in the Western Balkans region. The implementing agency is the European Forestry Institute. Teaching is organized at the Universities of Sarajevo and Belgrade, with the support of several other universities in the Balkan region and the involvement of leading scientists from other European and USA universities. The international MSc course is now at the beginning of the second edition.
- The EUROFORESTER MSc (Brukas and Blicharska, 2008), a two-years programme started in 2007 as the outcome of 6 editions of a 1-year course on “Sustainable forestry around the Southern Baltic Sea”. The Swedish University of Agricultural Sciences at Alnarp coordinates the programme, which involves other 13 higher education institutions from the Baltic region.

2.2 Bilateral international programmes

Bilateral international programmes of high education are not so frequent as one could expect thinking to the numerous and well established informal links and formal agreements between many universities in Europe. As a matter of fact the Erasmus Socrates programme has not been applied in an extensive way so far to define coordinated curricula between two or more universities involved in forest sciences teaching. Anyway, among the few HEIs, the following can be reported:

³ A recent proposal of a new MSc programme made by a consortium of universities of Southern Europe (MEDFORMAN - MSc on MEDiterranean FORest ecosystems MANagement) has not been accepted for funding by the European Commission; if approved this programme could have balanced the presence of international MSc programme between North and South Europe.

- the 1-year Master course on Urban Forestry and Urban Greening, organized since 2005 by the Swedish University of Agricultural Sciences (Alnarp) in cooperation with the University of Copenhagen⁴;
- the joint study programme Ingénieurs du Génie Rural des Eaux et des Forêts of the Ecole National du Génie Rural et Forêt (ENGREF) in Nancy and the Diplomforstwirt of the University of Freiburg; the programme has been created with the patronage of the German-French University of Saarbrücken (<http://www.dfh-ufa.org/>), and is based on a quite simple organizational model: a student is requested to attend part of his/her curriculum in the partner university and thus a double degree is awarded (Jay, 2008)⁵;
- the MSc on Forest Information Technology organized jointly by the University of Applied Sciences of Eberswalde and the University of Warsaw (Mussong, 2008).

2.3 International programmes

Under this item we consider those programmes run by a single HEI, with teaching to a large international audience. The list of such courses is very long; in the Forest Portal run by the European Forestry Institute (<http://forestportal.efi.int>) more than 40 courses are reported. The following are only few illustrative examples:

- MSc Agroforestry and MSc Environmental Forestry organized by the University of Wales (<http://www.senr.bangor.ac.uk/courses/pg/index.php>)
- MSc Forest and Nature Management by Wageningen University (<http://www.mfn.wur.nl/UK>),
- MSc Mountain Forestry by BOKU (Vienna) (<http://www.boku.ac.at>),
- MSc Forest Ecology and Management by University of Freiburg (<http://www.studium.uni-freiburg.de>),
- MSc in Sustainable Resource Management by the School of Forest Science and Resource Management of TUM Munich (http://www.forst.tu-muenchen.de/htdocs/studi_srm_en.php),
- MSc Forest Science and Business by University of Helsinki (<http://www.helsinki.fi/mscfb/>),
- International Study Programme in Environmental Science and Forestry by Joensuu University (<http://www.joensuu.fi/envsci/index.html>).

In Montpellier and Nancy higher education in forestry is provided to an international audience of French speaking students from many non-European countries, as well as in some Spanish and Portugal forest higher education institutions courses are attended by students coming from the former colonial countries.

2.4 Short courses

Short courses, like Summer or Winter Schools, open to an international audience are organized all around Europe, some of them on a regular basis. Also in this case it is impossible to give a comprehensive picture of the HEIs, and we have to provide only few illustrative examples:

⁴ <http://www.slu.se/?id=362&programkod=UFMPB>

⁵ <http://www.nfz-forestnet.org/page.php?katid=176>. Under the network NFZ forestnet (<http://www.nfz-forestnet.org/>) that is supporting the joint study also a PhD programme "Binational doctoral school Risk Management in Forestry" is organized.

- the “Indian Summer school” jointly organized by the Technical University of Munich and the Yale University (Ziesak et al. 2008);
- the Summer School “Modeling forest community organization, functions and dynamics for improving forest management” (FORMOD) organized by NFZForest.net, a European research and training network in forest sciences (<https://www2.nancy.inra.fr/collectif/formod/index-suite.htm>);
- the field week “Mountain Forest Ecology in the Swiss Alps” jointly organized by the Faculty of Forest and Environmental Sciences in Freiburg, the ETH-Zürich, and the Swiss-Avalanche-Research-Institute in Davos, under the auspices of NFZ.forestnet;
- the Winter School on “Voluntary tools for the implementation of environmental and social responsibilities in forestry” organized by the University of Padova, the European Forestry Institute and the Transilvania University of Brasov;
- the Summer School “Environmental Services in Forest Management” organized by the Departments of Forest Ecology, Forest Economics and Forest Resource Management of the University of Helsinki⁶;
- the Summer School “Forest fires: impacts and post-fire management” organized by PHOENIX, COST Action FP 0701, SAFRI and EFIMED⁷.

Under the EC founded Socrates/Erasmus Intensive Programmes some courses have been organized dealing with the forest sector, like the IP “INNO-FOREST: Integrating Innovation and Entrepreneurship in Higher Forestry Education” (<http://www.inno-forest.org/>).

3. Problems of governance

The process of internationalization of HEIs in the forestry sector is so rich and advanced that it is already possible to underline some frequent problems of governance.

As reported in table 1, financial sustainability of various initiatives is sometimes a problem. How to survive after the start-up phase when external funding of the HEIs, both in terms of students’ scholarships and funds for the course organisation, end or are greatly reduced? A serious obstacle to the consolidation of many HEIs is connected to the lack of a common entrance fee policy among the European countries for those programmes that are based on the joint efforts of different universities: why a Danish student should attend an international programme in Italy with an entrance fee of 1,500 € or in Wales with a fee of 4,500 € when he/she could attend a well coordinated and equivalent programme in Copenhagen at zero entrance fee?

Another element of concern in the governance system is related to the Quality Assurance (QA) of the programmes (Schmidt et al. 2007). Results of training need assessment and job placement monitoring are seldom organised and publicly reported. Recent relevant improvements took place in the field of QA of international MSc courses (see Box 1): with the financial support of the EC, a QA programme has been designed and tested (in forest-related MSc courses too), a Peer Review Committees’ organisation has been defined, an European Accreditation Agency has been established and a system for awarding a label of “European Quality MSc” has been defined.

In the near future, after this pilot phase of the process of internationalization, some common standards of QA of the HEIs will be by sure introduced to give a more transparent

⁶ http://www.helsinkiuniversity.fi/home/courses/environmental_services_in_forest_management

⁷ http://www.efi.int/portal/about_efi/organisation/regional_offices/efimed/capacity_building/summer_schools/2009_-_antalya/

Table 1. Master of Science programs and related problems and achievements in students recruitment.

MSc programmes	Problems and achievements
EM European Forestry http://gis.joensuu.fi/mscef	Scholarships for 5 cycles; few EU normally enrolled students
EM SUTROFOR http://www.sutrofor.net	Scholarships for 5 cycles; few EU normally enrolled students
EM SUFONAMA http://www.sufonama.net	Scholarships for 5 cycles; some EU normally enrolled students
Tempus ENARECO http://www.enareco.narod.ru/frameset.htm	Started with a international audience; at the end of Tempus funding: only Ukrainian
Tempus FORPEC http://www.forpec.ftacademy.ru	Not yet started
CBU Forestry and Environmental Engineering http://www.joensuu.fi/metsatdk/opiskelu/CBU_FEE.html	Special financial support through the Cross-Border University
FOPER http://www.efi.int/portal/project/foper	Only students with scholarship for 2 cycles. Uncertain development of the programme after the 2 nd circle.
EUROFORESTER http://www.euroforester.org/index.html	More than 20 scholarships from industry (IKEA, Storaenso)

information on the programmes' contents, teachers and on the services available to the students. Competition among HEIs will increase, with hopefully a general increase of the quality of the services.

4. Responses to the capacity building and educational needs for governance by SUTROFOR and SUFONAMA MSc

Some responses to the capacity building and educational needs for governance can be derived by the direct experiences of the authors in organising the two Erasmus Mundus International Master programmes SUTROFOR and SUFONAMA.

Amongst the various capacity building and governance-related benefits for students and scholars participating in the Masters, increased mobility and networking opportunity and favourable conditions for specialisation on governance-related topics are included.

The increased mobility opportunities – which are based on the availability of appr. 25 scholarships for non-EU students, scholarships for financing thesis work abroad, scholarships for third-country scholars and for short-term missions (1–3 months) for EU universities staff and on a compulsory Joint Summer Module (15 days) – lead students and scholars to reach a wider international profile, international competences and high personal skills. The increased networking opportunities constitute a stepping stone for future working and cooperation. They are based on the facts that the EU students taking part in the Erasmus Mundus courses

Box 1. Procedures for external evaluation of the MSc programme.

- Self evaluation report preparation by the Consortium of HEIs ← Guidelines
- Site visit of a Peer Review Committee
- Separate meetings with: Director and Secretariat, teachers, administrative staff, students
- Preparation of a report by the Review Committee
- The report is confidentially sent to the Consortium members for comments
- Final report writing and delivery → awarding the European Quality Label

Guidelines contents:

- Internationalization strategy
- Needs, aims, objectives and learning outcomes
- Educational process (teaching structure)
- Student support (non educational)
- Educational resources and partnership
- Student progression
- QA management and enhancement

are included in groups of 25 highly qualified international students (selected out of more than 900 students world-wide); after graduation, the students will probably stay in contact through an international network (alumni association).

Also the Joint Summer Module (at the end of the first year of the programme all the students taking part in SUTROFOR or SUFONAMA are required to spend two weeks together, by doing field research and study), plays a relevant role in networking.

Finally, as regards the opportunity for specialisation on governance-related topics, it is worthwhile to mention that some courses focus on the problems and challenges of good governance in forestry. In particular, the 2nd year of specialisation offered by the University of Padova (Italy) on “Ethics in forestry: responsible forest management, processing and trade of tropical forest products & services” deals with topics like illegal logging, sustainable forest management (SFM) standards, payment for environmental services (PES) schemes, participation processes and environmental conflicts management, stakeholders consultation, third-party forest certification and other related topics.

A part from students and scholars, also the Universities which are partners of the programmes (members of the SUTROFOR and/or SUFONAMA Consortia) have some internal governance-related benefits. First of all, they are part of an active and strong international network, as spin-off to EU applications. Secondly, they have more opportunities to host excellent international students, who are also good ambassadors (their skills and enthusiasm are carried on to “local” students, thus increasing the internal motivations to improve also the ordinary programmes). These students can also be potential future Ph.D. students, or excellent researchers and cooperative partners. Some industrial partnerships for sponsoring scholarships have been launched, thus promoting an increasing academic-private sector collaboration.

On the other side, there are also some internal problems related to governance for partner Universities. Some of these problems are connected with the management system: the Erasmus Mundus Secretariat is costly and EU grant for administration is only EURO 15,000. It is necessary – but difficult – overcoming national administrative barriers. A strong institutional commitment is needed, based on well-designed financial agreements, an intense (internal and external) communication flow among various components of the staff, simplified procedures and effective support services for the students who are excellent and

motivated persons but high demanding. In synthesis, being part of the programme requires institutional changes and flexibility (with respect to legislation, fees, procedures, etc.).

To conclude, which are the future challenges for governance within the EM educational system in forestry according to SUTROFOR and SUFONAMA EM MSc experiences? An increased visibility of the programmes and courses will lead to increase students recruitment, and thus to increase human and financial resources demand. One challenge to deal with is therefore related to the question: "how and to which extent these resources will improve internal governance capacity?". To enhance the internal monitoring system, based on good governance principles like transparency, accountability, etc. by using for example the students' evaluations of the courses, would be extremely useful (first of all for providing even more evidences to the EU monitoring activity on the Consortia's performances).

As reported for other EM programmes, both SUTROFOR and SUFONAMA MSc programmes, because of the rich scholarships annually available, are highly attractive mainly for third-country students. How can the EU-students participation be improved or consolidated in the future? One of the reasons for the limited participation of EU-students so far might be the fact that the EM MSc programme is not based on a Training Need Assessment (on the contrary, for example, of FOPER programme). This seems to be a significant weaknesses of the programme itself.

Finally, it is worthwhile to mention the need for a more adequate and efficient distribution of EM MSc programmes in forestry, for example on the basis of regional interests and/or topics, also to allow forest schools to offer teaching programmes based on their most advanced fields of specialization in research. A network of top quality forest schools, with their clearly acknowledged fields of excellence, properly coordinated to respond to demand of knowledge by high demanding students, could be the positive outcome of the process of internationalization of HEIs in Europe.

5. Conclusions

Thanks also to the Bologna process, a remarkable progress towards a common European educational area is in progress, and it also involves the forestry sector. At the moment a leading role in this process is played by Scandinavian (DK, FIN, S) forest schools, as a consequence both of the role played by the forestry sector in this region and of the traditionally high quality of their educational systems.

Among the various forest science disciplines a leading role in HEIs is covered by forest economics and policies. This focus is linked to the need for improving the quality of teaching in many Eastern European Countries where, till the 1990s, forest economics and policies had mainly based on the old concepts of planned economies under a strong State control. Political attention by the EC and some EU countries to economies in transition has favoured the allocation of funds for the internationalization of high education systems, with the improvement of East-West cooperation.

Very dynamic, unstable and not yet consolidated HEIs are still underway. With a continuous process of internationalization of universities, new challenging problems are going to be considered more systematically in the promotion of HEIs: assessment of training needs, employability evaluation, quality control of teaching contents and students services. At the end this process will bring about an increase of teaching services and hopefully of research quality, with the creation of a real higher education and research area for a knowledge-based Europe.

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Exploring Technology-enhanced Learning Options to Improve the Quality of Higher Forestry Education

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Abstract

Recent advances in information and communication technologies (ICTs) and contributions of learning technology standards open up new avenues to facilitate the integration of technology-enhanced learning into higher forestry education worldwide. They not only help to make progress towards an open global learning infrastructure to educate students, but also to provide continuing education to professionals in the forestry sector. Using the innovation systems perspective, this paper examines the supporting role of technology-enhanced learning in strengthening higher forestry education within the wider context of the forestry value chain, while mapping the linkages between capacity building and good forest governance involving ICTs.

Keywords: Higher forestry education, computer use in education, capacity building, innovation systems perspective

1. Introduction

Good governance, and capacity building and education are listed among the principles of resolution A/RES/62/98 of the United Nations General Assembly on the ‘Non-legally binding instrument on all types of forests’ to achieve sustainable forest management, which was adopted in April 2007. In the most recent report for the 8th session of the United Nations Forum on Forests (UNFF8) in April–May 2009 on achieving the objectives of and implementing this instrument (E/CN.18/2009/2), the Secretary-General states that some donor countries have focused their funding strategies on governance reforms and capacity building in response to the need expressed by some countries to reforming and updating the legislative and policy frameworks, and that they have launched education and training programs for different target audiences, among others. This notion is also reflected in the

‘Strategic framework for forests and climate change’ proposed in 2008 by the Collaborative Partnership on Forests (CPF), a coalition of 14 international organizations and secretariats, which states in one of its key messages that capacity building and governance reforms are urgently required for sustainable forest management to realize forest-based climate change mitigation and adaptation.

At the same time, higher forestry education is confronted with new changes and demands that have an impact on responding appropriately to the recent calls for strengthening human capacities in the forestry sector. In 2004, the Food and Agriculture Organization of the United Nations (FAO) devoted one of the issues of its international journal *Unasylva* to the topic of reinventing forestry education (Perlis 2004). The general consensus of the authors was that the content and relevance of university-level forestry education would need to be adapted, and its disciplinary base would need to be broadened in order to prepare graduates for the breadth of the responsibilities, and to keep pace with the changes faced by the forestry profession to ensure the provision of multiple values, products and services of forests, and advances in the sciences as well as the changes in the society and the environment. The 2008 Annual Conference of the SILVA Network came to similar conclusions about the challenges that higher forestry education is confronted with in responding to changing job market demands and the issue of employability. The 2008 International Symposium on Forestry Education and Global Sustainable Forestry in Beijing, China, also addressed this issue of how these challenges affect higher forestry education especially with regard to declining enrolment in forestry schools, curricula issues, and outdated qualifications of forestry graduates (Yin and Saddler 2008).

This situation is particularly challenging for economies in transition. While it is of critical importance to integrate research and education in order to develop appropriate forest policies and practices together with the necessary institution building, many of these countries lack the necessary research and education capacity in the forestry sector to enable this integration (Jansky et al. 2003). Using the innovation systems perspective, this paper examines the supporting role of technology-enhanced learning in strengthening higher forestry education within the wider context of the forestry value chain. An innovation systems perspective provides a broad analytical framework to examine the generation of process, product and service innovations as a course of action encompassing diffusion and use, as well as first market introduction (Lundvall 2007; Kubeczko et al. 2006). The focus on value chains, in turn, centers around the three major segments of sourcing, making, and delivering. They describe the full range of activities and services of the production link in the value chain, which bring a product or service from its conception to sale in its final markets. The governance of value chains also matters in this context – for instance, to regulate the market access for suppliers or the distribution of gains. Governance is also needed to regulate mechanisms for the delivery and absorption of new knowledge, and the promotion of learning to build the competence needed to enhance innovation and economic performance (Lundvall 2007; Lundvall et al. 2002). This paper emphasizes that there is a need to strengthen innovation capacity supported by good governance in the enabling environment; this can be enhanced by the use of ICT in forestry not only for technology-enhanced learning, but also for e-governance or e-business in the forestry sector.

2. UNU research and capacity building in forestry

The role of forests and forest products as a strategic resource and a capital asset of high economic and social value for the world economy, environment and people is now widely

recognized. Forests play a crucial role in maintaining global biodiversity. Tropical, temperate, and boreal forests provide the most diverse sets of habitats for plants, animals, and micro-organisms. This helps to achieve sustainable management of forest resources by providing assistance to scientists, promoting research networking, organizing training workshops, improving access to scientific information, and fostering partnerships. Forestry integrates, merges or occupies areas such as natural resources management, nature management, urban forestry, agroforestry, and agriculture. Therefore, forestry knowledge needs to broaden the basic skills of policy makers, researchers, foresters, and people living in the forest, giving them the tools to face or adapt to new situations in a rapidly changing social and ecological environment.

The focus of the UNU on forestry research and capacity building is not new. For instance, the World Forests, Society and Environment (WFSE) research project¹, created in 1996 by three partners – including the Finnish Forest Research Institute (METLA), UNU, and the European Forest Institute (EFI) – was concerned with the role of forests in sustainable development. This project focused on more globally relevant research, effective dissemination of knowledge, and capacity development. The results of the project were published in several volumes (see the executive summary in Wardle 2003).

In 2000, a conference on the multiple values of forests in promoting sustainable development² was organized by UNU together with the World Commission on Forests and Sustainable Development (WCFSD), Environment Agency of Japan, and the Forestry Agency of Japan. The conference issued a declaration on the recognition of the specific values of forest with its multiple roles and functions as well as a set of recommendations for the international community. The results of the conference were published in a report (Velasquez and Shimizu 2001).

The Forest Policy and Economics Education and Research (FOPER) project³, which was initiated together with EFI and the Silva Network in 2000, analyzed the present situation in transitional countries for forest research and higher education and contributed to forest policy development processes in those countries.

Finally, agroforestry and forest land degradation is also a major research field in UNU's programmes in Asia. Initially, this issue was addressed within the framework of UNU's People, Land Management and Environmental Change Programme (PLEC),⁴ which is now focused on mainstreaming lessons learned into national and international policies and training institutions. Currently, the UNU is engaged in a project on sustainable land management in the high Pamir and Pamir-Alai mountains.⁵ This project is an integrated trans-boundary initiative of the governments of Kyrgyzstan and Tajikistan that aims to address the interlinked problems of land degradation and poverty within one of Central Asia's critical mountain 'water towers' and biodiversity hotspots.

The UNU as an international community of scholars within the UN system is engaged in capacity development and training to augment and disseminate its research activities. As such it is engaged in a process of knowledge creation and sharing. According to its Charter from 1973 (A/9149/Add.2; UN General Assembly 28th Session, 3081 (XXVIII)), the UNU clearly assigns priority to post-graduate training to assist scholars especially from developing countries to participate in research in order to increase their capability to contribute to the extension, application and diffusion of knowledge. This broader concept of capacity development is also reflected in a study about the capacity development efforts of the UNU

1 <http://www.unu.edu/env/forests/>

2 <http://geic.hq.unu.edu/ENV/project1.cfm?type=1&ID=307>

3 <http://www.efi.int/portal/research/projects/?todo=3&projectid=16>

4 <http://www.unu.edu/env/plec/>

5 <http://palm.unu.edu/>

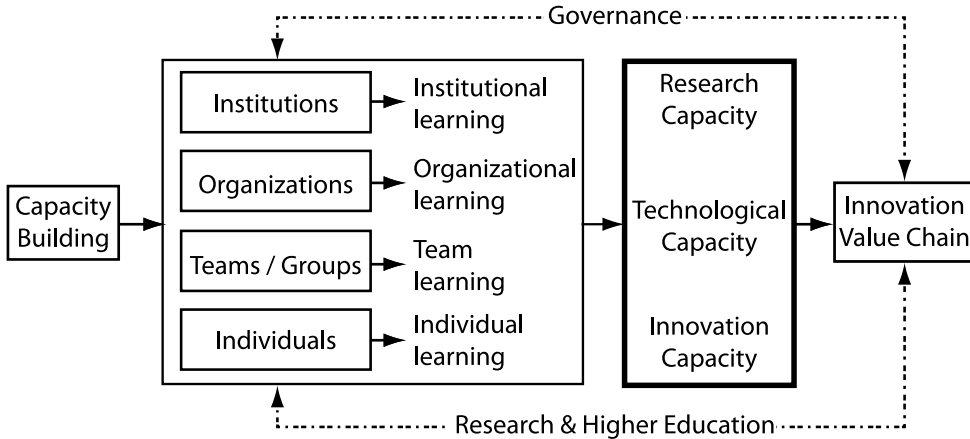


Figure 1. Components of capacity building.

(UNU/C/48/L.22), which was endorsed by the UNU Council in 2002 (UNU/C/49/L.14) and includes a set of guidelines and principles to guide the capacity development activities in the UNU System.⁶

Generally speaking, capacity building is often only associated with strengthening the human capacities to improve the performance of individuals and teams – for instance, through opportunities for work place learning (Ilgen et al. 2005). Capacity building in the context of innovation systems involves more than this general definition (as illustrated in Figure 1) and can be defined as:

the context specific range of skills, actors, practices, routines, institutions and policies needed to put knowledge into productive use in response to an evolving set challenges, opportunities and technical and institutional contexts (Hall 2005: 625).

This encompasses research capacity as the resources needed to conduct scientific research and technological capacity resources needed to manage technical change. Capacity also impacts the quality of the organizations in which they work by promoting organizational learning and change (Yang et al. 2004). It also applies to institutions through institutional learning for the establishment of norms and routines. This is where capacity building merges into the area of governance. The operations of particular organizations are influenced by the enabling environment – i.e. the structures of power and influence and the institutions in which they are embedded. As such “capacity is not only about skills and procedures; it is also about incentives and governance” (OECD 2006: 7).

A recent study on capacity change and performance conducted by the European Centre for Development Policy Management (ECDPM 2008) confirms that capacity building is more than a means to an end, but also a legitimate end in itself. Capacity building not only includes the strengthening of individuals and teams, but also the capacity development of organizations and effective systems such as institutions. This confirms the recommendations of a guidance note on capacity building issued by the UN Administrative Committee on Coordination (ACC; now the United Nations System Chief Executives Board for

⁶ <http://unu.edu/capacitybuilding/principles-guidelines.pdf>

Coordination or CEB) in 2000 about the importance of capacity building in the operational activities of the UN system (UN 2000). It also proposes a more holistic approach and broader understanding of capacity building, which:

... encompasses the building of organizational and technical abilities, behaviours, relationships and values that enable individuals, groups and organizations to enhance their performance effectively and to achieve their development objectives over time. Capacity building includes both strengthening the processes, systems and rules that shape collective and individual behaviour and performance in all development endeavours as well as people's ability and willingness to play new developmental roles and to adapt to new demands and situations (ibid.: 35–36).

3. Learning, innovation and governance

In a learning economy, which is characterized by an increased rate of change and a strong emphasis on learning processes for promoting economic performance, the generation and sharing of knowledge is critical to strengthening the performance of individuals and organizations. The most critical elements in innovation systems have to do with the learning capability of individuals, organisations and regions (Lundvall et al. 2002). Because knowledge becomes obsolete more rapidly than before, it is vital for individuals to develop new competencies and organizations to engage in organizational learning and change. The learning organization is characterized by the capacity to integrate people and structures in order to move strategically toward continuous learning and change. Similar to the different levels in which capacity building is applied, there are seven distinct, but interrelated, dimensions of a learning organization at individual, team, and organizational levels (Yang et al. 2004): (1) continuous learning; (2) inquiry and dialogue; (3) team learning; (4) empowerment; (5) embedded systems; (6) system connections; and (7) strategic leadership.

The main function of systems of innovation is to pursue innovation processes, that is, to develop and to diffuse innovations (Edquist 2004). Innovation is defined as “a process encompassing diffusion and use as well as the first market introduction” (Lundvall 2007). Innovation systems include a broad spectrum of science and technology activities of organizations, enterprises, and individuals that demand and supply knowledge and technologies as well as the rules and mechanisms by which these different agents interact. For innovation to take place it is critical to have access to knowledge on possible innovation ideas and related information. Innovation and knowledge creation are interactive processes. The different actors in these processes exchange information and co-operate to generate new knowledge (Lundvall 2000). Hence, one of the key activities of innovation systems is the provision of research and development (R&D) to generate new knowledge as well as to build competencies. This implies the provision of education and training to create human capital, to produce and reproduce skills, and to support individual learning in the labour force to be used in innovation and R&D activities.

Generally speaking, knowledge can be classified as know-what (declarative or descriptive knowledge), know-why (structural or explanatory knowledge), know-how (procedural knowledge), and know-who (behavioural knowledge) (Lundvall 2000; see also Gagné 1985; Jonassen et al. 1993). Know-what refers to knowledge about ‘facts’; know-why refers to knowledge about principles and laws of motion in nature, in the human mind and in society; know-how refers to skills – i.e. the ability to do something; and know-who involves information about who knows what and who knows what to do. The latter also involves the

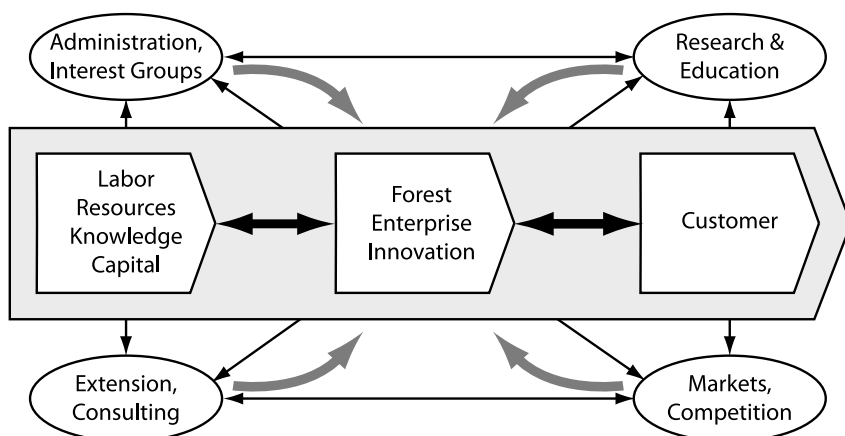


Figure 2. Key innovation system components and interactions in the forestry sectoral innovation system (adapted from Rametsteiner and Weiss 2006).

social ability to co-operate and communicate with different kinds of people and experts. These different kinds of knowledge are provided through various channels. Know-what is typically learned through reading, attending lectures or accessing research databases. Know-what and know-why can also be obtained through more general information channels. Know-how is typically provided through apprenticeship-type or workplace learning arrangements. This includes, for instance, field or laboratory work in the natural sciences to learn the necessary skills, or case-based learning in management or legal and medical studies to stimulate learning based on practical experience. Know-who is usually acquired through the social interaction and networking with others or certain specialized educational environments, such as professional associations or communities-of-practice in which individuals can engage in information sharing with other professional colleagues (Wenger and Snyder 2000). While this formal, codified, structured and explicit knowledge is provided through well established channels, tacit knowledge is less accessible, but equally important in an innovation system (Lundvall 2000; Lundvall et al. 2002). Tacit or implicit (contextual) knowledge is deeply embedded in individuals and organizations. It is knowledge that has not been documented and made explicit by those who use and control it.

As shown in Figure 2, the forestry sector is an example of a sectoral innovation system in which firms are active in developing and making products of the sector as well as in generating and utilizing technologies of the sector (Rametsteiner et al. 2006). In order to strengthen the performance of a sectoral innovation system such as forestry it is important to provide support to the innovation process at an early stage, including research and education, to initiate greater interaction with other non-forestry players; this could greatly enhance related innovation activities in the sector. As illustrated in Figure 3, these actors are involved in a process along a value chain, which encompasses the full range of activities and services required to bring a product or service from its conception to sale in its final markets.

Governance plays a critical role not only in sectoral innovation systems such as forestry, but also in value chains. Value-chain governance determines who in the value chain has the ability to define the terms and conditions of transactions. It applies equally to e-governance (Wassenaar 2000), the research information system (Roosendaal et al. 2003), higher education (Liu and Sharifi 2008), or e-Learning (Wallin 2004). In order for innovation to

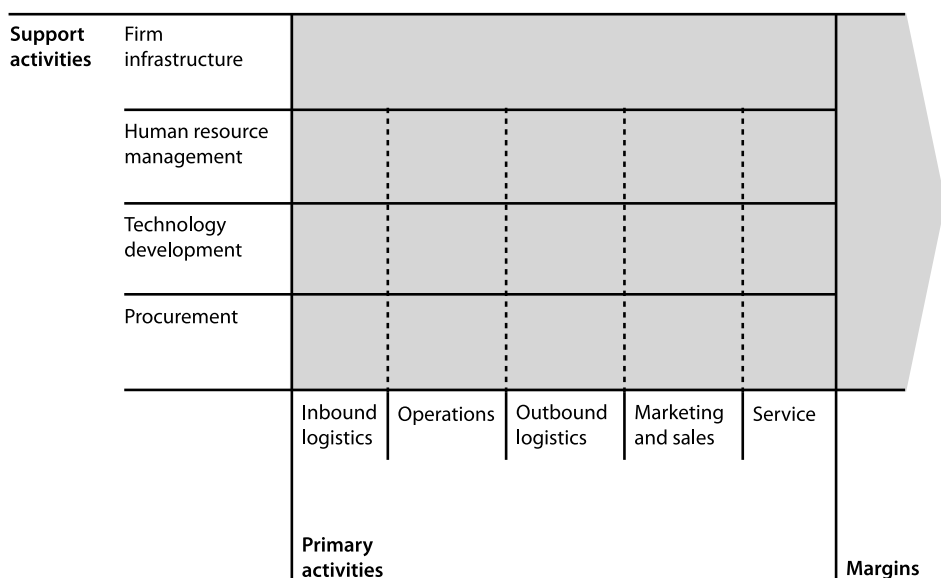


Figure 3. The value chain (adapted from Porter 1985).

take place, knowledge and information are needed to develop the necessary competencies. These are provided by the supporting markets, which include, among others, research and higher education. Governance as part of the enabling environment of a value chain provides the necessary policies and institutional infrastructures to promote learning and knowledge sharing in the innovation system.

ICTs also affect the governance of the forest sector in the way policies, initiatives, and other efforts promote the sustainable management and use of forests (Rametsteiner et al. 2005). ICTs permit a larger number of organizations to get involved in these decision-making processes on an international level. Today, many actors form policy networks of different kinds on various forest-related topics through the use of ICTs. These internationally active multi-actor networks and governance arrangements will most likely increase further. This brings with it a growing need for coordination and communication among those networks. ICTs help to promote the principles of good governance in the forest sector, especially in an international context. For a number of years, the UNU has been engaged in research on electronic governance, maintains a website for a community of practice about this topic (Janowski et al. 2006).⁷

4. Technology support for learning in forestry

Similar to the notion of using ICT in forestry governance and value-chain governance, ICTs can also facilitate teaching and learning. Today, electronic learning (e-Learning) has generated new educational innovations and has re-emerged as a solution for providing on-

⁷ <http://www.unegov.net/>

line, hybrid, and synchronous learning, regardless of time, physical location, or even type of digital reception or distribution device (OECD 2005). e-Learning refers to the use of ICTs to enhance and/or support learning in higher education. It can be implemented in various ways, for instance, virtual classrooms, rapid e-Learning, online learning, mobile learning, or performance support systems. e-Learning can be described as consisting of three dimensions (Wu et al. 2008): (1) technological components; (2) learning model; and (3) stakeholders. The technological components refer to a collection of technological tools used to deliver learning materials and to facilitate communication – i.e. the means for the technological infrastructure as well as content creation, packaging, and delivery. The learning model applies to the way in which the core components are integrated into a whole to support learning processes. It consists of educational environments, course development, teaching and learning, faculty/student interaction, collaborative learning, and evaluation and assessment. Finally, the e-Learning stakeholders include learners, instructors as well as educational organizations.

e-Learning is equally applicable in the context of forestry education, offering increased flexibility and a more global reach (Längin et al. 2004). ICTs offer the flexibility and freedom from scheduling and spatial constraints to adapt forestry curricula, and rethink the skills and knowledge that graduates need. e-Learning can be incorporated into existing curricula in higher forestry education of students and professional training by combining on-line learning with face-to-face instruction in different ways (blended learning). An example of a blended learning project in higher forestry education is the use of a content management system to combine the provision of on-line phases and face-to-face instructor-led instruction for teaching silviculture techniques and methods (Vacik et al. 2006). Another example of technology-enhanced learning in forestry is the PuMe II simulator (Vanninen et al. 2006).⁸ It was developed as an interactive tool for forestry studies at the university, polytechnic and vocational school levels. PuMe II contains a forest growth simulator (pine and spruce), based on the PipeQual model, and information packages (text, pictures, videos). Finally, the Virtual Forestry University⁹ was established as a European initiative in an attempt to provide distance seminars and courses, study materials for forestry as well as an exchange platform for forestry instructors.

A critical issue in this discussion is access to and availability of e-Learning content. The current move towards open educational resources (OERs) calls for the open provision of educational resources, which is enabled through the use of ICTs. OERs are defined as “digitised materials offered freely and openly for educators, students and self-learners to use and reuse for teaching, learning and research” (OECD 2007:38). An example of this movement in the agricultural sector is the work of the Agricultural Learning Repositories Task Force (AgLR-TF) with support from the FAO.¹⁰ This initiative intends to harmonize metadata application profiles for agricultural learning repositories in order to improve the availability and accessibility of agricultural OERs (Manouselis et al. 2008). Recently, the UNU has established an OpenCourseWare website to share the learning materials from its educational programmes and capacity building activities with a wider public (Barrett et al. 2009).¹¹ Today, learning technology standards and specifications exist that facilitate the integration of different components and enhance the search and retrievability of learning resources (Duval and Verbert 2008). These standards provide means to increase the reuse of learning materials for different contexts and different delivery channels as so-called learning objects (Barritt and Alderman 2004). An example of these open international standards is the Darwin Information Typing Architecture (DITA), which is comprised of a small set of

8 http://sokl.joensuu.fi/saima/pume_eng.htm

9 <http://www.joensuu.fi/metsatdk/viefor/>

10 <http://aglr.aaugr/>

11 <http://ocw.unu.edu/>

core information types to generate modular (technical) documentation (Priestley et al. 2001). DITA has recently been extended for the authoring of learning content (Hunt and Bernard 2005). Using these technologies content knowledge based on research can be modularized in such a way that it can be reused more easily for different purposes (Roosendaal et al. 2003), including learning content (Zschocke et al. 2008), while capturing and tagging different information types (Horn 1990).

5. Conclusion

The paper provided an overview of capacity building in the context of the innovation system perspective as a framework to strengthen the forestry sector. As part of this sector, institutions of higher learning for forestry are challenged with the task of finding innovative ways to attract and retain students and to improve the quality of their courses. The paper concluded with an outlook on the use of e-Learning in higher forestry education in that ICTs provide the means to strengthen higher forestry education through blended approaches and sharing of open educational resources. The availability of international learning technology standards and specifications as well as related open-source learning management and authoring tools will help to facilitate this process in an effective and cost-efficient way in the future.

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Forest-related policy issues have become ever more complex, multifaceted and are both an outcome of several underlying causes and driving forces and subject to influences of several policy sectors. These proceedings comply the presentations of the international workshop “Forest Policy and Economics in Support of Good Governance”, organized in April 2009 in Dubrovnik, Croatia. The presentations and discussions of the workshop on capacity building and governance made it very clear that there is a need for studies related to good governance throughout Europe. Governance is a cross-cutting issue which is applicable to a multitude of sectors and businesses, and those professionals with an in-depth knowledge on good governance are likely to be increasingly attractive employees in the future.