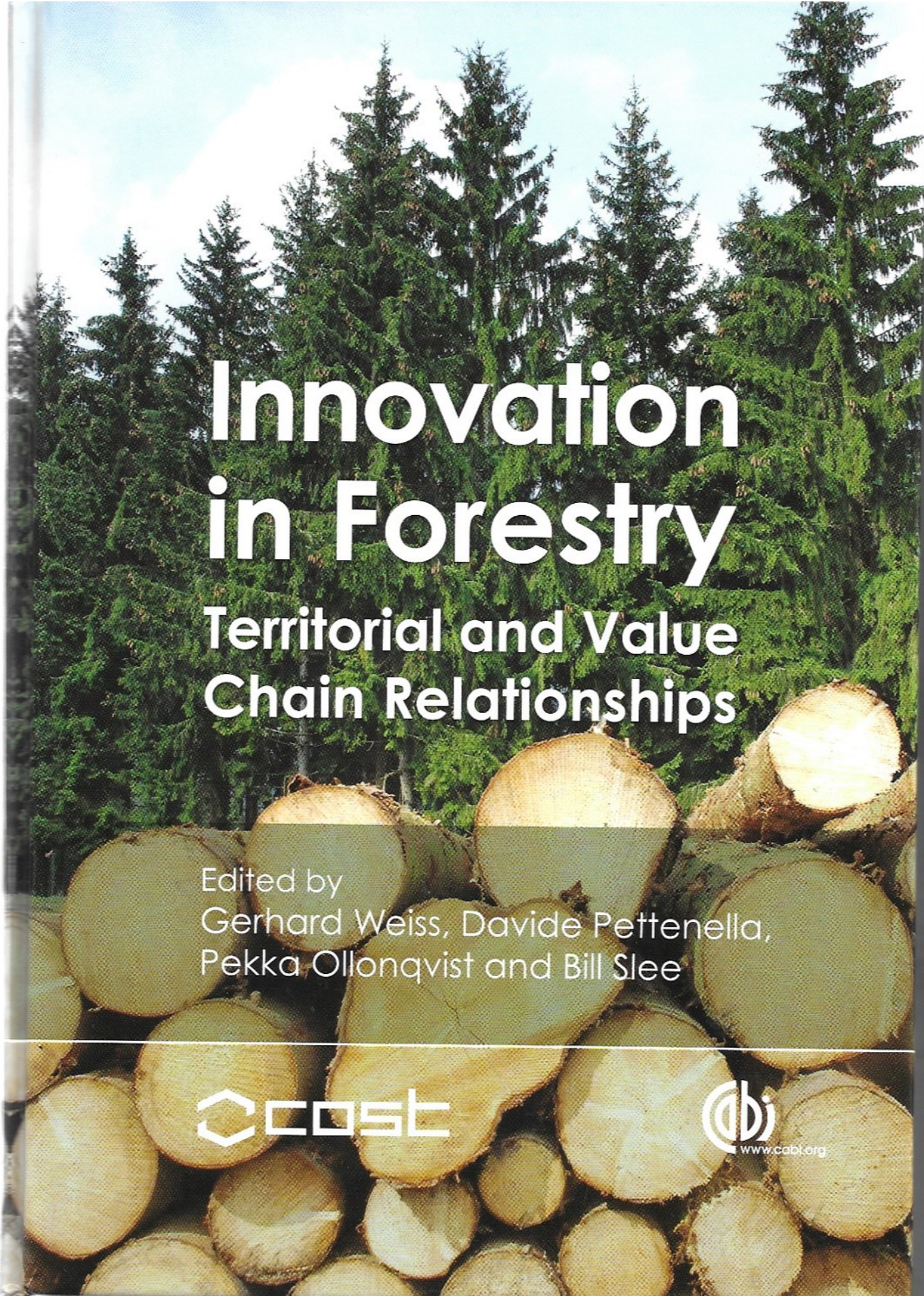
Innovation in Forestry
Territorial and Value Chain Relationships
Edited by
Gerhard Weiss, Davide Pettenella,
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Edited by

Gerhard Weiss

European Forest Institute Central-East European Regional Office (EFICEEC)
InFER – Institute of Forest, Environmental and Natural Resource Policy
University of Natural Resources and Life Sciences
Feistmantelstr. 4
1180 Vienna
Austria

Davide Pettenella

Università di Padova
Dipartimento Territorio e Sistemi Agro-Forestali
Via dell'Università 16
35020 Legnaro PD
Italy

Pekka Ollonqvist

Finnish Forest Research Institute
PO Box 18 (Jokiniemenkuja 1)
FI 01301Vantaa
Finland

and

Bill Slee

The Macaulay Land Use Research Institute
Craigiebuckler
Aberdeen AB15 8QH
UK

CABI is a trading name of CAB International

CABI Head Office
Nosworthy Way
Wallingford
Oxfordshire OX10 8DE
UK

Tel: +44 (0)1491 832111
Fax: +44 (0)1491 833508
E-mail: cabi@cabi.org
Website: www.cabi.org

CABI North American Office
875 Massachusetts Avenue
7th Floor
Cambridge, MA 02139
USA

Tel: +1 617 395 4056
Fax: +1 617 354 6875
E-mail: cabi-nao@cabi.org

A catalogue record for this book is available from the British Library, London, UK.

Library of Congress Cataloging-in-Publication Data

Innovation in forestry : territorial and value chain approaches / edited by Gerhard Weiss, Pekka Ollonqvist, and Bill Slee.
p. cm.
Includes bibliographical references and index.
ISBN 978-1-84593-689-1 (alk. paper)
1. Forestry innovations. 2. Forests and forestry--Economic aspects. I. Weiss, Gerhard, 1966- II. Ollonqvist, Pekka. III. Slee, Bill. IV. Title.

SD387.I57I56 2011
333.75--dc22

2010035486

ISBN-13: 978 1 84593 689 1

Commissioning editor: Nigel Farrar
Production editor: Tracy Head

Typeset by SPi, Pondicherry, India.
Printed and bound in the UK by MPG Books Group.

17 Innovation in EU Forestries: a Science–Policy Dialogue

Filip Aggestam* and Gerhard Weiss

Abstract

This chapter analyses a cross-sectoral discussion forum – a science–policy dialogue – held at the final conference of COST Action E51. The design of the forum was as a moderated fishbowl discussion with invited discussants and the audience. The aim was to discuss the problem situation and possible strategies for policy improvements among researchers and policy practice. The discussants included policy makers and stakeholders from research policy, forestry, forest industry and regional development. The discussion forum was video recorded. This enabled the extraction and review of all major issues raised throughout the discussion, and the transcription of parts of particular importance. The main questions were directed at the success and gaps of current policies and which policy improvements are needed in order to support innovations in the sector and for rural development. These questions were discussed for territorial goods and services, and for the wood value chains. Results suggest a need for improving the interface between research and practice. Support for innovation should move away from project-based support to long-term cooperation and collaborative learning, and from a focus on research to the support of the whole innovation process and better interaction of all parts of the innovation system. Policy measures need to define characteristics and address different types of micro-, small and medium-sized enterprises (SMEs) such as innovative front-runners and/or traditional firms. For the forest sector, it is also relevant that rural development policy considers all sectors that interact in the landscape, is multi-layered and stimulates connectivity and integration at and between the appropriate levels.

17.1 Introduction

This chapter presents a summary of discussions held at the Final Conference of COST Action E51 – The role of policy in European forest-based innovation: bridging sectoral and territorial approaches – in Brussels, Belgium, on 1 June 2010. The objectives of the conference were to present results from the Action E51, and derive conclusions and policy recommendations for integrated innovation support in forestry and the forest-based sector.[1] The conference also aimed at initiating a cross-sectoral discussion and a science–policy dialogue on how better to coordinate policies for an innovative forest sector, concerning territorial goods and services of forests as well as the wood value chains.

17.1.1 A forum for a science–policy dialogue

As the conference had the ambition to not only present the research results but also to stimulate a lively exchange between

*Corresponding author.

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research and practice, it gave ample room for inputs from policy makers and stakeholders. In the first session on the problem situation and knowledge demands, keynote speakers presented the perspectives from research policy, integrated rural development and the forest industry. Then the main results from the COST Action were presented related to the field of territorial goods and services and to the wood value chains. This concluded with a classical plenary discussion.

The afternoon was then dedicated to the moderated science–policy dialogue. The design of the forum was a fishbowl discussion with invited discussants and the audience. Discussants and the audience from policy practice and research were allowed to take a seat in the discussion circle at any point. The invited discussants included policy makers and stakeholders from different sectors. Policy makers in the conference represented the European Commission (DG RTD, DG ENT and DG AGRI) and the Austrian Ministry of Agriculture, Forestry, Environment and Water Management. Stakeholder organizations included the Forest-Based Sector Technology Platform (FTP), Forest Association of Portugal, Confederation of European Forest Owners (CEPF), Union of Foresters of Southern Europe (USSE) and European Network Rural Development (ENRD).

The discussion forum was divided into two successive rounds of 1 h each, dedicated to the two major themes of the Action: wood value chains and territorial goods and services. The first round asked what policies are required for an integrated wood value chain management. The second round focused on integrated rural development. Both rounds concerned policies aimed at supporting innovation in the many fields related to forestry and the forest sector. It was of interest to explore practical experiences and discuss gaps in current policy measures; how current policy instruments could be improved; and at what level (e.g. EU or national level) and/or who (public–private) should become active for a better support of innovation in these sectors. The cross-sectoral discussion forum is available to view online (http://www.boku.ac.at/coste51).

17.1.2 Aim and method of this chapter

The aim of this chapter is to analyse views presented by the participants of the discussion forum at the Final Conference of COST Action E51; the invited discussants are given at the end of the chapter.

Since the discussion forum was video recorded, it was possible to: (i) extract and review all the major points brought up during the discussion; and (ii) transcribe parts of particular importance. The qualitative method aimed to distil the most important issues that are related to the topic of innovation in the forest sector and rural development, and to compare the views of the represented groups.

The results are presented under a number of headings that appeared to be central to the participants in regard to innovation support in the sector.

17.2 Results

17.2.1 Policies: how effective are they for SMEs?

The COST Action E51 cross-sectoral discussion forum opened up with a discourse related to policy measures affecting innovation among micro-, small and medium-sized enterprises (SMEs) in the forest sector. Below follows a brief summary of some factors that were considered to be restricting the impact of innovation policy.

The first problem that was raised concerned the understanding of what types of SMEs should be targeted by the policy measures. Current policies apply a definition of SMEs that is too general. In the discussion, an important distinction was made between traditional SMEs and innovative front-runners, the argument being that while policy measures often cater to innovative front-runners, having an impact on (or gaining access to) traditional SMEs can be much more difficult. Policy measures for innovation in the forest sector thus need to address and define characteristics inherent in the type of SME that they aim to influence or support.

The effectiveness of policy measures that are aimed at stimulating innovation often suffers from having only a short-term impact. There was a general consensus that, while direct engagement of SMEs in research is (and can be) successful, the impact of measures is most often not long-term and only effective while funds are available. One obstacle is that innovation support measures are often project based and do not focus so much on the innovation process itself. Innovation policy may accordingly gain more by orienting its support to the whole innovation process rather than just to research. In addition to engaging SMEs through projects, innovation policy instruments should go beyond short-term collaboration with a view to establishing a systematic and continuous collaboration.

A factor that restricts the impact of innovation policy is linked to access to SMEs (e.g. at a local and/or regional level). It was stated that it may be more resource-effective to simply focus on SMEs that themselves would be interested in enhancing their innovative performance, such as front-runners. Alternatively, policy measures need to involve existing or creating new intermediary agents that have the capacity to connect external organizations with local and/or regional SMEs. One example was the Forest Technology Platforms (FTP)[2] Innovation Task Force direct engagement of wood clusters, meaning that they proactively engaged and involved forest enterprises at a local and regional level through cluster organizations. This is particularly important for SMEs that would otherwise not have the capacities to engage in innovative activities by themselves (e.g. traditional SMEs in the forest sector).

In summary, the key issues raised concern the necessity to define the type of SME and instruments a policy measure should utilize. Linked to this need, policy measures should ensure that the effects are not only episodic but rather continuous and long term. This could be accomplished by providing more process support rather than having project-based innovation support. Depending on the aim of the measure, SMEs need to be engaged and integrated at a local and regional level. Effectively, regional and national administrations need to adopt innovation practices that aim to get as close as possible to the SMEs' base (e.g. local level) to gain access and have an impact. In this process, intermediary organizations play an important role in facilitating communication and cooperation among the various actors in the innovation systems.

17.2.2 Context specific: are there regional differences?

'There is not one solution or one shot for all. That is very important! It needs to be customized to the groups or even for the regions or local areas where the SMEs are located and operating.' This statement from the discussion highlights the importance of tailoring innovation policy to the context in which it will be applied. Different types of ownership structures, fragmentation and varying interests in the forest define needs (e.g. the need for knowledge and/or access to a wood market), which in turn influence the degree of participation in the wood market. Policy measures and instruments should reflect these different local and regional contexts and problems across Europe.

It was further emphasized that SMEs do not necessarily need to engage in more research, but rather need more local and/or regional cooperation. The point highlighted was that policy measures need to focus more on the regions, not only at the EU and national level (both in terms of innovation support and cooperation). Coupled to this call for integrating SMEs at all levels, the need to extract learning from other regions was also stressed. While it was repeatedly noted that it is context-specific factors that determine the type of policy measures that should be applied, these factors cannot be defined without the exchange of ideas and 'good practices' across Europe. There is the need for a framework in which we can define these context-specific factors and that fosters a collaborative learning approach.

17.2.3 Research–practice relations

Research versus practice

There is a gap in terms of the questions asked (or priorities) and the flow of dynamics in practice versus research. The differing interests and modes of operation were brought up as a major barrier to innovation and cooperation. For instance, SMEs most often do not see the relevance of questions pursued in research ('ivory tower of research'), or the long timescale and limited reward for public research projects make them lose interest. In contrast to large enterprises that have more resources (e.g. central research and development labs), these problems are particularly linked to SMEs in which innovation and research are usually less structured and *ad hoc*. The 'reality' that confronts SMEs in terms of priorities (e.g. growth) and available resources (e.g. time and finances) is simply too different from that of larger enterprises and the research community.

At the EU level, it was additionally noted that the administrative burden associated with participating in public projects prevents SMEs from participating. The procedures and practices used in many tenders still have the effect of disadvantaging SMEs over larger enterprises. As argued by one discussant, 'reducing the red tape' and simplifying the procedures could speed up participation by industry and SMEs in particular. Stimulating SME-friendly practices should be a priority and, as stated previously, one way of achieving this may be through policy measures that provide more process support through national and regional administrative bodies. It was also noted that intermediary agencies (e.g. clusters) may provide a wider, more varied and holistic approach to supporting the innovation process. In policy terms, intermediaries may improve connectivity within a system (e.g. connecting actors and sectors) as well as create new possibilities and dynamics within a system. This may contribute to establishing more long-term collaboration between SMEs and research organizations.

Perhaps most importantly, the access to knowledge was vocalized by several discussants as a barrier to innovation. At one level, this relates to the translation of research results into a common and easily understood language: the 'message needs to be simple, clear and focused'. At the other level, it relates to the facilitation of knowledge. It is not enough only to produce research results, and not enough to provide access – research findings also need to be brought to the market. Knowledge needs to be wrapped in an attractive package, as stated, 'we need to make our results sexy'. SMEs (or the wider audience outside a given project consortium) need to be reached. It was, for instance, suggested that participatory learning processes could be utilized to disseminate knowledge and to generate an interest in collaborative research projects.

Communication and interaction

Failure to communicate and interact across the wood value chain can cause a range of problems. This was related to mistrust and missing confidence in the value chain. There is, in some cases, simply no trust between producers and industry, particularly the confidence between fragmented forest owners and industry was considered important. Mistrust similarly constitutes an obstacle for collaboration between research and practice. It is plausible that institutions (or intermediary agencies) could address this failure in communication, both between participants of the value chains and between industry and research. This could, for instance, be achieved by inviting local organizations to engage SMEs (also cross-sectoral), to allow producers and industry to 'get to know each other'. This may not only result in improved communication and interaction, but if successful, the increased utilization of local resources.

Linked to the difficulties surrounding communication and interaction, it was argued that the forest sector often represents a closed and traditional sector. It is a sector that is not prone to innovation and is not likely to engage in cross-sectoral cooperation, but to foster an innovative sector it is

essential that it reaches out and interacts with other disciplines and sectors at all levels (EU, regional, national and local). The forest sector should look across its boundaries to account for the full value chain (e.g. from forests to recreation to public health policy), as well as to evaluate and compare the impact of other policy fields across Europe (e.g. national differences in energy policy). The role of research in this should be to collect and review relevant cases and to disseminate any findings to forest owners. Furthermore, as stated by one discussant, to 'see if [the forest owners] have any ideas, or to compare their business with businesses in other regions', stressing the need for research to proactively pursue participatory and collaborative learning and exchange with practice. This need to communicate and engage other sectors was also linked to the forest sectors' lobbying activities. Arguments were made that the forest sector needs to make its lobbying more appealing.

17.2.4 What policies are necessary for an innovative forest sector?

The discussants were asked what they consider necessary for an innovative forest sector. Three topics were raised: the first was financing, the second concerned public valuation and the third related to the establishment of a framework for a landscape policy.

Regarding monetary policy, besides the general lack of funds available to support innovation in the forest sector, the issue was how funds could be allocated more effectively. It was previously mentioned that policy measures should focus more on providing process support. At the institutional level, this means that support measures for innovation need to move away from the project level and aim to provide more long-term support. This does not mean that traditional subsidies should be abandoned but that additional institutional support measures for small owners and companies be added to the repertoire of tools. One example that was brought up was the Leader initiative,[3] designed to help rural actors consider the long-term potential of their region. It represents an institutional structure that provides a platform for participation and exchange among rural actors and that could also facilitate access and translation of new research findings. Accordingly, it is not sufficient only to provide more funding, policy needs to look beyond the provision of subsidies and episodic project support. As stated, 'to stimulate the atmosphere for innovation, and also mobilize the emotional part and conviction of innovative leaders [...] you need to stimulate that they become passionate about something. Otherwise it will not work.' This could, for example, be achieved through outreach and training programmes aimed at providing new tools, techniques and methods that boost local capacities and confidence and that reflect the needs of the innovation challenges in the given context.

Indirectly linked to the financial viability of the forest sector is the need to make society value ecosystem functions and territorial services, and to find measures and mechanisms that would enable this valuation. It was noted that public valuations mostly envelop services (e.g. biodiversity) and not goods (e.g. firewood), regardless of whether people are from an urban or rural area. This is combined with an unwillingness to pay for services (considered a public good) and associated with the public having a limited perspective on how the forest functions. As expressed, 'Society is not ready to value territorial services. We talk a lot about them, but society is used to public goods and is not willing to do more than provide subsidies.' There is essentially a conflict between what the public value and what they are willing to pay for. This calls for a clear policy framework and government initiative to assist in the application of monetary value to ecosystem functions and territorial services.

The need for a policy framework concerned with public valuation was discussed in terms of the range of sectors that have an interest in, and an effect on, European forests. It was argued that several sectors in effect meet in the landscape (e.g. rural

development, agriculture, forestry and energy), which in turn causes conflicts over the limited resources available in the landscape (one example being the conflict between the bio-energy sector and the wood industry over the use of forest resources). This suggests the need for a 'landscape policy' that can be utilized as an instrument to streamline other sectors (Fig. 17.1). Developing a policy framework for the landscape could furthermore be useful in the process of making the public value territorial services.

Communication and interaction

The process of streamlining policies that compete in the landscape is inherently linked to communication and interaction between individual actors, industries and/or sectors. It was argued that cooperation is key within this context, especially when considering innovation in the rural environment, particularly as it is often the local and human potential that often drive innovation in the forest sector. It was suggested that this should be addressed via rural development policy and small-scale efforts targeting the human potential present at the local and regional level.

The need to motivate cooperation is also reflected in the need for networking to enable public policy. However, it was stressed that networking is not sufficient if it only occurs in a top-down fashion but requires a significant bottom-up element to be successful.

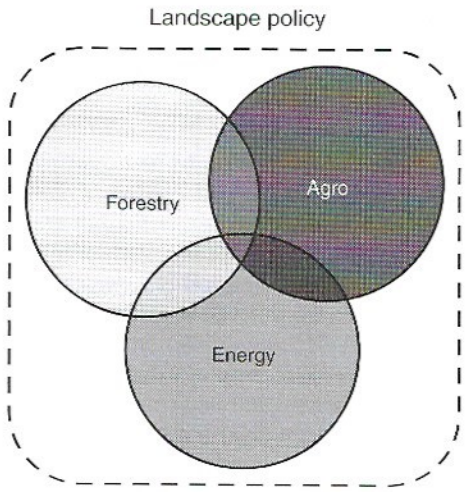

Fig. 17.1. Defining a landscape policy.

Enabling creativity – enabling innovation

Despite efforts characterized by public policy, innovation in the forest sector often occurs sporadically and in instances where we find a local concentration of innately creative and engaged people that in turn stimulate and feed into rural development. This questions the importance of an institutional framework that encourages innovative activities. While initiatives such as Leader were highlighted as important in this context, the discussants stressed that the forest sector needs to involve itself more. Involvement in this case is defined as the creation of an enabling environment that stimulates bottom-up efforts.

Enabling conditions were not specified further as they were presumed to be context specific and, more importantly, there is a need for more research to define what constitutes enabling conditions. They do none the less relate to conditions that help to enable people, both inside and outside the forest sector, to be creative and take initiative. Further, policy measures need to make sense (e.g. accounting for regional specific conditions), be 'user friendly' and aim to integrate other sectors.

Rural development

Central to policies for an innovative forest sector is rural development, but despite its importance, it was consistently argued that we do not have a truly rural policy yet, principally as rural development is still very agro-centric. The forest sector is, as stated by one participant, 'lost in the middle of agricultural policy'. It was emphasized that we need to move beyond this point to embrace forestry in rural development. It was even argued that we need to 'embrace the whole rural economy and the value chains therein'. Rural development policy should in essence help to create jobs in the landscape and generate income by taking the local context and profitability into account.

Aside from the need to incorporate more forest-related issues in rural development, it was indicated that multiple goals and services should be a central element when considering the rural economy. There is currently an absence of conditions that would allow alternative sources of revenue to come through. It is in this case not a matter of expanding subsidies, but it is important to recognize that other goods and services can generate an income.

Connected to the debate on multiple goals and services, it was further discussed whether there is room for legitimizing the payment of environmental services within the context of the EU Common Agricultural Policy (CAP). Given the ongoing discourse as regards the revision of the CAP, it was argued there might be some room to incorporate multiple goals and services. One stated: 'it seems to me much easier to legitimate payments for environmental services than it is to legitimate single farm payments under Pillar 1'. Within the scope of this discussion, however, it was stressed that the forest sector, as a whole, needs to be more vocal and raise these issues at the EU level to have an impact.

17.2.5 Who should become active?

When asked to define who should become active, the first issues that were brought up concern the fact that public policy is not enough to create an innovative forest sector; rather, identifying the motivation that drives innovation is key. This brings us back to the previous issue of generating enabling conditions (at the local and/or regional level). At one level, it is thus relevant that the research community takes an active role and focuses more attention on characterizing and defining these enabling conditions in more detail and to facilitate the access to this knowledge.

At the level of the state, to enable the development of a system for the payment of environmental goods and services requires initiative by Member States or the EU to develop a clear policy framework. It is, for instance, relatively easy to charge for goods (e.g. picking mushrooms), but there are few cases of payments made for services (e.g. biodiversity). This needs to be coupled with initiatives by the state as well as the market to develop frameworks (e.g. commercial networks) that enable forest owners to access these future markets.

On the whole, it is consequently not enough to only have a top-down approach, and neither is it sufficient to only have a bottom-up approach; both are in fact needed. From the top down, there is the need for leadership and policies that enable an innovation friendly environment, create markets and provide services. However, this would be for naught if there were no innovative people that would take up these opportunities and push new ideas forward from the bottom up.

17.3 Conclusion

17.3.1 Defining a landscape approach and system integration

The call for a 'landscape policy' can essentially be equated to the need for a balanced and authentic approach to integrated rural development. However, this cannot be accomplished unless:

- we develop a policy framework that truly envelops the complete landscape as well as streamline and integrate all the sectors therein;
- we confront the current view on the role of the forest – this relates to the multiple goals and services that should be part of the rural economy (e.g. environmental services should be incorporated more strongly into the Common Agricultural Policy);
- we enforce a more level playing field between the sectors that interact in the landscape – this requires that we move away from the currently agro-centric focus in rural development policy; and
- all the actors and sectors that compose the rural economy need to communicate, network and cooperate more actively at all levels, from the local, regional, national and EU level (Fig. 17.2).

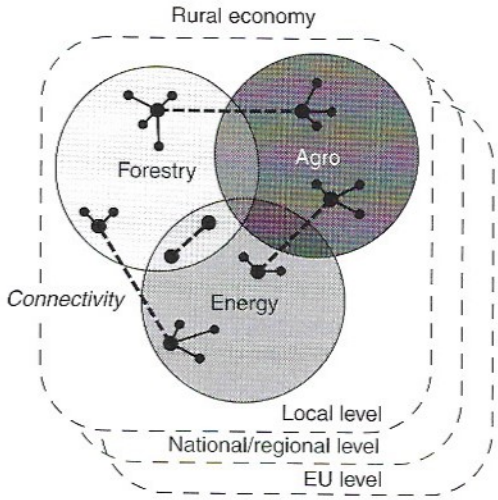

Fig. 17.2. A 'landscape approach' to integrated rural development policy.

Connectivity in Fig. 17.2 envelops such factors as cooperation, networking and the flow of knowledge between actors within the various sectors. Figure 17.2 aims to illustrate that rural development policy needs to consider the complete landscape and all relevant sectors (there are certainly more than the three given as an illustration), be multi-layered, and stimulate connectivity and integration at (and/or between) the appropriate levels. In broad terms, this may help to encourage more involvement, build confidence and improve research, education and training.

17.3.2 Research–practice

When considering policies and instruments for innovation in the forest sector, it becomes clear that there is a need to improve the interface between research and practice. The setting of priorities and establishment of collaborative efforts should be more strategic and tactical in terms of catering to the needs of practice. It was argued that increased communication, cooperation and networking is vital in this context, particularly when considering innovation in the rural environment. This is coupled with a need to reach a wider audience with recent scientific findings (e.g. outside the immediate project consortium). It was suggested that this could be accomplished through instruments, such as participatory learning processes that facilitate access to knowledge. There was also a consistent demand for better project management practices (e.g. at the EU level) for projects to reduce the administrative burden for SMEs. Stimulating SME-friendly practices should be a priority.

17.3.3 Policy measures

Inherent to the need for considering the complete landscape, policy measures need to be layered and tailored to target specific types of forest owners or businesses. Thus, policy measures need to address and define characteristics for the type of landowners and SMEs that they aim to influence. Support for innovation should further move away from project-based support to the support of the whole innovation process with an emphasis on long-term cooperation. This would also require that issues related to mistrust (e.g. between managers and owners) are addressed.

In addition, there is the need to develop a 'cost–benefit' framework that can help policy makers decide when and where it is worthwhile to invest in measures such as cooperation or wood mobilization. This relates to, for instance, the motivation underlying forest ownership (e.g. non-profit oriented forest owners) and the potential impact associated with different policy measures for the context in which they would be applied.

Finally, it was repeatedly argued that what is currently lacking in innovation practice are policies that create enabling structures that allow people to pursue innovative ideas (allowing for a bottom-up approach) and that truly stimulate creativity. In this context, it was also stressed that the forest sector should not be afraid of pursuing bold new ideas.

Acknowledgements

We want to give thanks to all who participated at the final conference discussions of the COST ACTION E51, and particularly to the invited discussants: Andreas Kleinschmit (FTP), Attila Lengyel (CEPF), Gert-Jan Nabuurs (EFI), Inazio de Arano (USSE), Rosario Alvez (Forest Association of Portugal), Tamas Szedlak (EC DG AGRI), Martin Greimel (AT Ministry of Agriculture), Fabio Cossu (ENRD: European Network Rural Development) and Zuzana Sarvasova (National Forest Centre in Zvolen).

Notes

[1] For more information on COST Action E51 – Integrating Innovation and Development Policies for the Forest Sector – see http://www.boku.ac.at/coste51.

[2] See http://www.forestplatform.org/.

[3] See http://ec.europa.eu/agriculture/rur/leaderplus/index_en.htm.

Innovation in Forestry
Territorial and Value Chain Relationships

Edited by
Gerhard Weiss, Davide Pettenella, Pekka Ollonqvist and Bill Slee

Innovation is increasingly recognized as a key factor in environmental protection and sustainable development in forestry and forest-based industries. This volume provides a comprehensive theoretical foundation for the analysis of innovation processes and policies in a traditional, rural sector as well as presenting empirical analyses of innovation processes from major innovation areas. Innovative solutions are analysed in wood-related value chains, including timber-frame construction, furniture, bio-energy and forest transportation. Territorial services of the forest sector are examined, including various types of forest ecosystem services such as carbon sequestration, non-wood products and recreation. *Innovation in Forestry* is essential reading for researchers and policy makers in forestry and environmental sciences.

CABI Head Office
Nosworthy Way, Wallingford, Oxfordshire, OX10 8DE, UK

CABI North American Office
875 Massachusetts Avenue, 7th Floor, Cambridge, MA 02139, USA

ISBN 978-1-84593-689-1