EFI news

NUMBER 1 | VOLUME 21 | JULY 2013

How do Forests Adapt to Climate Change? PAGE 3

Forest Biomass is Key PAGE 10

Editor-in-Chief Column

Year of Celebrations

European forests have a special year. First, this year EFI is celebrating its 20th anniversary, and we believe it is not only a celebration for EFI member organisations and Member Countries, or for the Institute itself, but an opportunity for the whole European forest sector to bring the continent's forests into discussions and to increase their visibility. The 'EFI 20 Years Science and Policy Forum' will celebrate two decades of European forest networking from 23–27 September in Nancy, France. We invite you all to share your views on 'Our forests in the 21st century – ready for risks and opportunities'.

The year closes with the European Forest Week from 9–13 December organised by various forest organisations in Europe. During this week, everyone is encouraged to hold activities to raise awareness and strengthen political commitment and action, in a effort to continue working towards sustainable forest management.

One way of bringing European forests into discussions is through the ThinkForest forum. Just a few months ago, issues related to the sustainability criteria of forest biomass were debated at a ThinkForest event in the European Parliament. Two weeks later, the adaption of forests to climate change was in focus during a similar event. On both occasions, the approach was to hear what science says about the issue, and to facilitate discussions between high-level policy makers, such as members of the European Parliament, scientists and various stakeholders ranging from the forest industry to nature conservationists. Read more about the findings of the MOTIVE-project on page 3.

Forests are present in our lives on a daily basis, even in the most urban settings. Forest-based products are around us and we use them daily. Many of us enjoy spending time in forests, and many also earn a living from them. With 3.5 million jobs in the European forest sector, there is good reason to celebrate the versatile forests of our continent every day, and go to the nearest forest to enjoy its atmosphere and nature.

Lastly, EFI News joins in the celebrations for the EFI 20th anniversary with an updated look and content. Many features remain the same, but some new elements have been added. We hope you enjoy reading this issue and would appreciate your feedback at communications@efi.int.

Anu Ruusila, EFI

EFI *news*

EFI NEWS IS THE NEWSLETTER OF
THE EUROPEAN FOREST INSTITUTE.

Editor-in-Chief: Anu Ruusila
Managing Editor: Satu Ikonen-Williams
Layout: Jouni Halonen / Kopijyvä Oy
Cover photo: Kari Pietilä, Leuku
ISSN: 1236-7850, 1458-4255 (online)

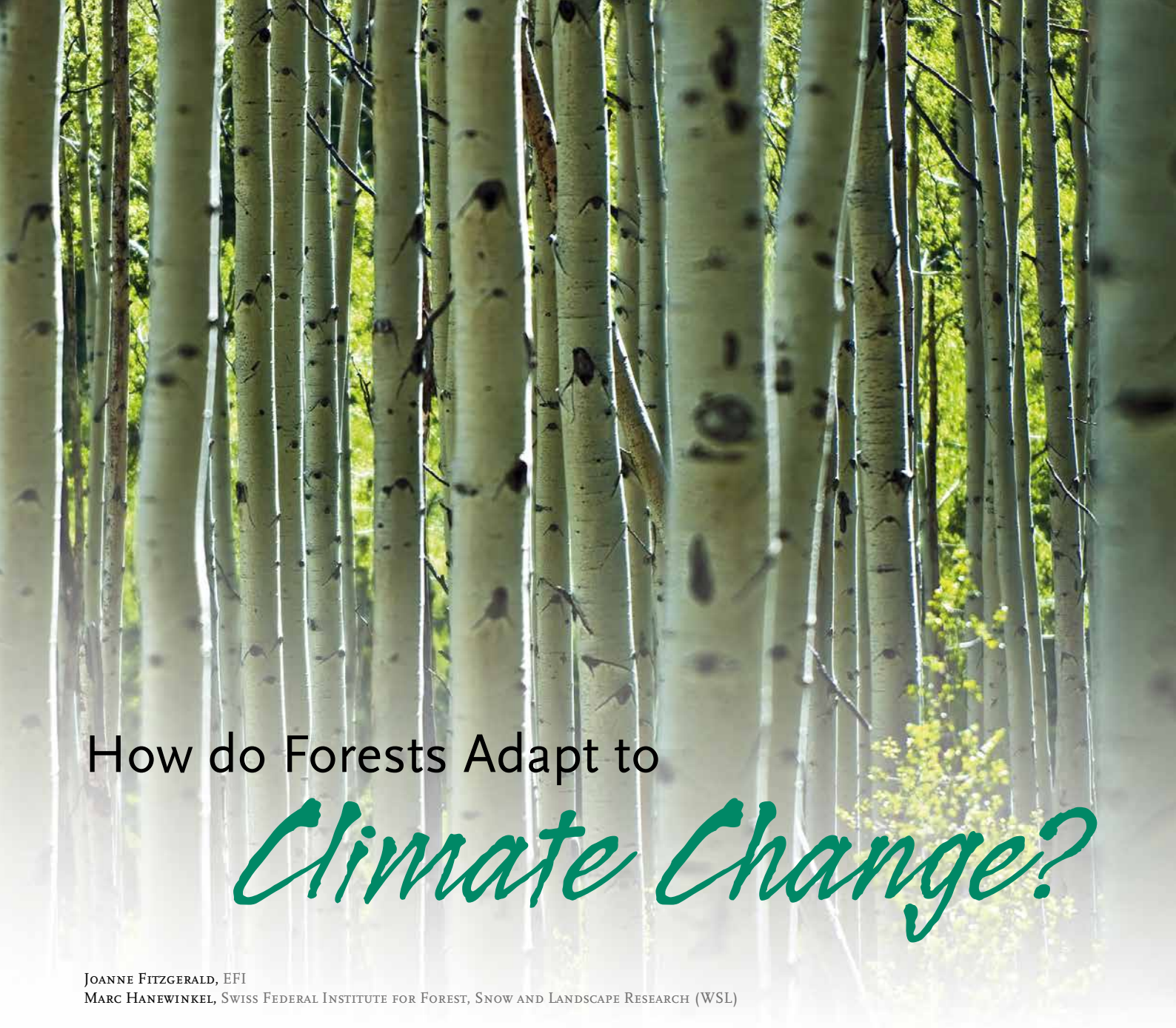
Contributions and Announcements
Article ideas, letters to the editor and requests for advertising information should be sent to communications@efi.int

Subscription
EFI News is free of charge. In order to receive a copy, please send your full address to the European Forest Institute. The electronic version, as well as back issues, can be downloaded from www.efi.int

The European Forest Institute (EFI) is an international organisation established by European States. EFI conducts research and provides policy advice on forest related issues. EFI facilitates and stimulates forest related networking, as well as, promotes the supply of unbiased and policy relevant information on forests and forestry. It also advocates for forest research and for scientifically sound information as a basis for policy-making on forests.

EUROPEAN FOREST INSTITUTE

Yliopistokatu 6, 80100 Joensuu, Finland
Tel. +358 10 773 4300, Fax. +358 10 773 4377
communications@efi.int, www.efi.int



How do Forests Adapt to *Climate Change?*

Joanne Fitzgerald, EFI
Marc Hanewinkel, Swiss Federal Institute for Forest, Snow and Landscape Research (WSL)

Climate change is posing a major challenge to forestry across Europe. Recent research indicates that climate change will most likely exceed a 2 °C rise in mean global temperature by 2100 and without drastic policy change mean temperature may rise between 3 and 6 °C in Europe. These changing environmental conditions affect tree growth and productivity of forests. Moreover, natural disturbance regimes are changing with significant implications on forest dynamics. Past experiences regarding the local and site-specific suitability of species are no longer valid and this calls for an adaptation of present forest management strategies.

In the Boreal zone, forest productivity is generally expected to increase, but less severe winters with shorter intervals of frost-hardened ground could make forests more vulnerable to wind damage. In the Atlantic (Temperate Oceanic) region, an increase in frequency or severity of Atlantic storms would cause augmented forest losses. In the Temperate Continental bioclimatic zone, the health of spruce forests may be negatively affected by an increase in aridity and become more vulnerable to damage from bark beetles, with other forest species becoming more prevalent as a result. In the Mediterranean zone, an increase in aridity and in the variability of precipitation could stress even the most drought-tolerant tree species and increase the risk from forest fires.

The following articles highlight some of the findings of the recently concluded 4-year international MOTIVE project on the consequences of Climate Change for European forests and potential adaptive management strategies. They discuss important topics for forest adaptation, including: how the area of suitable climate for European tree species might shift in response to ongoing climate change, the main sources of damage to forests, and the timing of adaptive forest management. An article highlighting observed impacts of climate change in a Mediterranean forest, local adaptation techniques and barriers to adaptive management also forms part of this special issue.

The project MOdels for AdapTIVE forest Management (MOTIVE) was a large-scale integrated project in the 7th Framework Programme of the EU. The project was coordinated by an EFI Associate Member, the Forest Research Institute of Baden-Württemberg (FVA, Freiburg). The scientific coordinator was Marc Hanewinkel (formerly with FVA, now based at the Swiss Federal Research Institute WSL, also an EFI Associate Member). MOTIVE involved 20 partners from 14 European countries with a budget of 9 million euros.

Further information can be found on www.motive-project.net.

Krzysztof Wiktor / Fotolia

Niklaus E. Zimmermann, Signe Normand and Achilleas Psomas,
Swiss Federal Institute for Forest, Snow and Landscape Research (WSL)

Habitats for Tree Species Shift as Climate Changes

Climate is a major driver of plant and tree distribution. A changing climate is especially pertinent to long-lived plants, such as trees or shrubs, as their long life mean they are particularly vulnerable to rapid changes in climatic conditions. In addition, forest management typically encompasses many decades. This calls for a good understanding of the expected changes and their impacts on trees and forest ecosystems.

As part of MOTIVE, downscaled modern climate data was used in order to assess how the areas of suitable climate for certain European tree species might shift in response to ongoing climate change. To do so, species distribution models (SDMs), which allow for mapping regions that share suitable habitat conditions (mainly climate) for a given species, were employed. The resulting maps illustrate the shift in habitat suitability but do not make any statement on how fast these shifts will occur.

If we combine many tree species into a synthesized view of overall changes in broadleaf and needleleaf tree species, we find the following result (Figure 1):

(1) the diversity of broadleaf tree species is projected to decrease in many Mediterranean and southern continental areas of eastern Europe, and is increasing in higher altitudes and latitudes;
(2) the diversity of needleleaf tree species is projected to decrease at lower and increase at higher altitudes in the Mediterranean areas of Europe, and is increasing in many regions of the southern edge of Central Europe and in high latitudes;
(3) the increase in needleleaf trees at the southern edge of Central Europe is likely due to the expansion of Mediterranean conifer species (e.g. Mediterranean pines – *Pinus pinaster, P. pinea*), while the increase of needleleaf trees in the North is due to a range expansion of boreal species such as the Norway spruce (*Picea abies*).

Many of these projected changes may take hundreds, if not thousands of years to take place naturally through slow plant migration processes. This means that a tree species is likely to persist much longer in a location that becomes climatically unsuitable than mapped with SDM methods. However, this also means that the species will face climate conditions for which we have no current observation, and this results in increasingly higher risk that the species will be exposed to physiological (e.g. drought) or biological (e.g. pests) stress. Therefore, very careful management of tree species under such conditions is necessary.

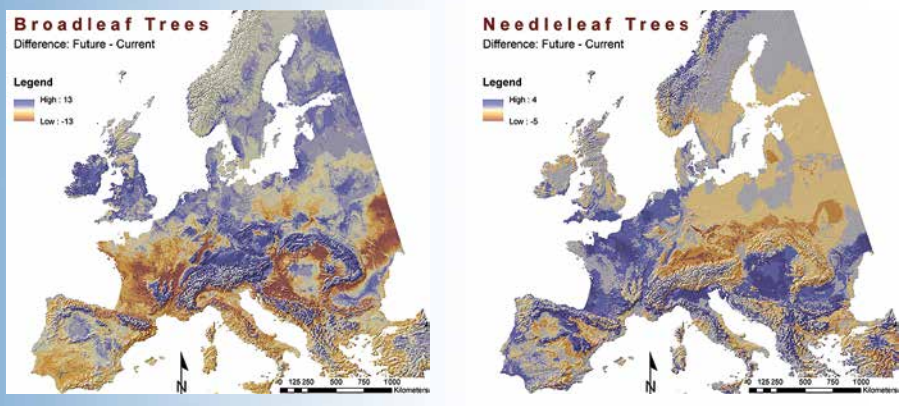


Figure 1: Projected changes in tree species richness of broadleaf deciduous (left panel) and evergreen needleleaf (right panel) trees. Blue colors indicate an increase, while orange-brown colors indicate a decrease in species richness.

Jilserves / Fotolia

Saku Ruusila

Jette Bredahl Jacobsen and Bo Jellesmark Thorsen, University of Copenhagen

Adaptive Management Options for Forest Owners

Across Europe climate change is projected to have significant long term impacts on growth and performance of many tree species and forest ecosystems. However, just how large and how severe the changes will be is subject to considerable uncertainty. Therefore, a **crucial question is *when* to adjust management in regards to expected short and long-term changes**.

If uncertainty about direction and the impact of climate change is very large, the decision maker has little basis for firm expectations. In this case, it may be relevant and favourable to simply wait and react to noticeable impacts. Alternatively, if impacts are small in terms of effects on growth, competition between species or other ecosystem aspects, it is likely that routine management actions like harvesting can be adjusted smoothly and gradually fitted to the changing forest state.

Options for the forest owner

The forest owner could take a more proactive approach when adapting decisions to forthcoming climate change. Apart from observing current developments and impacts, they should also assess likely future developments and impacts of climate change using various sources of information and observations from science, practice and policy debates. Thus, they would base their current decisions, not only on the observed status of the forest, but also on expectations about future climate change impacts and implications for forest management. If proactive managers make accurate forecasts and form well-founded expectations, they should perform as well as reactive managers. However, searching for and assessing information is costly, and expectations and forecasts may be imprecise, ill founded or biased. Thus, in some situations it is not obvious that much is gained from such an approach. In other cases, it is more likely to become a clear advantage.

Forest owners may feel that the economic consequences of climate change impacts on forest health and production will not be dramatic for the next few decades. For this reason, they may be reluctant to engage in dramatic adaptation measures in forest management and more likely to favour reactive decision approaches. However, from society's point of view, the potential consequences of climate change may be more severe. The reason is that the long-term provision of many ecosystem services like biodiversity conservation, recreational uses and water protection may be more sensitive to climate change. Therefore, **it is wise for society to secure the collection and dissemination of novel and improved information on likely impacts and assess forest health and productivity continuously.**

Barry Gardiner, INRA and Forest Research
Mart-Jan Schelhaas, Alterra
Bruce Nicoll, Forest Research

Mapping the Risk to European Forests

Damage to European forests is increasing with abiotic damage from wind and fire, and biotic damage from bark beetles. This rise in damage appears to primarily result from the growth in forest volumes, together with changes in climate and land management. In order to succeed with forest sustainability, we must be able to predict levels of risk now and into the future. Major damage events and outbreaks of pests and diseases can affect large areas, so many countries' calculations need to be carried out over large spatial scales. However, modelling of risk to forests from different hazards at large scales presents serious challenges. In particular, there are requirements for detailed data on forest structure and site conditions, and models that are able to calculate the risk for the range of site types, forest species, forest management regimes and climate that occur.

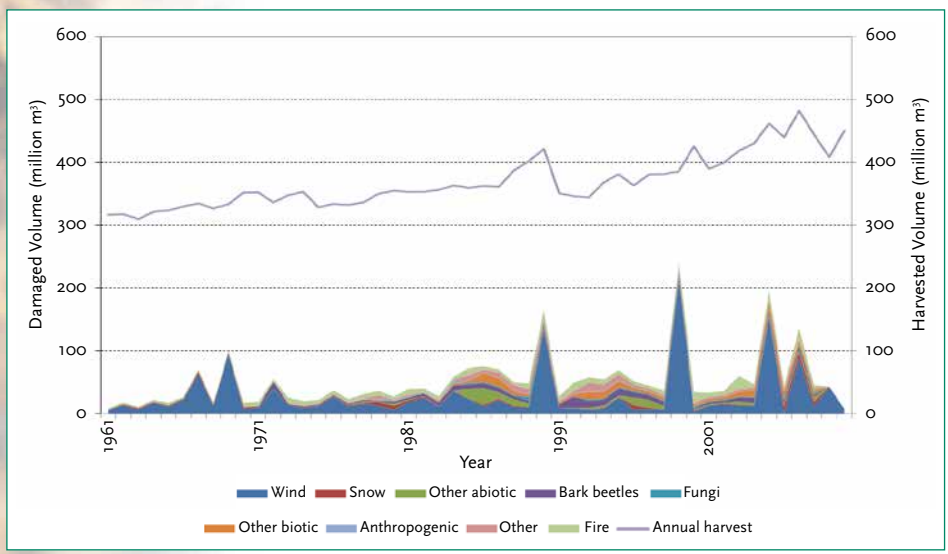
Mapping Damages

To map wind damage risk across Europe for MOTIVE, we combined high-resolution wind climate data from the EU ENSEMBLES project, information on forest structure from the Synthetic European Forest Structure Database and the FAO soil map to assign soil type and rooting depth. These were used as inputs to the wind risk model ForestGALES, which calculates the critical wind required to damage a stand. When the critical wind speeds are combined with wind climate data it is possible to calculate the probability of damage for current and future climates.

No model currently exists for predicting insect outbreak risk across Europe. Instead we applied a regression model developed for Austrian conditions at the University of Natural Resources and Applied Life Sciences (BOKU) that predicts the chance of bark beetle infestation based on average annual temperature, total annual precipitation, stand age, stand density and the percentage of the host tree within a stand. This model was applied to the whole of Europe, using the Synthetic European Forest Structure Database and WorldClim data focussing on spruce trees. The resulting map gave the endemic risk of bark beetle infestation and corresponds well with observed areas of damage outbreak.

For European-wide fire risk modelling, a lack of suitable methodology was identified. Current fire risk models cannot be extrapolated outside the regions they were developed for, or cover only the climatic risk and do not combine the risk due to the climate and state of the vegetation.

We have shown that it is possible in a preliminary way to calculate the risk of wind damage and bark beetle attack across the whole of Europe at a 1km resolution, taking into account both the state of the forest and the present and future climate. For fire risk, this is not currently possible due to a lack of suitable methods. Future work should focus on extending these methods to more pest species, to add fire, and to fully validate the results.



Damage levels, causes of damage and annual harvest rate for European forests from 1961 to 2010.

PRILL Mediendesign / Fotolia

goodluz / Fotolia

Bart Muys, EFIMED
Carlos Gracia, Universitat de Barcelona and CREAF
Marc Palahí, EFI
Xavier Buqueras, Poblet NSNI, Generalitat de Catalunya

Forest Management – Case in the Mediterranean Region

The Poblet Natural Site of National Interest (NSNI) is a protected natural area of 2400ha located in the Prades Mountains, Catalunya, Spain. As in many other parts of the Mediterranean, forest management activities have been abandoned due to low profitability. The main ecosystem services today are recreation, conservation and mushroom picking. Currently, the main management motivation is to maintain forest health and regeneration. The management of the forest is executed by a professional team of public forest managers and supported by a management commission of stakeholders and experts. There is a long tradition of forest research in the area, which enters in dialogue with forest management.

Climate change in the region is revealing itself by rapid increase in aridity and more frequent extreme events such as droughts. Such changes will drastically impact forest dynamics, including the risk of forest fire. The level of these impacts and the adaptive capacity of forest ecosystems will affect the provision of relevant forest ecosystem services.

Most tree species occurring in the area are typical Mediterranean and drought resistant, which means that they have low risk of vessel cavitation. Although, even Mediterranean species can suffer carbon starvation due to dry spells, as they need to consume their mobile carbon reserves to overcome such periods. If too recurrent, mobile carbon reserves cannot be replenished in time, with vitality loss as a consequence. This may be the case for Holm oak. Euro-Siberian species like Scots pine find some of their southernmost distribution area directly threatened by climate change. Scots pine has no possibility to migrate to higher elevations, given that it already occupies the highest zone of this geographically isolated mountainous area.

Financing Adaptive Management Pays Off

Simulations show that the current lack of management leads to a decrease in biomass production under climate change. The reason, is that the high stand density in combination with increased drought stress leads to increased competition and mortality. In general, managers are recommended to follow a more intensive management which reduces canopy density. The effect of this is a decrease of competition between trees, more water available per tree and better overall growth performance. In conclusion, **the main limitation for adaptive forest management is the cost**. Forest management operations are expensive, and income from the forest is very limited. Increasing wood prices would be beneficial, as would price increases for mushroom permits. In general, ways must be explored to finance adaptive management, considering the importance of payments for ecosystem services and other economic instruments to internalize forest ecosystem services.

Establishing Opportunities

Maria Jalavisto

Harald Mauser started in his post as the Liaison Officer at the EFI Liaison office Brussels in February. He is the key person strengthening alliances with Brussels-based organisations, and in his position he identifies information needs and opportunities regarding policy-makers within the forest-sector.

How did you got involved with EFI?

My involvement with EFI began awhile back when I attended the World Forestry Congress in Quebec, Canada in 2003 and met EFI Director Risto Päivinen with the idea of establishing regular meetings for the heads of national forest research institutes in Europe. Together with Konstantin von Teuffel we successfully implemented this idea. Based on this co-operation I was asked to chair the 2005 Annual Conference in Barcelona, Spain. It was the last Annual Conference for EFI in its old legal status. In 2008, I was appointed by the Council as member of the EFI Board which I resigned from last February.

What are the current hot topics regarding forest issues in Brussels?

There are three overarching forest related policy issues under discussion that are closely linked: first, Legally Binding Agreement on Forests in Europe, second, the new EU Forest Strategy, and third, the Common Agricultural Policy (CAP), with its supporting measures for forestry within the Rural Development Program. EFI is involved in all of these discussions through different activities.

Closely related to the implementation of CAP, a new European Innovation Partnership (EIP) on Agricultural Productivity and Sustainability is under preparation. EFI is represented by the Director in the High Level Steering Board of this EIP, and I am acting as the Sherpa. A main challenge in the elaboration of the Strategic Implementation Plan of this EIP is the integration of forestry. That will enable forest research and practice to address innovation in forest management with activities co-funded within Horizon 2020 and the Rural Development Fund. These two programs will use the EIP planning as guidance for the supporting measures in the period 2014–2020.

Another current activity is the preparation of the first work program of Horizon 2020. In close coordination with the European Technology Platform for the Forest-Based Sector (FTP), the road map for the contribution of FTP to the elaboration of the first work program of Horizon 2020 in DG Research was prepared. This contribution will be based on the recently launched FTP Strategic Research Agenda. The EFI network is preparing detailed descriptions for forest research topics.

What are your views on the future of the European Forest Policy and EFI's role in this respect?

We have seen more attention on forests, their management and protection in a growing number of EU policy fields in recent years. This trend will continue, and there is a common understanding on the need for more coordination and cohesion regarding forest policy issues. There is a growing demand for support from science, which will encourage better evidence-based decision making. This need was repeatedly confirmed during my conversations at the European Parliament, and with the Commission. It was emphasized that EFI as an international research based organisation is a very credible source of objective information in this respect. The growing role of EFI's "Policy Support" and stronger coordination with "Research", will allow EFI to better meet the demand of EU poli-

The European Forestry House is located at Place du Luxembourg, in the heart of the EU quarters of Brussels, opposite the European Parliament. It was established on March 2007, by European State Forest Association (EUSTAFOR) and Confederation of European Private Forests Owners (CEPF). Since then it has offered a vibrant and high-profile working and meeting place for various European forest related organisations.

cies. There is now a window of opportunity to establish EFI as a highly accepted supporter of policy making at the European level, in addition to its acknowledged role in research.

How does your work benefit EFI member organisations specifically?

In the short term, the contributions of the Liaison Office in the preparation of Horizon 2020 and the EIP Agriculture will establish opportunities for EFI member organisations to run research and innovation projects in the years 2014–2020 with EU co-funding. The intensified contacts with several EU Directorates Generals will offer new possibilities for tenders on forest issues, for which EFI and its member organisations can apply. In the long term, raising the profile of EFI as a competent, reliable and effective partner in supporting European policy making and implementation will hopefully entail more interest by the EU and the member countries to open new lines of financing for the institute beyond the competitive funding approaches, which are dominating today.

Maria Jalavisto

Forest Biomass is Key

to Meet EU Renewable Energy Targets

Bart Muys, EFIMED

In an effort to reach the EU renewable energy target of 20% by 2020, the Member States submitted National Renewable Energy Action Plans indicating how they will implement their respective targets. Given the high cost for investments in wind and solar power, and the large available biomass stocks in forests, most countries choose a renewable mix that has a dominant role of solid biomass from the forest and wood industries. But how should we mobilize these resources in a sustainable way?

A high-level science-policy seminar on "Opportunities and challenges in meeting renewable energy targets from forest biomass: an EU perspective", brought together a full room of leading forest decision makers and scientists on 11 April, 2013 at the European Parliament. The latest developments on sustainable forest biomass utilization for energy purposes were presented. Participants discussed the consequences of EU Energy Policy on biomass demand from the forest and the need and content of future EU sustainability criteria for solid biomass.

Forest bio-energy development holds good opportunities to mobilize the production potential of European forests, and to contribute to a more climate friendly, bio-based economy. However, this development also holds risks, such as the possible competition for feedstock with the traditional forest industry.

One of the key note speakers, **Dr. Lauri Hetemäki** from EFI, pointed out that *"Sufficient supply is not the right question, but how price levels and market trends will affect the mobilization potential of wood from the forest is the real question."* **Dr. Paul Campling** of VITO said, *"Intensive residue harvesting and stump extraction from the forest for bioenergy holds a risk for nutrient depletion, but this risk is very site dependent."* **Dr. Leire Iriarte** from the International Institute for Sustainability Analysis and Strategy(IINAS) *proposed sustainability criteria, including biodiversity safeguards and minimum greenhouse savings of 60% compared to the fossil reference.*

There was a broad consensus among participants that promotion of renewable energy from the forest sector should go together with measures stimulating the use efficiency of biomass resources and the cascading principle of maximizing added value and greenhouse gas savings to the production chain. There was also agreement that sustainability rules for forest biomass used for energy do not need to be different from those for other forest products or land uses. There was a call for an improved greenhouse gas accounting methodology, which shines more light on the issue of carbon neutrality.

In his closing address, European Parliament Member, **Mr. Bas Eickhout** invited the European Commission to find common grounds for developing solid bioenergy in a sustainable, resource efficient manner.

More information is available from the event website: http://www.thinkforest.efi.int/portal/past_events/towards_sustainability_criteria_for_wood_energy

THINKFOREST

Where is European Forest Governance heading?

Helga Pülzl, EFICEEC-EFISEE

An international group of forest policy scientists, chaired by **Peter Mayer** (Federal Research and Training Centre for Forests, Natural Hazards and Landscape, Austria), is currently preparing a comprehensive study on European Forest Governance. The study has been initiated by the ThinkForest Forum (http://www.thinkforest.efi.int), and is being funded by the German government.

Based on existing scientific literature and a number of interviews, this study will provide a condensed description and assessment of forest-focused and forest-related policies, and of the actors in the European Union and Pan-European forest policy arenas. It will provide a fresh look into potential and innovative approaches to enable enhanced cross-sectoral and multi-level communication, coordination and cooperation.

A large number of policies that directly or indirectly address forests and forestry have been developed over the years and are driven by a multitude of actors. Furthermore, a new EU Forest Strategy is being prepared and European countries have started negotiations regarding a Legally Binding Agreement on Forests in Europe. Therefore the study is much needed and timely.

The final report will be published in the EFI "What Science Can Tell Us" series later this year.

New EFI Project Centre Launched!

In January 2013, EFI and the Edmund Mach Foundation (FEM) signed the Memorandum of Understanding that launched the newest EFI Project Centre Preserving and Enhancing the Multifunctionality of Mountain Forests – MOUNTFOR.

The MOUNTFOR Consortium is located in San Michele all'Adige, Italy, and FEM will be acting as the host organisation. The Consortium currently includes six core partners (FEM, National Research Council, Agricultural Research Council, University of Bozen-Bolzano, University of Tuscia, University of Molise), and it will operate in conjunction with its associated network and support partners, providing them assistance in research, education and in development of further cooperation.

MOUNTFOR aims to provide a scientific basis for sustainable management of mountain forests and initiate expertise platforms for multiple stakeholders. It also aims to define priorities for research agendas in order to gather information on mountain forest catchments resistance and resilience to climate change and to harmonize strategies regarding mountain water resources and ecosystem services. MOUNTFOR works closely with EFI Headquarters and Regional Offices promoting research networking, knowledge sharing and advanced learning.

More information is available from the Coordinator of the Consortium Mr. Roberto Tognetti, Università degli Studi del Molise (tognetti @ unimol.it) or Bernhard Wolfslehner, Head of Central-East and South-East European Regional Office – EFICEEC-EFISEE (bernhard.wolfslehner @ efi.int).

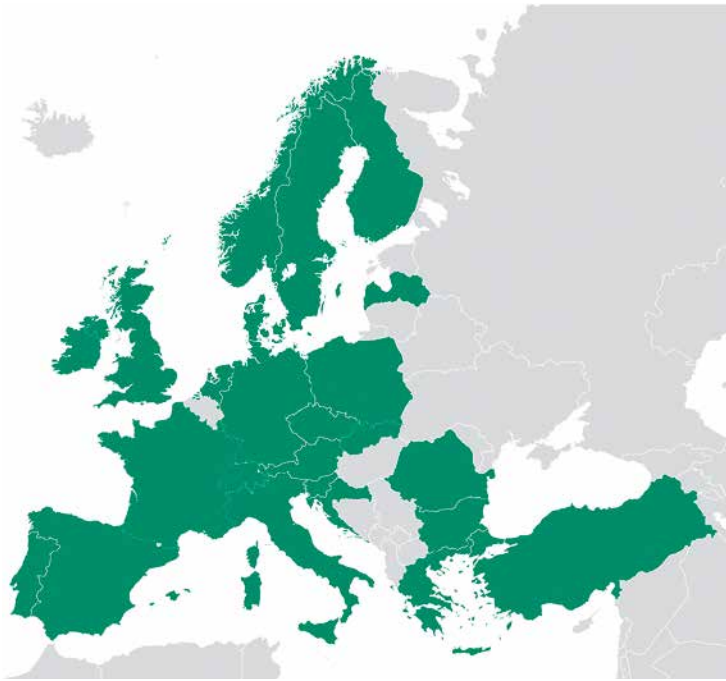
EFI Project Centres (EFI PCs) are network nodes of EFI consisting of EFI members and other relevant partners. They carry out research within the scope of EFI's research strategy and under the EFI name and scientific umbrella. The Project Centres are financed independently of EFI and have a limited duration.

France and Slovak Republic Ratified EFI Convention

France and the Slovak Republic have ratified the Convention on the European Forest Institute. The Convention on EFI has now been ratified by a total of 25 European countries.

The ratifying countries are now Austria, Bulgaria, Croatia, Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Luxembourg, Netherlands, Norway, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey and the UK.

These countries are Members of the Institute. They hold the highest decision making body of the Institute, and they meet in ordinary session every three years. Croatia holds the Chairmanship of the Council for the period 2011–2014.



Deputy Director of EFI

Dr. **Marc Palahí** has been appointed as Deputy Director of the European Forest Institute (EFI). Dr. Palahí started his new 5-year position on 1 January 2013 and he is stationed at the EFI Headquarters (HQ) in Joensuu. He is responsible for the overall coordination and integration of EFI's strategic activities related to research and policy support. This consists of strengthening the R&D capacity at the EFI Headquarters and the overall coordination role of EFI HQ regarding research and policy support activities within EFI. He will also continue to work on strengthening the role of EFI in enhancing the science-policy dialogue across all the stages of the policy processes and coordinating the presence of EFI in existing European political structures and initiatives.

Dr. Palahí has a PhD in forestry and economics and a M.Sc. in forestry engineering. For the past 1,5 years, he has been leading the EFI policy support activities of the Institute. During this time he has been instrumental in launching ThinkForest, a European high-level forum on the future of forests. He has also worked as a Head of EFI Mediterranean Regional Office, EFIMED, where he has been coordinating research, capacity building and networking activities among a network of 40 research and education institutions from 18 Mediterranean countries. He also led EFI Project Centre MEDFOREX (2000–2007) under the CTFC (Forest Technological Centre of Catalonia), and has been a researcher and lecturer at the Faculty of Forestry at the University of Joensuu.

New Head of Programme

Dr. **Robert Mavsar** has been appointed Head of Research Programme 'Forest for Society' at EFI. He will start his five-year term in the beginning of July.

Dr. Mavsar holds a PhD in Economics and MSc degrees both in Forest Sciences and Economics from the University of Maribor, Slovenia. His expertise lies in environmental economics, particularly related to the valuation of non-market goods and services. He is also experienced in forest and fire economics, forest and environmental policy, forest planning and management and forest inventories and risks. In the past 5 years he has coordinated three EU funded research projects on non-marketed goods and services, on fire management economics and non-wood forest products.

Dr. Mavsar moves to his new post from the Mediterranean Regional Office – EFIMED, where he has been a senior researcher, Deputy Head of Office and most recently Acting Head of Office. He earlier held a post as a researcher at the Forest Sciences Center of Catalonia, Spain and at the Slovenian Forestry Institute, Slovenia.

Dr. Mavsar will be leading one of the Institute's three Research Programmes.

The Forest for Society Programme is a new research programme at EFI. It aims to generate scientific knowledge and information for a better understanding of:

- The full value of European forests, the socio-economic viability of Sustainable Forest Management and the profitability of forestry in Europe.
- Stakeholders' motives, values and preferences regarding forest management, products and services as well as responses to different policy approaches.
- The socio-economic nature and potential of forest products and services in the context of the emerging EU policy framework (green economy, rural development, Forest Strategy, Europe's strategy 2020, etc).
- The performance of different policy instruments and governance solutions to promote the multifunctionality of forests and their sustainable management.
- New policy approaches and institutional innovations for improved forest policy cohesion and effectiveness in Europe.

EFIMED Head of Office

Mr. **Inazio Martinez de Arano**, MSc (Forestry) has been appointed Head of Office of the Mediterranean Regional Office – EFIMED. Mr. Martinez de Arano started his term on 1 June. EFIMED's premises are located at the Sant Pau World Heritage Site in Barcelona, Spain.

Mr. Martinez de Arano has worked previously as an Executive President at the Union of Foresters of Southern Europe (USSE), where he has been involved in the analysis of forest related policy developments at the European and global levels and the evaluation of potential effects of policies and regulations in Mediterranean and South Atlantic forests and forestry. Mr. Martinez de Arano also has vast experience working in a network organization and with various stakeholders. He has also worked as a coordinator of forest research and as a researcher at the Basque Institute for Agricultural Research (NEIKER), as well as a university lecturer at the University of Concepción, Chile. As President of the European Institute for Cultivated Forests (IEFC), he was also involved in the establishment of the Atlantic European Regional Office – EFIATLANTIC.

Manager of the Observatory for European Forests of EFICENT-OEF

Mr. **Jo Van Brusselen** has been appointed Manager of the Observatory for European Forests (OEF). OEF is an integral part of EFI's Central European Regional Office, EFICENT-OEF. The Observatory for European Forests is located in Nancy, France. Mr. Van Brusselen will take up his position in July.

Mr. Van Brusselen has served for over 10 years in the EFI research programme on "Forest Resources and Information", consecutively as researcher, Deputy Programme Manager, Acting Head of Programme and then senior researcher. He now joins OEF, leaving his post of Policy Analyst with the EFI's EU FLEGT Facility. He has been specializing on topics relating to forest and environmental policy, monitoring, modeling, mapping and geospatial analysis. Mr. Van Brusselen earned a Bio-Engineer degree in land and forest management at the University of Ghent, Belgium, and has extensive studies on environment and forestry.

The Observatory for European Forests (OEF) became operational in 2009. The Observatory has a pan-European perspective and supports EFI especially with the implementation of its research and information strategy through providing scientifically-sound, demand-driven, policy-oriented information at national and international levels.

Pere Virgili

Sarah Adams, EFIMED

EFI's Mediterranean Regional Office (EFIMED) will hold its Annual Meeting and Scientific Seminar at the Sant Pau World Heritage Site in Barcelona in September 2013. Distinguished complexity scientists and Mediterranean specialists will explore new perspectives on managing Mediterranean forests, while the inauguration of EFIMED's new offices will be celebrated with a gala reception at the EFI Barcelona building.

EFIMED Week will be a special event this year, as the Regional Office celebrates the move to its new premises in the renovated St Leopold Pavilion over the summer. The move coincides with the beginning of an important new phase for EFIMED, with the Annual Meeting hosting discussions on the strategic direction of the organisation over the next five years, within the context of developments at EFI and in the Mediterranean network.

The Scientific Seminar will explore the **theme of Complexity Science**, a new, quickly emerging interdisciplinary field in science, which promises to improve our understanding of the patterns and processes of complex living systems, such as ecosystems and human societies. The Seminar will be the first international scientific meeting dedicated to the complexity science of Mediterranean forests, presenting an exciting opportunity to look at innovative solutions for Mediterranean forest management. Distinguished complexity scientists **Ricard Solé**, Catalan Institution for Research and Advanced Studies (ICREA), **Christian Messier**, University of Quebec and **Lluis Coll**, Forest Sciences Center of Catalonia (CTFC) are among the confirmed keynote speakers who will present the state-of-the-art of this new approach in the morning session. The seminar will provide a forum for top-level Mediterranean forest researchers and complexity specialists to discuss ideas and develop new perspectives specifically for the Mediterranean context, with an afternoon workshop which will be dedicated to preparing a perspective paper on Managing the Mediterranean forest as a complex social-ecological system. Posters on this topic are invited from young scientists, some of whom will be selected to participate in a panel discussion alongside the complexity specialists.

Also taking place during the week will be a presentation of the strategic themes of the FORESTERRA ERA net, an ERA-NET initiative that will open its first joint research call in late 2013. Meeting participants will have the opportunity to network and take steps towards building consortia for the forthcoming calls for proposals.

Unique Setting

EFIMED has been based in Barcelona since 2007, operating from temporary offices in the Sant Pau historic site since 2011. Formerly a hospital, this beautiful modernist complex was designed at the turn of the 20th century by Lluís Domènech i Muntaner, a contemporary of Antoni Gaudí.

A major restoration project has been underway since autumn 2009 to convert the former hospital into modern offices, which will form a Global Forest Hub, while retaining the architectural and artistic value of this UNESCO World Heritage Site. EFIMED and EFI's FLEGT and REDD Units will move to the Sant Leopald pavilion over the summer 2013, joining prestigious international environmental and sustainability organisations such as the United Nations University, who are already operating out of Sant Manuel Pavilion.

Sant Leopald pavilion is one of ten pavilions adjoining a central axis that leads to the magnificent entrance hall, which houses conferencing facilities and larger meeting rooms. The EFIMED Annual Meeting will invite participants to a gala reception that will take place under the historic arches and in the surrounding gardens of the main entrance, to inaugurate EFI's new Barcelona office in style.

sugaro607 / Fotolia

Crunching the Numbers in Forestry

Patrice Harou, EFICENT-OEF

The profitability of forest investments is not easily quantified, and even more so, the return on public forestry programmes are difficult to determine. Whether a specific forest investment, plantation or forest management is profitable or not, even an experienced forester will be careful in providing an answer. This has always been the case, given the long-term horizons of forestry investments, but it is truer today with the new socio-economic context, including globalisation, and changing environmental factors due to climate change and the increasing demographic pressure on natural resources. These investments are becoming complex because, in addition to providing timber and fuel, forests tackle climate change, regulate water flow and quality, control flooding, provide recreation facilities, enhance and protect biodiversity and support local communities. These services and environmental goods have a value that slowly appears in markets, and should be evaluated with the cost-benefit analysis created from society's point of view.

The microeconomic programme of the Observatory for European Forests of EFICENT-OEF, aims to provide information about forest profitability in Europe. In order to be comparable, the profitability analyses need to follow a common approach in analysing costs and benefits. A forest investment can be appraised from a private or societal point of view. A series of working papers and software to report on the costs and benefits of these investments are being prepared that will later be compiled in a practitioner's manual.

Benefit from the Guide

Guide to economic appraisal of forestry investments and Programmes in Europe has an objective to raise the awareness of forestry institutions in Europe and the necessity to use the cost-benefit tool to prepare their annual budget. The competition for public budgeting is keen, and Ministries of Finance need to allocate resources adequately to a sector, which is becoming important in the new green economy envisaged in Horizon 2020.

The Guide for staff of forestry institutions is a brief on the different stages in an appraisal process, which should be useful to prepare and monitor the terms of reference for preparing a cost-benefit analysis in forestry. The guide provides a summary of different stages together with a checklist to ensure that important issues have been considered.

Download the Guide to economic appraisal of forestry investments and Programmes in Europe at: http://www.eficent.efi.int/files/attachments/eficent/projects/efi_guide_to_economic_appraisal_a5_070513.pdf

Doni Blagojevic

WSS Explored *Aquitaine*

Andreas Schuck, EFICENT-OEF and Margaret Shannon, EFI

The 2nd EFI Winter Summer School (WSS II) met for its first week in the little town of Belin-Beliet in the Aquitaine region of France. The theme for this WSS II is entitled "making values work – sustaining multiple values in managed forests". The maritime pine plantations in Aquitaine provided the context for this first week, while the second will be take place in October in the mountain forests of Austria.

There are 23 students in the WSS II representing 14 countries ranging from Belorussia and Ukraine, to the Azores, and from Egypt and Greece to Lithuania. Each of the following days began with lectures from research scientists from a cultural, economic, and social perspective that helped to perceive and understand values in plantation forests.

The students are organized into 5 writing teams and their research topics were defined during the first week. To take them 'out of the classroom', we had local people from the community visit. They represented educators, forest owners, hunters, artists, and recreationists spending time talking to the students. They met with each group to provide their local knowledge in answering the team's questions. **One first output will be a set of 5 posters, which are planned for display at the 20th EFI Annual Conference in Nancy.**

The wrap-up session was very positive and the week was perceived by both students and lecturers as a great success. All are looking forward to seeing each other again in October.

THANK YOU TO:

- Prof. Jean-Paul Guyon from 'Ecole Nationale Supérieure des Sciences Agronomiques de Bordeaux-Aquitaine' for organizing the field trip, contacting the local community members, and arranging for their participation.
- Christophe Orazio, Head of Atlantic European Regional Office – EFIATLANTIC, for being the official host of this WSS II week. We thank him and Claudia Antoniotti for arranging the local logistics and a wonderful WSS location.

  In addition to the French members, our team included Andreas Schuck and Frank Krumm from Regional Office EFICENT-OEF and Margaret Shannon and Doni Blagojevic from the EFI's FOPER II Project. Patrice Harou from EFICENT-OEF kindly agreed at the last minute to teach the economics session for this school.

We are looking forward to the second week in October with our host being Gerhard Weiss from Regional Office EFICEEC-EFISEE.

Criteria and Indicators – Where Are We Now?

Hubert Inhaizer, EFICENT-OEF

The pan-European Criteria and Indicators (C-I) for Sustainable Forest Management (SFM) have been developed by the FOREST EUROPE process (former MCPFE) as a policy instrument to evaluate and report progress towards sustainable forest management in Europe. Quantitative (35) and qualitative indicators (17) alike are included.

The CI-SFM project aims to:

- analyze the implementation of C&I for SFM in the 46 signatory states of the FOREST EUROPE process, and
- strengthen the process and use of C&I, not only as a tool for monitoring and reporting, but also for policy making at national and European level.

The project has now reached its analytical stage: 39 responses to our CI-SFM national questionnaire were collected, and 40 interviews were conducted amongst the 46 signatory states of FOREST EUROPE. In addition, sub-national assessments have been completed in Germany and Spain. The goal is to investigate the fields of application of C&I at the European level and also to identify the specific challenges and future prospects that we could be facing at national and sub-national levels.

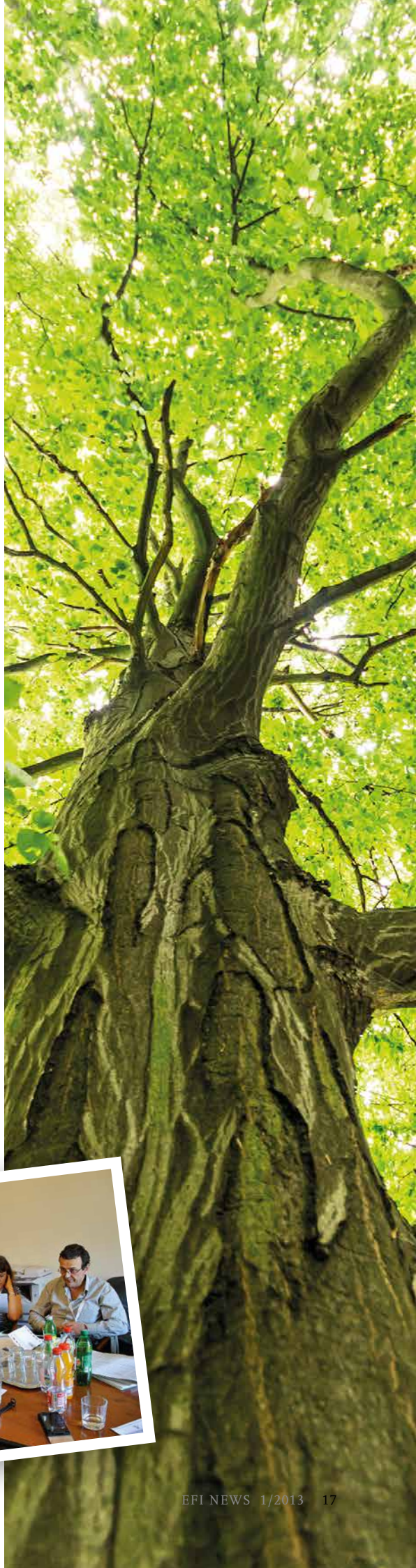
Three regional workshops have been organized in the past few months in different European locations:

- Zagreb, Croatia, on 26–27 March, 2013
- Budapest, Hungary, on 23–24 April, 2013
- Estoril, Portugal, on 20–21 May, 2013

The objective of these workshops was to provide a platform for discussion on the C&I set and its implementation aspects. They have also helped increase the awareness on the development and use of criteria and indicators and to facilitate information exchange amongst the signatory states of FOREST EUROPE. Groups of experts made up of 15–25 people representing research, national bodies, forest practice and other forest related sectors attended each workshop.

The outcomes and the results of these events will be considered during the drafting of the final report, which will serve as the main background document to the concluding event of the project. The pan-European Forum on C&I implementation will be held in Vienna, Austria, on 8–9 October, 2013. The Forum's purpose is to bring together the regional analysis and the experiences collected from the national reports and to allow the presentation and discussion on the preliminary findings of the project and discuss the potential future role of criteria and indicators.

More information about the CI-SFM project: http://www.ci-sfm.org/



www.nature.iscool.pl / Fotolia

CI-SFM team

Managing Forests for Future Climate Changes

Christophe Orazio, EFIATLANTIC

During the last decade, disasters and outbreaks affecting forests have resulted in the increasing involvement of foresters in climate change issues. The more common answers needed from science in this uncertain context are: How do I manage my existing stands that I am supposed to harvest in decades so that they can cope with future climate changes? What species or provenance should I plant knowing that the future climate will be different from the past one?

The REINFFORCE project, which is coordinated by European Institute for Cultivated Forests (IEFC) and EFI's Regional Office – EFIATLANTIC, aims to design and set up a research infrastructure helping to answer both of these questions.

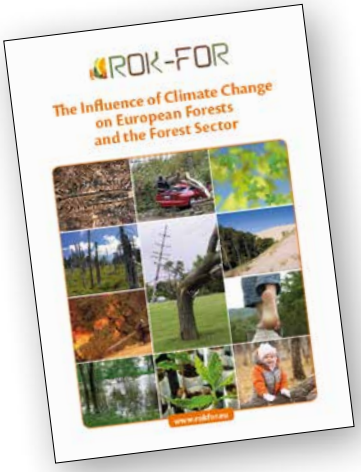
The network is made of:

- A network of 38 arboreta from Portugal to Scotland to monitor the climate change impact on a large set of tree species. The arboreta locations have been selected by the project partners on the basis of specific soil and climatic conditions, 32 tree species and 166 provenances (3 mandatory per species) have been selected. The purpose is to expose the same genetic material produced in the same conditions to various climate/soil contexts. The species selection criteria were based on commercial interests, plasticity in the climate conditions and suitability for the present and future climate of the Atlantic rim.
- A network of 41 demonstration sites to compare business as usual with alternative forest management aiming at reducing some of the threats identified under future climate (more drought, more wind, ...) such as sheltered regeneration, intensive thinning, permanent hedgerows, deep soil preparation, etc.

These two networks will be maintained for 15 years after the end of the project by the 12 institutes who contributed to install them. A common protocol for data collection will guarranty a good monitoring of weather, growth, quality, health and phenology of the trees planted. All the partners will share the data using the online tools provided by the coordination unit. This network can be used for any future collaboration with non partners' research units. As this question is of interest for local stakeholders, communication is done in many languages: English, French, Portuguese and Spanish. The latest material can be downloaded from the project website (http://reinfforce.iefc.net), and a catalogue presenting all the arboreta and the demonstration sites will be published in 2013.

Christian Musat / Fotolia

REINFFORCE (Resource INFrastructures for monitoring, adapting and protecting European Atlantic FORests under changing climate) is a unique worldwide, strategic tool that gives an opportunity to design a promising networking tool, such as the long term monitoring trial database and tree data database, and will contribute to an improved share of information between forest communities on climate change adaptation in Atlantic European forests.



New publication: 'The Influence of Climate Change on European Forests and the Forest Sector'

Climate change resulting from fossil fuel emissions could create adverse conditions for the forest sector if policy to mitigate the effects of climate change is not actively implemented. This booklet gives facts and figures about the reality of climate change, goes into detail about the consequences for forests and explores the changes needed in terms of policy and forest sector activity in order for forests to adapt to climate change.

This is final publication produced by the RoK-FOR project.

Download the booklet at http://www.rokfor.eu/openfile/8

Creeping Environmental Problem

Alexander Held, Daniel Kraus and Frank Krumm, EFICENT-OEF

Selective browsing of young trees by wildlife is generally considered one of the most severe problems in forest management. The effects of wildlife on forest regeneration are slow with onset changes, but accumulating effects towards a tipping point can be described as a *Creeping Environmental Problem* (CEP). Wildlife numbers and hunting quota have increased significantly in Europe over the past decades and the negative selective browsing effect of high concentration of hoofed animals on tree regeneration is prominent on the forestry agenda in many European countries. Forest structure and species composition are influenced by selective browsing and bark stripping; especially the regeneration of hardwood broadleaves, e.g. maples and oaks, which are highly attractive for browsers and experience a negative selection compared to Scots pine and Norway spruce. Browsing by wild hoofed animals is supposed to increase mortality in young trees, thereby affecting forest structure and compromising the protective function and the resilience of forest ecosystems. Scientific evidence supporting such phenomena is however, either lacking or showing conflicting results. Specifically, the differentiation between the consequences of browsing and of other factors, as e.g. light, frost, insects, or drought remains an open question in many cases.

What are the options?

The change of natural tree species composition towards tree species that are economically profitable creates forests with a low tolerance for wildlife effects in general. Therefore, it is important to understand the factors, which shape herbivore top-down effects in natural temperate forest systems and how these interactions are altered in managed forests. In other words, hoofed animals play a different role in a managed forest compared to a natural forest. So what could be a way forward to solve or improve this problem? The current approach to wildlife management is dominated by the assumption that timber production is a management priority. Due to the fact that browsers can cause severe damages in economically driven forest management systems, this is leading to increasing concerns about the ecological and economic impacts and calls for stronger population control. However, focusing only on population control ignores other underlying factors which may enhance the wildlife–forestry conflict of interests. The influence of silvicultural measures to mitigate browsing effects is not fully explored.

Various influences

Wildlife influence on forestry objectives is a main part of silviculture, therefore it is crucial to analyse the preconditions that influence the management decisions. This is a complex situation, as education, both for wildlife/ hunting and forestry, is based on traditions, historic and socio-cultural customs and is often driven by emotions rather than facts. At the same time capacity building aimed at all stakeholders in the rural setting is often not used to its full potential. Additionally, other forest functions, such as biodiversity conservation, recreation, protective functions and the provision of bioenergy became prominent lately and have to be considered while managing forest ecosystems, making capacity building even more complex.

Hence, model, trial, and demonstration areas with long-term time frames, as well as applied research programmes, are needed to develop decision support tools for integrated land use and wildlife management within multifunctional forests. The complexity of wildlife and forestry is surely not allowing a one-size-fits-all solution approach.

Lilifox / Fotolia

Towards Legal Timber and *Better Forest Governance*

Tomi Tuomasjukka, EFI's EU FLEGT Facility

The EU Timber Regulation came into force throughout the European Union on 3 March 2013. This regulation helps to reduce illegal logging by ensuring that no illegal timber or timber products can be sold in the European Union. The EU is a major consumer of timber, making the regulation a powerful tool in the global fight against illegal logging.

With this regulation, the EU prohibits operators in Europe from placing illegally harvested timber and products derived from illegal timber on the EU market. 'Legal timber', is defined as timber that is in compliance with the laws of the country where it is harvested. The regulation applies to timber and a wide range of timber products, including furniture, paper and sawn wood.

Where does it apply?

The EU Timber Regulation applies to timber and timber products harvested in the EU and imported into the EU. The regulation establishes that operators, those who place timber on the EU market for the first time, must exercise due diligence to minimise the risk of illegal timber entering the market. To comply, EU operators need access to information as set out in the regulation, including the origin of the wood and compliance with national laws and regulations. Operators are also required to take steps to assess and minimise the risk of illegal wood entering their supply chains.

The EU and 13 timber-producing countries that export to the EU are negotiating and implementing Voluntary Partnership Agreements (VPAs), another powerful tool to reduce illegal logging. A country that has a Voluntary Partnership Agreement with the EU sets up its own system to verify that its timber is legal. When the system is operational, the country issues FLEGT licences for export timber. FLEGT-licensed timber will be an easy option for operators importing timber to the EU - the EU Timber Regulation states that FLEGT-licensed timber is legal.

Six countries have concluded VPA negotiations with the EU, but FLEGT-licensed timber is not yet being exported because the countries are putting their systems in place. Until FLEGT licences are available, timber exporters in these countries can expect their trading partners to ask them to show that they are complying with the law in their country. Every country that has concluded VPA negotiations has a definition of legal timber set out in its VPA, and this is a useful reference for operators as they assess and mitigate risk.

Kybele / Fotolia

yotrakbutda / Fotolia

Thailand to start VPA negotiations with the EU

Tom ter Horst, EFI's EU FLEGT Facility

Thailand will soon begin negotiating a Voluntary Partnership Agreement (VPA) with the European Union. Thailand is the fourth country in Asia to negotiate a VPA with the EU. As Thailand prepares, it has established a National FLEGT Negotiation Committee and officials of both sides have met informally.

'**Thailand's willingness to start VPA negotiations is great**,' said **Alexander Hinrichs**, EFI's regional advisor who has been closely involved in the lead-up to the negotiations. 'Thailand has a strategic position in the Mekong region and is an important player within ASEAN (Association of Southeast Asian Nations). The VPA process can not only help Thailand address issues of timber legality within its borders, but also within the Mekong region and beyond.'

Thailand is a regional manufacturing hub for forest products and the world's largest producer of rubberwood timber grown on plantations. The country exports US$3 billion in forest products annually and the EU is an important market. Approximately one third of Thailand's forest product exports go to markets that require proof of legal origin.

The EU Timber Regulation and VPAs are two parts of the FLEGT Action Plan, the EU's initiative to combat illegal logging and improve forest governance. FLEGT stands for forest law enforcement, governance and trade. These two instruments work together to reduce trade in illegal timber. VPAs are underway in timber-producing countries in the Americas, Africa, and South-East Asia. The six countries implementing their systems to issue FLEGT licences are Cameroon, Central African Republic, Ghana, Indonesia, Liberia and Republic of the Congo. Seven countries are negotiating VPAs including Democratic Republic of the Congo, Gabon, Guyana, Honduras, Ivory Coast, Malaysia and Vietnam.

Miia Suhonen / Vastavalo

The European Forest Institute (EFI) celebrates its 20th anniversary in 2013. This commemoration of its major achievements is also an opportunity to analyse the future of our forests, and to determine how EFI and its partners can contribute to meet the challenges related to the various changes, risks and uncertainties to which our forests will be exposed.

EFI 20 Years Science and Policy Forum will take place 23–27 September 2013 in Nancy, France. The Forum will stimulate balanced discussion between policy/decision makers, stakeholders and scientists on concrete issues related to the future of our forests, and the risks and opportunities they face. On 25 September, a high-level conference: "Our forests in the 21st century – ready for risks and opportunities?" gathers both scientists and decision-makers.

Keynote Speakers Include:

- Prof. Dr. Eduardo Rojas-Briales, Assistant Director-General, Food and Agriculture Organization of the United Nations (FAO), Forestry Department.
- Dr. Janez Potočnik, Commissioner for Environment, European Commission
- Mr. Kriton Arsenis, Member of the European Parliament
- Mr. Jan Heino, Chairman, Intergovernmental Negotiating Committee for a Legally Binding Agreement on Forests in Europe, FOREST EUROPE

The morning of 26 September continues with a session: "Risks to European Forests – What added value can a European Forest Risk Facility provide?", followed by an afternoon FLEGT-REDD session "Shaping forest policy: Global initiatives and the European arena" and an annual meeting of EFI's Central European Regional Office and the Observatory for European Forests – EFICENT-OEF.

On Tuesday, 24 September, the EFI member organisations gather for their annual conference to make decisions on strategic EFI affairs. We warmly welcome all our member organisations to this special 20th Annual Conference!

Follow the programme updates, register and find out more information at

www.efi20.efi.int

The call for bids for the EFI Annual Conference in 2015 is now open!

The Annual Conference is the central decision-making body in the EFI organisation. It takes place during the EFI Annual Conference Week, which is organised in co-operation with EFI member organisations. The Week gathers approximately 180 participants, the numbers in individual meetings varying from 10 to 150 participants.

If your organisation is interested in hosting the EFI Annual Conference, please find more information and the application form at: http://www.efi.int/portal/members/membership_service/call_for_bids_for_the_efi_2015_annual_conference_week_is_now_open_/

Please submit the proposals to Ms. Ulla Vänttinen (ulla.vanttinen@efi.int) by 9 August 2013.

Wageningen University Among World's Best in International Subject Rankings

hitman1234 / Fotolia

Wageningen University is ranked 2nd in the world for its Agriculture and Forestry education, according to the QS World University Subject Rankings. The university also did well in the Environmental Sciences subject ranking, where it is listed as one of the 10 best universities in the world.

The ranking was composed by the British firm Quacquarelli Symonds. Quacquarelli Symonds evaluate universities based on a number of different aspects, such as academic peer review, citations, international orientation and the faculty-student ratio. The ranking is also the only ranking that takes into account the opinion of employers.

Learn more about the Wageningen University:
http://www.wageningenur.nl/en.htm

Event Calendar

EFI Events in July–October 2013

■ **EFIMED Annual Meeting**
2–6 September 2013
Barcelona, Spain

■ **Winter Summer School 2013 (Week 2)**
8–13 September 2013
Gmunden, Austria

■ **EFI 20 Years Science and Policy Forum: Our forests in the 21st century – ready for risks and opportunities?**
23–27 September 2013
Nancy, France

■ **Implementing criteria and indicators for sustainable forest management: Pan-European Forum**
8–9 October 2013
Vienna, Austria

EFI Associated event

■ **Forest Biomass Conference**
7–9 October 2013
Mierzęcin, Pomerania region, Poland

Further information
Ms. Ulla Vänttinen
Email: ulla.vanttinen@efi.int
www.efi.int, under News & Events

The revised SRA for 2020

Forest-Based Sector
Technology Platform

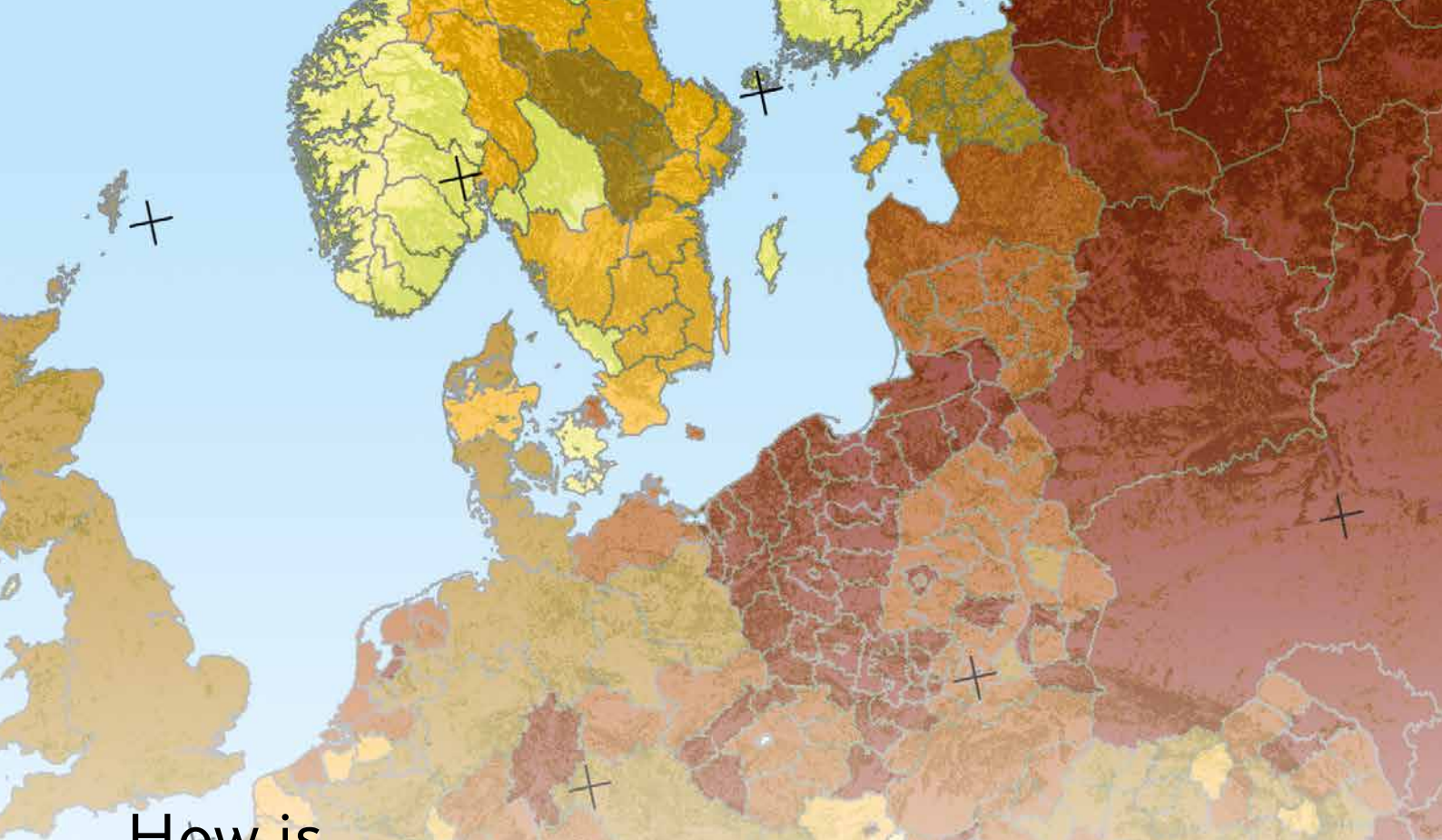
The European Forest-based Sector Technology Platform (FTP) was set up in 2005 to define a vision for the future for the forest-based sector and identify priority areas for research and innovation. Since then more than 100 research projects have been launched in the areas prioritized by the first FTP SRA (Strategic Research Agenda).

While the Vision 2030 describes the common vision of the European forest-based sector and how achieving the vision will benefit the European citizen, the SRA provides a logical framework for the research and innovation actions needed in order to reach the vision.

During the 8th FTP conference, which took place in Barcelona on 12–13 March 2013, the renewed Vision for 2030 and revised Strategic Research and Innovation Agenda for 2020 were launched. Thousands of contributions from representatives of industry, forest owners, researchers and public bodies around Europe went into revising these key documents. EFI participated in the core writing team of the SRA, with specific focus on the forest value chain.

The revised SRA is also an opportunity to position the forest-based sector for Horizon 2020, the next research and innovation framework budget (2014–2020).

View the renewed SRA here:
http://www.forestplatform.org/files/SRA_revision/Renewed_SRA_for_2020.pdf



How is *Forest Ownership* Distributed in Europe?

Andreas Schuck, EFICENT-OEF
Tim Green and Pieter Johannes Verkerk, EFI
Bruno Lasserre and Pamela Pulla, University of Molise, Italy
Marco Marchetti, Italian Academy of Forest Sciences

Information on the spatial distribution of forest ownership is needed not only in the forestry sector, but in general for activities related to forest ownership. A recently published EFI Technical Report 'Mapping the distribution of forest ownership in Europe', contributes to better knowledge of forest ownership distribution in 47 European countries via thorough data collection, analysis and visual presentation.

Public forests, and increasing forests with private ownership, play a key role in sustaining forest ecosystems, ensuring biodiversity protection, mitigating climate change, enhancing rural development and supplying timber and non-wood goods and services.

The study set out to quantify the spatial distribution of forest ownership at sub-national level. The data was compiled from official regional, national and international sources such as publications, websites and information portals. As countries have their own specific classifications for forest ownership the project classified the available information into the definitions of the FAO[1]. Another activity of the project was to investigate the availability of geo-referenced forest ownership maps in the 47 countries' existence, that present the spatial distribution of private and public forests.

The report is accompanied by a set of European forest ownership maps, detailed country data fact sheets, and extensive dataset and individual country maps giving more detail on forest ownership distribution.

The report and the maps can be downloaded here: http://www.efi.int/portal/virtual_library/publications/technical_reports/88/

1 FAO 2010. Global Forest Resources Assessment 2010. Terms and Definitions. Working Paper 144/E. 27 p. Food and Agriculture Organization of the United Nations, Rome.

The Regional Office EFICENT-OEF coordinated and implemented the study jointly with the University of Molise, Italy. They were strongly supported by GIS experts from the EFI Headquarters. The project was supported by the Ministry of Rural Space and Consumer Protection Baden Württemberg, Germany, the Swiss Federal Institute for Forest, Snow and Landscape Research and the EU 7th Framework Programme as part of the projects 'GHG-Europe' (Greenhouse gas management in European land use systems, contract no. 244122) and 'Volante' (Visions of land use transitions in Europe, contract no. 265104).