





ANNUAL REPORT

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EUROPEAN FOREST INSTITUTE

In 2006... - EFI adopted a new vision statement and new values.

- The addition of Regional Offices into the EFI structure was confirmed.
- A total of 12 European countries had ratified the EFI Convention and consequently gained seats on the EFI Council.
- **In 2007...** The first Regional Office, EFIMED, will be launched in Spain.
 - EFI will lead the 'Forestry' value chain of the Forest-Based Sector Technology Platform.
 - EFI's Annual Conference will be held in conjunction with the IUFRO European Congress.







Risto Päivinen

Konstantin von Teuffel

) V E R V I E W

The positive consequences of the recent change of status of EFI characterised 2006. For instance, the number of ratifications for the EFI Convention grew to twelve and the establishment of our first Regional Office is now reality. Such progress is clearly a sign of the commitment and motivation of our Associate Members and the confidence of the Member countries in EFI. This development adds to our responsibility to serve our network even more efficiently than before.

To do this, EFI has to take a close look at itself and re-build its strategy. The ratifying countries established the policy framework of EFI in June and the Associate Members gave their support to strategic elements that had been proposed by the Board at the Annual Conference held in the Netherlands.

Based on a changing 'business environment' for forest research, EFI, as an organisation, has now identified four main strategic functions: Networking, Research, Information Provision and Advocacy.

The Associate Members and the Member Countries have shown a growing interest in the main networking elements of EFI, Regional Offices and Project Centres. However, conventional networking between EFI and its Associate Members, and EFI support for networking between Associate Members themselves will still continue. In 2007, our long collaboration at the global level will be celebrated at the IUFRO European Congress, which will be jointly organised with IUFRO, EFI and its Associate Members in Poland.

The profile of forest research is central to our agenda, as there are more research needs particularly requiring a cross-disciplinary approach. The research capacity within EFI will guarantee the necessary credibility to carry out its strategic functions related to information and advocacy. Further, it supports the expansion of expert services and capacity building.

The compilation and dissemination of credible research-based information on European forests is one of our central tasks. Besides disseminating our own research results through, e.g., publications and databases, we have recognised the need to establish a European forest portal that guarantees easy access to high quality sources of forest information. The potentials of publicly available information and data on Europe's forests allow EFI to produce value-added information products, synthesis reports and support foresight studies of a European dimension.

In the field of advocacy, EFI holds a central role in the Forest-Based Sector Technology Platform and has been instrumental in promoting forest science in the 7th Framework Programme of the European Union. We are in continuous dialogue with the Ministerial Conference on the Protection of Forests in Europe and we continue to bring our Associate Members' views to fore in relation to the EU Forest Action Plan.

This past year has shown that forestry and forest research are certainly back on the European agendas in various forums, processes and organisations. EFI aims to keep them there.

Konstantin von Teuffel Chairman Director

RISTO PÄIVINEN

NETWORKING AND ADVOCACY

The Associate Members of EFI are at the very core of the EFI network and they meet at the Annual Conference, where decisions on future directions of EFI are made. In 2006, the Associate Members turned their attention to the strategy and structure of EFI.

A mosaic of European forest research networking

The Associate Members took the decision to add a new dimension to the EFI structure by approving the establishment of Regional Offices. These Regional Offices will be integral parts of the EFI organisation. Their activities will be in line with EFI strategies and monitored similarly to EFI research programmes. While they usher in a new element to the organisation, the Project Centres, which are thematic and fixed-term networks of EFI across Europe, will continue their activities as before.

The Associate Members of EFI will benefit from having Regional Offices by gaining more visibility for their regional forest issues in a European context. For international forest research, these offices open new avenues for funding and help to secure the EFI network.

The first Regional Office of EFI will be located in Barcelona, Spain. This development is a clear signal from the EFI Member countries of their will to develop EFI and strengthen European forest research as a whole. By providing funding for the first Regional Office, Spain and Catalonia take the first step towards supporting forest research both at a regional level and throughout the whole of Europe. It is expected that other countries will follow the suit.

The EFI Project Centres are also at the very heart of the EFI network. These seven centres have expanded their individual, thematic networks even further. More on Project Centres on pages 14–17.

By the end of 2006, 12 countries had ratified the EFI Convention. These countries are depicted in green.

New Associate Members in 2006:

- · Sveaskog, Sweden
- Center of Forestry Weihenstephan e.V., Germany







EFI has steadily increased its role and participation in processes and forums where it can advocate for the European forest research community. It collects views and concerns from its network and forwards them to various decisionmaking bodies that it holds seats on.

Forest-Based Sector Technology Platform

Since 2005, EFI has been active in the Forest-Based Sector Technology Platform (FTP), first being involved in the writing of the Strategic Research Agenda and then leading the scientific part of the Forest Value Chain group of the FTP. In 2006, EFI was in close contact with its Associate Members in Russia regarding the launch of the FTP in Russia.

EFI will be supporting the FTP activities by sharing the cost of hiring a Project Manager for the FTP for three years, as of 2007. A new EFI office located in the European Forestry House in Brussels will be occupied by the FTP Project Manager during this time. This development is one way for EFI to offer its Associate and Affiliate Members a clear contact point with the FTP.

Advisory Group on Forestry and Cork

EFI's membership in the EU Commission's Advisory Group on Forestry and Cork for the Standing Forestry Committee have made it possible for the Associate Members to pass on their comments via EFI on issues such as the key actions of the EU Forest Action Plan.

Decision Making & Advice

The Board of EFI has eight members. Four of them are elected by the Council and another half are elected by Associate Members. In 2006, we bid farewell to the Board Chairman François Houllier from INRA, France, who had steered the Institute through its most significant change to this date: changing EFI from an association to international organisation. EFI is in greatly indebted to Dr. Houllier for his commitment and wise leadership. Jim Lynch from the Forestry Commission, UK, was elected as a new member to the Board and he started his initial three year term in September.

The Scientific Advisory Board had a busy year. It conducted a review of the six EFI Project Centres and continued to find ways to best support EFI research activities. Its members Hubert Sterba (Austria) and Davide Pettenella (Italy) were due to leave the SAB at the end of the year. Two new members, Hubert Hasenauer (Austria) and Emil Cienciala (Czech Republic), to replace them from the beginning of 2007, were appointed by the Board.

The highest decision making body in the EFI organisation is the Council, which has representatives from each country that has ratified the EFI Convention. The Council met twice during 2006. The most central issue on the Council's agenda was the policy framework of EFI.



The Scientific Advisory Board 2006 (bottom row, from the left): Davide Pettenella, Göran Ståhl, Ted Farrell (Chairman), Eeva Hellström, Antoine Kremer (top row, from the left) Viktor Teplyakov, David Humphreys, Hubert Sterba, Michael Köhl, Americo Carvalho Mendes.

The Board of EFI 2006 (bottom row, from the left): Andrey Selikhovkin, F. Xavier Ballabriga, Cecil Konijnendijk (Vice-Chairman), Birger Solberg (top row, from the left) Miroslav Benko, François Houllier (Chairman until September 2006), Konstantin von Teuffel (Chairman as of September 2006)

RESEARCH

EFI has been consistently strengthening its role as a premier forest research network in Europe. It has intensified its networking approach for both researchers and users of research results and improved its ability to respond to emerging research needs. It has also taken an active role in research that is relevant to international processes and research agendas. In 2006, the Institute continued to develop its information services, modelling capacities, and the dissemination of research results. The leading principles in these activities are independence, objectiveness, high quality and co-operation.

The development of tools for sustainability impact assessment is the key focus of the Forest Ecology and Management programme. Such tools are being developed, e.g., within the EFORWOOD project, co-ordinated by SkogForsk, Sweden. The Research Programme is currently extending its activities towards bioenergy potentials and the impacts of increased use of bioenergy.

The transfer of technology for bioenergy supply in Eastern Europe was a new topic studied in the Forest Products Markets and Socio-Economics programme, thanks to the Ponsse grant which was offered for the first time in 2006. In addition, analyses that applied the global forest sector model EFI-GTM were made on the supply and demand of forest products for various European projects.

The Policy Analysis programme was active in preparing a new Action 'Support to EU Forest Law Enforcement Governance and Trade (FLEGT) Process in Developing Countries' – a four year activity co-ordinated by EFI. A contract with EuropeAid regarding this action was signed in December, 2006.

Several new projects started in the Forest Resources and Information programme. These include the Euro-Forest portal project that aims at developing a user-friendly, comprehensive web-portal on European forests. Two other projects of the Joint Research Centre Ispra, of the European Commission, were concerned with the harmonisation of European forest inventories, and the linking and harmonisation of forests' spatial pattern analyses at various scales, in order to better characterise the vulnerability and resilience of forests.

A complete and detailed list of these projects is available in the supplement for this Annual Report.

www.efi.int/research

Forest Ecology and Management

www.efi.int/research/programmes/programme1/

The main focus of the Forest Ecology and Management Research Programme currently lies on sustainability impact assessments. Within two large EU funded projects, namely SENSOR-IP and EFORWOOD-IP, EFI has contributed to the development of methods and tools for such assessments.

Within SENSOR-IP, Hans Verkerk is investigating sustainability impacts of future EU policies on forest land use. EFI's large-scale forest scenario model EFISCEN has been linked to a macro-economic model and a land-use allocation model to project forest resource development for given land-use policies. Impacts of these policies are assessed by sustainability indicators. Work in 2006 focused on the forest biodiversity indicator dead wood.

While SENSOR-IP links forest resource use with other land-use sectors, EFORWOOD only deals with the forest sector. However, it covers the whole forest value chain, from growing trees to the use and possible recycling or disposal of wood products. EFI has different roles in this significant forest related Integrated Project. The Forest Ecology and Management Research Programme has been strongly involved in the scientific co-ordination of the project, as the group is responsible for the development of the Tool for Sustainability Impact Assessment (ToSIA), which is integrating the information provided by many project partners. The first prototype version of ToSIA was developed by Tommi Suominen in 2006.

Environmentally compatible bio-energy potential from European forests

European countries are looking for alternatives to fossil fuels and gas. Biomass has the potential to be an important source of bio energy in the future. After all, today the majority of forest residues, such as branches and tops, are still left in the forest. Also, the volume of roundwood extracted for other uses is significantly less than its volume growth in Europe. But what are the ecological and environmental constraints attached to using forest biomass from European forest resources for energy?

In a report published by the European Environment Agency, Jeannette Eggers, Giuliana Zanchi, Alexander Moiseyev and Katja Tröltzsch conclude that the most interesting resource potential from the economic point of view is in forest residues. They continue that depending

Environmentally compatible energy potential in 2010, EU21 from:

Forest residues



Complementary fellings



on the future development of prices for energy and carbon emission credits, substantial market changes could occur until 2030. This could lead to the reallocation of wood resources, away from board manufacturers and the pulp and paper industries to the bio-energy sector.

It is also worth noting that if wood ash were returned to the forests to compensate for the depletion of nutrients from the residue extraction, the environmentally compatible energy potential would be higher than under the current circumstances.

Marcus Lindner, Anne Toppinen, Ilpo Tikkanen

Tomi Tuomasjukka, Jo Van Brusselen, Taru Palosuo, Tim Green, Marcin Pisarek



Emi Pesonen, Jerker Brolén, Hans Verkerk, Jordi Garcia



Risto Päivinen, Sergey Zudin, Tim Green, Brita Pajari, Hans Verkerk, Emi Pesonen

Afforestation in Europe

Henna Snellman, Mari Pitkänen, Jarkko Heikkinen

Trends about forest area change and afforestation in Europe have been examined by Giuliana Zanchi. A general increase in European forest area is reported but trends, as well as processes, causing the changes differ between regions. Uncertain or inconsistent data are reported for deforestation processes. Data have also been collected on planted species, since afforestation activities can have a role in improving forest biodiversity by modifying species composition.

The value of information about forest expansion could be enhanced with improved communication and harmonisation between different entities responsible for data collection and processing. In order to make more progress in meeting the Kyoto Protocol and Biodiversity Convention commitments, afforestation should be promoted in order to encourage permanent changes in land-use.

Forest Products Markets and Socio-economics

www.efi.int/research/programmes/programme2/

The main focus of the Forest Products Markets and Socio-Economics Research Programme shifted towards sustainability assessments within two EU funded projects – MATISSE-IP and EFORWOOD-IP.

Within MATISSE, EFI's role is to provide scenario analysis with the EFI-GTM model, which will be carried-out by Alexander Moiseyev in co-operation with Birger Solberg from the Norwegian University of Life Sciences and Maarit Kallio from the Finnish Forest Research



Alexander Moiseyev, Anu Ruusila, Tommi Suominen, Jerylee Wilkes, Elena Zudina, Rastislav Jakuš

Institute. So-called standardised policy shocks will be applied in order to model the impacts of specific policy changes (bioenergy subsidies, protection of forests) on a set of predefined sustainability indicators. The results will be applied in the so-called

Integrated Policy Assessment within a broader overall economic and agricultural/forestry context in cooperation with the National Technical University of Athens and the French Agricultural Research Centre for International Development. In 2006, the work was focused on defining relevant policy variables and sustainable development indicators.

Within EFORWOOD, EFI in cooperation with UMB and the Finnish Forest Research Institute is developing EFI-GTM to study the impacts of policies on market adaptations and material-flow changes within forestry wood chains in Europe and in a global context.

Forest bioenergy technology for Central and East European countries

One of the major European energy challenges is the need for increased bioenergy supply. In the Biomass Action Plan the EU-25 states an ambitious goal to increase bioenergy by up to 150 Million tonnes by 2010.

Marcin Pisarek was awarded the first Ponsse Award for his research on the transfer of forest bioenergy-supply technology to Central and East European countries. The study revealed the preconditions for implementation of the forestry fuels supply chains and modern technologies from the economic and commercial points of view.

The aim was not to suggest comprehensive solutions in relation to how successful the Nordic technologies may be in Central-East European conditions, nor how to proceed with successful businesses. Instead, the study created a knowledge source on the operational conditions of the forest industry in Central-East Europe, which, at times provide opportunities and at times hinder the dynamic implementation of modern harvesting technologies.

Marcin Pisarek and his colleagues from the team on bioenergy and technology from the Finnish Forest Research Institute, Joensuu Unit, concluded that there are certain market opportunities for harwarder use in Poland. In some cases, stand conditions, an entrepreneur's economic capacities, and forestry management regulations favour the use of one combined machine from the economic and environmental point of view.

Policy Analysis

www.efi.int/research/programmes/programme3/

FOPER for Future Research Capacities in South-Eastern Europe

The year 2006 was a clear step forward in FOPER and the project progressed well towards achieving its objectives under the leadership of Tomi Tuomasjukka and coordination of Mari Pitkänen.

The year started with a major achievement when EFI and the project partners in the South-Eastern Europe region signed a formal Memorandum of Agreement on collaboration in Forest Science. This memorandum paves the way for the sustainability of FOPER results and opens the possibility for collaboration in other fields in forestry as well. Through this the forest sector sets an important example for the stability of the region.

Katja Tröltzsch, Giuliana Zanchi, Jeannette Eggers, Jerker Brolén





The most significant process implemented in 2006 was the design process of two training programmes on forest policy and economics. The EFI Project Centre INNOFORCE completed the design of the Course concept and Curriculum for an International Master's Program in June. This work was conducted in close collaboration with the Faculties of Forestry in the region. The Faculties then proceeded to accredit the program.

The Faculties in Sarajevo and Belgrade took responsibility for carrying-out the teaching. The partnership for the implementation of the Master's Program also includes the Faculties in Banja Luka, Tirana and Skopje.

In the autumn of 2006, the INNOFORCE team submitted a conceptual design and course catalogue for the second training component aimed at forestry professionals. The development process included similarly joint work with local partners and a stakeholder consultation workshop was also organised on the Island of Brac in Croatia. The stakeholder opinions were incorporated into the design of the programme.

In late 2006, the Faculty of Forestry in Sarajevo hosted the first after-war meeting of the chairs of forest economics and organisations in the South Eastern Europe region. This revival of a tradition was felt to be most important by all of the 20 participants, who agreed to meet again in 2007.

EFI Assists in the Combat against Illegal Logging

The implementation of the European Commission's Action Plan on Forest Law Enforcement, Governance and Trade (FLEGT) started in late 2006 under a new partnership contract with the European Forest Institute. In a four-year Action, the implementation of a wide-range of measures to combat illegal logging and associated trade will be negotiated between the European Commission and wood-producing developing countries. EFI, as a neutral international organisation, will have the task of facilitating these negotiations on voluntary partnership agreements (vpa). This action means conquering a new area of expertise for EFI. A team of experts will be recruited for this purpose in early 2007.

Anu Ruusila, Alexander Moiseyev, Rastislav Jakuš



Tomi Tuomasjukka

Mari Lepikkö, Caroline Narayan



Forest Resources and Information

www.efi.int/research/programmes/programme4/

Collaboration with the EEA Topic Centre on Biodiversity (ETC/BD)

EFI belongs to the core team of the EEA Topic Centre on Biodiversity (2005–2008) and is a main partner in tasks relating to forest biodiversity. The Topic Centre supports the European Environment Agency and the European Commission's DG for the Environment and it answers to the changing information needs of the Agency or the Commission. 2006 brought with it a varied number of projects and outputs on topics ranging from biomass production capacity to forest types and bird monitoring.

During 2005/2006, research on the estimation of potential energy production from biomass was consolidated with the publication of the report 'How much bioenergy can Europe produce without harming the environment?' (EEA Report No 7/2006). And similarly, after an intensive process involving many writers and a thorough review process, the EEA published the report 'Progress towards halting the loss of biodiversity by 2010' (EEA Report No 5/2006), in which the EFI team of Andreas Schuck, Jo Van Brusselen and Katja Tröltzsch coordinated and contributed to the elaboration of the forest ecosystem section.

Forest type categories and bird diversity monitoring

EFI supported the EEA and the Liaison Unit of the Ministerial Conference on the Protection of Forests in Europe (MCPFE) with the organisation of the MCPFE Workshop on pan-European understanding of forest classification, held in Slovenia, in November. The primary topic of the event was a new scheme for 14 forest type categories that is intended for international reporting and monitoring of forests in Europe, according to the MCPFE agreed Criteria and Indicators for Sustainable Forest Management.

EFI was also instrumental in organising a workshop on pan-European Forest Bird Diversity Monitoring which took place at the Muséum National d'Histoire Naturelle in Paris, on 18–19 September 2006. The workshop, being a follow-up of an EFI feasibility study on forest bird monitoring in 2005, brought together experts with backgrounds in bird and forest monitoring. On-going monitoring practices were presented and innovative approaches for monitoring forest bird populations were explored, and options for harmonising forest bird monitoring across the European Union were identified.

FireParadox

A large 6th Framework Programme Integrated Project FireParadox coordinated by EFI Associate Member Instituto Superior de Agronomia, Portugal, saw its inaugural year in 2006. This project focuses on understanding the mechanisms and modelling the processes associated with fire, from physics to biology and social sciences, in order to identify innovative approaches towards integrated wildland fire management. EFI's team of Gerben Janse, Caroline Narayan, Sergey



Zudin, Jo Van Brusselen, Tim Richards, Andreas Schuck and Tim Green have been contributing to several tasks related to Fireparadox. These include the establishment of the FireParadox information management platform, contributions to policy and practices assessments and an elaboration on a review of CO, emissions mitigation through prescribed burning.

Research Support

The year was characterised by fast development in terms of new tools. A new intranet system was put into use in June and new telecommunication tools were further developed to enable effective 'distance working', which is crucial for a networking organisation such as EFI.

EFI's administration submitted a successful bid to the Ministry of Labour, Finland, for an organisation development project. The project, EFISION, starts in February, 2007 and will continue for three years. During this project issues such as rooting EFI's strategy, communication and the mapping of organisational development needs will be dealt with and the EFI staff will gain by being trained in project management and communication skills, as well as strategic development and leadership.

Communication activities took a step ahead by launching two new newsletters. The new EFI Insider serves the information needs of EFI staff on a weekly basis and the Pan-European Insider is tailor-made newsletter for the Project Centres and other close networking partners. EFI News addressed topics such as bioenergy and networking.

In 2006, EFI was involved in eleven conferences, seminars and workshops which gathered nearly 800 participants from research organisations, NGOs and ministries. The most significant events were the EFI Annual Conference and the Scientific Seminar on 'The role of forestry in integrated environmental assessments', the large EFORWOOD project meetings and the workshops arranged under the umbrella of the MCPFE.



PROJECT CENTRES

EFI Project Centres respond to the need to give expression to regional or topic research needs – without compromising the European dimension. The Project Centres are network nodes of EFI, consisting of EFI member organisations 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 independent of EFI and have a limited duration.

The representatives of EFI Project Centres met at Project Centres annual meeting: (bottom row, from the left) Jean-Michel Carnus (IEFC), Stuart Dedrick (ConForest), Marc Palahí (MEDFOREX), Francisco Moreira (PHOENIX), (top row, from the left) Heinrich Spiecker (ConForest), Robert Mavsar (MEDFOREX), Jasper Schipperijn (EUFORIC), Christophe Orazio (IEFC)



INNOFORCE

www.boku.ac.at/innoforce

Contact person Ewald Rametsteiner ewald.rametsteiner@boku.ac.at

Vienna, Austria

Integrating Innovation and Development Policies for the Forest Sector

In March, 2006, the new COST Action E51 "Integrating Innovation and Development Policies for the Forest Sector" started and is coordinated by the INNOFORCE head office. The first conference was successfully held in Grosspetersdorf, Austria in October, 2006. The Project Centre INNOFORCE substantially contributes to this action through the participation of partners and through theoretical and conceptual inputs. During the course of the COST Action, essential parts of tasks I.I and I.2 will be implemented via an extended partnership.

MEDFOREX

Solsona, Spain

www.medforex.net

Contact person Marc Palahí marc.palahi@ctfc.es

The first empirical models for predicting the yield of wild mushrooms

The Forest Protection area of CTFC and MEDFOREX developed the first empirical models to predict mushroom yields in Catalonia, based on stand and site characteristics. These models can be used in forest management and planning, as they relate forest stand characteristics to the yield and diversity of mushrooms. The models showed that mushroom yields are the highest when stand basal area is approximately 20 m² ha⁻¹ (medium value).

The mushroom yield prediction models showed that stands near to the canopy closure, with vigorous growth rates, are optimal for mushroom production in Scots pine forests in Catalonia. Finally, the study showed that the diversity of mushroom species was highest when the total yield was highest.



Mushroom yield as a function of stand basal area according to the prediction models. Elevation and slope are equal to their mean values in the modelling data.

PHOENIX

www.phoenix-efi.org

Contact person Francisco Moreira fmoreira@isa.utl.pt

Lisbon, Portugal

Fire Paradox

The overall goal of Fire Paradox is to create a scientific and technical foundation for practices and policies consistent with the concept of integrated wildland fire management. Fire is viewed from four complementary sides (prescribed burning, wildfire initiation, wildfire propagation and suppression fire) that correspond to a sequence ranging from its use in prevention to its use in fire-fighting. The work programme reflects an equilibrium between three domains, these being research, development, and dissemination of knowledge. Fire Paradox will run from 2006 to 2010, with a total cost of ca. $15M\varepsilon$. The team is composed of 31 partners from 13 countries. Within the framework of specific measures in support of International Co-operation (INCO, 6th Framework Programme), a project extension to four partners from Argentina, South Africa and Russia, was approved. Besides EFI itself, six PHOENIX PC members from Portugal (UTAD, ISA), Spain (CTFC), France (Cemagref, INRA) and Italy (UNINA) participate in the consortium. The project is coordinated by the Centro de Ecologia Aplicada "Prof. Baeta Neves", Instituto Superior de Agronomia, Universidade Técnica de Lisboa, Portugal.

http://www.fireparadox.org

ConForest

www.conforest.uni-freiburg.de

Contact person Stuart Dedrick stuart.dedrick@iww.uni-freiburg.de

Freiburg, Germany

Towards Sustainability - Forest Conversion

ConForest organised a conference with the aim of discussing the merits of plantation forestry and converting forests into more natural structures. It was agreed that management of multi-purpose stands and forests brings new challenges to forest practices. The development of tools that improve the knowledge of the stands and forests will be able to enhance management solutions toward sustainability and diversity. Further, forest inventories enable the assessment and evaluation of the forest and stands distribution as well as the forest products' quality. The objectives of each inventory depend on the scale used and their integration should define the parameters and adapt the methods for the monitoring of the conversion process. In relation to the landscape fragmentation and diversity, an integrated analysis of diversity at different scales can improve the evaluation of the conversion success. The parameters selected to evaluate diversity allow the improvement of stands in order to develop management tools to enhance system resilience. It was also concluded that the analysis of nutrients fluxes, element cycling, soil conditions, biological activity and carbon balance, as well as the development and interaction of tools at stand and forest levels will enhance the improvement of site characteristics towards sustainable management. Finally, the conference agreed that the value of a multi-functional forest lies not only in its production, but also in its contribution to the landscape. The different forest systems must be analysed in a holistic manner. Some of the outputs can be seen on www.conforest.uni-freiburg.de/event_past.php

EUFORIC

www.sl.life.ku.dk/euforic

Contact person Jasper Schipperijn jsc@life.ku.dk

Review of urban forestry research and needs

Copenhagen, Denmark

To get an overview of recently completed, ongoing or planned research within urban forestry, a survey was carried out in the Nordic and Baltic countries. Universities were found to carry out about half of all research projects, while municipalities also play a – perhaps surprisingly – important role.

The main urban forest elements studied were overall green space and urban woodland, while less attention was paid to urban parks and urban trees. A separate survey with the aim of discovering the current research needs was sent to those that order, and pay for, research, typically the research councils, ministries, larger municipalities, as well as research directors at universities and research institutes.

Comparison of the research and research needs survey shows that themes such as 'urban forest and green structure planning' and 'urban forest management' score high both in terms of share of present research and research needs. Research seems to surpass needs for the themes 'awareness raising, education and public involvement' and 'ecological aspects and biodiversity', which includes research on ecological processes and elements, nature protection and biodiversity. Respondents' demand for more research on 'social values' and especially 'economic assessment and benefits' seem justified, as these topics take only moderate shares of all ongoing research.

PROCES

www.ftacademy.ru/science/ international/proces/

> Contact person Olga Shaytarova proces.fta@home.ru

St. Petersburg, Russia

Impacts of risks on future forest utilisation in North-West Russia

Within this project, a database of the forest resources of Europe, including North-West Russia, was created. A carbon balance evaluation was modified for the forest ecosystems of the analysed region. Also, a methodology for estimating the volumes of illegal logging for NW Russia was developed and a three-level methodology for the monitoring and control of forest health was developed for forested areas that have experienced human impact. Methodologies were developed to estimate economic damage to forest ecosystems caused by man-made and natural hazards and for forest health monitoring and the economic estimation of damage to forest ecosystems. The possibilities for GPS application were studied in order to improve forest map reliability and the precision of this method was investigated by using a statistically sound approach. Further, systematic and random positioning errors were estimated, and recommendations on how to minimise them were elaborated upon.

IEFC

www.iefc.net

Contact person Christophe Orazio orazio@iefc.net

Final phase of FORSEE Project

Bordeaux, France

As the final point of a nearly a four-year project dedicated to indicators of sustainable forest management, IEFC organised an international conference in Porto, Portugal, in December, 2006. This meeting, which attracted more than 70 participants from more than ten countries, was a good opportunity to disseminate some of the results of the project.

A list of 37 indicators and 5 verifiers was assessed at eight pilot zones amounting to thousands of hectares. As a result of this work involving more than 150 people, IEFC is producing tools for the monitoring of forest sustainability at the regional level, for a large range of ecological conditions, in a reliable manner. Some of the MCPFE criteria were less improved than others, some have been deeply studied (10 theses), but for all of them, we are providing reliable, cost-efficient methods.

Description of the pilot zones:

Pilot zone	Location	Tree species	Area(ha)	Forest(%)	Elevation(m)
Ireland	Мауо	Sitka spruce, Lodgepole Pine	25000	10%	20-I00
Aquitaine	Pontenx	Maritime Pine	100000	83%	0-50
Euskadi	río Ibaizabal	Radiata pine	50000	65%	100–600
Navarre	Roncesvalles	Beech, Oak	18000	73.5%	600-1200
Leon	Rio Carrion	Poplar, Corsican pine, Scots pine	18600	26%	600-800
Galicia	Guitirriz	Maritime pine, Eucalyptus globulus, Radiata Pine, oak	45000	75 %	400–700
Northern Portugal	Sousa Valley	Maritime pine + eucalyptus	77000	38%	100-600
Central Portugal	Pinhal Interior Norte	Eucalyptus globulus Maritime pine	272000	55%	600–1200

FINANCES

The total funding for the Institute for 2006 was 3.1 million euros and it had a surplus of 142 kEur by the year's completion. The main funding sources were the Finnish Government's core funding, project funding from the European Commission and other project funding (I million euro). The share of EC project funding which was transferred to project partners in EFI coordinated projects amounted to 20%, whereas in 2005 it was 53%.

A total of 47 staff members from thirteen countries worked at the Institute during 2006, thus providing a total of 35 person years of activities to the Institute. In addition, 11 young research trainees or scholars from seven different countries contributed a total of three person years to the research programmes.

EFI Funding in years 1997-2006



Sources of funding 2006



Personnel, subcontracts and other costs in 2005





рнотов Timo Villanen, Saku Ruusila / Kuvaste, Niina Jokinen / EFI, Johanna Kokkola LAYOUT Kuvaste / Joensuu раныт Painotalo Seiska / lisalmi 2007 European Forest Institute is the leading institution conducting and advocating forest research and facilitating forest research networking at the pan-European level.

It is an acknowledged provider of and a major contact point for unbiased, policy-relevant information on European forests and forestry.

