

The Secretariat for International Forestry Issues

IUFRO – THE WORLD'S FOREST SCIENCE NETWORK

SIFI strengthens Sweden's commitment in international forestry issues

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EDITORIAL

THE 9TH ISSUE OF SIFI'S NEWSLETTER is devoted to the International Union of Forest Research Organizations (IUFRO), which is the only worldwide international organization for forest research and related sciences. President Niels Elers Koch starts the presentation by looking at the future direction of IUFRO and highlights the importance of a holistic perspective. Executive Director Alexander Buck examines the global importance of forestry as well as the strong interest of policy makers and other groups outside the forest sector. In this issue several Divisions and Task forces within IUFRO are presented, reflecting the diversity among the researchers and the members covering forest policy, agro-forestry systems, bio-energy and forests for people, etc.

The reports published by the special IUFRO project about World Forests, Society and Environment illustrate innovative solutions for the implementation of forest re-

lated policies. Furthermore the work of the Global Forest Expert Panels (GFEP) illustrates how the requirements of different stakeholders could be linked with the scientific expertise.

Over the years collaboration between Sweden and IUFRO has been successful. Jan Heino, IUFRO Development Officer, points out that Sweden is well represented and active within the research networks and the IUFRO administration. One way of taking the collaboration a step forward is for Sweden to apply to host the IUFRO world congress 2019. This opportunity is featured in the final article of the newsletter. To sum up, I would like to thank the IUFRO secretariat and all the authors who have contributed to this valuable issue of SIFI's newsletter.



Fredrik Ingemarson, editor

The Future Direction of **IUFRO**

**NIELS ELERS KOCH, PROFESSOR, IUFRO PRESIDENT,
UNIVERSITY OF COPENHAGEN**

The role of the international forest scientific community is to provide state-of-the-art information about the most effective policy and management approaches for addressing unresolved forest issues, such as global warming, loss of biodiversity, or biased competition in wood markets resulting from illegal forest practices.

UNIQUELY POSITIONED NETWORK

Performing this role requires research collaboration and involves both natural and social sciences. With its firm foundation of more than 250 scientific units in 9 Divisions, and facilitated by interdisciplinary Task Forces, the IUFRO network is uniquely positioned to address the full spectrum of trans-boundary problems associated with forests and trees.



President Niels Elers Koch is a Fellow of the Royal Swedish Academy of Agriculture and Forestry. Photo: Lars Juul Hauschildt.

STRENGTHENING COORDINATION WITH OTHER SECTORS

Science collaboration in IUFRO is guided by six thematic areas defined in the Strategy 2010–2014. In the coming years, IUFRO will orient its work even more strongly along these and other emerging themes and further strengthen its coordination with other sectors and scientific disciplines, while at the same time maintaining a holistic perspective on forests and people. Towards this end, a new five-year strategy shall be adopted at the XXIV IUFRO World Congress in October 2014 in Salt Lake City, United States. ○

IUFRO — *the World's Forest Science Network*

The International Union of Forest Research Organizations is the World's Forest Science Network. It is the only worldwide international organization devoted to forest research and related sciences and is open to organizations and individuals involved in forest research and forest-related sciences. Headquarters of this non-governmental and non-profit union established in 1892 are currently located in Vienna, Austria.

ALEXANDER BUCK, IUFRO EXECUTIVE DIRECTOR



The Mission of IUFRO

IUFRO's mission is to promote global cooperation in forest-related research and to enhance the understanding of the ecological, economic and social aspects for forests and trees; as well as to disseminate scientific knowledge to stakeholders and decision-makers and to contribute to policy and on-the ground forest management.

Communication

To this end, the network presently unites more than 15,000 scientists in approximately 650 member organizations in 120 countries. Some 700 voluntary office-holders coordinate roughly 250 research units and are involved in organizing around 70 scientific meetings every year. A series of Special Projects, Programmes and Initiatives are dedicated to strengthen the work of IUFRO at the science-policy interface, to efficiently spread forest-related knowledge as well as expand and foster forest research capacity in developing countries. All these activities are eventually designed to enhance communication within the scientific community and increase the visibility of science-based research findings of IUFRO's member organizations and scientific experts.



The IUFRO board. Photo: Wolfgang Simlinger.

Global importance

Scientists in the IUFRO network cooperate with the primary aim to present effective and research-based responses to the myriad of forest problems faced by society. Many forest-related issues of global importance are of strong interest to policy makers and other groups of society also outside the forest sector. To respond adequately to these challenges and issues, IUFRO has defined six key themes in its current Strategy that shall guide disciplinary and interdisciplinary research. These thematic areas are: Forests for People, Forests and Climate Change, Forest Bioenergy, Forest Biodiversity Conservation, Forest and Water Interactions, and Resources for the Future. In addressing these topics, special attention is given to fully considering their ecological, social and economic dimensions. ○



Rural Morocco. Photo: Alexander Buck.

Adaptation and flexible *agroforestry systems*

Silviculture aims at controlling the establishment, growth, composition, health and quality of forests and woodlands to meet the diverse needs of landowners and society on a sustainable basis.

BJÖRN HÅNELL, PROFESSOR, COORDINATOR OF IUFRO DIVISION 1 *SILVICULTURE*,
SWEDISH UNIVERSITY OF AGRICULTURAL SCIENCES

Major challenges in today's research

IUFRO Division 1 *Silviculture* brings together more than 100 scientists who focus their work on a broad range of topics and address two major challenges in today's research – the adaptation of forests and forestry to climate change, and the development of more flexible agroforestry systems.

Short-rotation, peat and ungulates

A lot of research work in Division 1 is focused on boreal forests. Besides the Research Group (RG) *Boreal forest*

silviculture and management, there is, for example, a Working Party (WP) on *Peatland forest science*, which is especially relevant for Sweden where one-quarter of the land area is covered with peat, and partly used for forestry. The RG *Short-rotation forestry* strives for a larger share of renewable energy, and thus more efficient use of bioenergy from forests, and, the WP on *Silviculture and ungulates* looks at the influence of moose and roe deer on forests and trees.



Forest Policy and Economics

DANIELA KLEINSCHMIT, ASSOC. PROFESSOR, COORDINATOR OF IUFRO DIVISION 9 *FOREST POLICY AND ECONOMICS*, SWEDISH UNIVERSITY OF AGRICULTURAL SCIENCES

Forests are not only a source for timber supply, but also an ecosystem that sustains livelihoods and provides a range of products and environmental services.

Economic and social dimensions

There are challenges like market globalization and global environmental problems that forests are faced with and which make new demands on sustainable forest management. Moreover, the economic dimension of forestry – providing societies with the renewable raw material timber – has clearly become of increasing importance over the past few years.

In Division 9 *Forest Policy and Economics*, researchers focus on the different elements and functions of the social dimension of forests, comprising various research fields such as the historical perspective, the economic and political analysis or the regulative dimension. Areas like management, information and communication support the strong relation to the needs and opportunities of the forest sector in regard to the social dimension.

A regional Nordic network

Besides its successful international activities, Division 9 has also supported the development of a regional Nordic network on forest policy science. ○

Social Aspects of Forests and Forestry

TUIJA SIEVÄNEN, COORDINATOR OF IUFRO DIVISION 6 *SOCIAL ASPECTS OF FORESTS AND FORESTRY*, FINNISH FOREST RESEARCH INSTITUTE

In IUFRO, social aspects of forestry are represented in Division 6.

A large array of topics

There is a large array of topics such as nature-based recreation and tourism, forest and human health, nature conservation and protected areas, landscape planning and management, and urban forestry, which focus on the human perspective on use and management of forest resources.

Rural development

Furthermore, scientists in Division 6 address topics of forest education, forest ethics and gender issues related to forestry, which support professionalism in forestry. A new topic is rural development and forestry, which is important especially in developing countries. Division 6 aims to serve as a platform for the scientific community and forestry practitioners. Our goal is to facilitate co-operation and communication of social aspects of forests and forestry so that the work of both groups will support the provision of respective benefits to urban and rural populations and societies as a whole, both locally and globally. ○



A refreshing walk by Mount Igman during a Division 9 conference in 2012 in Sarajevo, Bosnia-Herzegovina. Photo: John Innes.

Resources for the Future

JOHN INNES, PROFESSOR, COORDINATOR OF IUFRO TASK FORCE *RESOURCES FOR THE FUTURE*, UNIVERSITY OF BRITISH COLUMBIA, CANADA

Our Task Force is examining the various needs facing our forests, and our growing expectations of them.

A FUTURE GREEN ECONOMY FOR THE WORLD

We already know that forests have to provide many different goods and services, but every indication is that the number of goods and services derived from forests is set to grow, not diminish, in the future. In fact, forests may form the basis of a future green economy for the world, representing a major source of energy as well as providing many products, such as nanocrystalline cellulose, needed to future material demands.

NEW FORMS OF GOVERNANCE

These increasing demands will create a need for new forms of governance as more and more people seek to use forest products. Forest managers will need to ensure that the increased extraction of goods does not jeopardize the many services that we have come to expect from our forests. ○



Today's waste, tomorrow's resource. Photo: John Innes.



Mangroves in Malaysia. Photo: Alexander Buck.

International Forest Governance

BEN CASHORE, PROFESSOR, COORDINATOR OF IUFRO TASK FORCE *INTERNATIONAL FOREST GOVERNANCE*, YALE SCHOOL OF FORESTRY AND ENVIRONMENTAL STUDIES, USA, AND DANIELA KLEINSCHMIT, ASSOC. PROFESSOR, DEPUTY TF COORDINATOR, SWEDISH UNIVERSITY OF AGRICULTURAL SCIENCES

Forests have been of international concern for more than two decades and many international forest governance initiatives have been launched. The Task Force on International Forest Governance addresses the questions as to whether, when, and how forest governance initiatives produce enduring and effective results for the myriad of social, environmental and economic challenges facing the world's forests. These questions are addressed in meetings in the different regions of the world testing the concepts of institutional intersection and problem focused policy learning.

IMPACTS "ON THE GROUND"

The participative meetings, including stakeholders from the region and scientists, help to understand the precise causal mechanisms that lead international forest governance to promote productive, purposeful and useful impacts "on the ground". They also contribute to identifying innovative solutions and as well as rejecting policy options that have little hope of success when addressing the problems for which they were created. A particular focus of the Task Force is on policies dealing with: 1) reduced emissions from deforestation and degradation (REDD) and 2) illegal logging/good forest governance initiatives. ○



Forests for People

Even short stays in the forest can reduce your blood pressure and heart rate. Photo: Ulrike Pröbstl.

– impulse for Sweden

ULRIKE PRÖBSTL, PROFESSOR, COORDINATOR OF IUFRO TASK FORCE *FORESTS FOR PEOPLE*, BOKU, AUSTRIA

The International Union of Forest Research Organizations (IUFRO) has established the IUFRO Task Force *Forests for People*, with the goal to develop a profound basis of scientific knowledge on forest management, planning and administration, to disseminate research findings and to identify future research needs. The Task Force deals with four main themes: 1) Culture and Education, 2) Livelihoods, 3) Urban and Rural Landscapes and 4) Health, Recreation and Tourism.

Contributing to 75,000 jobs in Sweden

In developed countries, the functions of forests have changed over time. There, several social services are recognized increasingly as the major benefits from forests such as their contribution to health, well-being and quality of life of their citizens. In addition to these societal benefits Swedish researchers documented a significant economic impact. In total the annual expenditures on outdoor recreation amount to about 10 billion Euros, contributing to some 75,000 jobs in Sweden alone.

Visits to forests reduce the blood pressure

These figures are a significant argument for other countries and forest administration to evaluate and market their efforts in this field. On the other hand, the Swedish research community may benefit from new findings in the field of health and well-being by Japanese and Finnish researchers. Measurements show that even short visits (15–20 minutes) to urban forests reduce the blood pressure and heart rate. Further research will help to substantiate the evidence of long-term health benefits also addressed to the risk of cardiovascular disease, cancer and psychological disorders.

The 2nd Forests for People conference in Michigan

Crucial for the international exchange are regular cross-divisional and interdisciplinary conferences. We hope to see again significant contributions from Sweden at the 2nd Forests for People conference: A Growing Interdisciplinary Task, May 19–23, 2013, Traverse City, Michigan, USA. ○

Swedish Bioenergy

– piggy-backing on a strong forest industry

ROLF BJÖRHEDEN, PROFESSOR, IUFRO TASK FORCE COORDINATOR, SKOGFORSK

Sweden's leading position as a user of forest biomass for energy is built on its forestry tradition, linking small scale forestry with large scale industry. Today, Swedish forests annually provide 120 TWh – a third of the national energy needs.

Systems for small trees, logging residues and stumps

This is the result of a purposeful and persistent co-operation between authorities, the forest and energy sectors and supported by R&D efforts, triggered by the “oil crises” in the 1970's. First, the by-products of the forest industry were utilized for energy conversion. Now, with a rising demand for biofuel, also procurement systems

for small trees, logging residues and stumps are being developed.

International interest in the Swedish experiences

Concerns for climate change, biodiversity and trends towards a sustainable bio-economy have increased the international interest for the Swedish experiences. Through its activities, the IUFRO Task Force on Forest Bioenergy provides a network for dissemination of such knowledge. It may also provide analyses for decision support and policy formulation as well as a capable mechanism of identifying knowledge gaps obstructing development. →

World Forests, Society and Environment

GERARDO MERY, COORDINATOR OF IUFRO SPECIAL PROJECT WFSE, METLA

IUFRO's Special Project *World Forests, Society and Environment* (WFSE) is a global, open, collaborative network of scientists and experts steered by 11 partner organizations that include international research institutions and universities from different parts of the world.

WFSE promotes international cooperation in high quality research and looks for innovative solutions to support and advance the formulation and implementation of forest-related policies that promote sustainable development and human well-being.

Global trends

WFSE publishes large thematic books and policy briefs. Currently, the main focus is on producing the book *Forest under Pressure – Local Responses to Global Issues* (working title) to be published at the IUFRO World Congress 2014. The policy brief *Making Boreal Forests Work for People and Nature* was published in early 2012. It completed the series of regional policy briefs published by WFSE. It describes the importance of forests for the

nature and societies of the boreal region and global trends impacting on these forests. It discusses new opportunities to maintain and increase forest based welfare through green economy and forest-based energy and the need to maintain healthy and functional boreal forests for the continuous provision of diverse forest products and services. All WFSE publications are available at www.iufro.org/wfse. ○



Participants of the IUFRO WFSE Workshop in Helsinki April 2012.
Photo: Pablo Quiñones.



Integration with traditional logging is a prerequisite for cost efficient procurement of forest fuels. Almost half the round-wood produced by the harvester will end up as secondary fuel (bark, liqueurs, etc.) as it is processed in the industry. The harvester also prepares logging residues in tidy heaps for subsequent forwarding, storing and chipping. Photo: Rolf Björheden.

The Global Forest Expert Panels

CHRISTOPH WILDBURGER, GFEP COORDINATOR

According to IUFRO's mission to promote science cooperation and to disseminate research findings, the IUFRO-led initiative of the Collaborative Partnership on Forests (CPF) Global Forest Expert Panels (GFEP) provides a mechanism for effectively linking the information requirements of governments and intergovernmental processes related to forests and trees with existing scientific expertise.

State-of-the-art knowledge

GFEP assessment reports reflect state-of-the-art knowledge on issues of high concern to policy makers and stakeholders and are prepared by thematic Expert Panels consisting of internationally recognized scientists in the field. A first thematic assessment on adaptation of forests and people to climate change was published in



Members of GFEP on Biodiversity, Forest Management and REDD+ met in Rome in 2012. Photo: Eva Schimpf.

2009. The assessment indicated that boreal forests are likely to be particularly affected by climate change.

Decisions about REDD+ policies

The most recent assessment on the linkages between biodiversity, carbon and forest management in the context of REDD+ aims at providing policy makers, investors and donors with a stronger scientific basis for their decisions about REDD+ policies and projects and will be launched at the United Nations Climate Change Conference in December in Doha, Qatar. ○



Collaboration between Sweden and IUFRO

Photo: Ylva Nordin.

JAN HEINO, IUFRO DEVELOPMENT OFFICER, INTERNATIONAL FELLOW OF KSLA

Sweden has a long relationship with IUFRO and is well represented and active within the vast network of researchers and IUFRO administration.

18 Swedish organizations are members

Today IUFRO has 18 Swedish research or other organizations as members, eight of which are units of the Swedish University of Agricultural Sciences, SLU. However, also SkogForsk, Holmen Skog, Skogsstyrelsen, KSLA, Forskningsrådet för miljö, areella näringar och samhällsbyggande (Formas), Luleå Tekniska Universitet and Linnéuniversitetet are IUFRO members. In addition, several individuals from Sweden have joined IUFRO as Associate Members. However, there are possibly still forest related organizations outside IUFRO that could benefit from joining as members.

Swedish engagement in IUFRO

Active Swedish contribution to the work of IUFRO is given by the 27 Swedish forest researchers who presently are engaged as IUFRO Coordinators or Deputy Coordinators, covering a wide array of issues including core forest disciplines such as silviculture, and transdis-

ciplinary issues such as forest bioenergy. Additionally, the IUFRO Enlarged Board includes four members from Sweden.

As for the history, Sweden had an important role to play when bringing IUFRO work back to normal after the World War I. The Director of the Swedish experiment station, H. Hesselmann, was entrusted with the organization of the 7th IUFRO World Congress that was held in 1929 in Sweden. A main agenda item at the Stockholm Congress was the preparation of statutes, which was successfully accomplished. If there will be another congress in the future remains to be seen.

Several IUFRO events every year

Recently one or several IUFRO events have been arranged every year in Sweden. Topics have varied from challenges for the boreal forests and tree-stumps for bioenergy to novel materials from wood or cellulose, forest policy integration and wood machining. A very well attended, timely and important international conference was jointly organized by SLU, IUFRO, and FAO in August 2008 in Umeå on adaptation of forests and forest management to climate change, see www.sifi.se. ○

The Swedish application for IUFRO 2019

Sweden has a great opportunity to become the strongest candidate for hosting the XXVth IUFRO World Congress in 2019. Looking at the candidates it seems likely the congress will take place in Europe.

FREDRIK INGEMARSON, PROGRAM MANAGER, THE SECRETARIAT FOR INTERNATIONAL FORESTRY ISSUES (SIFI)

Every five years the IUFRO World Congress impressively demonstrates the outstanding role and quality of the IUFRO network. It is one of the largest global forest events attended by more than 2,000 delegates. It brings together scientists and stakeholders from all parts of the world to discuss interdisciplinary scientific and technical issues related to priority areas of forest research, policy and management.

A BIO-BASED SOCIETY

The main criteria for the evaluation of the proposals are host country and city, financial commitments, congress venue and excursions. The Swedish forestry model illustrates a long history of multi-purpose management of forests and landscapes in harmony with forest science. The forest sector has been one of the cornerstones in the development of the Swedish economy. The ecosystem management and the history of tenure vary widely from the open landscape in the south to the mountainous areas in northern Sweden. Hosting a congress would also be a great opportunity to raise Sweden's international profile and to discuss the pros and cons of the Swedish forestry model. Field trips are included in the congress programme, giving outstanding opportunities to highlight sustainable forest management, a market transformation to a bio-based society and policy developments.

A BROAD SUPPORT FROM STAKEHOLDERS

Stockholm would be an excellent venue for the upcoming Congress 2019, celebrating 90 years since the VIIth Congress was held in Sweden. An application enjoys broad support among Swedish stakeholders such as The Swedish University of Agricultural Sciences (SLU), IKEA, WWF, The Swedish Forest Industries Federation and its member companies, The Swedish Association for Hunting and wildlife Management, Vi Agroforestry, The Federation of Swedish Family Forest Owners, The Forest Research Institute, KSLA, etc. They are all willing in play an active role in the planning and implementation of the congress.

THE WORK BEHIND THE APPLICATION

SIFI has been given responsibility for coordinating the preparations behind the application. The Stockholm Convention Bureau has prepared a budget and will compile the application. SLU is willing to take on the hosting of the congress, provided that the government supports the application. SLU was recently evaluated and ranked as first class in forestry research. SIFI will arrange a meeting to create a national IUFRO group to support the application process and in the future it will support the Swedish involvement in IUFRO. In the light of this the outcome of the application looks promising. ○

Photo: Geoff Roberts.



Calendar 2012



SIFI

October

8–19 October	The 11 th meeting of the Conference of the Parties (COP 11)	CDB, COP Hyderabad, India
16–19 October	The 17 th session UNECE Timber Committee	UNECE Geneva, Switzerland
26 October	Landscapes in a Carbon Focused World	SIANI, Focali & SNF Gothenburg, Sweden

November

5–10 November	The 48 th session of the International Tropical Timber Council	ITTO Yokohama, Japan
15 November	Committee for International Forestry Issues (KIS)	KSLA Stockholm, Sweden
23 November	Export of forest knowledge from Finland and Sweden	KSLA Stockholm, Sweden
26–30 November	The 18 th session of the Conference of the Parties (COP 18)	UNFCC Doha, Qatar

December

1–7 December	The 18 th session of the Conference of the Parties (COP 18)	UNFCC Doha, Qatar
1–3 December	The 4 th Symposium on Plant Growth Modeling and Applications	IEEE Shanghai, China

More activities at www.sifi.se/kalendarium.

Autumn activities at SIFI

SIFI's steering group, the Committee for International Forestry Issues (KIS), will have its fourth meeting of the year in the middle of November. The topics include the application for the *XXV World congress of IUFRO* in 2019, the implementation of the report on *Exports of forest knowledge from Finland and Sweden* and a *Nordic research school about forest restoration*. The report has been prepared in collaboration with the Finnish Ministry of Agriculture and Forestry and will be presented at a round table meeting at the end of November. The report is the outcome of joint workshops and seminars in both Sweden and Finland. At these meetings it became clear that there is a need for a research school in forest regeneration/forest restoration (i.e. agroforestry, restoration of degraded land and fast growing plantations, farm forestry). It is recommended that a

multidisciplinary school with more than 20 participants from developing and Nordic countries should be established. The result must be of value in everyday practice and still have a scientific basis. An important objective is to involve Nordic universities more closely in research into development issues. A further objective is to build up understanding of developments within other sectors by working in interdisciplinary teams. Please visit the SIFI website for more information about projects, conferences or to subscribe to the newsletter. Our goal is that the newsletter, along with the website, should serve as a forum for discussing developments in the Swedish forest sector, in the spirit of the Academy. Finally, the editor would like to thank the International Fellow of KSLA Mr. Jan Heino for his commitment to the project concerning the export of knowledge from Finland and Sweden.



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Sveriges Lantbruksuniversitet
WWF Sweden
Swedish Ministry of Rural Affairs

ABOUT SIFI

The Secretariat for International Forestry Issues (SIFI) consists of a committee (KIS) and a supporting office. The Royal Swedish Academy for Agriculture and Forestry (KSLA) is hosting SIFI. Steering group for the work is KIS and in addition there is a function for resource base development with representatives from different parts of the Swedish forest sector.

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