

Forest Landscape Restoration as a Strategy for Mitigating and Adapting to Climate Change

Side Event at the XXIV IUFRO World Congress, 10 October 2014, Salt Lake City, USA
Report by John Stanturf, Palle Madsen, Promode Kant and Michael Kleine

This Congress side event jointly organized by the World Resources Institute (WRI) and IUFRO aimed at discussing forest landscape restoration (FLR) as a strategy for mitigating and adapting to climate change. To this end, a group of IUFRO scientists led by IUFRO Research Group [1.06.00 "Restoration of degraded sites"](#) has developed a framework to demonstrate how FLR contributes to climate change mitigation and adaptation and how this contribution can be enhanced through more efficient methods and systems. This communication tool should help decision-makers to build resilient landscapes and learn how climate objectives can be addressed through FLR. ([Full report](#))

In his opening remarks Björn Hånell of the Swedish University of Agricultural Sciences and Coordinator of IUFRO Division 1 Silviculture (meanwhile IUFRO Vice-President) explained, "IUFRO is an active member of the Global Partnership on Forest Landscape Restoration (GPFLR). As such it supports the call to restore 150 million hectares of deforested and degraded lands by 2020 as an important component of the *Bonn Challenge Initiative on forests, climate change and biodiversity*. Research activities on FLR within IUFRO have been carried out for many years - long before FLR restoration has been placed high on the political agenda at global and national levels."

IUFRO is pleased to partner with the World Resources Institute in implementing a joint project, financed by the German Ministry of Environment, called "*Inspire, Support and Mobilize Forest and Landscape Restoration*" in support of the Bonn Challenge Global Forest Landscape Restoration Policy Initiative.

IUFRO's role is to provide state-of-the-art scientific knowledge on FLR through analysis of restoration case studies, review of scientific literature and development of capacity building material. Thus far, IUFRO's input to this process includes a:

- Feasibility Study on Peer Review for the Bonn Challenge Initiative, providing options for evaluating FLR pledges by countries or other proprietors; and
- Forest Landscape Restoration as a Strategy for Mitigating and Adapting to Climate Change; an analysis and communication tool based on a wide array of case studies.

On behalf of Lars Laestadius, Senior Associate, World Resources Institute, Michael Kleine, IUFRO Deputy Executive Director, gave a presentation on the Global Initiative "*Inspire, Support, and Mobilize Forest and Landscape Restoration*".



Restoring natural beech forests on farmland in Denmark
(Photo by Palle Madsen)

Almost half of the global forest landscapes that have been deforested and/or severely degraded over the past centuries are considered as relevant target areas for FLR activities. They account for about 2 billion hectares of degraded land and, once restored, potentially support the multiple environmental benefits provided by forests and trees.

Numerous examples from around the world (e.g. Republic of Korea, China, Brazil etc.) show that successful restoration of forest ecosystems is not only technically and economically feasible, but also socially acceptable if prepared and designed with adequate participation of relevant stakeholders.

Michael Kleine underlined, "Now forest landscape restoration needs to be up-scaled to cover much larger areas, in order to significantly contribute to climate change mitigation and improve environmental conditions globally."

John Stanturf, US Forest Service and IUFRO Research Group Coordinator leading the project provided insights into the work thus far accomplished through a presentation titled "*Application of the Adaptation & Mitigation and FLR spotlight(s)*".

In total 10 case studies of forest restoration from around the world were assembled including South and Southeast Asia, East Africa, Europe, Latin and North America. These case studies were evaluated in detail for their context, activities and impact, in order to know they represent forest landscape restoration.

Following the presentation on preliminary project results, a panel discussion and audience question and answer session entitled "Contributing to climate change objectives at local levels through FLR" took place. Three members of IUFRO's FLR expert group leading the project formed a panel: Palle Madsen (Denmark), Promode Kant (India) and John Stanturf (USA).



From left to right: Palle Madsen (Denmark), Promode Kant (India) and John Stanturf (USA); (photo by Ramin Khorchidi)

The analysis of the case studies and discussions on the results revealed a number of important lessons learnt:

- The results of this assessment of FLR case studies as presented in the side event mainly serve as communication tool;
- The case studies help decision makers to realize what types of concrete action on the ground contribute to climate change mitigation and adaptation;
- They also help to connect high-level discussions on climate change (UNFCCC-COP etc.) to reality on the ground, thus enabling the formulation of appropriate policies, support schemes and financing mechanisms;
- FLR and mitigation and adaptation projects are not always resulting in win-win situations; sometimes compromise or sub-optimal designs from the perspective of one or the other is necessary to meet project objectives; and
- The spotlight presented in the side event is not a prescription, but is meant to suggest where no- or low-cost design alterations to FLR would have additional mitigation and adaptation benefits.

The final report of FLR mitigation and adaptation spotlight will be published in March 2015.

(Side event report abridged by the editor; full report: <http://www.iufro.org/science/divisions/division-1/10000/10600/>)

Natural Resources, Green Technology & Sustainable Development

Conference in Zagreb, Croatia 26-28 November 2014
Report by Igor Kolar, Croatian Forest Research Institute

The international scientific and expert conference on *Natural Resources, Green Technology & Sustainable Development - GREEN2014* supported by [IUFRO Division 9.00.00](#) took place in Zagreb, Croatia from 26-28 November 2014. The conference was organized by the Croatian Forest Research Institute CFRI, an IUFRO member, and the Faculty of Food, Technology and Biotechnology, University of Zagreb. It was attended by 196 participants from 14 countries: Austria, Bosnia and Herzegovina, Croatia, Czech Republic, Greece, Italy, Japan, Macedonia, Serbia, Slovenia, South Korea, Turkey, United Kingdom and USA. In three consecutive days 70 papers and 58 posters were presented

during plenary and parallel sessions. The following key topics were discussed:

Value added products and potential of rural area

- EU regulation in the organic production, certification of organic products & value added products
- Use of non-wood forest products for improvement of quality of life in rural areas
- Potential of private forests to contribute to development of rural areas

Functional food from natural sources

- Natural resources- functional food
- Minimally processed food
- Biologically active compounds

Implementation of green technology

- Low environmental impact technologies
- Alternative solvents
- By-products as new raw materials

Biomass and sustainability

- Biomass & useful end products
- Production of biofuel & biochemical
- Green building

Biodiversity and ecosystem services

- Quantification and evaluation of forest ecosystem services
- Role of forests in biodiversity conservation
- Social and economic aspects of forests



Key Speakers: Davide Pettenella, Dijana Vuletić, Bernhard Wolfslehner (photo provided by Igor Kolar)

Conclusions

The *Natural Resources, Green Technology & Sustainable Development* conference brought together experts and professionals from science and economy. It underpinned the importance of further research and knowledge exchange in the sustainable utilization of forest and nature resources, their more efficient use and multidisciplinary approach in dealing with growing pressure on the environment.

By crosslinking science and technology this major scientific and expert event helped to identify opportunities that the sustainable forest management offers to society and economy in order to better respond to future challenges and unlock new potentials of green technologies.

The Natural Resources, Green Technology & Sustainable Development conference took place under the patronage of:
Prof.dr.sc. Ivo Josipović, President of the Republic of Croatia; University of Zagreb and Rector of the University prof.dr. Damir Boras; Croatian Environment Agency; Ministry of Science, Education and Sports of the Republic of Croatia; Ministry of Agriculture of

the Republic of Croatia; Academy of Forest Sciences of the Republic of Croatia; Ministry of Environmental and Nature Protection of the Republic of Croatia; Ministry of the Economy of the Republic of Croatia; Croatian Chamber of Forestry and Wood Processing Engineers; Croatian Forest Ltd.; City of Jastrebarsko; City of Zagreb; County of Zagreb

Co-organizers: Faculty of Forestry, University of Zagreb (IUFRO member), the Institute for Adriatic Crops and Karst Reclamation, Croatian Society of Biotechnology and Croatian Chamber of Commerce and generously supported by IUFRO - International Union of Forest Research Organizations, Division 9 - Forest Policy and Economics, EFI - European Forest Institute and EBTNA - European Biotechnology Thematic Network Association the GREEN2014 conference contributed to address challenges, opportunities and potentials of natural resources, green methodologies, different biomass usages, forests in biodiversity conservation and different aspects of forest ecosystems services.

Find more information on the conference website:

<http://www.sumins.hr/GREEN2014/>

Download the book of abstracts and proceedings:

<http://www.iufro.org/publications/proceedings/proceedings-meetings-2014/#c22436>

Announcements

IUFRO-WFSE Call for Papers

"Shifting global development discourses: Implications for forests and livelihoods"

During the last decade new narratives have emerged within the sustainable development discourse. They use catchphrases such as: "Green Economy", "Inclusive Green Growth", "Low Carbon Development", "Climate-Smart Agriculture" and "Sustainable Intensification". However, terms like "low carbon development", "green growth" and "green economy" cover a wide range of meanings. At one end of the spectrum, they refer to narrow concerns about climate change and clean energy supply. At the other end, they imply calls for more extensive transformative change in the global economic system towards a more efficient resource use, including more sustainable and inclusive commodity supplies with improved equity in benefit sharing.

Although their scope and horizon vary and are still unknown, these narratives suggest new rationalities and approaches to sustainable development. In these narratives, however, the roles of forests and forestry and the implications for forests and livelihoods have received very little scholarly attention so far. This call now invites authors to concentrate on the role of forests in these narratives, as well as on related strategies, agendas, practice and corresponding implications for forests and livelihoods. The background document to this call for papers with guiding research questions and practical information, including the time schedule, can be accessed [here](#).

Interested authors are invited to **submit by 30th April 2015** an extended abstract (1000-1500 words) of an article with a maximum length of about 8000 words to WFSE coordinator Pia Katila: pia.katila@luke.fi

Find information about IUFRO WFSE, latest newsletters and this call at: <http://www.iufro.org/science/special/wfse>

Call for papers - EFRN News 57

Effective forest and farm producer organizations

The forthcoming EFRN News will interest all those engaged in managing or supporting forest and farm producer organizations (FFPOs) by showcasing examples of how they become stronger and more effective and initiatives, policies and strategies that support them to do so.

Find the call for papers at: http://www.etfrn.org/news/16/call_for_papers_etfrn_news_57_effective_forest_and_farm_producer_organisations

Call for Papers for JFFIU

The Journal of the Faculty of Forestry of Istanbul University (JFFIU), a long-standing IUFRO member organization, is an international journal, regularly published since 1951.

The journal is peer-reviewed and supplies knowledge about forest science and related disciplines. It presents developments and research in the international field of relevance to researchers, educators and practitioners.

It provides both a national and international research forum for the exchange of knowledge dealing with various issues of forestry, environment, wood science and technology and landscape architecture.

Further information is available at:

<http://dergipark.ulakbim.gov.tr/jffiu>, and forestryjournal@istanbul.edu.tr, jffiu@istanbul.edu.tr

<http://www.iufro.org/discover/noticeboard/other-announcements/>



2015
International
Year of Soils

The *International Year of Soils (IYS)* aims to increase awareness and understanding of the importance of soil for food security and essential ecosystem functions: [Key Messages](#).

2015 FPS Annual Excellence Awards

The Forest Products Society presents four awards at the International Convention each year. These awards highlight student and professional innovation, research, and other significant contributions to the forest products industry and recognize exceptional service to the Society. Nominations for the 2015 FPS Annual Excellence Awards are now being accepted. The 2015 awards will be presented at the Forest Products Society's 69th International Convention on June 10-12, 2015.

Submit application by: 20 March 2015

Details at: <http://forestprod.org/ic/awards.php>

Position: PhD student in the research education subject Biology

Organization: Swedish University of Agricultural Sciences (SLU). Submit application by: 2 March 2015

<http://www.slu.se/en/education/postgraduate-studies/new-phd-student/Read-more/?sprak=e&Uid=971>

Post doc opportunity: Future Sustainable Urban Environments

A two-year post doc is now available within the FUSE programme, Swedish University of Agricultural Sciences. The post can cover research within one or several of the following themes: Urban Greenery and Forestry in a Compact City; Systems Landscape – From Region to Urban Districts; and Transforming Urban Sites.

Submit application by: 16 February 2015.

<http://www.slu.se/sv/om-slu/fristaende-sidor/aktuellt/lediga-tjanster/las-mer/?eng=1&Pid=1716>

NordGen Forest Scholarship

Organization: NordGen Forest

Submit application by: 15 February 2015

Details at <http://www.nbforest.info/news/apply-nordgen-forest-scholarship>

Global Forest Expert Panel (GFEP) on Forest and Food Security

Watch the video from the IUFRO/CIFOR Discussion Forum at Global Landscapes Forum on "New findings on the dynamics between forests, land use and food security":

<http://www.landscapes.org/new-findings-dynamics-forests-land-use-food-security/>

Publications

Proceedings from IUFRO Meetings

<http://www.iufro.org/publications/proceedings/>

11th International Christmas Tree Research and Extension Conference

10-14 August 2013, Truro, Nova Scotia, Canada; IUFRO 2.02.09; Mason MacDonald (ed.), 2013

<http://www.iufro.org/publications/proceedings/proceedings-meetings-2013/#c22415>

7th Meeting of the IUFRO Working Party 7.02.09 Phytophthora in Forests and Natural Ecosystems

10-14 November 2014, Esquel, Patagonia, Argentina; Book of Abstracts: 2014

<http://www.iufro.org/publications/proceedings/proceedings-meetings-2014/#c22436>

International Conference on Natural Resources, Green Technology and Sustainable Development

26-28 November 2014, Zagreb, Croatia, IUFRO 9.00.00
Author(s): Marina Cvjetko Bubalo, Ivana Radojčić Redovniković, Tamara Jakovljević, Mladen Vuković, Dina Erdec Hendrih (eds.) 2014

Book of Abstracts and proceedings: <http://www.iufro.org/publications/proceedings/proceedings-meetings-2014/#c22436>

Schreiben und Präsentieren in den angewandten Naturwissenschaften (in German)

By Jürgen Huss, 2014

This newly published compendium about scientific writing and presentation techniques is designed to support students of applied natural sciences and places high emphasis on readability and practical information. Find information about this and other forest-related books in German at: <http://www.forstbuch.de/>

Assessing forest governance - analytical concepts and their application

Special issue of Forest Policy and Economics, Volume 49, Pages 1-72, December 2014, presenting the outcome of the IUFRO all-Division 9 meeting in 2012, edited by Lukas Giessen and Gérard Buttoud. <http://www.sciencedirect.com/science/journal/13899341/49>

IUFRO Meetings

Search our **online calendar** for a full list of meetings!

<http://www.iufro.org/events/calendar/current/>

Find non-IUFRO meetings on the **IUFRO Noticeboard!**

<http://www.iufro.org/discover/noticeboard/>

Also search for forest-related events in **GFIS** at:

<http://www.gfis.net>

16-19 Mar 2015

Symposium: Silviculture and Management of Dry-land Forests

Stellenbosch/Western Cape, South Africa

IUFRO [1.02.05](#)

Contact: Ben du Toit, ben(at)sun.ac.za

<http://www.sun.ac.za/english/faculty/agri/forestry/dry-land-forestry-symposium>

17-20 Mar 2015

Fourth Mediterranean Forest Week (IV MFW)

Barcelona, Spain

IUFRO [4.04.04](#)

Contact: José G. Borges, joseborges(at)isa.ulisboa.pt

<http://med.forestweek.org/>

18-20 Mar 2015

CROJFE 2015 International Scientific Conference: Forest Engineering - Current Situation and Future Challenges

Zagreb and Zalesina, Croatia

IUFRO [3.00.00](#)

Contact: Tibor Pentek, tpentek(at)sumfak.hr

<http://www.crojfe2015.com/home>

4-6 May 2015

Cross-sectoral policy impacts on managerial economics and accounting in forestry

Sarajevo, Bosnia and Herzegovina

IUFRO [4.05.00](#), [9.05.03](#)

Contact: Bruno Marić, bruno.m.maric@gmail.com

Mersudin Avdibegovic, mavdibegovic@gmail.com

<http://www.iufro.org/science/divisions/division-9/90000/90500/90503/activities/>

7-12 Jun 2015

Joint IUFRO 7.02.02 "Foliage, shoot and stem diseases of forest trees" and 7.03.04 "Diseases and insects in forest nurseries" WP Meeting

Uppsala, Sweden

IUFRO [7.02.02](#), [7.03.04](#)

Contact: Jan Stenlid, jan.stenlid@slu.se,

Jonàs Oliva, jonas.oliva@slu.se

<http://www.iufro.org/science/divisions/division-7/70000/70200/70202/activities/>

22-26 Jun 2015

Fluctuation of Insect and Diseases

San Michele all'Adige, Italy

IUFRO [7.03.10](#)

Contact: Miloš Knížek, Email: knizek@vulhm.cz

<http://eventi.fmach.it/IUFRO>

7-9 Jul 2015

Mountain Forest Management in a Changing World

Smokovce, High Tatra Mountains, Slovakia

IUFRO [1.01.05](#), [4.03.03](#)

Contact: Manfred J. Lexer, mj.lexer@boku.ac.at

<http://www.nlcsk.sk/mfm-conference/>

17-20 Aug 2015

Forest Genetics 2015: Integrating Tree Breeding, Silviculture, and Growth and Yield

Fredericton, New Brunswick, Canada

IUFRO [2.09.01](#), [2.04.01](#)

Contact: Kyu-Suk Kang, kangks84@snu.ac.kr;

Michele Fullarton, Michele.Fullarton@gnb.ca

<http://forestgenetics2015.ca/>

23-30 Aug 2015

Sustaining Ecosystem Services in Forest Landscapes - Concepts, Research, and Applications

Tartu, Estonia

IUFRO [8.01.02](#)

Contact: Sandra Luque, sandra.luque@irstea.fr

<http://iufrole2015.to.ee/>

25 Aug 2015

Virus and phytoplasma diseases of forest and urban trees

Evening Workshop at IPPC 2015

Berlin, Germany

IUFRO [7.02.04](#)

Contact: Carmen Büttner,

carmen.buettner@agrar.hu-berlin.de

<http://dpg.phytomedizin.org/index.php?id=372>

13-16 Oct 2015

Linking Ecosystem Services to Livelihood of Rural Communities

Seoul National University and Pyeongchang, South Korea

IUFRO [9.04.03](#)

Contact: Yeo-Chang Youn, youn@snu.ac.kr

<http://www.iufro.org/science/divisions/division-9/90000/90400/90403/activities/>

5-7 Nov 2015

10th International Conference - Wood Science and Engineering in the Third Millennium - ICWSE 2015

Brasov, Romania

IUFRO [5.04.00](#), [5.05.00](#)

Contact: Marius Barbu, icwse2015@unitbv.ro

<http://www.unitbv.ro/fi/Conferinta/ICWSE2015.aspx>

Other Meetings

18-19 Feb 2015

More Heat with Less Wood

Geneva, Switzerland

UNECE/FAO Forestry and Timber Section

Contact: Florian Steierer, florian.steierer@unece.org

<http://www.unece.org/forests.html>

12-13 Mar 2015

International Symposium on i-Tree

Alnarp, Sweden

Swedish University of Agricultural Sciences, US Forest

Service, and others

<http://www.i-tree.se/>

4-15 May 2015

United Nations Forum on Forests – UNFF 11

New York, USA

<http://www.un.org/esa/forests/>

1-19 Jun 2015

Summer school "Integrated Land Use Systems" (ILUS)

Freiburg Germany

Submit application by: 15 February 2015

http://www.waldbau.uni-freiburg.de/news_events-en/ILUS_sumschool_2015_en?set_language=en

7-15 Jun 2015

52nd World Congress of the International Federation of Landscape Architects

St. Petersburg, Moscow, Russia

<http://ifla2015.com/en/>

<http://ifla2015.com/en/students-competition/call-for-student-projects/>

16-17 Jun 2015

35th New Phytologist Symposium

The genomes of forest trees: new frontiers of forest biology

Arnold Arboretum, Harvard University, Boston, MA, USA

Organized by the New Phytologist Trust

<http://newphytologist.org/symposiumpages/index/12>

7-11 Sep 2015

XIV World Forestry Congress

Durban, South Africa

FAO

Call for events now open: Submit before 27 Feb 2015!

<http://www.fao.org/forestry/wfc/88005/en/>