

THE ONLINE INFORMATION BULLETIN OF THE GLOBAL FOREST SCIENCE NETWORK

## Casuarina Improvement for Securing Rural Livelihoods

By Abel Nicodemus, Coordinator of IUFRO Working Party [2.08.02](#)

Over two million hectares of Casuarina plantations protect human habitats and agricultural fields, help in reclaiming degraded sites and meet industrial raw material requirements for paper and plywood making and biomass-based energy generation. Cultivation and harvesting of Casuarina generate livelihood opportunities for farmers and agriculture-dependent labor force in rural areas.

### Fifth International Casuarina Workshop

Following four earlier successful international meetings in Canberra (1981), Cairo (1990), Da Nang (1996) and Haikou (2010) the Fifth International Casuarina Workshop was held in Mamallapuram, Chennai, India, between 3 and 7 February 2014 under the aegis of IUFRO Working Party 2.08.02, Improvement and Culture of Nitrogen-Fixing Trees. It was attended by 80 participants from Australia, Bangladesh, China, France, India, Mali, Philippines, Senegal, Thailand and USA. The meeting was generously hosted and sponsored by the Institute of Forest Genetics and Tree Breeding, Indian Council of Forestry Research and Education, Coimbatore 641 002, India. Meeting website: <http://ifgtb.icfre.gov.in>

The objective of the Workshop was to bring together researchers and managers to update the knowledge on this important group of species so that the results are effectively used for improving livelihood opportunities in rural areas.

### Key Issues

The current status of Casuarina planting, utilization and research for improved products and services in the 10 countries represented in the workshop was shown. Strategies to meet the diverse end-use and environmental requirements were discussed.

The importance of assemblage, testing and conservation of Casuarina genetic resources both in its natural and planted habitats was emphasized to maintain a reservoir of variability which can cater to all products and services expected from Casuarina plantations.

The extent of genetic gain realized from the ongoing systematic breeding programs and its impact on securing rural livelihoods and industrial raw material were discussed. It was decided to put more effort into improving the accessibility and affordability of genetically improved planting material to smallholding farmers.



Inauguration of the 5th International Casuarina Workshop.  
Photo by J. Soosairaj (by special arrangement)

A major part of the meeting was devoted to discussing the need to utilize the nitrogen-fixing ability of Casuarina to meet the challenges of cultivating trees in salt-affected, moisture-stressed and nutrient-deficient sites. It calls for further research on host-microbe interactions and the molecular basis of biological nitrogen fixation.

### Recommendations

The participants drafted recommendations under four broad areas for follow-up action: accelerating breeding programs; improving cultivation techniques and pest management; molecular biological approaches to Casuarina-Frankia symbiosis and biological nitrogen fixation; applied research on wood quality and harvesting methods to meet industrial requirements are the major recommendations. The meeting also called for international cooperation in germplasm exchange to sustain the ongoing genetic improvement programs.

The workshop report and its recommendations will be posted on the website of the host organization and supporting institutions. Papers presented at the workshop will be peer-reviewed, edited and published as proceedings. The newsletter of the Working Party, NFT News, will be revived in electronic form and shall be available on the IUFRO website. Participants and members of the Working Party were encouraged to hold regular meetings in their respective countries to further implementation of the workshop recommendations.

## Can REDD+ Achieve Conservation, Livelihoods and Climate Change Mitigation Goals?

By John Parrotta (Deputy Coordinator, [IUFRO Division 8](#)) and Lawal Marafa (Chair of the Conference Organizing Committee)

### Dealing with uncertainties

REDD+ (reducing greenhouse gas emissions from deforestation and forest degradation, and enhancing forest carbon stocks in developing countries) is an evolving mechanism for climate change mitigation under continued debate within and outside of the UN Framework Convention on Climate Change (UNFCCC). While it has the potential to realize its primary climate change mitigation objective, there is considerable uncertainty regarding its actual or potential impacts on biodiversity, forests and the livelihoods of people in the tropical and sub-tropical forested landscapes where REDD+ implementation is envisaged.

The outcomes of efforts now underway to prepare for and eventually implement REDD+ activities hinge on a number of important issues, and the resolution of the uncertainties surrounding these issues. These relate to: (1) the ecological impacts of climate change and their influence on REDD+ strategies; (2) policy approaches adopted towards REDD+; (2) forest governance, tenure rights, livelihoods and local communities; and (4) how REDD+ activities will integrate systems for measurement, reporting and verification (e.g., of carbon stock changes).

### International conference in Hong Kong

These issues were the focus of the *International Conference on Adopting REDD+ for Conservation, Sustainable Community Livelihood and Climate Change Mitigation* held in Hong Kong on 13-15 December 2013. The meeting was organized by the Geography and Resource Department of the Chinese University of Hong Kong (CUHK), with support from the Worldwide Universities Network (WUN), IUFRO, the Institute of Environment, Energy and Sustainability (IIESS), Chung Chi College and United College in partnership with the University of Leeds, University of York, University of Bergen, University of Kwazulu-Natal, Utrecht University and Hue University of Agriculture and Forestry. Attendees included 80 local and international participants and presenters from 17 countries in Asia, Europe, Africa, North America, Latin America, and Australia.

The conference included presentations from academics, policy makers and practitioners focusing on REDD+ and climate change issues from a variety of disciplinary angles, including ecology, forestry, geography, anthropology, economics, sociology and policy science. On the third day a fieldtrip highlighted examples of local forest management in Hong Kong, including sacred or feng shui forests, forest uses by local communities, and potential payment for environmental services (including carbon sequestration).



Conference participants. Photo by Lawal Marafa.

### Local relevance of REDD+

Conference presentations and discussions highlighted a number of important conclusions similar to those of the recent (2012) IUFRO-led Global Forest Expert Panel assessment "Understanding Relationships between Biodiversity, Carbon, Forests and People: The Key to Achieving REDD+ Objectives". These include, among others, the importance of understanding the effects of climate change itself as well as other factors driving forest and biodiversity loss and degradation, and how these changes are affecting the livelihoods and development prospects for forest-dependent communities.

Local case studies emphasized the importance of forests for the multiple environmental services they provide, particularly those related to local livelihoods and food security, and that these "co-benefits" of REDD+ are likely to be far more important to communities than the monetary payments expected from implementation of REDD+ programs. Further, a number of presentations emphasized the need for REDD+ or other Payment for Environmental Services (PES) programs to integrate social (particularly poverty reduction) objectives within their planning and implementation frameworks and to work within existing governance arrangements and markets mechanisms (such as forest certification) to achieve lasting results, and the importance of secure tenure and property rights to achieve both carbon sequestration goals and other, more locally relevant and important, environmental and socioeconomic objectives, including equitable benefit-sharing.

Further information on the conference may be found at: <http://conference.redd-wun.com/>  
The conference power points can be downloaded through: <http://www.sendspace.com/file/km5t6p>

## On the IUFRO Blog:

<http://theiufroblog.wordpress.com/>

## Bringing Science to the People

*How IUFRO's Special Programme for Development of Capacities (SPDC) contributes to enhancing forest science communication within the framework of a Climate Change Adaptation Program in Bhutan.*

Would you like to see your forest be wrapped up in plastic? Well, this is what Bhutanese society will witness due to a research project that aims at simulating drought, which may affect the region's forests in the future as a result of climate change. In order to inflict drought stress on mature trees, entire research plots of considerable size have been covered with plastic roofs in about 2 m height above ground level, preventing rain water from reaching the soil and roots of trees (see photo). But would local people show understanding for such a measure and approve of it easily?

This is where forest science communication comes in. Transforming scientific knowledge and research results into useful information and guidance for policy-making has never been easy, neither at global nor at national and local levels. Recognizing the need for enhancing



Photo by András Darabant, BOKU, Austria

science-society interactions, the Royal Government of Bhutan has agreed to include science communication and science/policy interfacing work in its newly established Climate Change Adaptation program.

**Continue on the IUFRO blog at:**

<http://theiufroblog.wordpress.com/2014/01/13/bringing-science-to-the-people/>

## Invasive Species in International Trade

By Kerry Britton, Coordinator of IUFRO [WP 7.03.12](#)

The IUFRO Working Party on Invasive Species in International Trade Meeting had a meeting in Qingdao, China on Oct 26-Nov 2, 2013, in conjunction with the International Congress on Invasion Biology.

The meeting started with a session held in the course of the ICBI event on Sustainable Management of Invasive Alien Species in Forests. Three invited keynote speakers highlighted their countries' experiences and research results regarding the management of pinewood nematode (PWN): Dr. Jian-Re Ye, Nanjing Forestry University; Dr. Keiko Kuroda, Kobe University, and Dr. Hugh Evans, UK Forest Research, Aberystwyth. Other topics discussed in the session were emerald ash borer, Asian longhorned beetle and citrus longhorned beetle.

Part of the meeting was held in conjunction with the International Forestry Quarantine Research Group (IFQRG). IFQRG is an advisory body to the International Plant Protection Convention providing scientific analysis and review of global phytosanitary issues and new information. It also serves as a forum for the discussion and clarification of key issues related to the phytosanitary implications of global trade.

The leadership of the IUFRO Working Party on Invasive Species and International Trade felt there was much to be gained from a joint meeting with IFQRG. IUFRO



Field trip during previous WP meeting. Photo by Kerry Britton

papers were presented on many topics of interest to IFQRG, and the IUFRO participants benefited from learning more about the functions and issues being addressed by the IPPC.

*Full report of the meeting of IUFRO Working Party 7.03.12*  
<http://www.iufro.org/science/divisions/division-7/70000/70300/70312/activities/>

## IUFRO-IFSA Relationship: Building a bridge for the future

By Vasja Leban, Master's student in forestry, Slovenia, University of Ljubljana, Biotechnical faculty, Department of forestry and renewable forestry resources, and Hugo Pierre, Junior professional officer, IFSA/IUFRO Joint Position, France

Think globally, act locally is the maxim of many (environmental) interest groups around the world and it shall reflect the acting of individuals in their own regions, taking into account the benefits resulting worldwide. In the year 2013 a major step was made on a local level involving two global organisations in the field of forestry. The International Forestry Students' Association (IFSA) and the International Union of Forest Research Organizations (IUFRO) created a new joint position mostly tasked with providing administrative support to both organizations. The position is hosted by IUFRO Headquarters in Vienna, and it has greatly benefited both sides since the official start on 1 October.

IFSA is a global network of forestry students with the aim to provide a platform for forestry and related sciences students to enrich their formal education, promote cultural understanding and to gain practical experiences. Currently, around 3,000 students from more than 50 countries worldwide are connected in this network. IUFRO is a worldwide organization that joins institutions, universities, individual scientists, decision-



makers and other stakeholders related to forest and related sciences. More than 15,000 scientists from around the world voluntarily unify in the biggest global forest science cooperation network.

The collaboration between IFSA and IUFRO started in 2002 with the signature of a Memorandum of Understanding. With the purpose to strengthen the activities and outcomes of both organizations, they have been working hand in hand ever since, with IFSA delegations and volunteers to the IUFRO World Congresses 2005, 2010 and upcoming 2014, for instance. In December 2013, during the Metsä week (short for joint session of the UN Economic Commission for Europe's Committee on Forests and the Forest Industry and the UN Food and Agriculture Organization's European Forestry Commission), IUFRO and IFSA organized a side-event on Forestry Education. This field, of high relevance to IUFRO, is at the very core of IFSA's activities, and the two organizations are willing to address the topic in a joint effort.

## Awards

### Gerardo Mery receives IUFRO's Distinguished Service Award

On 14 February 2014 IUFRO's Special Project on World Forests, Society and Environment (IUFRO-WFSE) held its Steering Committee meeting at CIRAD, Montpellier, France. At this occasion, IUFRO Executive Director Alexander Buck conveyed the thanks of IUFRO to Gerardo Mery, who retired from the position of Coordinator of IUFRO-WFSE, and presented him the IUFRO Distinguished Service Award.

The citation of the award stresses that under Gerardo Mery's notable leadership, the WFSE has developed into an open network of researchers and experts from around the world. It critically analyzes the crucial issues facing the forest sector at the global level and produces state-of-knowledge reports for worldwide dissemination and distribution. Findings were compiled in four major volumes and a number of policy briefs summarizing the information in a concise and didactic fashion, and targeting specific regions of the world. (<http://www.iufro.org/science/special/wfse/wfse-publications/>)

Gerardo brought WFSE under the IUFRO umbrella when he assumed the position of coordinator in 1998, and the current IUFRO-WFSE, the extensive network of international research organizations, universities and researchers from all around the world, is the result of his novel ideas, vision and dedication to the project.



Gerardo Mery (left) receives DSA from Alexander Buck  
(Photo by Wil de Jong)

Please read the latest WFSE newsletter at: <http://www.iufro.org/science/special/wfse/wfse-news/> to learn more about Gerardo, his accomplishments and his career at the Finnish Forest Research Institute.

The **new IUFRO-WFSE coordinator** starting from 1 January 2014 is the former deputy coordinator **Pia Katila**, also from at the Finnish Forest Research Institute.

### Premi Ramon Margalef d'Ecologia - Announcement 2014

The call for submissions to present candidatures for the 10th Ramon Margalef Award for Ecology has been made. The candidatures must reach the Technical Secretariat of the Prize before 16 May 2014.

For more information, visit:

<http://www.gencat.cat/premiramonmargalef>

Or write to: [prm@gencat.cat](mailto:prm@gencat.cat)

### Equator Prize 2014

The Equator Initiative partnership has recently opened the Equator Prize 2014 call for nominations. Awarded biennially, the Equator Prize recognizes outstanding local sustainable development solutions for people, nature and resilient communities. Find out more at:

<http://www.equatorinitiative.org>

## Publications

### Wood Quality IUFRO Division 5 Conference / Qualité du bois Conférence du IUFRO Div 5

Estoril, Portugal, 8–13 July 2012 / 8–13 juillet 2012

Canadian Journal of Forest Research, 2014, 44(2): i, 10.1139/cjfr-2014-0039

Published on the web 6 February 2014.

<http://www.nrcresearchpress.com/doi/abs/10.1139/cjfr-2014-0039#.UwHiKvtAY1E>

### Proceedings of the 7° Congresso Florestal Nacional (involving IUFRO WP [1.01.10](#))

Sociedade Portuguesa de Ciências Florestais  
Conhecimento e inovação, Resumos

Vila Real/Bragança

5-8 Junho 2013, ISBN 987-972-99656-3-0

And

SILVA LUSITANA, Ano XXI, Nº Especial, Junho de 2013

7° Congresso Florestal Nacional

### Science Advances

A new open-access journal from AAAS (American Association for the Advancement of Science) and *Science* will be launched in 2015: *Science Advances* will be open to the public, offering unlimited access for people interested in the latest in pioneering research from across all the sciences.

<http://www.aaas.org/science-journals>

## Positions

### Assistant Professor (Tenure Track) of Landscape Ecology

Department of Environmental Systems Science, ETH Zurich and the Swiss Federal Research Institute (WSL).

Deadline for applications: 15 April 2014

<http://www.iufro.org/discover/noticeboard/#c14607>

### Quantitative Ecologist

Montana State University (MSU), U.S. Forest Service, Rocky Mountain Research Station (RMRS)

No deadline indicated.

<http://www.iufro.org/discover/noticeboard/#c14607>

### IUFRO 2014 World Congress IUFRO Student Incubator Session Call for Abstracts!

The IUFRO World Congress is pleased to announce a special call for abstracts for the IUFRO Incubator Session specifically **aimed for graduate students and recent graduates** to present a summary of their BSc, MSc or PhD thesis work.



The call for abstracts will be open from 12 February to 20 March 2014. Links to the information document and form for the call for abstracts:

<http://iufro2014.com/registration/student-registration/>

### Horizon 2020

#### European Union opens up new opportunities for international research collaboration

for research and innovation running over a seven year period (2014 to 2020). The goal of Horizon 2020 is to implement the Innovation Union, a Europe 2020 flagship initiative to secure competitiveness at the global level.

H2020 strives to enhance EU international research cooperation which means that in addition to the 28 EU Member States, the Associated Countries to the Framework Programme are also eligible to participate. Successful applications from these countries will be funded from the Horizon 2020 budget.

Many third countries which are neither EU Member States nor Associated Countries, such as countries in Africa, Asia, Latin America, Eastern Europe and Central Asia, Mediterranean Partner Countries and Western Balkan Countries, are also funded from the Horizon 2020 budget. For details, please read more at:

[Latest News](#)

### World Wildlife Day on 3 March!

In December 2013, the UN General Assembly proclaimed 3 March as World Wildlife Day, "highlighting the intrinsic values and contributions of wild animals and plants, particularly endangered and protected species".

[http://www.un.org/apps/news/](http://www.un.org/apps/news/story.asp?NewsID=46815&Cr=cites&Cr1=#.UwMqf_tAY1F)

[story.asp?NewsID=46815&Cr=cites&Cr1=#.UwMqf\\_tAY1F](http://www.un.org/apps/news/story.asp?NewsID=46815&Cr=cites&Cr1=#.UwMqf_tAY1F)



### International Day of Forests on 21 March!

FAO Forestry has produced a short video to help raise awareness of the forthcoming International Day of Forests (IDF) on 21 March 2014. The video and more information about the IDF can be found at this link:

<http://www.fao.org/forestry/international-day-of-forests/en/>



International Day of Forests

## IUFRO Meetings

Search our [online calendar](#) for a full list of meetings!  
Find non-IUFRO meetings on the IUFRO  
**Noticeboard!** Also search for forest-related events in  
GFIS at: <http://www.gfis.net>

18-21 May 2014

**International Conference on Ozone and Plants**  
Beijing, China  
IUFRO [7.01.00](#)  
**Contact:** Elena Paoletti, e.paoletti(at)ipp.cnr.it  
<http://www.bj-ozone.com/>

24-28 Jun 2014

**Malaysia Urban Green Space & IFPRA Asia Pacific Conference 2014: Parks as Melting Pots & Venues for Environmental Learning**  
Penang, Malaysia  
IUFRO [6.07.00](#)  
**Contact:** Noor Azlin Yahya, azlin(at)frim.gov.my  
<http://www.iufro.org/science/divisions/division-6/60000/60700/activities/>

20-28 Jul 2014

**Sixth International Poplar Symposium (IPS-VI)**  
Vancouver, British Columbia (B.C.), Canada  
IUFRO [2.08.04](#)  
**Contact:** Cees van Oosten, silviconsult(at)telus.net  
<http://www.2014ipsvi.com/>

11-14 Aug 2014

**Forest Landscape Mosaics: Disturbance, Restoration and Management at Times of Global Change**  
Tartu, Estonia  
IUFRO [1.01.12](#)  
**Contact:** Kalev Jõgiste, Kalev.Jogiste(at)emu.ee  
<http://www.forestdisturbances.com/>

5-11 Oct 2014

**XXIV IUFRO World Congress 2014**  
Salt Lake City, UT, United States  
<http://iufro2014.com/registration/>  
<http://www.iufro2014.com/>



14-16 Oct 2014

**XI Seminar on Remote Sensing and GIS applied to Forestry Engineering**  
Curitiba/Paraná, Brazil  
IUFRO [4.02.05](#)  
**Contact:** Christel Lingnau, lingnau(at)ufpr.br  
<http://www.11sengef.com.br/home/>

6-9 Jul 2015

**4th International Conference on Forests and Water in a Changing Environment**  
Kelowna, BC, Canada  
IUFRO [8.01.07](#), IUFRO TF [Forest and Water Interactions](#)  
**Contact:** Adam Wei, adam.wei(at)ubc.ca,  
Shirong Liu, liusr(at)caf.ac.cn  
<http://www.forestandwater2015.com/>

5-9 Sep 2016

**13th International IUFRO Wood Drying Conference**  
Istanbul, Turkey  
IUFRO [5.04.06](#)  
Conference homepage: to be announced.  
<http://www.iufro.org/science/divisions/division-5/50000/50400/50406/activities/>

## Other Meetings

20 Mar 2014

**The Economist's 2nd World Forest Summit: Unlocking the True Potential of Forests**  
Stockholm, Sweden  
**Contact:** emeaevents(at)economist.com  
<http://www.economistinsights.com/sustainability-resources/event/world-forests-summit-2014>

27-28 May 2014

**IV International Scientific and Practical Conference Innovation and Technology in Forestry (ITF-2014)**  
St. Petersburg, Russia  
Saint-Petersburg Research Forestry Institute, Federal Forestry Agency  
**Contact:** event(at)spb-niilh.ru  
<http://www.spb-niilh.ru/en/itf-2014/>

2-7 Jun 2014

**XI International Course Herramientas para el monitoreo del secuestro de carbono en sistemas de uso de la tierra**  
Turrialba, Costa Rica  
CATIE, Universidad del Tolima  
**Contact:** capacitacion(at)catie.ac.cr

10-13 Aug 2014

**Forest Products Society's 68th International Convention: Rediscovering Wood for Construction, the Economy and Environment, and Energy**  
Québec City, Canada  
<http://www.forestprod.org/ic/>

24-28 Aug 2014

**Lignin 2014 – Biosynthesis and Utilization**  
Umeå, Sweden  
Umeå Plant Science Center  
**Contact:** Elisabet Norlin, elisabet(at)umea-congress.se  
<http://www.iufro.org/discover/noticeboard/#c12666>

17-18 Sep 2014

**More fodder for the oven? Dealing with forest related conflicts arising from the use of energy wood in Europe**  
Freiburg, Germany  
COOL (Competing uses of forest land)  
**Contact:** Regina Rhodius, regina.rhodius(at)jfp.uni-freiburg.de  
<http://content.cool-project.org/?q=node/67>

22- 23 Sep 2014

**Forestry in Mountains and Industrial Regions 65th Anniversary of the Faculty of Forestry in Krakow**  
Krakow, Poland  
<http://les.ur.krakow.pl/forestry2014/>

22-24 Oct 2014

**Sustainability Science Congress Global Challenges: Achieving Sustainability**  
Copenhagen, Denmark  
The congress is organized by the International Alliance of Research Universities (IARU) and hosted by the University of Copenhagen in Denmark  
<http://sustainability.ku.dk/iarucongress2014>

12-19 Nov 2014

**IUCN World Parks Congress 2014**  
Sidney, Australia  
International Union for Conservation of Nature (IUCN), Parks Australia, New South Wales National Parks and Wildlife Service  
<http://worldparkscongress.org/>