

Genetic Diversity Helps to Mitigate the Impacts of Climate Change

Report by Jarkko Koskela (EUFORGEN Coordinator, IPGRI) and Alexander Buck (IUFRO Deputy Executive Director)

Climate change will alter the environmental conditions to which forest trees are adapted, and is likely to expose them to new pests and diseases. This will create additional challenges for forest management, with consequent impacts on the economic and social benefits that many people derive from the forests and on the biological diversity in forest ecosystems. The genetic diversity of forest trees plays a key role in maintaining the resilience of forest ecosystems and in facilitating adaptation to changed climatic conditions.

The impacts of climate change on forests and trees, and the role of forest genetic diversity in mitigating these impacts, were discussed at an international workshop held on 15-16 March 2006 in Paris, France. The workshop "Climate Change and Forest Genetic Diversity: Implications for Sustainable Forest Management in Europe" brought together nearly 80 experts from 25 countries. It was organized jointly by the International Plant Genetic Resources Institute (IPGRI) and IUFRO, and was hosted by the French Ministry of Agriculture and Fishery. The workshop formed part of the MCPFE process (Ministerial Conferences on the Protection of Forests in Europe).

The workshop noted that the impacts of climate change on forests and trees will vary in different parts of Europe, bringing along both opportunities and threats. Tree species with scattered or limited distribution are more vulnerable to climate change than widely distributed tree species. The way climate change will alter competition between tree and other plant species may also have significant effects on the survival of tree species and even the existence of the present forest habitats.

Policy-makers, managers and forest owners must inevitably make decisions in the face of great uncertainty regarding the impacts of climate change in the future. Including genetic diversity considerations in practical forest management is a highly recommendable diversification and risk-reducing strategy. The use of genetic diversity provides flexibility with respect to forest management and adaptation strategies for climate change. This also benefits society at large by ensuring the future supply of goods and services from forests.



Quercus suber, by courtesy of M. Bozzano, IPGRI

The workshop recommended that policy makers in Europe should recognize the important role of forest genetic diversity by expressing a clear commitment at the pan-European level to incorporate the management of this diversity into national forest programmes. Furthermore, it was recommended to promote forest management practices that maintain evolutionary processes of forest trees and support natural regeneration of forests, especially in areas where long-term natural regeneration is self-sustainable despite climate change. Policy makers in Europe should make use of the potential for accelerating adaptation of forest trees to climate change through tree breeding and transfer of potentially suitable reproductive material by endorsing the development of pan-European guidelines on the basis of scientific knowledge.

The scientific community was called upon to carry out more interdisciplinary studies about the impacts of climate change on forests and trees to analyze them in a holistic manner. The research community should continue to provide inputs to the MCPFE process as part of the efforts to strengthen the science-policy interface.

The full summary report of the workshop is available at <http://www.euforgen.org> and the IUFRO Web site <http://www.iufro.org>.

IUFRO Launches GFIS Russia Project together with Moscow State Forest University (MSFU)

Russia is a country with a large forest area accounting for 22% of the global forest cover and 49% of global boreal and temperate forests. The scale of Russian forestry, its biosphere significance, and the industrial potential is not only of national but also of global importance. However, Russia has little communication with other countries and international organizations regarding SFM because of financial constraints, few experiences, language issues etc.

Based on financial support from the Swiss Agency for the Environment, Forests and Landscape (SAEFL), IUFRO has launched together with the Moscow State Forest University (MSFU) a GFIS-Russia project with the following objectives:

- To provide access** to forest related information resources available on the internet in order to support sustainable forest management in Russia;
- To facilitate exchange** of knowledge and experience among the forest community; universities, state forest research institutes, Russian Academy of Sciences, NGOs;
- To promote information** about forest, academic, forest-related sciences and forest education in Russia;
- To create networks** and partnerships between Russia and other countries and international organizations.



Prof. Dr. Valentin S. Shalaev, Vice-Rector for International Relations at MSFU and Dr. Peter Mayer, IUFRO Executive Director (photo by Dr. Ho-Sang Kang of Seoul National University).

In addition to MSFU there are two other core partners from Russia involved in the project: the All-Russian Research Institute of Silviculture and Forestry Mechanization and Sukachev Forest Institute, and the Siberian Branch of the Russian Academy of Sciences.

Report by Eero Mikkola, GFIS Coordinator
Visit the GFIS Web site at: <http://www.gfis.net>

Fire Destroyed Moscow State Forest University Administration Building

The fire occurred at the main Moscow State Forest University (MSFU) building on March 8, 2006. Luckily, there was no loss of lives, but the fire caused irreplaceable material damage on a more than 13,000 square meter area. The fire completely destroyed all administrative documentation, stored files, classrooms and laboratories causing a severe disruption for teachers and students.

The administration of MSFU, and the Bureau of the Board of Guardians ask all trustees, graduates and businessmen, government and charity leaders for assistance and support to help the university through this difficult time.

The Rector of Moscow State Forest University

Contact: Prof. Vladimir Nikitin, The Head of MSFU's International Division, Phone: +7495-5869167; Fax: +7495-5868012; E-mail: box534@mail.ru

2006 Marcus Wallenberg Prize

On 15 March 2006, **Antoine Kremer**, a Research Director at INRA, Bordeaux was officially awarded the 2006 Marcus Wallenberg prize at the international symposium on "Climate change and forest genetic diversity" held by IPGRI and IUFRO in Paris. He is the first French scientist to have received this distinction. Antoine Kremer has distinguished himself with original scientific research on the genetic diversity of pan-European oaks. Antoine Kremer had received the IUFRO Scientific Achievement Award in 1995. For information on the prize, visit: <http://www.mwp.org/>

International Master's Programs: Call for Applications

The Faculty of Forest and Environmental Sciences at Freiburg University, Germany, invites graduates from all over the world to apply for admission to the international master's programs '**Forest Ecology and Management**' and '**Environmental Governance**'. The application deadline for the coming winter term is May 15th 2006. Both MSc programmes have a duration of 2 years and are taught entirely in English. Web site: <http://www.ffu.uni-freiburg.de>

Joint National Centre for the Research of Temperate Primeval Forests

Newly established at the Faculty of Forestry, Technical University Zvolen, Slovakia (TEPFOR JRC), the centre shall pursue an integrated research and synthesis on the primeval forests dynamics, their biodiversity, ecology and environmental effects with the aim to substantially expand the basis for economically viable close-to-nature forestry, nature conservation and sustainable management of forest and land resources.

The centre builds on the existing transboundary cooperation with its partners, such as the Carpathian Biosphere Reserve in Ukraine, and is also open for international scientific cooperation. Web site: <http://www.virginforests.sk>

Publications

One Century of Forest Rehabilitation in the Philippines: Approaches, Outcomes and Lessons

Upcoming publication by Unna Chokkalingam, Antonio P. Carandang, Juan M. Pulhin, Rodol D. Lasco, Rose Jane J. Peras and Takeshi Toma.

This is the result of a joint study undertaken by the Center for International Forestry Research (CIFOR), University of Philippines at Los Baños (UPLB) and the Forest Management Bureau of the DENR to characterize and draw lessons from forest rehabilitation experiences in the Philippines.

Contact: Ms. Popi Astriani, p.astriani@cgjar.org

Web site: <http://www.cifor.cgjar.org/rehab/>

The Equitable Forest:

Diversity, Community, and Natural Resources

RFF/CIFOR, Washington, DC, 2005

Edited by C.J.P. Colfer

A collection that looks at how gender and other equity issues are addressed in forest communities in Bolivia, Brazil, Cameroon, Indonesia, Nepal, Peru, and Zimbabwe, within the context of adaptive collaborative forest management.

Contact: c.colfer@cgjar.org

Floodplain Forests in Croatia

Published by the Academy of Forestry Sciences in Zagreb, December 2005

Presents 170,000 ha of floodplain forest ecosystems in eight chapters: Forests in general in floodplain areas; Site, flora and vegetation; Ecological constitution of principal tree species; Improvement and conservation of genetic sources of species; Silviculture in floodplain forests; Floodplain forests and the animal world; Harmful biotic factors in floodplain forests; Bibliography.

ISBN 953-98571-2-0, 455 pages, in Croatian and English.

Contact: hsd@post.t-com.hr

Plants of Krau

L. S. L. Chua & L. G. Saw

Publisher: Forest Research Institute Malaysia, Malaysia

The "Plants of Krau" is an annotated checklist of vascular plants from Krau Wildlife Reserve, Pahang, Peninsular Malaysia. Compiled from past and present research efforts, it represents the most comprehensive account to date of the vascular plant diversity of the Reserve.

Contact: hoyf@frim.gov.my

Call for Short Articles on

"Forests and the Millennium Development Goals"

The next issue (number 47) of the world-wide distributed ETRN News, the quarterly publication of the European Tropical Forest Research network, will focus on forests and the MDGs. Guest editor James Mayers calls for short contributions summarizing current research, synthesis of evidence, opinion and practical field-based experience in this context.

The newsletter is due for publication in autumn 2006.

Contact: James.mayers@ied.org

Send manuscripts to James Mayers and to ETRN at etfrn@etfrn.org before June 1, 2006.

IUFRO Meetings

For a full list of IUFRO events, please visit our [online calendar](#). Find more details on the [homepages](#) of IUFRO Units involved

July 18-21, 2006

Tree Seed Symposium

Fredericton, New Brunswick

IUFRO Seed Physiology and Technology Research Group 2.09.00

This symposium will be held prior to the Tree Seed Working Group Workshop (July 24, 2006), the Canadian Tree Improvement Association (CTIA) meeting (July 24-29, 2006) and the Forest Genetic Resource Forum, which will be in Charlottetown, Prince Edward Island.

Contact: cfs-IUFRO@nrcan.gc.ca

Web site: <http://www.tss2006.org/index-e.html>

July 30 – August 2, 2006

Annual Council on Forest Engineering (COFE) Conference

Coeur d'Alene, USA

Sponsored by IUFRO Division 3

Web site: <http://www.info.uidaho.edu/conferences/cofe/>

August 28-30, 2006

Meeting in the Middle - 2006 Nearest Neighbors Workshop

University of Minnesota, Minneapolis, USA

Co-sponsored by IUFRO Research Group 4.01.00 Forest Mensuration and Modelling

Contact: Valerie Lemay, valerie.lemay@ubc.ca

Send abstracts by 15 June 2006 to:

Andrew Finley, afinley@stat.umn.edu

Web site: <http://knn.gis.umn.edu>

September 15, 2006

The Role of Forestry in Integrated Environmental Assessments

Kerkraade, Abbey Rolduc, The Netherlands

Organizers: Alterra, Wageningen University, EFI, IUFRO, and others. This seminar is arranged back-to-back with the EFI 2006 Annual Conference (14 September).

Web site: <http://www.efi.fi/events/extra/2006/2006ac>

September 17-20, 2006

Translating Global Governance Designs - The Role of Civil Society in Transition Countries

Center for Independent Social Research, St. Petersburg, Russia

The conference will be co-sponsored by the Center for Independent Social Research, IUFRO Unit 6.12 Forest Policy and Governance, SUNY Buffalo Law School and the Baldy Center for Law and Social Policy, University of Joensuu, and the Finnish Academy of Sciences, Faculty of Forest and Environmental Science at Freiburg University, ENGREF etc.

Contact: Center for Independent Social Research,

Maria Tysiachniouk, tysiachn@indepsores.spb.ru;

Antonina Kuliasova, ku@indepsores.spb.ru;

Margaret Shannon (mshannon@buffalo.edu).

October 1-6, 2006

Population Genetics and Genomics of Forest Trees: From Gene Function to Evolutionary Dynamics and Conservation

Alcalá de Henares, Madrid, Spain

A joint conference of IUFRO Working Groups 2.04.01 (Population, ecological and conservation genetics) and 2.04.10 (Genomics), and Cost Action E-28 (Genosilva: European Forest Genomics Network)

Contact: Congress Secretariat, Fundación General Universidad de Alcalá, Dpto. de Formación y Congresos, Email: genfor2006@fgua.es, Fax: 0034-91-879 74 55, Tel: 0034-91-879 74 30, <http://www.genfor2006.fgua.es>

October 10-13, 2006

Sustainable Forest Management with Fast-Growing Plantations

DoubleTree Suites, Charleston, South Carolina, USA

IUFRO 4.04.02 Planning and Economics of Fast-Growing Plantation Forests

On-line registration now open!

Contact: Chris Goulding, Ensis, New Zealand, Chris.Goulding@ensisjv.com;

Fred Cabbage, Professor, North Carolina State University, USA, fred_cabbage@ncsu.edu; Dave Wear, Project Leader, USDA Forest Service, USA, dwear@fs.fed.us

Web site: http://www.ncsu.edu/feop/iufro_plantations

October 22-24, 2006

Communicating Forest Science

Freiburg, Germany

First meeting of the IUFRO Task Force "Communicating Forest Science", which was initiated at the IUFRO World Congress 2005 in Brisbane as follow-up to the previous Task Force on Public Relations in Forest Science.

Contact: Daniela Kleinschmit, dkrumla@gwdg.de

Web site: <http://www.iufro.org/science/task-forces/communication/activities/>

Note: The meeting is immediately followed by the "International Conference on Knowledge Management and Transfer – Forest XChange" from 25-27 October at the same venue. Web site: <http://www.forestxchange.org/>

October 23-27, 2006

II Latin American IUFRO Congress

La Serena, Chile

**CALL FOR PAPERS -
Temas del Congreso y
Presentación de Trabajos**

Contact: Santiago Barros,
E-mail: seminarios@infor.gob.cl

<http://www.iufro.org/science/divisions/division-6/60000/60300/60304/activities/>



September 16-21, 2007

Larix 2007

Quebec, Canada

International symposium of IUFRO Working Party 2.02.07.

Contact: Martin.Perron@mrnf.qc.ca

Web site: <http://www.mrnf.gouv.qc.ca/carrefour/larix.asp>
<http://www.mrnf.gouv.qc.ca/carrefour/english/larix.asp>

September 18-21 2007

Natural Disturbances and Natural Hazards in Mountain Forests. Challenges and Opportunities for Silviculture

Trento, Italy

Contact: Renzo Motta, Email: tn07@unito.it,

Fax: +39 1 167 087 34, Tel: +39 1 167 086 40

or: Peter Brang, Email: brang@wsl.ch,

Fax: +41 1 739 22 15, Tel: +41 1 739 22 86

Web site: <http://www.sisef.it/sisef/iufro.php>

Non-IUFRO Meetings

ForestLeadership Teleseminars

ForestLeadership announces its new executive leadership development program featuring weekly teleseminars. The first segment of teleseminars started on April 18th, the second segment of four teleseminars will start on May 16th. Among the topics for future teleseminar segments are: global certified supply chains, biomass and bioenergy, biodiversity indicators, boreal conservation, corporate social responsibility, socially responsible investment, landscape level approaches to forest management, product stewardship and life-cycle assessment, and climate change challenges in the forest and paper sector.

Contact: ForestLeadership Tel (514) 274-4344 or toll free (888) 274-4344.

More information at: <http://www.ForestLeadership.com>

August/September 2006 (3 weeks)

East Africa Workshop on Bamboo

Cultivation and Utilization

FeMSEDA, Addis Ababa, Ethiopia

Chinese Ministry of Commerce, International Network for Bamboo and Rattan, FeMSEDA, etc. Participants: 10 selected from Ethiopia and 10 from East African countries.

Contact: Fu Jinhe, Email: jfu@inbar.int;

Tel.: +86-10-6470 6161 ext.208; Fax: +86-10-6470 2166

September 24-27, 2006

10th National Forest Congress

Ottawa, Canada,

Web site: <http://www.nfc-cfn.ca/>

September 11-29, 2006

International Course on "Facilitating Multi-Stakeholder Processes and Social Learning"

Wageningen University, The Netherlands

Contact: Simone van Vugt, Wouter Leen Hijweege

E-mail: simone.vanvugt@wur.nl, wouter.hijweege@wur.nl

September 27 – October 7, 2006

International Summer School

Sustainability in Forestry and the Wood Industry

Weihenstephan, Germany, Technical University of Munich

<http://www.forst.wzw.tum.de/summerschool>

November 27 – December 8, 2006

Bogor, Indonesia

Application forms can be requested at training.wi@wur.nl

Contact: Simone van Vugt, Wouter Leen Hijweege

E-mail: simone.vanvugt@wur.nl, wouter.hijweege@wur.nl