Bioversity International

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Bioversity International newsletter for Europe

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About this Newsletter

Bioversity International is one of the 15 Centres of the Consultative Group on International Agricultural Research (CGIAR). Bioversity's vision is that: "People today and in the future enjoy greater well-being through increased incomes, sustainably improved food security and nutrition, and greater environmental health, made possible by conservation and the deployment of agricultural biodiversity on farms and in forests."

Bioversity's Regional Office for Europe provides the Coordination Secretariats for the European Cooperative Programme for Plant Genetic Resources (ECPGR) and for the European Forest Genetic Resources Programme (EUFORGEN).

Bioversity publishes two issues of the Newsletter for Europe a year. This Newsletter is intended to serve as an informal forum for the exchange of news and views, and to create closer ties within the genetic resources community in Europe. Previous issues are available from the Bioversity Web site: www.bioversityinternational.org

We invite you to send your ideas and contributions for this Newsletter to Bioversity's Regional Office for Europe by Email to bioversity-europe@cgiar.org. Please send all contributions for Issue 39 by **16 October 2009.**

Sixth EUFORGEN Steering Committee meeting

EUFORGEN National Coordinators who attended the Steering Committee meeting. Photo: Anonymous

National Coordinators and observers from 27 countries participated in the sixth Steering Committee meeting of the European Forest Genetic Resources Programme (EUFORGEN), held in Thessaloniki, Greece on 9-12 June 2009. Representatives of Bioversity International and the United Nations Food and Agriculture Organization (FAO) also attended the meeting, hosted by the Greek Ministry of Rural Development and Food and the Aristotle University of Thessaloniki.

The meeting started by discussing conservation and use of forest genetic resources in Europe in the context of the pan-European forest policy process (Ministerial Conferences on the Protection of Forests in Europe-MCPFE). In 2007, ministers responsible for forests signed the Warsaw Declaration and, among other issues, reinforced their commitment to conserve and enhance forest genetic resources as part of sustainable forest management. Furthermore, the ministers called for continued implementation of the previous MCPFE commitments. In 2008, the MCPFE process included both EUFORGEN and the EUFGIS project (Establishment of a European Information System on Forest Genetic Resources) into its new Work Programme to implement the commitments of the Warsaw Conference. The Steering Committee acknowledged the renewed policy support and agreed that EUFORGEN will continue as a pan-European implementation mechanism for the relevant MCPFE commitments on forest genetic resources after the current Phase (2005-2009).

The meeting continued by reviewing the progress made in the EUFORGEN activities. Since 2005, the Programme has been operating through one thematic and three species Networks (Forest Management, Conifers, Scattered Broadleaves and Stand-forming Broadleaves). A total of 101 experts from 31 member countries are participating in these Networks. The Forest Management Network has been focusing on promoting practical implementation of gene conservation and appropriate use of genetic resources as part of sustainable forest management. The species networks have been developing technical guidelines for gene conservation of forest trees and related gene conservation strategies. All of the Networks have also contributed to the work of the EUFGIS project. The Steering Committee acknowledged the efforts made by the networks and encouraged them to finalize the ongoing activities by the end of 2009.

The FAO representative also briefed the Steering Committee (*continued on page 3*)

Stand-forming Broadleaves Network meets in Turkey

Participants of the meeting standing under a Quercus vulcanica *during the meeting field trip. Photo: EUFORGEN Stand-forming Broadleaves Network*

Representatives from 22 countries met in Antalya, Turkey on 31 March-2 April to discuss progress made by the Stand-forming Broadleaves Network in its activities. The meeting also agreed the finalization of various activities by the end of 2009. The meeting was hosted by the Ministry of Environment and Forestry and the Forest Tree Seeds and Tree Breeding Department of the Research Directorate.

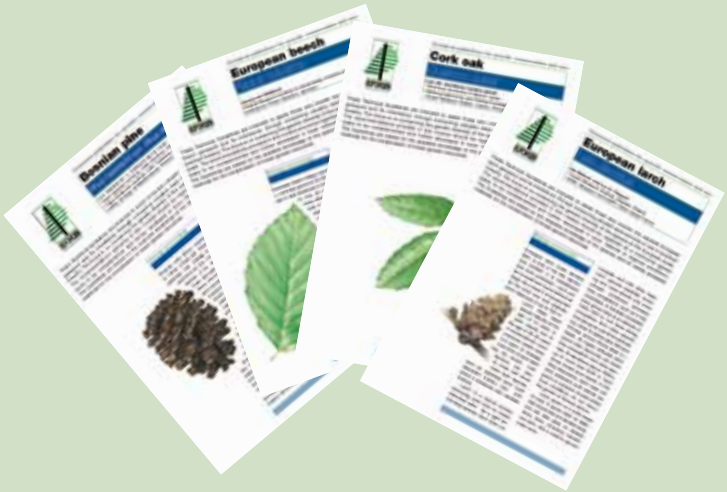
The Network discussed the development of common action plans for stand-forming broadleaves and reviewed proposed gene conservation units to be included into a pan-European network. Turkey provided an excellent venue for these discussions as the country has 230 *in situ* gene conservation units established for 31 tree species and 348 seed stands for 29 species. There are some 21.2 million ha of forest in Turkey harbouring a total of 564 woody plant species, of which 76 are endemic.

Earlier, the Network had identified several tree species for which the common action plans are now being developed (e.g. chestnut (*Castanea sativa*), beech (*Fagus* spp.), temperate oaks (*Quercus robur* and *Q. petraea*), silver birch (*Betula pendula*), aspen (*Populus tremula*), xerophyllous and evergreen oaks, as well as minor and rare oak species). After discussing the proposed gene conservation units for these species in different countries, the participants concluded that there is a particular need to enhance gene conservation efforts for the numerous oak species in the Mediterranean region (including many rare ones with very limited distribution). The meeting also recognized that problems in the taxonomy of oaks create additional challenges for gene conservation. More or less all oak species within a section interbreed and the hybrids are fertile. Furthermore, there is a large number of oak species and synonyms used (e.g. *Quercus pubescens* ssp. *pubescens* has more than 440 synonyms).

During the meeting, the Network also discussed finalization of two case studies on the transfer of forest reproductive material and genetic consequences of silvicultural practices on European beech (*Fagus sylvatica*). The meeting acknowledged efforts made by the Network members in developing Technical Guidelines for gene conservation of birch (*Betula pendula*), oriental beech (*Fagus orientalis*), European beech (*Fagus sulvatica*), aspen (*Populus tremula*) and cork oak (*Quercus suber*). These and other guidelines are available from the EUFORGEN website. In Antalya, the Network also reviewed drafts for additional guidelines which are being prepared for several Mediterranean oak species (*Quercus cerris*, *Q. frainetto*, *Q. ilex* and *Q. pubescens*).

The participants were also briefed on the activities of the EUFGIS project and in particular the development of pan-European minimum requirements and data standards for gene conservation units of forest trees. The meeting included a seminar on the conservation of forest genetic resources in Turkey. The country has a high diversity in terms of tree species, ecosystems and phytogeographic regions. Forests are threathed by population growth, agriculture and animal husbandary. Climate change and increased frequency of droughts and forest fires create additional threats to Turkey's forests.

The summary report of the meeting is available at the EUFORGEN website (www.euforgen.org).



Four new EUFORGEN Technical Guidelines for *Fagus sylvatica*, *Larix decidua*, *Quercus suber* and *Pinus heldreichii - leucodermis* are now available in hard copy and in pdf format. They can be downloaded at: www.euforgen.org or requested from euf_secretariat@cgiar.org.

The EUFGIS information system is taking shape

In spring 2009, the EUFGIS project (Establishment of a European Information System on Forest Genetic Resources) entered its third year of activities with a series of sub-regional training workshops for national focal points. A total of 35 countries have now nominated their focal points to the information system.

The training workshops were organized by the project partners in Austria (Vienna, 24-26 March), Slovenia (Ljubljana, 21-23 April), France (Avignon, 5-7 May) and Denmark (Copenhagen, 12-14 May). Bioversity International also provided training to the national focal points, as part of the workshops, to demonstrate how they should compile data sets and upload them using the intranet of the EUFGIS information system.

An important part of the workshops was an introduction of the pan-European minimum requirements and data standards for dynamic gene conservation units of forest trees. These were developed as part of the EUFGIS project based on the earlier work of the EUFORGEN Networks. The minimum requirements serve as a check list for which kind of gene conservation units can be entered into the EUFGIS information system. The data standards define what information on the units the national focal points should provide.

The minimum requirements indicate that each unit should have one or more tree species recognized as target species for gene conservation efforts. The units should be predominantly located in native tree populations but additional *ex situ* units can also be included if they represent well-adapted forests. Units of introduced tree species can be included if they are established for conserving well-identified and differentiated characteristics from their original source populations. The minimum population size is also specified and guidelines are provided for the management and monitoring of the units.

The data on the units will be provided at two different levels: general data on the units and more detailed data on each target tree species within a unit. The data standards include geographical coordinates of the unit, minimum and maximum elevation within the unit, surface area, ownership, type and function of the unit and predominant silvicultural system. For each unit, climatic variables will be obtained based on the geographical coordinates using a common source (i.e. WORLDCLIM). For each target tree species, the data standards also include the origin of the material, the total number of reproducing trees per unit, remarks on sex ratio (in case of dioecious species), regeneration and distribution of the reproducing trees in the unit.

Currently the information system contains data on 1020 gene conservation units in 30 countries. The national focal points are continuing to compile and upload data and this work is expected to be finalized by the end of 2009. Bioversity International is now developing the EUFGIS portal which will be launched online at the final project meeting in Vienna in mid-2010.

The EUFGIS project is co-funded by the European Commission under Council Regulation No 870/2004 on genetic resources in agriculture and coordinated by Bioversity International. Further information on the project is available on the EUFGIS Website (www.eufgis.org).

Sixth EUFORGEN Steering Committee meeting continued...

(continued from page 1) on the development of the State of the World's Forest Genetic Resources (SoW-FGR) report (see page 5 in this Newsletter for further details). Regional networks and programmes on forest genetic resources, such as EUFORGEN, have an important role in the preparation of this report. FAO invited the Steering Committee to comment on the draft outline of the report, which will be finalized by October 2009. The Steering Committee welcomed the development of the report and recommended that the EUFORGEN Secretariat continue its collaboration with FAO in this regard.

The Steering Committee also agreed that EUFORGEN should finalize the planned report on European forest genetic resources independently from FAO's global report efforts. However, the content of the European report, to be finalized by 2012, should be aligned with the content of the global report to avoid duplication of efforts.

The main item in the agenda of the meeting was a proposal for EUFORGEN Phase IV (2010-2014). In March 2009, a survey was carried out among the member countries to collect feedback on the achievements and the future role of EUFORGEN. The survey also identified needs for further action on forest genetic resources at pan-European level. Based on the results of the survey, a working group of National Coordinators from Croatia, Denmark, Germany, Spain, Turkey and the United Kingdom developed the proposal for further discussion by the Steering Committee.

The meeting endorsed the proposal and agreed that climate change and its implications for forest management (in particular to the use of forest reproductive material) and conservation of forest genetic resources are the main issues that should be addressed during Phase IV. Furthermore, the Steering Committee noted that integration of forest genetic resources into national forest programmes, national biodiversity action plans and national adaptation strategies to climate change still need to be improved in many countries.

The Steering Committee also agreed a major change in the Programme's mode of operation. EUFORGEN will operate through smaller working groups focusing on specific tasks during Phase IV. Each working group will consist of approximately 10 experts and the outputs of the working groups will be presented to the Steering Committee for further action. In addition, the outputs will also be discussed during workshops through which a broader group of stakeholders will be engaged in the EUFORGEN activities.

The Steering Committee further decided that the EUFGIS information system will be maintained and further developed as part of EUFORGEN after the EUFGIS project has ended in September 2010. The EUFGIS National Focal Points will also continue their work providing national data and keeping the information system updated. This work is crucial for developing the pan-European gene conservation strategies for forest trees and providing inputs to the State of the World's Forest Genetic Resources report.

The Steering Committee will meet again in early 2010 to further review the budget for Phase IV, develop an overall workplan for various activities and establish the first working groups.

The summary report of the meeting is available at the EUFORGEN Website (www.euforgen.org).

The EVOLTREE Stakeholder Group meets for a second time

www.evoltree.eu

Research activities conducted within EVOLTREE are disseminated to different end-users and stakeholders in Europe. Establishing and facilitating a permanent dialogue with stakeholders belongs to the priorities of the EVOLTREE Network of Excellence. This will ensure that research findings influence policies and can contribute to sustainable use of forests and their genetic resources.

A Stakeholder Group has been created inviting representatives of different groups, institutions and organizations in Europe, to participate in the dialogue, to bring the perspective of policy makers, forest managers, nature conservation agencies, associations of forest owners, forest industry associations, non-governmental organizations, universities and others. The members of this group are representatives from the countries and organizations participating in the Ministerial Conference on the Protection of Forests in Europe (MCPFE), and some participants in the European Forest Genetic Resources Programme (EUFORGEN). A large number of Austrian stakeholders is also expected to participate in the meeting and contribute to the discussion.

Examples of relevant themes of interest to the Stakeholders include:

Beech (Fagus sylvatica) *forest in Central Italy. Photo: B. Vinceti, Bioversity International*

Norway spruce (Picea abies) *on the Western Alps near the tree line. Photo: B. Vinceti, Bioversity International*

principles of genetically sustainable forest management, use of appropriate reproductive material for afforestation and reforestation in the face of climate change, labeling and tracing the origin of timber based on molecular genetic markers, questions associated with genetically modified organisms.

The second Stakeholder Group meeting of EVOLTREE will take place in Einstadt (Austria) on 16-17 September 2009. The idea is to continue to provide a review of what is being done within EVOLTREE to non-specialists, presenting the practical implications of the research findings generated by the partners in the Network of Excellence about forest management in the face of environmental change.

In addition, during the first Stakeholder Group meeting held in February 2008 in Mandelieu (France), the invited stakeholders mentioned the need to be better informed about the differences and the complimentarity of all the various research projects on tree genetics and genomics currently ongoing in Europe. Thus, participation in the Second Stakeholder Group meeting will be extended to representatives of other European research initiatives, such as TREBREEDEX, Noveltree and EnergyPoplar.

At the meeting in Austria, the focus of the presentation will be to illustrate progress made in EVOLTREE activities, in particular in the establishment of common infrastructures such as the DNA repository of tree species, the Intensive Study Sites distributed across Europe within representative forest ecosystems, and the databases with genomic resources.

Examples of additional topics that will be discussed are: scientific challenges and practical implications of screening the genome of forest tree species in the search for candidate genes; insight provided by genomic approaches in the transfer of forest reproductive materials in the face of climate change; how to incorporate research findings from genomics into the development of strategies to conserve forest biodiversity; and what insight modeling approaches can offer with regard to adapting forest management to future scenarios.

Finally, a series of policy briefs, which is under preparation and is based on the topics covered during the first Stakeholder Group meeting, will be presented to the Stakeholders for their feedback before finalization and wider dissemination.

The importance of forest genetic resources fully recognized at the 19th session of the FAO Committee on Forestry

Between 16 and 20 March 2009, over 550 participants from the Committee on Forestry (COFO) member states gathered at FAO in occasion of the 19th session of the United Nations Food and Agriculture Organization's (FAO) COFO, held jointly with the first edition of World Forest Week. The participants included country representatives, heads of forestry departments, UN agencies and intergovernmental and non-governmental organizations.

COFO is the most important of the FAO Forestry Statutory Bodies. The biennial sessions of COFO, held at FAO headquarters in Rome, bring together heads of forestry services and other senior government officials to identify emerging policy and technical issues, to seek solutions and advise FAO and others on appropriate action.

Sustainable forest management and climate change were major issues on the agenda but the delegates were also asked to comment on the development of the State of the World's Forest Genetic Resources (SoW-FGR) Report.

During the COFO session, many countries (Brazil, Czech Republic-on behalf of EU, France, Malaysia, Mexico, Nigeria, South Africa-on behalf of the Southern African Development Community, USA and Venezuela) highlighted the importance of FGR and considered it useful to develop the SoW-FGR report. The EU statement specifically highlighted the activities of the European Forest Genetic Resources Programme (EUFORGEN) and the Establishment of a European Information System on FGR (EUFGIS), both coordinated by Bioversity International.

The COFO meeting report recognizes the importance of forest genetic resources and of their good management. The Committee supported the recommendation of the Commission on Genetic Resources for Food and Agriculture and the FAO Panel of Experts on Forest Genetic Resources, that FAO prepare a report on the State of World's Forest Genetic Resources for 2013, which would serve as a reference for action at the national, regional and global levels. The Committee urged member countries to collaborate with FAO and partner organizations in producing this report.

Furthermore, the Committee endorsed the new FAO Strategy for Forests and Forestry (available in Annex A of the COFO meeting report). Within the set of six outcomes or "organizational results" identified, outcome number six refers explicitly to forest genetic resources: "Environmental values of forests and forestry are better realized; strategies for conserving forest biodiversity and genetic resources, adapting to climate change, rehabilitating degraded lands, and managing water and wildlife resources are effectively implemented".

New to this COFO session were approximately 20 special events held throughout the week as part of "World Forest Week." These events were intended to create a more informal dialogue, with delegates speaking in their personal capacity and not as state representatives.

On 17 March 2009, a special event on the State of the World's FGR was organized. Reiner Finkeldey, from Göttingen University, was among the invited speakers and had a chance, through his presentation, to emphasize the importance of and the threats to forest genetic diversity; our increasing but limited knowledge of genetic resources; and the critical need for international collaboration on the issue. The presentation was concluded with focus on the work done in the context of some of the relevant ongoing initiatives related to forest genetic resources. The initiatives explicitly mentioned are EUFORGEN and EVOLTREE projects. The full presentation can be downloaded from this page: www.evoltree.org/index.php/diss-activities/world-forest-week.

Further information on the COFO is available at www.fao.org/forestry/cofo/en/ and www.iisd.ca/fao/cof19/.

Plenary session at FAO during the 19th session of the United Nations Food and Agriculture Organization's (FAO) Committee on Forestry (COFO) held jointly with the first edition of the World Forest Week. Photo: B. Vinceti, Bioversity International

The State of World's Forest Genetic Resources

In June 2007, the FAO Commission on Genetic Resources for Food and Agriculture (CGRFA) included forest genetic resources in its Multi-Year Programme of Work. It also agreed that the State of the World's Forest genetic resources report should be prepared and presented to the Commission in 2013. Consequently, FAO started a process with various partners, including Bioversity, to discuss how to prepare this report and what information it should include. In December 2008, the FAO Panel of Experts on Forest Gene Resources discussed the outline of the SoW-FGR report before it was presented to the COFO (see article above).

In October 2009, the steps of the preparatory process and the outline of the SoW-FGR report will be presented to the next session of CGRFA, which will then also make decisions on the financial resources and other aspects of FAO's preparation of this report by 2013.

The SoW-FGR report will be prepared through a country-driven approach and FAO will collect relevant data and information directly from countries. However, FAO has recognized that regional FGR networks play an important role in the preparation of the report. In fact, FAO already obtained feedback on the proposed structure and contents of the report from the regional collaborative platforms established by Bioversity International, namely APFORGEN, LAFORGEN, SAFORGEN and EUFORGEN, during the most recent network meetings held in 2008 and early 2009.

ECPGR supports capacity building workshop in East Africa

A Marabuo Stork (Leptoptilos crumeniferus) *stalking the banks of Lake Victoria in search of a good catch.*
Photo: L. Maggioni, Bioversity International

The International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) is a multilaterally negotiated instrument that requires domestication at the regional and national levels. To that effect, a capacity building workshop on the Treaty was held in Entebbe, Uganda on 19-20 March 2009. The workshop was the result of team work led by the Eastern Africa Plant Genetic Resources Network (EAPGREN), which operates under the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA), and the Food and Agriculture Organization of the United Nations (FAO), which hosts the Treaty Secretariat, as well as Bioversity International and the European Cooperative Programme for Plant Genetic Resources (ECPGR).

The workshop was attended by representatives of seven ASARECA countries (Burundi, Ethiopia, Kenya, Madagascar, Rwanda, Sudan and Uganda). With the active support of resource persons from the above mentioned international institutions, the participants discussed the most efficient regional and national strategies for establishing a global system to provide farmers, plant breeders and scientists with access to plant genetic materials as well as ensuring that recipients of those materials share benefits they derive from their use with the countries where they have been originated.

Representatives of ECPGR (Frank Begemann and Lorenzo Maggioni) presented the European experience regarding the regional implementation of the International Treaty, particularly through a mechanism to make European Multilateral System accessions visible on the on-line information system EURISCO. Also the concept of a European Genebank Integrated System (AEGIS) was illustrated.

In an effort to make the Treaty operational in the region through cost-efficient and tailor-made measures, the workshop participants approved a road map for the implementation of the Treaty. The road map activities range from a series of practical short-term administrative actions to make genetic materials available under the Treaty rules, to broader measures for the management of plant genetic resources for food and agriculture. Participants highlighted the most pressing capacity building needs in relation to all the elements of the road map and, in response to that, the workshop resulted in a concerted plan of assistance between EAPGREN, the Treaty Secretariat and Bioversity International. In addition to this plan, participants recommended actively seeking financial support to further the capacity building efforts in the region.

EPGRIS3 takes first step for characterization and evaluation data in EURISCO

Theo J.L. van Hintum, Centre for Genetic Resources, the Netherlands (CGN), Wageningen, the Netherlands (theo.vanhintum@wur.nl)

On 7 May 2009 an EPGRIS3 self-funded workshop was organized at the Bundesanstalt für Landwirtschaft und Ernährung (BLE) in Bonn, Germany. The workshop was attended by 12 participants including most of the collaborators in EPGRIS3 activities 2-05 (Characterization and Evaluation Data) and 2-06 (Linking EURISCO and the European Central Crop Databases).

The one-day workshop was divided into two sessions, with nine presentations sketching the PGR documentation landscape and the treatment of characterization and evaluation (C&E) data in genebanks and European Central Crop Databases in the morning, and the afternoon dedicated to discussion of the proposal for inclusion of C&E data in EURISCO, as written by Theo van Hintum.

The afternoon discussion about the C&E discussion paper was positive and constructive. There was a general consensus regarding the proposal as presented in the morning session and it was adopted, implying that everyone present supports the principle of creating a repository of unstandardized C&E data in the framework of EURISCO. Obviously the repository should only be used for non-confidential data.

EPGRIS3 participants at the Rhine river.
Photo: Anonymous

It was stressed that only C&E data on accessions already in EURISCO could be uploaded, however, it was agreed that any registered “uploader” (the National Focal Point (NFP), or someone approved by the NFP), can upload data on any EURISCO accession, independently from the national inventory to which they belong.

Some modifications to the proposal for the structure of the C&E data to be uploaded were discussed and adopted; they have been worked into an amended proposal. (*continued on page 7*)

EURISCO NFPs get together to collaborate and share knowledge

A training workshop was held in Prague, Czech Republic on 29-30 June as an activity of the Documentation & Information Network (activity 5-01 of the EPGRIS3 self-funded project on "National Inventories on *ex situ* plant genetic resources"). Financial support was provided by the European Cooperative Programme for Plant Genetic Rresources (ECPGR) and the South East European Development Network on Plant Genetic Resources (SEEDNet); allowing for the participation of 30 National Focal Points (NFPs) and documentation experts.

The focus of the training was on updating EURISCO NFPs; to further improve the quality and quantity of data in National Inventories (NIs); to facilitate fulfilling the reporting obligations under the Multilateral System (MLS) of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA); to promote and improve the frequency of NIs upload to EURISCO and to further develop and disseminate the NIs FAQ-Manual or leaflets.

The first day of the workshop was based on presentations covering the NIs developments and status; overview of the PGR landscape for Europe; overview of EURISCO as the information hub for Europe and its website; the descriptors and NordGen example; the outcomes of the last ITPGRFA Governing Body (GB) and the decisions on the MLS and Standard Material Transfer Agreement (SMTA). On the second day, the NFPs were engaged in practical exercises on the upload mechanism and data quality checks and feedback reporting. A paper on the addition of characterization and evaluation data to EURISCO was presented and positively received. General information on GRIN-Global was also provided. Regarding the FAQs, it was decided that the matter will be further developed with feedback and inputs from the network of NFPs to further increase its visibility and usability to all.

Overall, this training workshop was an opportunity for NFPs to share experiences, learn tips for managing their NIs and upload it into EURISCO, as well as to be updated on documentation and other PGR issues happening at the international level.

Further information on this training workshop, as well as the agenda, can be found at http://eurisco.ecpgr.org/contact_menu/training.php and will also be available in the next EURISCO E-Bulletin in 2009. If you would like to receive the E-Bulletin, please register at http://eurisco.ecpgr.org/releases/e_bulletin.php.

EURISCO NFPs during the training workshop, Prague, Czech Republic. Photo: S. Harrer, BLE, Bonn, Germany

EPGRIS3 takes first step for characterization and evaluation data in EURISCO cont...

(*continued from page 6*) The original proposal clearly had the "minimal" structure being as simple as possible, with as few fields as possible; the discussion tried to reach a balance between "simplicity" for the uploader and "functionality" for the searcher and user, resulting in a small number of additional fields such as the longitude and latitude of the experimental site.

Agreement was reached on the next steps to take: the preparation of the report and amended proposal (Th. van Hintum), the distribution within appropriate parts of the ECPGR network (Frank Begemann), the check for compliance of the new proposal with ICIS and GRIN-Global (Michael Mackay), the presentation of this initiative in the Global Information on Germplasm Accession (GIGA) process (F. Begemann) and the final amendment of the proposal, taking into consideration all feedback (Th. van Hintum, F. Begemann and Lorenzo Maggioni). From there on the proposal could be widely distributed and discussed within the ECPGR and EURISCO community, and the next technical steps can be made, including preparation of the documents and software. NordGen, CGN, the Netherlands, IPK Gatersleben and Federal Agency for Agriculture and Food (BLE) confirmed their willingness to supply the first datasets as soon as the uploading software on the EURISCO site is available.

Finally, in view of the considerable workload expected and the need for dedicated coordination of the activities, it was agreed that specific funding of the activities should be sought, moving away from the EPGRIS3 model of solely input-in-kind collaboration. Given the relevance of this activity to the GIGA project, the possibility for inclusion in the second phase of GIGA should be explored, as should other options.

As of July 2009, the proposal to include C&E data into EURISCO had been approved by the ECPGR Documentation and Information Network.

View of Königswinter from Bonn/Bad Godesberg where the meeting was held. Photo: H. Knüpffer, IPK Gatersleben, Germany

AEGIS is in the process of obtaining a legal "basis"

www.ecpgr.cgiar.org/AEGIS/AEGIS.htm

Since the publication of the last Newsletter in December 2008, a number of new developments in the establishment of AEGIS have occurred.

The Memorandum of Understanding (MoU) for the establishment of AEGIS, signed by Bioversity International on behalf of ECPGR, was posted by the ECPGR Secretariat to all European countries for their signature. The MoU includes all important aspects of AEGIS that have been discussed and agreed upon over the past years, as detailed in the Strategic Framework for the Implementation of a European Genebank Integrated System (AEGIS) (for details see www.ecpgr.cgiar.org/AEGIS/Docs/AEGIS_StrategicFramework_PolicyGuide.pdf).

Albania, Estonia, Slovakia, Switzerland, the Netherlands and Ukraine have returned their signed MoUs to Bioversity.

As a follow-up to the ECPGR Steering Committee (SC) meeting in Sarajevo in September 2008, the Secretariat, in close collaboration with Theo van Hintum (CGN, the Netherlands) finalized the AQUAS (Quality Management System for AEGIS) discussion paper. Details of this discussion will be placed on the AEGIS website in due course.

Another important element that the ECPGR SC approved during its 11th meeting as part of the establishment phase of AEGIS, is the formation of a small, competitive grant scheme. A Task Force assisted the Secretariat in developing the scheme which is intended to support activities that will directly contribute to the establishment and/or operation of AEGIS. A total of 103 000 Euro has been set aside during Phase VIII of ECPGR. An announcement on the launch of the scheme has been made by Email and on the AEGIS website, inviting ECPGR Networks and Working Groups to submit proposals for funding of AEGIS related activities.

Over the past year the ECPGR Secretariat, together with Bioversity staff and the ECPGR SC, have been working on the development of project ideas for the European Commission resulting in a number of concrete topics that will be included in the future 2009 FP7 calls. The topic that is directly relevant to AEGIS is "Integrated research infrastructure for a rational *ex situ* conservation and use of European plant genetic resources for food and agriculture", published under the Research Infrastructures Scheme in July 2009.

Considering that AEGIS will soon have a legal basis for its operations through the signed MOUs, that a number of technical elements have been developed and approved, and that there is a very good chance of obtaining substantial additional funding for the actual establishment of processes and procedures at the regional and national level, it seems that AEGIS' future is looking very bright.

Durone di Cesena variety of cherry fruits.
Photo: J. Engels, Bioversity International

ECPGR Programme to undergo external review

Following a proposal made at the 11th Steering Committee (SC) meeting in September 2008, the SC agreed to arrange for an independent external review of the ECPGR Programme to be carried out.

After nearly 30 years from its foundation, it was thought that the time had come to review whether its objectives and strategy were still in line with recent trends and developments in the PGR sector. The review will extend to all aspects of the Programme, including its structure, funding mechanism, governance, management and hosting arrangement for the Secretariat.

A regionally balanced Task Force (TF) was established to facilitate the review process, composed of National Coordinators from Sweden (leading the Group), Macedonia (FYR), the Netherlands, Poland, Romania, Switzerland and the United Kingdom, in collaboration with the Secretariat. At Bioversity, a support team was set up to assist in the process of preparation for the review.

Terms of Reference and cost estimates for the independent external review were prepared and eventually endorsed by the Steering Committee. The selection of the three panel members who will carry out the review is currently ongoing. The review will take place in 2010 and provide recommendations that will have to be taken into consideration at the Mid-Term Steering Committee meeting in 2011.

Finland, the Nordic Countries, Sweden, Switzerland and the United Kingdom have already contributed or pledged funds directed to cover the cost of the external review.

EURISCO Trainings and Seminars held in Armenia and Russian Federation

Two EURISCO Trainings and Seminars were held earlier this year, the first on 21-22 April 2009, in Yerevan, Armenia, organized by the Agrarian State University of Armenia and the EURISCO Coordinator from Bioversity International. The second was held on 13-15 May 2009, in St. Petersburg, Russian Federation, organized by N.I. Vavilov Research Institute of Plant Industry (VIR) and the EURISCO Coordinator from Bioversity International. These were the third and fourth of a series of Trainings and Seminars planned to be held in other countries.

The objective of these Trainings and Seminars was to strengthen the national capacity in data exchange and the sustainability of EURISCO, the enhancement of the quality and quantity of data flowing into the Catalogue and to provide one-to-one training to the national focal points.

Both of the Trainings and Seminars had five main common goals:

i) identify and define the support needed for the further development of the National Inventories (NIs);

ii) discuss and identify ways to increase the availability of NIs to EURISCO;

iii) set a plan for new NI upload and update;

iv) identify the type of support needed to carry out data sharing; and

v) discuss and identify ways to establish a mechanism for collaboration between collection holders to improve data sharing.

The St. Petersburg training also discussed the nomination of the EURISCO National Focal Person (NFP).

Armenia Training Seminar

The seminar, involving genebank documentation systems managers, representatives from the working collections research centers of the Armenian Ministry of Agriculture and National Academy of Sciences, provided up-to-date information to the members of the Armenian network of data providers to the National Inventory and served to raise awareness of the importance of plant genetic resources information activities.

Hands-on training was provided to the newly appointed Armenian National Inventory Focal Person (NFP) and other information specialists.

Armenian Training and Seminar participants.
Photo: S. Hovsepyan, Armenian State Agrarian University, Yerevan, Armenia

VIR (Russian Federation) Training and Seminar participants.
Photo: L. Shipilina, VIR, Russian Federation

Russia Training Seminar

This was the fourth in the series of trainings and involved the managers of the Russian Federation genebanks' documentation systems', as well as representatives from the working collections. The training provided up-to-date information to the members of VIR network of data providers to the National Inventory and served to raise awareness of the importance of plant genetic resources information activities.

The training was provided to the VIR documentation experts and National Inventory Focal Person (NFP), aiming at bringing all NFPs up to the same level of development and knowledge.

Besides the established objectives of the training and seminar the main discussion was on the need, possibility, technical and administrative aspects of integration of Russia's PGR databases into a unified national database, into the European and later to the global ones. One of the many outcomes of the Seminar was a better clarity and understanding of the EURISCO system structure and flow of information, the role of the NFP of the EURISCO-NI and the feedback process for correcting information at all levels. Furthermore, the role and responsibilities of PGR DB curators, as the first level, and NFP, as the next level of information flow was explained and clarified.

At both the Armenian and Russian events, other Trainings and Seminars outputs and recommendations were discussed at the end of each day.

Further information on these Trainings and Seminars, as well as the agenda and outcomes, can be found at http://eurisco.ecpgr.org/contact_menu/training.php and will also be available in the next EURISCO E-Bulletin in 2009. If you would like to receive the E-Bulletin, please register at http://eurisco.ecpgr.org/releases/e_bulletin.php.

Legal rights to forest genetic resources - challenges and solutions

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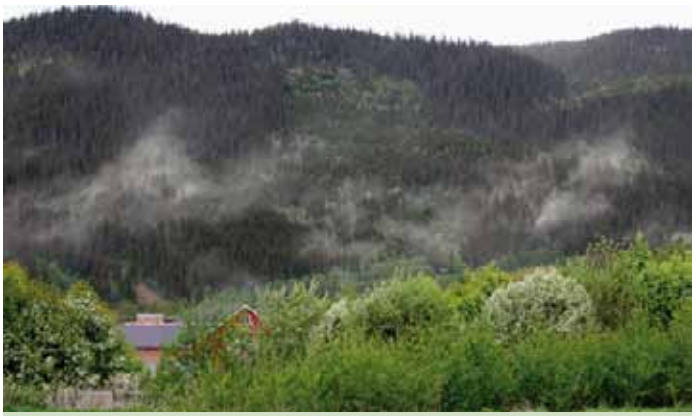

Apparently mist, but actually Norway spruce pollen grains. Where are they heading and who owns them?
Photo: R. Jonskås, Norwegian Forest Seed Centre, Hamar, Norway

The Nordic region is characterized by a simple, non-bureaucratic exchange of forest genetic resources (FGR) between countries, strongly associated with the Everyman's right legislation within the countries. The regime for international exchange of FGR is smooth and regarded as very valuable for the forestry sector across the Nordic country borders, as it secures the unrestricted availability of seeds and breeding material.

At the same time the status of the FGR has not been defined in domestic legal regimes. Ownership issues are not explicitly dealt with in legislation. Therefore, there is a risk that future developments could interfere negatively with the present practice. If the legal situation remains unclear the situation for forest trees might be expected to follow the development for plants, with one potential scenario of FGR being increasingly controlled by private property rights, impeding access to the resources and their cross-boarder exchange. This issue has been highlighted in several official documents of the Nordic Council of Ministers from 2003 onwards, which has now granted NordGen (Nordic Genetic Resource Centre- see NL36 page 13) a project ("Searching for appropriate legislation regulating access and exclusive rights to forest genetic resources in the Nordic region") to explore these legal status issues (2009-2010) in close collaboration with The Fridtjof Nansen Institute, Norway.

The project aims to clarify whether it is necessary and possible to take legal steps to ensure that FGR remain in the public domain. Although there are few international treaties specifically relevant for FGR, there are several general laws of importance. Accordingly, it is important to identify issues and developments in international law that could affect the present situation positively and negatively, particularly the legal status of breeding materials and breeding as a process:

- The Patent Law has so far not been applied extensively to FGR, possibly due to the long rotation period of trees of 50 to 100 years and the patent protection time of maximum 20 years. However, breeding methods not previously described properly could be patented to obtain an indirect product protection to forest tree varieties. In the animal breeding sector there is an emerging practice of applying for basic breeding methods.
- According to the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement, only essential biological processes can be exempt from patenting. In Europe this has been redefined in practice to cover only methods which consist of entirely natural phenomena. Thus, only a very low level of human involvement is required for a breeding method to be regarded as patentable. A breeding method must also meet the general patent criterion - novelty, inventiveness and industrial application - for the patent to be granted. There are cases in which patenting would be needed for commercialization (e.g. Christmas trees). The project aims to explore how these interests can be combined while maintaining a system for open exchange of FGR in the Nordic countries.
- The International Union for the Protection of New Varieties of Plants (UPOV) agreements for protection of breeder's rights apply to forest trees as long as the general requirements for novelty, distinctness, uniformity and stability are met. Protection through UPOV (e.g. certain poplars) may presently be more applicable than a product or process based patent protection. UPOV 78 gives a softer right than the later UPOV 91 version with respect to re-use of seeds and the right to use protected varieties in further breeding.
- The Convention on Biological Diversity (CBD) regulates a broad scope of issues related to biological diversity. It applies to FGR, even though the area of FGR has not received much attention in the work of the Conference of the Parties (COP). There is a need to explore how a new system for Access and Benefit Sharing (ABS), which is on the table for negotiation, will relate to the Nordic situation for open exchange of FGR. The main concepts of the CBD which need to be clarified are the provider (e.g. sovereign rights, access regulation and material transfer agreement) and user (e.g. benefit-sharing and right to patenting) interests.
- The Food and Agriculture Organizaion of the UN (FAO) Commission on Genetic Resources for Food and Agriculture has included FGR in its Programme of Work. This is one of the first general international processes to address the area of FGR in particular. FGR, however, is only one area of genetic resources up for discussion in the FAO; lack of knowledge of how the forest tree sector functions exposes a normative discussion to copy-paste legal solutions from the plant sector, which might prove to be counter-productive to research and development in this sector. To avoid the passing of undesired laws, typical FGR issues need to be brought to the negotiations table, otherwise a Treaty under the FAO might prove to be damaging for the sector in the Nordic countries in the long run.

The project aims to suggest legal steps to address significant undesirable or desirable developments in and by the Nordic countries at the international level.

There is a growing international interest in clarifying the legal status of FGR and such an early initiative may be a useful reference for countries beyond the Nordic region. The project aims to provide applicable and relevant recommendations for decision makers regarding future challenges and FGR, and an international conference will be organized in 2010 to discuss the implications of the project results.

ESCORENA and the UN International Year of Natural Fibres

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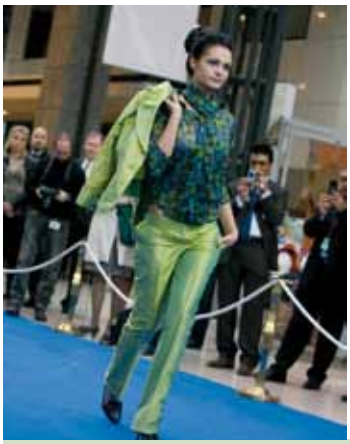

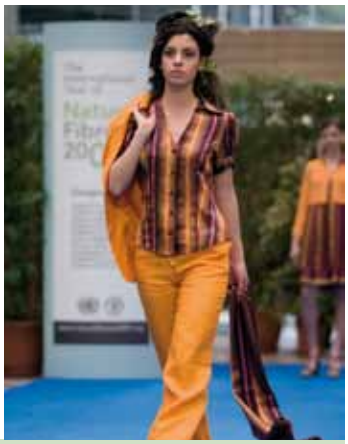

Above: Natural fibres for fashionable, healthy clothing. A fashion show marks the opening of the IYNF at FAO (Rome), Italy. Photos: ©FAO/Giulio Napolitano
Right: Press conference launching the IYNF on 22 January 2009 in the Iran Room at FAO (Rome), Italy. Photo: ©FAO/Giulio Napolitano

The General Assembly of the United Nations has proclaimed 2009 the International Year of Natural Fibres (IYNF). The official opening of the Year took place on 22 January 2009 at the Food and Agriculture Organization of the UN (FAO) headquarters in Rome, Italy, attended by representatives of the major natural fibres organizations and governments. FAO leads the IYNF Steering Committee, led by Brian Moir of the Trade and Markets Division.

The main aim of the IYNF is to raise the profile of natural fibres, to emphasize their value to consumers while helping to sustain the incomes of the farmers. Promoting measures to improve the efficiency and sustainability of production is also an important aspect of the Year. In the era of the "flood" of man-made fibres it is very important to draw attention to the sustainability and physiological benefits of natural fibres.

Several actions have been initiated including an International Natural Fibres Congress in Frankfurt, Germany on 17 -18 June 2009 and several other events, including the "Week of natural fibres", held on 21-24 June 2009 in Arad, Romania, organized by the European Cooperative Research Network on Flax and other Bast Plants of the FAO/ESCORENA System (European System of Cooperative Research Networks in Agriculture). All the information relevant to IYNF is available at the IYNF website hosted by FAO: www.naturalfibres2009.org.

ESCORENA, a major partner in the IYNF, is an umbrella for cooperation between research institutions focused on food, agriculture and related fields. Established in 1974 by FAO and European research institutions, it promotes the voluntary exchange of information and experimental data, to support joint research projects and to facilitate the sharing of expertise, germplasm and technologies, especially from the more advanced nations to developing countries. ESCORENA gathers 15 networks, working on issues of global interest e.g. Pasture and Fodder Crops, Nuts, Cotton, Olives, Rice, Flax, Sunflower, Sheep and Goats and Buffaloes, and the interdisciplinary agri-environmental networks: Municipal and Industrial Residues in Agriculture (RAMIRAN), CENTAUR and some other networks (www.escorena.net).

Several ideas to promote the use and development of natural fibres have been proposed by ESCORENA. Natural fibres conduct heat, dye well, resist mildew, block ultraviolet light and have natural anti-bacterial properties. This makes them ideal for the production of comfortable, healthy clothing that provide UV protection for the body, decreasing oxidative stress and muscle tension, increasing the level of Alpha-globulin, thus improving the well being of users. Natural fibres also provide the composite industry with valuable renewable resources; e.g. flax blended with carbon fibres is an excellent reinforcing material for composites with high mechanical strength. Hemp and fibres such as kenaf, abaca, as well as being used for rope, canvas and paper, are also used to reinforce moulded thermoplastics in the automobile industry. The short core fibres go into insulation products, fibreboard and erosion control mats, while the fibrous core can be blended with lime to make strong, lightweight concrete. By-products from fibrous plants are also a source of added value "agro-fine chemicals" such as oils, lignans and waxes important for nutrition.

The pulp and paper industry is also increasingly driven towards the sustainable development and annual lignocellulosic fibrous plants resources. Sustainable green resources, mainly lignocellulosic, are estimated at billions of tonnes per year. Among them are a new generation of natural fibres such as biosilk and fibres based on polylactic acid, poly-hydroxy-butylo acid (PHB), modified starch, fibroin, natural nano-fibres and nano-fillers (e.g. nano-lignin).

Assistance and improved technology transfer needs to be provided to the poor regions of Africa or South America rich in natural fibre resources, to enable them to improve sustainable livelihoods through the production and processing of industrial commodities based on natural fibres. An inter-regional FAO Network on natural fibres to encompass all the world's regions needs to be created.

Textiles have been a fundamental part of human life since the dawn of civilization. Fragments of cotton articles dated from 5000 BC have been excavated in Mexico and Pakistan. According to Chinese tradition, the history of silk begins in the 27th century BC. The oldest wool textile, found in Denmark, dates from 1500 BC, and the oldest wool carpet, from Siberia, from 500 BC. Fibres such as jute and coir have been cultivated since antiquity.

Some 30 million tonnes of natural fibres are produced annually and the processing and marketing of these fibres contribute significantly to the income and food security of poor farmers and people in many developing countries.

For further information, please contact the authors or visit: www.escorena.net.

Focus on the CWANA Region...

In Situ/On-farm Conservation of Temperate Fruit Crops in Central Asia

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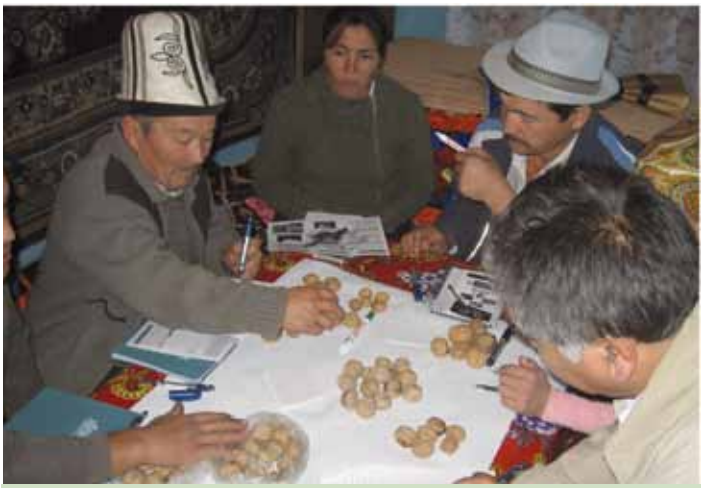

Focus group discussion in Gumkana village of Jalalabad Province, Kyrgyzstan to assess intra specific diversity of walnut in wild walnut forests in Kyrgyzstan. Photo: Igor Soldatov, Botanical Gardens, National Academy of Sciences, Kyrgyz Republic

Central Asia is one of the five most important centres of origin of cultivated plants, and the richest in specific and intraspecific diversity for many globally important agricultural crops (N.I. Vavilov, 1931). Plant species in the region number 8100 of which 890 are endemic. About 400 of them are listed in the IUCN "Red List" as endangered. Temperate fruit species are particularly important crops in Central Asia. Apple (*Malus domestica*), apricot (*Armeniaca vulgaris*), peach (*Persica vulgaris*), pear (*Pyrus communis*), plum (*Prunus domestica*), grape (*Vitis vinifera*), almond (*Amygdalus communis*), pistachio (*Pistacia vera*), pomegranate (*Punica granatum*), and fig (*Ficus carica*) are among the best-known crops cultivated in the region where, over the course of several centuries, the diverse natural and climatic conditions have helped farmers to produce varieties adaptable to drought and resistant to a number of environmental stress factors. These locally developed traditional varieties have been shown to be essential components of crop production in difficult environments. Wild apple (*Malus* spp.), wild pear (*Pyrus* spp.), wild plum (*Prunus* spp.), wild almond (*Amygdalus* spp.), wild pomegranate (*Punica granatum*), wild grape (*Vitis* sp.), and other wild relatives of horticultural crops still grow and are cultivated in forests throughout the region. Many of them are used as rootstocks. Their resistance to biotic pressures – insects and disease – make them valuable genetic resources for reducing crop vulnerability on-farm and providing genetic material for crop improvement. Many of these species are also important nutritional resources for local people.

Due to the collapse of the Soviet Union and the transition from a centralized to a market-driven economy, the Central Asian countries – Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan – face serious development problems. These include food insecurity, poverty and degradation of the environment. Issues of food security and poverty are forcing agricultural development, with consequent biodiversity loss. While government efforts to restructure the agricultural sector and diversify production are ongoing, genetic erosion (of fruit species in addition to others) is increasing.

Important fruit species genetic diversity is found both in the wild and on-farm; both sources are threatened by a number of factors. Wild fruit species in Central Asia are under threat due to overgrazing, deforestation, logging and industrialization. In addition, the best quality products are selected to ensure better marketing opportunities. This engenders a human-driven natural selection, which leaves only those varieties that are not immediately marketable to reproduce. The result is loss of wild fruit species and reduction of intraspecific diversity in natural forests and reserves. The consequent degradation of natural habitats and biodiversity loss also leads to loss of a wide range of valuable ecosystem services (e.g. carbon storage, protection of hydrological functions, soil erosion), an instable environment and, ultimately, natural calamities such as floods, drought and landslides.

Cultivated fruit crops face equal pressures. Since cultivation began, farmers have managed local varieties in a dynamic way to produce the most marketable plants, and those that have adapted the most effectively to local environmental conditions. However, while many valuable landraces and local cultivars of these species are still maintained in home gardens and on small farms, the introduction of uniform high-yield varieties, use of chemical fertilizers and pesticides, and increased mechanization have reduced the area of agricultural lands on which local cultivars are maintained. The result is loss of traditional diversity-based farming systems, arable land degradation, pollution of the environment (water, soil, air), genetic erosion and loss of biodiversity.

Action to conserve diversity of horticultural crops and wild fruit species is hampered by inadequate information about the value of these resources, lack of coordination between environmental protection and agricultural development agencies, and inadequate communication among local scientific institutes and local and national government agencies. Limited financial resources and inadequate institutional structures diminish the effectiveness of developing legal frameworks for protection of the environment. Information and knowledge about the number and quality of horticultural crops and their genetic resources, distribution, conservation and use are inadequate. While knowledge about wild resources exists, much of it is outdated and lacks the benefit of modern technologies. Lack of an integrated approach among key actors – farmers and local communities, scientific institutes, government agencies and the private sector – prevents effective interventions to conserve the resources.

The UNEP-GEF supported five-year project "*In situ*/on-farm Conservation and Use of Agricultural Biodiversity (Horticultural Crops and Wild Fruit Species) in Central Asia" brings together five Central Asian countries namely Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan, with Bioversity International as executing agency, to address the problems of inadequate information, coordination and knowledge, thereby contributing to the elimination of the other major barriers to conserving fruit genetic resources (unsustainable use of wild fruit species and loss of traditional diversity-based farming systems). Its immediate objective is conservation of the high diversity of horticultural crops and wild fruit species found in the Central Asian countries, the valuable genetic stocks important to plant breeders, researchers and local populations who depend on them for their livelihoods.

(*continued on page 15*)

A newly established PGR Network for the Near East and North Africa

A Regional Network for Plant Genetic Resources (PGR) in the Near East and North Africa was established by the last General Conference of AARINENA, the Association of Agricultural Research Institutions in the Near East and North Africa, in October 2008. Sudan has been selected to host the Network secretariat. The executive committee of AARINENA recently discussed the strategic orientation and mode of operation of the Network.

The launching of a PGR Network in the Near East and North Africa could not be more timely. A collaborative framework for exchange of information, data and experiences on PGR has been lacking in the Region for some time. Status of agricultural biodiversity, resilience in production systems in view of climate change and sustainable use of the genetic diversity in neglected and underutilized species belong to the key areas for research for socio-economic development in the Region.

Created in 1985, AARINENA is an autonomous body funded by the annual membership subscriptions, which include member institutions in the countries of the Region as well as several international organizations. The association has its seat at ICARDA (International Center for Agricultural Research in the Dry Areas), West Asia Regional Programme in Amman, Jordan. It provides a platform for fostering agricultural research and innovation and strengthens collaboration within and outside the Region. Bioversity International became a co-sponsor of AARINENA in 2004.

AARINENA includes five sub-regions: Arabian Peninsula (Bahrain, Kuwait, Oman, Quatar, Saudi Arabia and United Arab Emirates), Maghreb (Algeria, Lybia, Malta, Mauritania, Morocco and Tunisia), Mashreq (Cyprus, Iraq, Jordan, Lebanon, Palestinian Authority and Syria), Nile Valley and Red Sea (Djibouti, Egypt, Sudan, Somalia and Yemen), and West Asia (Iran, Pakistan and Turkey).

Documenting market traits of local varieties of date palm in Ghardaia, chief town of the M'zab Oasis in north-central Algeria.
Photo: S. Padulosi, Bioversity International

A local variety of dates from Ghardaia, chief town of the M'zab Oasis in north-central Algeria.
Photo: S. Padulosi, Bioversity International

To achieve its objectives, the association promotes collaborative activities through technical networks. Four commodity networks including date palm, olive, cotton, medicinal and aromatic plants, as well as two thematic networks (biotechnology and water-use efficiency) have been operational to date. The association has actively supported and promoted a Regional agricultural information system, accessible through the website www.aarinena.org.

The PGR Network is the latest addition to AARINENA's collaborative mechanisms. It is expected that the Network benefits from the rich tradition of collaboration in agricultural research in the Region and that it quickly becomes an effective tool. The executive committee has felt that the network needs to be based on strong structure for coordination, decision making and follow up that involves all member parties in order to achieve practical and concrete outputs.

In fact, the executive committee of AARINENA felt that Network activities should be driven by practical, concrete outputs.

A genebank management and documentation workshop is planned to be held this year, involving key members from the different sub-regions. The executive committee also endorsed the proposal for convening a stakeholders' workshop on matters related to building an effective network, for which funding will be sought. AARINENA and its international partners are joining forces to promote the Network. The new Network also looks forward to establishing much needed linkages and partnerships with PGR Networks in the other Regions.

For further information about the PGR Network and AARINENA activities, please contact El Tahir Ibrahim Mohamed at the Agricultural Research Corporation, Wad Medani, Sudan (eltahir81@yahoo.com) or Ibrahim Hamdan at AARINENA, Amman, Jordan (ihamdan@link.net).

Fifth training workshop on forest biodiversity

In March this year 27 young scientists from 13 Latin American countries participated in the 5th two-week training workshop on Forest Biodiversity, as part of the Austria funded project "Developing training capacity and human resources for the management of forest biodiversity". The workshop took place in Colombia. It was co-funded by the Agencia Española de Cooperación Internacional para el Desarrollo (AECID) and was organized by Bioversity International, Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (INIA) and AECID, in collaboration with Latin American Forest Genetic Resources Network (LAFORGEN) and SEEDSOURCE.

The participants had the opportunity to learn how to apply principles of conservation genetics in practical forest management in forest and agro-forest landscapes. The programme included lectures on basic concepts in forest genetic resources (FGR), population genetics, use of GIS in FGR conservation, measurement of FGR, conservation strategies, and management of forest ecosystems.

Participants in the fifth training workshop on forest biodiversity, Colombia.
Photo: Centro de Formación de la Cooperación Española, Colombia

Lectures were given by: Leonardo Gallo (Argentina); Judy Loo (Canada); Juan Pablo Jaramillo Correa (Colombia); Carlos Navarro Pereira (Costa Rica); Ricardo Alía, Santiago González Martínez, Ángeles Navarrete Varela, Isabelle Gamache, Myriam Heuertz (Spain); David Boshier (UK); Marleni Ramirez, Xavier Scheldeman, Maarten van Zonneveld and Michele Bozzano (Bioversity International).

A full week was devoted to group work exercises and practical case studies. Participants used the draft training manual on FGR that Bioversity International is developing in the framework of this project, that will soon be released on its website.

This training workshop was the last of the five, each organized in a different region of the world. Previous workshops were held in Russia (2005), in Malaysia (2006), in Uzbekistan (2007) and in Ethiopia (2008).

Winner of Research Fellowship on Forest Genetic Resources for 2009

Gustavo Hernández Sánchez is the winner of the two-year scholarship supporting research on forest genetic resources, awarded to a prominent scientist of a national programme working in the field of forest genetic resources. The scholarship is awarded by Bioversity International and the Genetics Department of the Research and Training Centre for Forests, Natural Hazards and Landscape of Austria (BFW), with the support of the Austrian Development Agency (www.entwicklung.at/en/actors/ada.html).

Gustavo's project entitled: "Effect of forest fragmentation on genetic structure and gene flow in the tropical tree of high ecological and economic value, *Lecythis ampla*" will be conducted under the supervision of Thomas Geburek (BFW, Austria). Gustavo graduated from the Technological Institute of Costa Rica (ITCR) in forest engineering and also holds a Master in Management and Conservation of Tropical Forests and Biodiversity from the Tropical Agricultural Research and Higher Education Center (CATIE). He is a research professor at the Institute for Forest Research and Services (INISEFOR), of the National University of Costa Rica (UNA) at the department of Integrated Management and Monitoring of Natural Forests (www.una.ac.cr).

B F W

Vavilov-Frankel award fellows 2009

www.bioversityinternational.org/news_and_events

The Board of Trustees of Bioversity International recently awarded Vavilov-Frankel Fellowships to Danilo Eduardo Moreta Mejía, an Ecuadorian currently at the Departamento de Biología, Universidad del Valle, Cali, Colombia, and Esmaeil Ebrahimie from Shiraz University in Iran. Rice and Soybeans wil be the focus of this year's studies.

Danilo Eduardo Moreta Mejía's proposal focuses on a little-studied mechanism called biological nitrification inhibition (BNI) in rice. Nitrification results in substantial losses to soils as a result of nitrate leaching and the emission of nitrous oxide (which is also a potent greenhouse gas). Some species are able to inhibit nitrification, and if this ability were more widespread it could help to reduce the indiscriminate use of nitrogen fertilizers, which can damage the environment and human health. The idea is to screen accessions of rice in genebanks for possession of the genes underlying BNI and then use those varieties and the information they provide in rice breeding programmes. The study, entitled "A novel strategy to enhance nitrogen use efficiency in crops by exploiting the the diversity for biological nitrification inhibition in rice germplasm", will be carried out at the International Center for Tropical Agriculture (CIAT) Cali, Colombia and is supported by Pioneer Hi-Bred International, Inc.

Esmaeil Ebrahimie is also hunting for genes, but in soybeans, and more specifically in the wild relatives of soybeans. Although soybeans are widely cultivated, including in Ebrahimie's native Iran, they have a narrow genetic base and are susceptible to drought, salinity and heat. Australia's native wild relatives of soybeans have to cope with those stresses and so are expected to have traits that could be transferred to cultivated soybeans. The work will establish Australia's first native soybean gene databank, and all information will be publicly available. Together, these information resources will make it easier for others to breed advanced varieties of soybean. Ebrahimie's study entitled "Gene discovery in Australian wild native soybeans", will be carried out at the University of Adelaide in Australia and is supported by the Grains Research and Development Corporation (GRDC), Australia.

"These keenly-sought fellowships enable outstanding young scientists to carry out relevant, innovative research outside their own countries," said Elizabeth Goldberg, Head of Capacity Development at Bioversity International. "With their proposed research these two Fellows will undoubtedly make a contribution to the use and conservation of agricultural biodiversity. The Board was impressed with all the short-listed applicants and encourages all young scientists with an interest in agricultural biodiversity to apply for future Fellowships when they are announced in July."

EVOLTREE - Forest ecosystem genomics and adaptation conference

1st Announcement

evoltree
www.evoltree.eu

The conference is co-organized by EVOLTREE partners but open to the scientific community outside the Network of Excellence.

The aim of this international conference is to present new scientific findings in the area of ecosystem genomics, which addresses the structure and evolution of gene diversity at the population and community level. The conference will focus on the function and diversity of genes of adaptive significance in the context of climate change. Adaptation of forest ecosystems will be analyzed from an evolutionary perspective and illustrated by examples on trees and their associated species.

The conference is a joint event of the research partners in the Network of Excellence EVOLTREE (www.evoltree.eu), which is funded by the EC 6th Framework Programe for research. The primary objective of EVOLTREE is to integrate European research infrastructures to tackle scientific challenges in the field of forest ecosystem genomics.

Invited speakers will include scientists from EVOLTREE, other research teams in Europe and other parts of the world. The conference is also open to policy makers and practitioners. Implications of the research findings to formulating relevant policies and implementing sustainable forest management will be also discussed.

The conference is organized by the following EVOLTREE partner institutes: Bioversity International; French National Institute for Agricultural Research, France (INRA); INRA Transfert (France); and National Institute for Agriculture and Food Research and Technology, Spain (INIA).

The conference will be held in San Lorenzo de El Escorial (Madrid, Spain). The dates and further information on the conference will follow in the 2nd announcement.

See more information on the website: www.evoltree.eu.

Photos (top to bottom): B. Vinceti, Bioversity International; Hilke Schroder, Johann Heinrich von Thünen Institute (vTI), Grosshausdorf, Germany; Francis Martin, INRA Nancy, France.

Conservation of Temperate Fruit Crops in Central Asia cont...

(*continued from page 12*)

The project commenced in 2006 and national project teams have produced a range of materials to increase public awareness on local fruit crop diversity by national partners. Analysis of existing national legislation on the conservation of wild fruit species in protected areas and other forest lands as well as on agriculture and farm development is made in all five project countries and based on the analysis' data, recommendations are prepared for strengthening national legal frameworks to support farmers in fruit production and, in particular, in the maintenance of local varieties of fruit crops and wild fruit species.

In all five partner countries research teams conducted survey missions, organized focus group discussions and household surveys to assess the level of diversity of 12 target fruit crops and wild fruit species, traditional practices for their maintenance and the socio-economic status of farmers growing fruit crops. National partners used guidelines and methodologies developed by Bioversity International to accomplish this work. So far the surveys have revealed that rich diversity of local varieties of target fruit crops and forms with economically valuable traits of wild fruit species is maintained by farmers in their orchards and in forest plots. In Kazakhstan 211 local varieties of target fruit crops including 125 varieties apple, 22 of apricot, 46 of grapevine and 18 varieties of pear are being cultivated by farmers, while in Kyrgyzstan 29 varieties apple, 8 of apricot, 5 of alycha, 9 of grapevine, 5 of walnut, 5 of pistachio, 4 of currant and 10 economically valuable traits of wild walnut have been identified. In Uzbekistan 175 varieties of target fruit crops and grapes are found in the farmers' fields, including 52 of apricot, 49 of apple, 26 of grape, 17 of pear, 13 of pomegranate, 10 of walnut, 6 of almond and 2 of pistachio, of which 139 varieties are of local origin.

Sixty-three key farmers, all of whom maintained nurseries, were identified for multiplication of planting material of target fruit crops and promising forms of wild fruit species, including 16 farmers in Kazakhstan, 12 farmers in Kyrgyzstan, 8 in Tajikistan, 8 in Turkmenistan and 19 farmers in Uzbekistan. Forty-seven demonstration plots for target fruit crops and wild fruit species were established in existing farmers' orchards and forest lands in Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan for the purpose of exchanging knowledge and experience among farmers and researchers. In the region, 242 farmers were trained on fruit tree pruning technology and agronomy practices in orchards, grafting techniques, pest and diseases control, rootstock selection, harvesting and drying techniques for apricot fruits, conservation of fruit crops and wild fruit species, and fruit tree multiplication technologies.

Eighty scientists from Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan were trained on use of the GRIS-2 for documentation of the collected data on target fruit crops, traditional knowledge documentation, participatory methods and frameworks, data collection at community level, market research on fruit crop products.

The project team is working hard on improving capacity of local research institutes, farmers' communities and government bodies, in conservation and sustainable use of indigenous diversity of fruit crops in Central Asia for benefit of local and global community and will keep the readers informed on further developments within the project.

Third Session of the Governing Body of the International Treaty

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Third Session of the Governing Body, 20:10: the budget committee adjourns its work; closing plenary reconvenes.
Photo: Franz Dejon, IISD Reporting Services

The Third Session of the Governing Body (GB3) of the International Treaty on Plant Genetic Resources for Food and Agriculture was held in Tunis, Tunisia on 1-5 June 2009. The Session was well attended and despite early divisions turned out to be quite successful. The Governing Body worked through a mixture of plenary sessions and contact groups on specific subjects. The report of the session, which will be posted on the Treaty website (www.planttreaty.org), consists mainly of resolutions negotiated by the contact groups together with a report on organizational matters.

The first two days of the meeting were marred by differences between the developing countries, who wanted to see real commitments on financing and the Funding Strategy and developed countries who wanted to see progress on the compliance procedures. The differences were resolved by a gentlemen's agreement to start work first on the funding issues, and to continue on with compliance issues only if substantial progress was made.

In the end substantial progress was made on the Funding Strategy: the Governing Body reached consensus on a resolution setting a target of US$116 million for the benefit-sharing fund, and calling for the reconvening of the *Ad Hoc* Advisory Committee on the Funding Strategy to advise on the mobilization of funds and the operation of the Benefit Sharing Fund. It was not able to resolve the outstanding issues on the Financial Rules, and in particular the question of whether or not there should be an indicative scale of contributions. This matter will be taken up again at the next session. Work was started on the compliance procedures and will be continued through an *ad hoc* working group during the intersessional period, with a view to their approval at GB4.

There are signs that the Multilateral System is starting to function. The CG Centres reported that over 444 000 samples of Annex 1 Plant Genetic Resources for Food and Agriculture (PGRFA) had been distributed, mainly to developing countries, during the period 1 August 2007 through 31 July 2008, and that over 7000 samples had been acquired during the same period, either under the Standard Material Transfer Agreement (SMTA), or under terms that would allow the material to be further distributed using the SMTA. A number of countries also indicated that they were placing material in the Multilateral System and starting to use the SMTA. Some developing countries were still experiencing start-up difficulties. In this regard, the Governing Body welcomed the joint programme of assistance to developing countries in implementing the Treaty being run by FAO, the Treaty Secretariat and Bioversity International. It also decided to establish an *Ad Hoc* Advisory Technical Committee on the Standard Material Transfer Agreement and the Multilateral System, comprised of regional representatives and technical experts, including CGIAR representatives, to provide authoritative advice on technical questions arising in the implementation of the Multilateral System.

The Governing Body commended the Global Crop Diversity Trust on its performance over the last biennium, which had made a substantial contribution to attaining the objectives of the Treaty. A wish was expressed that the Trust continue to give priority in its funding activities to countries that are Contracting Parties to the Treaty. The Governing Body welcomed and supported the Trust's Fund Disbursement Strategy, which had been submitted to the Governing Body for consultation in accordance with Article 6 of the Trust's Constitution. The Fund Disbursement Strategy had already been the subject of consultation with the Donors' Council. The terms of office of at least two of the current members of the Executive Board of the Trust appointed by the Governing Body are due to expire before the next session, and the Governing Body delegated to the Bureau the power to appoint new members during the intersessional period. It also called for the simplification of the rather cumbersome selection and appointment procedures for the future.

The meeting adopted the Third Party Beneficiary procedures, thus bringing that important compliance mechanism into operation. The Food and Agriculture Organization of the UN (FAO) had agreed to serve as representative of the Third Party Beneficiary, subject to approval of satisfactory procedures. The Governing Body also adopted a resolution on Farmers' Rights, calling, among other things, for the Secretariat to convene regional workshops and to report on their outcome to the next session. Finally the Session adopted the Work Programme and Budget for 2010/11 by consensus, including the establishment of a working capital reserve, calling on all Contracting Parties to provide the resources required for the core administrative budget in a timely manner.

Cosima Huffler of Austria was elected as the new Chair of the Governing Body.

The next session of the Governing Body is scheduled for sometime between April and September 2011. Indonesia kindly has offered to host it.

www.planttreaty.org

19th EUCARPIA Genetic Resources Section meeting

Being a natural gateway from Central Europe to the Mediterranean and the Balkans, Ljubljana, Slovenia revealed itself to be the perfect host city for a gathering of over 120 people from 29 nations. The 19th meeting of the Genetic Resources Section of the European Association for Research on Plant Breeding (EUCARPIA) was locally organized by the Agricultural Institute of Slovenia. Given that agriculture is facing the target of producing as much food to feed the world in the next four decades as it has produced in the course of history to date, the challenge for plant breeding is huge and requires collaboration and partnerships. This was the message of Clair Hershey, Food and Agriculture Organization of the UN (FAO), who also presented the Global Partnership Initiative for Plant Breeding Capacity Building (GIBP). A similar message came from the opening presentation of Theo van Hintum, Centre for Genetic Resources, The Netherlands, indicating that PGR are available in the genebanks, but that their full exploitation will need a stronger collaboration, in order to better conserve the existing material and to better document its value with existing information technologies and with genomic tools under development. A promising road to the establishment of a "perfect world", where high quality PGR and related data are made available as part of a European collection, was outlined by Lorenzo Maggioni, Bioversity International in a presentation about the ongoing development of A European Genebank Integration System (AEGIS).

Strategies for searching traits in collections were exemplified for wild lettuce (Aleš Lebeda, Palack University, Czech Republic), ryegrass (Klaus Dehmer, Leibniz Institute of Plant Genetics and Crop Plant Research (IPK), Germany) and wheat (Andreas Börner, IPK Germany and N. Geleta, BOKU-University of Natural Resources and Applied Life Sciences, Austria).

Strategies to rationalize *ex situ* collections included the combined use of morphological, molecular and phytochemical data, with examples on parsley and poppy (Ulrike Lohwasser, IPK). The findings of an EU project on perennial forage species indicated the need to improve regeneration methods (Maurice Hinton-Jones, Institute of Biological, Environmental and Rural Sciences (IBERS), UK). A presentation by Manuela Nagel, IPK, analyzed the barley collection at IPK and revealed that reduction of viability in time is genetically variable. Research is ongoing to identify the responsible genes which seem to be related to abiotic stress. The long-term aim will be to find rapid, non destructive methods for testing seed viability after long-term storage.

During the session on "Utilization of genebank accessions", Gavin Ramsay, Scottish Crop Research Institute (SCRI), UK made a keynote presentation on the extensive potato pre-breeding activities carried out by SCRI. Adapted populations of both tetraploid and diploid Andean landrace potatoes carrying the great diversity found in these types are being developed. These populations contain more diversity than is found in European and Chilean potatoes. Integration of these resources with molecular techniques was described. Materials developed by SCRI are available for exchange and collaboration for pre-breeding is encouraged.

The last session, on "Material for special products", highlighted the rich diversity in nutritional levels and functional qualities of genetic resources of cereals, pseudo-cereals (buckwheat) and carrots. In particular, Emmanuel Geoffriau, National Institute of Horticulture (INHP), France described the outstanding variation of colours and of corresponding carotenoid levels and types among carrot accessions, ranging from white, yellow, orange, purple and pink. This left an impressing and colorful footprint in the mind of the participants, reminding them of the huge diversity available in the PGR collections.

Around 125 posters and an exhibition of outstanding pictures of PGR enriched the meeting. Participants also visited the Slovenian Institute for Hop Research and Brewing, including the hop and the medicinal and aromatic plants field collections in Žalec. A tasting session of the aromatic products of this institute was conducive to laying the foundations for new partnerships among the participants, in a relaxed atmosphere.

The conclusions from Eva Thörn, Chair of the EUCARPIA Genetic Resources Section, reiterated that additional dimensions need to be developed in order to reach a "perfect world" and these include collaboration strategies between the public and the private sector, as well as between plant breeding and other disciplines. This will ensure that research results, including gene mining and pre-breeding, can be better transferred into breeding. The level of partnerships developed will need to be ascertained at the next meeting. This will be the 20th meeting of this Section and will be held in 2011 in the Netherlands, coinciding with the 25th anniversary of the Dutch genebank.

Top: Dragon Bridge, Ljubljana. The banks of the river are connected with one single concrete arch and the four corners of the bridge are decorated with copper dragons, symbols from the Ljubljana coat-of-arms. Bottom: Cherry varieties on sale at the market in Ljubljana. Photos: L. Maggioni, Bioversity International

Seed law in Europe: a changing scenario

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Farro growing in a field in the Garfagnana region of Tuscany in Italy, marketed with the IGP (indicazione geografica protetta) mark of quality. Photo: J. Cherfas, Bioversity International

The marketing of seeds and plant propagating material in the European Union (EU) is subject to Directives developed in the sixties and seventies to ensure the quality of varieties commercialized in Europe. Plant varieties must be registered in the Common Catalogue of Varieties on Agricultural Plant Species and be certified for commercialization within the EU. The EU registration and certification system is built around two basic conditions: "DUS" for distinct, uniform and stable plant varieties and "VCU" for varieties to show their satisfactory value for cultivation and use.

Civil society organizations representing smallhold farmers, organic food producers and environmentalists have criticized EU legislation in the belief that it does not take into account smallhold farmers' needs and practices, and may go against genetic diversity conservation principles in general. Landraces and varieties developed by farmers through selection and rudimentary breeding methods frequently do not meet DUS and VCU requirements. Often, valuable family populations do not pass the uniformity test due to their heterogeneity, a characteristic that offers better resistance to biotic and abiotic stresses, but prevents the variety from being sold in the EU due to the existing strict uniformity rules. Other common limitations for smallhold farmers wanting to commercialize their seed varieties are the costs and lengthy procedures required by the registration and certification processes. This not only limits farmers' revenues, but also results in less genetic diversity available in the common European market and may ultimately threaten the diversity on-farm.

Aware that the scenario which inspired current legislation has changed and that modern agricultural production faces different problems, the European Commission (EC) conducted an external evaluation of the EU legislation in 2008, to establish how effectively the legislation has met its original objectives and to identify its strengths and areas for improvement with regard to potential new challenges, including genetic diversity conservation. A range of stakeholders and experts were consulted via surveys and face-to-face interviews, and the results of the evaluation were presented at the "Seed Availability in the 21st Century" Conference, held in Brussels, in March 2009, attended by approximately 130 people representing different sectors of agricultural production.

The EC has already announced that the current legislation will experience a profound reform. It is difficult to predict whether the need to maintain a healthy level of plant genetic diversity in the market and on farmers' fields will be taken into consideration by the new legislation. Most of the evaluation respondents believe that some objectives closely linked to diversity conservation, such as the protection of the environment, low-input agriculture and farm-saved seeds, will not be priorities for the new seed law in Europe. However, they do claim that the new legislation facilitates the availability of a broad range of varieties in the European market. Yet a greater number of varieties does not automatically mean greater genetic diversity. Many improved varieties of the same crop currently available in the EU do not differ much among themselves at the genetic level. This shows that diversity cannot be measured by the number of varieties alone.

Although smallhold farmers and organic farmers' organizations make themselves heard in current seed legislation dialogues and negotiations, their interests are still considered marginal by the EC compared to those of seed companies and large-scale producers. This sector represents almost the whole volume of the European seed market and seemingly upholds seed law in relation to the traditional principles of productivity, quality and transparency and is reluctant to include new objectives such as sustainability. In both the evaluation's results and at the Conference in Brussels this sector clearly stated that it would not like to see further differentiations according to the final use of the seed or the type of users, which would perhaps be the best way to protect small-scale producers' interests and, consequently, landraces and farmers' varieties.

As a new seed system for Europe is developed, the impact of such a system on plant genetic erosion must be subjected to serious and profound research. Bioversity may have a role to play in supporting European policy makers in defining conditions for seed registration and commercialization that do not go against the maintenance of plant genetic diversity and, eventually, the sustainability of agriculture production systems in Europe.

More information on the external evaluation and its results can be obtained at http://ec.europa.eu/food/plant/propagation/evaluation/index_en.htm.

SEEDNet news in mid-Phase II

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The SEEDNet programme has almost reached the middle of its second Phase and the partners are now actively collaborating within a number of different fields. The working groups, to which a group for documentation and information was added last year, are all involved in joint projects. Their focus is still on surveying and collecting but a few project groups have started work on characterization and identification of duplicates. The data from accessions collected during previous joint collecting projects has been imported to the database on the SEEDNet information portal where both text and GIS data for each project can be searched (http://seednet.geminova.net).

The SEEDNet training and education programme has been intensified and in addition to the regional courses, "in-country" training is being carried out for people involved in PGR and genebank work within partner countries. A regional course on "Genotype identification in genebanks – use of genetic and molecular markers" was given by NordGen in Sweden at the beginning of this year and, in the autumn, two regional courses, one on "*In situ* and on-farm conservation of plant genetic resources for food and agriculture" and one on "*In vitro* micro propagation and conservation" will be given by the Suceava Gene Bank in Romania. Moreover the genebanks of Suceava and Macedonia, FYR and the Swedish Biodiversity Centre (CBM) will provide other partners with in-country training on various issues related to PGR conservation.

The latest meeting of the SEEDNet Regional Steering Committee (RSC) in April 2009 was held in St Petersburg, kindly hosted by the N.I. Vavilov Research Institute of Plant Industry (VIR). Representatives from ECPGR, FAO, Global Crop Diversity Trust and NordGen were also invited to the meeting. The RSC sees the meeting as marking the beginning of a fruitful future collaboration between VIR and SEEDNet.

www.seednet.nu

Participants in the RSC meeting, St Petersburg, Russian Federation. Photo: Eva Thörn, Swedish Biodiversity Centre, Alnarp, Sweden

Farewell...

In April this year, the Europe Group bid farewell to Aixa Del Greco. Aixa joined the Regional Office for Europe as Scientific Assistant in April 2003. Aixa was involved in the development and management of the ECPGR website and its related databases (i.e. contacts, meetings, publications, European Central Crop Databases), one of her major tasks during the entire period of her employment with the ECPGR Secretariat. She was responsible for the public awareness activities of the ECPGR Programme and developed strategies and tools to raise public awareness on several initiatives (production of fact sheets, technical and «wider public» leaflets, pens, CD-roms, posters, etc). Aixa contributed to the compilation of meeting reports and also provided scientific and technical support to the planning and implementation of the ECPGR Networks' and Working Groups' workplans.

Aixa also worked part-time as Programme Specialist in Bioversity's Public Awareness Unit until August 2005, where she assisted in implementing the media strategy with specific reference to the Italian context. Prior to joining Bioversity, Aixa was employed for two years as Junior Professional Officer at ICARDA in Aleppo, Syria. During that period, she carried out laboratory (biotechnology) and field work on barley mapping populations.

Aixa is currently employed by Bioversity as Project Management and Communications Assistant in the Global Public Goods Phase II Project of the CGIAR.

Forthcoming meetings

3-9 August 2009
2nd International Conference on Conservation of Forest Genetic Resources in Siberia.
Novosibirsk, Russian Fed.
http://www-sbras.nsc.ru/ws/cfgrs2009/index.en.html

2-4 September 2009
EUCARPIA Section meeting "Biometrics in Plant Breeding".
Dundee, United Kingdom.
www.eucarpia.org

8-10 September 2009
2nd World Seed Conference.
Rome, Italy.
www.worldseedconference.org

21 Sept - 2 Oct 2009
9th Conference of the Parties (COP) to the United Nations Convention to Combat Desertification.
Buenos Aires, Argentina.
www.unccd.int

4-9 October 2009
19th International Congress of Nutrition 2009 "Nutrition Security for all".
Bangkok, Thailand.
www.icn2009.com

12-16 October 2009
Plant Conservation for the Next Decade.
Royal Botanic Gardens, Kew, UK.
www.kew.org

7-18 December 2009
UN Climate Change Conference.
Copenhagen, Denmark.
http://en.cop15.dk

14-15 December 2009
Natural Fibres '09 Conference.
Institute of Materials, Minerals and Mining, London, UK.
www.iom3.org/events/fibres

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Letter from the Regional Director for Europe

Dear Reader,

Periodically each of the 15 Centers of the Consultative Group for International Agricultural Research (CGIAR) undergoes an in depth review by an external panel for quality and relevance of science, as well as governance and management. This year, a team of six independent experts, chaired by Dr Richard Flavell (UK), reviewed Bioversity's operations of the last six years. This is an event of major importance as it helps to shape the future focus, while confirming the direction and outputs of the organization's current work. I share with our readers some of the key points from the report, which has only just been released. The further analysis and implementation of the recommendations given will be relevant for Bioversity's work in Europe in future.

The Panel clearly recognized continuity in Bioversity's unique role focused on understanding and managing biological diversity in the broader agricultural context. Bioversity has a long history of stimulating the conservation of *ex situ* collections and the management of genebanks. It publishes and teaches widely on methods for storage and regeneration of many species. It promotes the value of characterizing the species, especially within-species variation, and making the information available through databases. As a leader in genetic resources informatics, it occupies a key position in enabling others to extract value out of germplasm databases.

Bioversity also has a long history of working with partners all over the world and creating networks to do research, of which our region is a prime example. These relationships were viewed as extremely valuable by the Panel and not easily reproduced or newly created.

The Panel commended Bioversity for being entrepreneurial and concerned about important scientific challenges not being addressed previously. It noted that in new areas of linking biological diversity with nutrition, well-being and agro-ecological resilience, much stimulating work has begun with some outputs. The Panel recommended that further research and analysis needs to be undertaken to examine the nutritional, health and income effects derived from agricultural production systems based on high diversity, and to evaluate the tradeoffs with agricultural systems of higher external inputs and lower biological diversity.

The Panel has taken a critical look at Bioversity in the belief that the challenges are so important that the CGIAR and donors need a critical assessment of the potential role this Center could play. Many of the recommendations of this review focus on outcomes and impacts. The urgency to translate research into outcomes and impacts is apparent to all. Yet Bioversity is a research organization for development and relies on others to translate, whenever possible, its research into impacts to enhance livelihoods and aid the conservation of germplasm. This makes it essential that Bioversity does all it can to choose the right topics for research and communicate its knowledge as broadly as possible. This is perhaps the most important strategic message from the review.

Communication challenges are inherent in the organization and *modus operandi* of Bioversity, engaged in different parts of the world. The Panel, therefore, recommended to further increase cohesiveness, synergies and learning within and between Bioversity's focus research areas. It also recommended the implementation of a more effective publication policy to provide greater visibility of Bioversity's work and outputs.

Bioversity's governance, financial and administrative management were found to be in good order and the Panel did commend Bioversity for its successful efforts in bringing greater stability to its funding.

Outcomes from research by Bioversity and partners come mainly through partners or through adoption by others in the field of development. The Panel found that the role of Bioversity in promoting the development and establishment of and participation in various networks around the world is highly valued by the stakeholders and partners. The need to strengthen the capacities of national institutions and regional networks through close follow up, joint research projects and advocacy remains much needed.

Finally, the *modus operandi* that Bioversity has generated and the lessons learned from these experiences can constitute key inputs to the process of construction of the new CGIAR (see the prevoius issue of the Newsletter). The partnership model for carrying out research adopted by Bioversity appears to be suitable for many sorts of research providing the right partners are selected and all the participants buy into the work and can share the ownership and the benefits of it.

The role for Bioversity in the new CGIAR vision needs to be articulated for the sake of the credibility of the CGIAR, as well as ensuring that the key attributes of Bioversity find their rightful place in the new CGIAR. Thus, the debate needs to be held across the CGIAR and there is no better time for this than when the new Consortium is seeking to optimize the mix of science it supports. As concluded by the Panel, Bioversity should help lead and develop the conceptual framework for addressing needs of the planet based on biological diversity, especially intra-species diversity.

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