



# European Cooperative Programme for Plant Genetic Resources (ECPGR)

2008 Progress Report

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## SUMMARY

This year was largely dedicated to preparations for the new Phase of ECPGR. All the Network Coordinating Groups were involved in the compilation of progress reports of Phase VII and preparation of projects, workplans and budget estimates for Phase VIII. The Secretariat was also dedicated to finalizing the results of Phase VII, thereby preparing general progress reports as well as assisting the Networks in their specific tasks. In particular, the entire Cereals Network had the opportunity to discuss their progress and make plans for the future in a meeting held in April in Turkey. Progress and plans for EURISCO were reviewed at a meeting of the EURISCO Advisory Group in Germany in March. The advisory function of this group was proposed to be transferred to the Documentation and Information Network Coordinating Group.

Good activity was registered in the Vegetables Network (ad hoc meeting of the Cucurbits WG in Poland in December; steady development of new databases for leafy vegetables, publication of several outstanding reports and technical documents on minimum descriptors).

The Fruit Network held a productive meeting of database managers and experts on fruit synonyms. As a result, the Fruit Databases will try to use the same software and specifically the new SynoPyrus software for synonym identification, also helpful for Most Appropriate Accession identification.

The *In situ* and On-farm Conservation Network benefited from the EU-funded AEGRO project for an Integrated European *In situ* Management and started to develop methodologies for the establishment and management of *in situ* reserves, also sharing information with all the Crop Networks, as well as mobilizing their expertise.

Planning for Phase VIII was facilitated by a brainstorming event organized near Rome in June by the Secretariat, attended by a selected number of National Coordinators. Background documents were then prepared for the Steering Committee meeting, in preparation for a new Phase VIII. The End-of-Phase Steering Committee Meeting was held in Sarajevo, Bosnia and Herzegovina, in September 2008. A new Phase VIII was approved with an increased budget (€ 2 759 000), covering support for the continued implementation of AEGIS, as well as for priority activities of all the Networks.

Good perspectives for an enlarged geographic coverage of ECPGR were ensured by the new memberships in 2008 of Bosnia and Herzegovina and Ukraine, as well as pledges by Belarus, Montenegro and the Russian Federation to join in Phase VIII. The full operation of the Networks in the future was ensured by the approval of the proposed Network budgets, although they were kept at the same level as in the previous Phase. A strategy for collaboration with the European Union was set up, with the objective of obtaining long-term support for implementation of the Treaty and PGRFA conservation in general. Collaboration with the Global Crop Diversity Trust was consolidated, in particular for the Global Information on Germplasm Accessions (GIGA) project and for the regeneration project. A new publication strategy was endorsed, supporting the concept that meeting reports during Phase VIII should be very light and should be finalized quickly after the meetings and published only electronically on the Web site.

Regarding EURISCO, the SC agreed to use it as a service to the International Treaty for registration of accessions in the Multilateral System and for an interim reporting procedure on the use of the Standard Material Transfer Agreement at the national level. A "Vision paper for a European PGR Information landscape" was prepared by members of the Documentation and Information Network for the SC meeting, aiming to offer guidance for an emphasized effort in the area of PGR documentation.

The AEGIS preparation and implementation process made good progress during a meeting of the model crop curators and database managers in July in Poland. Experiences on definition of Most Appropriate Accessions were shared. A first draft of a paper defining "A Quality System for AEGIS (AQUAS)" was prepared and the definition of the scope of the European Collection (selection requirements) was agreed. More importantly, the general concepts of AEGIS received full endorsement by consensus by the SC and a Policy Guide for "A Strategic Framework for the implementation of AEGIS" was prepared for publication. Also, the Memorandum of Understanding for the establishment of AEGIS was adopted by consensus by the SC, with only one exception, due to an article related to the inclusion of non-Annex I crops, which was expected to be soon resolved through further consultation.

## 1. INTRODUCTION

This is the fifth and final annual progress report of Phase VII (2004-2008), covering the period from 1 January to 31 December 2008.

While this report aimed to put on record all the relevant events which occurred during 2008, the Steering Committee (SC) has been kept informed on a more regular basis through the dedicated “steering committee listserver”, which was kindly managed by NordGen. In particular, through the listserver, the following information was delivered and actions requiring Steering Committee decisions have been completed:

- Agreement on a final draft of the AEGIS Memorandum of Understanding (Jan.-May 08)
- Preparation for End-of-Phase Steering Committee Meeting (information about foreseeable budget for Phase VIII and provision of background documents) (May–Aug. 08)
- Announcement of grant scheme for evaluation of crop diversity was issued by the Global Crop Diversity Trust (June 08)
- Announcement of Bioversity International Vavilov-Frankel Fellowships for 2009 (Aug. 08)
- Update of Terms of Reference of ECPGR (Nov. 08)
- Announcement of a capacity building joint project (FAO/Bioversity/Treaty Secretariat) for developing countries on implementation of the Treaty and its Multilateral System of Access and Benefit-sharing (Dec. 08)
- Adoption of AEGIS Memorandum of Understanding (Dec. 08)
- Information on new ECPGR reports available online (throughout the year).

## 2. IMPLEMENTATION OF PHASE VII OF ECPGR

As at the end of 2008, with the closure of Phase VII, a total of 33 countries had formalized their membership to Phase VII of ECPGR. Seven other countries had not signed the Letter of Agreement but had, nonetheless, started to pay annual contributions for Phase VII. Ukraine joined ECPGR in February 2008 and Bosnia and Herzegovina joined in April 2008, therefore becoming the 40th ECPGR member country.

The list of member countries that have participated in Phase VII is the following:

Albania	Georgia	Poland
Armenia	Germany	Portugal
Austria	Greece	Romania
Azerbaijan	Hungary	Serbia
Belgium	Iceland	Slovakia
Bosnia and Herzegovina	Ireland	Slovenia
Bulgaria	Israel	Spain
Croatia	Italy	Sweden
Cyprus	Latvia	Switzerland
Czech Republic	Lithuania	Turkey
Denmark	Macedonia (FYR)	Ukraine
Estonia	Malta	United Kingdom
Finland	The Netherlands	
France	Norway	

Relevant documents related to the implementation of Phase VII have been available throughout the Phase from the ECPGR Web pages. These were:

- ECPGR Terms of Reference (version 2, February 2007)
- Networks’ budgets
- Country quota for Phase VII (explanation)
- ECPGR Annual reports.

### 3. THE ELEVENTH STEERING COMMITTEE MEETING

In view of the preparation of the Steering Committee (SC) Meeting and the need to make plans for Phase VIII, in June 2008 the Secretariat convened, on an informal basis, a small group of SC members in Tragliata, Italy, for a brainstorming session. This exercise was very helpful for the Secretariat, giving an indication of some of the expectations of a “test group” of SC members from Macedonia FYR, Romania, the Netherlands, Poland, Sweden and Switzerland.

Unfortunately, the meeting in Tragliata coincided with the tragic death of our colleague, Martyn Ibbotson, United Kingdom, who had been invited to the meeting in anticipation of his highly valued inputs.

In September 2008, at its Eleventh Meeting held in Sarajevo, Bosnia and Herzegovina, the SC approved the launch of the Eighth Phase of ECPGR (2009-2013) and Phase VIII plans were adopted with an overall budget of € 2 759 000. The meeting was attended by representatives of 34 member countries and observers from three potential member countries; FAO, the Global Crop Diversity Trust, the Secretariat of the Governing Body of the International Treaty, NordGen, SEEDNet and a representative of non-governmental organizations (NGOs) also participated.

High on the agenda of the meeting was the adoption by the SC of the Strategic Framework of the European Genebank Integrated System (AEGIS) and decisions regarding further development of AEGIS (see below, Chapter 6).

Apart from task sharing and capacity building, other priority areas for ECPGR activity during Phase VIII will also continue to be addressed, e.g. “Characterization and evaluation”, “*In situ* and on-farm conservation and management” and “Documentation and information”. Two new Working Groups, namely on “Wild species conservation in genetic reserves” and on “On-farm conservation and management” were specifically established, raising the number of ECPGR Working Groups in Phase VIII to twenty.

In the documentation and information area, ECPGR will collaborate with a global project funded by three international bodies (Global Crop Diversity Trust, International Treaty and Bioversity International). This project, called GIGA (Global Information on Germplasm Accessions), intends to create, among other things, a global gateway to accession-level information. The well established European EURISCO Catalogue, which is hosted and maintained by Bioversity International on behalf of ECPGR, is expected to become an important source of data within this global initiative. The SC also agreed on the use of EURISCO as a service to the International Treaty, by approving a proposed mechanism of registration of accessions in the Multilateral System, as well as an interim reporting procedure at the national level for reporting on the use of the Standard Material Transfer Agreements.

The SC meeting in Sarajevo also provided an opportunity to strengthen collaboration with other international institutions and fora, namely FAO, the Global Crop Diversity Trust, the International Treaty Secretariat, NordGen and SEEDNet. It was noted, however, that a consistent engagement with the European Union had not yet taken place and the overall collaboration between ECPGR and the EU will need to be substantially strengthened in this coming Phase. A strategy for collaboration with the EU will be further developed.

A new publication strategy for ECPGR was endorsed, supporting the concept that meeting reports during Phase VIII should not be heavy reports including country reports and other papers, but only concise minutes, to be finalized quickly after the meetings and published only electronically on the Web site.

As ECPGR draws closer to its 30th anniversary in 2010, the time has come for a thorough evaluation of its scope, objectives, mode of operation, structure and governance. Consequently, the SC decided to carry out an independent external review of the Programme and resolved to raise funds and make detailed plans for this review in the early part of Phase VIII.

All the details related to the Sarajevo meeting, including background documents and final report were made available at:

[http://www.ecpgr.cgiar.org/SteeringCommittee/SC11/SC11\\_outcomes.htm](http://www.ecpgr.cgiar.org/SteeringCommittee/SC11/SC11_outcomes.htm)

Letters inviting the countries to join Phase VIII of ECPGR were sent by the Secretariat to all National Coordinators in October 2008. At the end of 2008, nine countries had already signed the Letter of Agreement for Phase VIII (Armenia, Bulgaria, Estonia, Georgia, Lithuania, The Netherlands, Norway, Switzerland and the United Kingdom).

## 4. ACTIVITIES CARRIED OUT WITHIN THE NETWORKS

All the Networks have been involved in the preparation of project plans and proposed budgets for Phase VIII. Resulting documents were compiled as background for the Steering Committee meeting in September 2008 ([http://www.ecpgr.cgiar.org/SteeringCommittee/SC11/SC11\\_backdocs.htm](http://www.ecpgr.cgiar.org/SteeringCommittee/SC11/SC11_backdocs.htm)). The outcome of this exercise is included in the Report of the Steering Committee meeting ([http://www.ecpgr.cgiar.org/SteeringCommittee/SC11/SC11\\_FinalReport.pdf](http://www.ecpgr.cgiar.org/SteeringCommittee/SC11/SC11_FinalReport.pdf)), where it is specified that the Networks proposals were approved with an agreed budget for Phase VIII.

### 4.1. Cereals Network

**Priority WGs:** *Avena* and Wheat

**Lower priority WG:** Barley

The **Cereals Network Coordinating Group (NCG)** consisted of seven members: Helmut Knüpfper, Gatersleben, Germany (Network Coordinator); Iva Faberová, Prague, Czech Republic; Christoph Germeier, Quedlinburg, Germany; Marja Jalli, Jokioinen, Finland; Andreas Katsiotis, Athens, Greece; Gert Kleijer, Nyon, Switzerland; and Marcin Zaczynski, Radzików, Poland.

As part of the **AEGRO project** (see below, Chapter 4.8) a few members of the *Avena* WG met in Athens, Greece, 26-27 March 2008 and prioritized wild *Avena* species based on threat and/or their distribution for *in situ* conservation. The following species of the secondary gene pool were selected: *A. insularis* (Sicily, Italy), *A. murphyi*, *A. prostrata* (Andalucía, Spain), *A. ventricosa* (Cyprus) and *A. hirtula* (Crete, Greece). However, the final selection of species and sites for the establishment of genetic reserves will take account of the phylogenetic data, distribution, rareness, and conservation status of *Avena* species.

**The Second meeting of the Cereals Network** took place on 21-24 April 2008 in Foça, Turkey, organized with the support of the Aegean Agricultural Research Institute (AARI). It gathered 61 members from 33 countries and a total of 80 participants. Ukraine was represented as a full ECPGR member for the first time. Observers from CYMMIT, ICARDA and from Morocco and the Russian Federation also attended.

The three Cereals Working Groups (*Avena*, Barley and Wheat) reviewed their progress and redefined their priorities for the future. Network activities related to Rye, Triticale, Maize and Minor Cereals were also discussed, with presentations of invited experts and review of the status of existing ECPGR Databases.

The *Avena* Working Group (WG) reported progress in the collecting of endangered wild species (*A. insularis* in Italy, *A. murphyi* and *A. prostrata* in Spain). The WG benefited from three EC-funded projects, covering characterization and evaluation of European *Avena* genetic resources, development of *in situ* management plans for wild relatives and screening of oat material for quality in human consumption.

Among the highlights of the Barley WG discussions, it was agreed that there was a need to ensure that precise genetic stocks were conserved in genebanks, since they are important resources for breeding and for crop plant research. An assessment of existing barley genetic stocks collections in Europe was planned. The Group recommended using the Svalbard Seed Vault for safety-duplication of barley accessions. Regarding the existing Barley Core Collection, the Group agreed to review the level of its utilization and of results obtained. Emphasis was put on pre-breeding, specifically targeting climate change and plant responses to biotic and abiotic stresses, but also the nutritional value of crops. The Barley WG will lead an initiative on the Network level, thus reviving a pre-breeding initiative with FAO, starting with a thematic meeting in the near future with the intention to develop joint projects. A list of wild relatives in Europe for *in situ* conservation planning will also be compiled. The Group recognized the strong need for the updating and sustainable maintenance of the European Barley Database as a prerequisite for the AEGIS process, but also as a one-stop-shop for information for researchers and breeders.

The Wheat WG reviewed progress in the participating countries, focusing on organizational structures, facilities and methods used, description of the collections, germplasm distribution, specific use of wheat accessions, documentation and core collections. The Group agreed to further the initiative by producing an inventory of wheat genetic stocks in the public domain and to address the need for capacity building, since cytogenetic skills are required if genebanks take on the commitment to conserve genetic stocks. The European Wheat Database recently improved its functionality with links to pedigree and allele databases. The presence of characterization data is of high value, but the countries were requested to provide their data more actively. The Group intended to develop projects on evaluation of wheat genetic resources for nutritional traits, response to pests and diseases, and traits associated with climate change.

The Cereals Network meeting demonstrated throughout the meeting that there was significant interest and readiness in taking the AEGIS ideas and principles forward. The *Avena* WG made steps towards the identification of Most Appropriate Accessions (MAAs) and decided on the appropriate methodology to adopt in order to make progress in the creation of a European *Avena* Collection. The Barley WG agreed to start the AEGIS activities by updating the database and discussing criteria for selection of MAAs.

All the Chairs and Vice-Chairs were reconfirmed and Jens Weibull, Sweden, was elected as new Vice-Chair of the *Avena* WG. A draft report of the meeting was made available on the ECPGR Web site ([http://www.ecpgr.cgiar.org/Networks/Cereals/Cereals\\_Network\\_2ndMeeting\\_Draft\\_Feb09.pdf](http://www.ecpgr.cgiar.org/Networks/Cereals/Cereals_Network_2ndMeeting_Draft_Feb09.pdf)).

The Network Coordinator, Helmut Knüpffer has been involved, in the first part of the year, in identifying institutions and related needs regarding the regeneration and safety-duplication of priority accessions, as part of the Trust-funded ECPGR project (see below, Chapter 7). The project was approved for funding the regeneration of nearly 4,000 accessions of *Aegilops*, Barley, Maize, Sorghum and Wheat. Beneficiaries of a total support of about US\$ 88 000 will be institutes in Armenia, Azerbaijan, Belarus, Bulgaria, Georgia, Greece, Hungary and Israel.

## 4.2. Forages Network

### Priority WG: Forages

The **Forages Network Coordinating Group** consisted of seven members: Merja Veteläinen, Finland (Network Coordinator); Beat Boller, Zürich, Switzerland; Lajos Horváth, Tápiószele, Hungary; Chris Kik, Wageningen, The Netherlands; Petter Marum, Ilseng, Norway; Valeria Negri, Perugia, Italy; and Evelin Willner, Malchow/Poel, Germany.

The Working Group on Forages has been undergoing a systematic exercise to proceed with the identification of Most Original Accessions and holders of Primary Collections, with priority for *Dactylis*, *Festuca*, *Lolium*, *Medicago*, *Phleum*, *Poa* and *Trifolium*.

The Network Coordinator, Merja Veteläinen, was sponsored by ECPGR to take part in the meeting of the AEGRO project in Quedlinburg, Germany, 18-19 September 2008, in order to link with this *in situ* initiative. As a result, the Forages WG was planning to take an initiative to identify European sites for *in situ* conservation in coordination with similar initiatives developed within the context of the AEGRO project (see below, Chapter 4.8).

In March 2008 the Israel Plant Gene Bank informed the Secretariat about their need to discontinue the responsibility of maintaining the ECPGR *Trifolium alexandrinum* and *T. resupinatum* databases. The Forages WG will need to explore the opportunity to assign this responsibility to a different institute.

### 4.3. Fruit Network

**Priority WGs:** *Malus/Pyrus* and *Prunus*

**Lower priority WG:** *Vitis*

The **Fruit Network Coordinating Group** consisted of seven members: Marc Lateur, Gembloux, Belgium and Emilie Balsemin, Bordeaux, France (co-Coordinator); Daniela Benediková, Piešťany, Slovakia; Stein Harald Hjeltnes, Leikanger, Norway; Erika Maul, Siebeldingen, Germany; Matthew Ordidge, Reading, United Kingdom; and Jesus Ortiz, Madrid, Spain.

Matthew Ordidge from the University of Reading, United Kingdom, took over the responsibility for the management of the ECPGR *Malus* Database from Emma-Jane Allen, Imperial College.

In order to replace the vacant role of Network Coordinator after the departure of Ken Tobutt, an email consultation among the Network Coordinating Group members was organized by the Secretariat. As a result, Marc Lateur and Emilie Balsemin were selected in December 2008 to act as Interim Network co-Coordinator, with complementary functions, until the next meeting of the Network Coordinating Group.

A meeting of the ECPGR **Fruit Database Managers** (*Malus*, *Prunus*, *Pyrus* and *Vitis*) and an **ad hoc meeting of European experts on Fruit synonyms** were organized at Gembloux, Belgium on 23-25 June 2008 at the Centre Wallon de Recherches Agronomiques (CRA-W).

The meetings aimed at harmonizing and sharing progress in the management of European fruit tree collections. Firstly, the European Central Crop Database Managers of *Malus* (University of Reading, UK), *Prunus* (INRA, Bordeaux, France), *Pyrus* (CRA-W, Gembloux, Belgium) and *Vitis* (Julius Kühn Institute, Siebeldingen, Germany), compared the databases and evaluated their progress.

Exploring techniques that would allow a harmonization of the DBs and comparing experiences in DB management, a vision of the future development of the DBs online was developed. The SynoPyrus software, developed by O. Roger and M. Lateur was demonstrated and all DB managers agreed to use it in the future to identify synonyms that are posing important problems in the management of collections, as well as in the elaboration and use of the DBs.

The DB accessions for *Malus/Pyrus* and *Prunus* were analyzed with the objective of validating lists of synonyms according to the best reference books for each crop, in order to identify the Most Appropriate Accessions (MAAs) to be included in the European Collection, currently being defined by the AEGIS initiative. More than 1400 pear and 600 cherry accession names were examined by the respective expert groups with the view to defining their most appropriate names, country of historic origin, synonyms linked with bibliographic references and a reference description that could be used for the validation of the accession identity.

Participants also agreed on the necessity to define common rules and methodologies for the introduction of photographs for each accession within the DB, using standardized models as much as possible.

Making use of the ECPGR lower priority funds, a new Web site of the **European *Vitis* Database** was under establishment at the Julius Kühn Institut, Bundesforschungsinstitut für Kulturpflanzen (JKI), Quedlinburg. The Database has been completely reprogrammed, making it compatible with the Multicrop Passport Descriptors (MCPD) and the EURISCO format and also in view of developing modules enabling partners to modify specific data records: addition, updating and deletion of single records, uploading of descriptor data and downloading of records.

The Report of a Working Group on *Vitis*, First Meeting, 12-14 June 2003, Palić, Serbia and Montenegro, was published online (<http://www.ecpgr.cgiar.org/workgroups/vitis/vitis.htm>) and printed.

#### 4.4. Oil and Protein Crops Network

**Priority WG:** Grain Legumes

The **Oil and Protein Crops Network Coordinating Group** consisted of four members: Mike Ambrose, Norwich, United Kingdom (Network Coordinator); Siyka Angelova, Sadovo, Bulgaria; Andrea Carboni, Bologna, Italy; and Gérard Duc, Dijon, France.

A new version of the **ECPGR *Pisum* Database** was prepared by Mike Ambrose, John Innes Centre (JIC), Norwich, UK, and off-line, downloadable files were made available from the DB entry page. These provide data from 43 collections in 26 European countries. A Web-searchable version was planned. A link was provided under the Grain Legumes WG Web page to the *Pisum* Gene List, maintained at the JIC on behalf of the *Pisum* Genetics Association. This includes descriptions, publications and genetic stocks information for all published genes in *Pisum*. The genetic stocks are maintained within the JIC *Pisum* Germplasm collection.

On behalf of the Network, Maria José Suso, Spain and Siyka Angelova, Bulgaria, attended the **meeting of the AEGRO project in Quedlinburg**, Germany, 18-19 September 2008, in order to link with this *in situ* initiative (see below, Chapter 4.8). The importance of grain legumes in providing ecosystem services, in particular by preserving a diversity of beneficial pollinators, was stressed and picked up by the meeting.

Members of the Grain Legumes Network, Maria José Suso, Spain, Margarita Vishnyakova, Russian Federation and Mike Ambrose, UK, contributed to the preparation of the **regeneration guidelines on lentil and faba bean**. These short and practically oriented guidelines were compiled by Bioersivity International and the Global Crop Diversity Trust to help genebank staff regenerate their collections at a high standard.

The Network Coordinator, Mike Ambrose, was involved, in the first part of the year, in identifying institutions and related needs regarding the regeneration and safety-duplication of priority accessions, as part of the Trust-funded ECPGR project (see below, Chapter 7). The project was approved for funding the regeneration of over 1200 accessions of chickpea, common bean, cowpea, faba bean, grass pea, and lentil. Beneficiaries of a total support of about US\$ 27 000 will be institutes in Albania, Azerbaijan, Bulgaria, Georgia, Hungary and Portugal.

#### 4.5. Sugar, Starch and Fibre Crops Network

**Priority WGs:** *Beta* and Fibre Crops (Flax and Hemp); Medicinal and Aromatic Plants

**Lower priority WG:** Potato

The **Sugar, Starch and Fibre Crops Network Coordinating Group** consisted of four members: Lothar Frese, Quedlinburg, Germany (Network Coordinator); Ana Maria Barata, Braga, Portugal; replacing Dea Baričević, Ljubljana, Slovenia; Roel Hoekstra, Wageningen, The Netherlands; and Martin Pavelek, Šumperk, Czech Republic.

Following a decision taken at the Medicinal and Aromatic Plants WG meeting in Olomouc, Czech Republic, June 2007, the Secretariat facilitated the selection of a new Chair for the Group, replacing Dea Baričević, through email consultation. In December 2008, Ana Maria Barata, Portugal was selected as interim Chair until the next regular meeting and Åsmund Asdal, Norway agreed to serve as interim Vice-Chair.

Plans made by the ECPGR Working Group on *Beta* for the last part of Phase VII can partly be implemented by Work Package 6 (case study on *Beta*) of the EU-funded **AEGRO project** (see below, Chapter 4.8). During the AEGRO meeting held in Quedlinburg, Germany, 18-19 September 2008, Miguel Pinheiro de Carvalho, University of Madeira, Portugal, reported about surveying populations of *Beta* and *Patellifolia* species in the Madeira archipelago. Recommendations for the establishment of



genetic reserves will be based on genetic data to be obtained from samples sent to the Julius Kühn Institute, Quedlinburg, Germany for molecular analysis.

As part of the Network's workplan, a Letter of Agreement was established in October 2008 between Bioversity International and the Julius Kühn Institut, Federal Research Centre for Cultivated Plants (JKI), Quedlinburg, Germany. The objective was to design an application for updating Multicrop Passport Data (MCPD) and perform duplicate searches. The redesigned application will be used for updating the International Database for *Beta* (IDBB).

The following report was made available on the Web

(<http://www.ecpgr.cgiar.org/Workgroups/beta/beta.htm>):

Report of a Working Group on *Beta* and the World *Beta* Network. Third Joint Meeting, 8-11 March 2006, Puerto de la Cruz, Tenerife, Spain. (Part I, revised draft, March 2008).

#### 4.6. Vegetables Network

**Priority WGs:** Cucurbits, Leafy Vegetables and Umbellifer Crops

**Lower priority WGs:** *Allium*, *Brassica* and Solanaceae

The **Vegetables Network Coordinating Group** consisted of seven members until the Steering Committee agreed in September 2008 to raise the maximum number to ten members. At this point the NCG decided to operate with 11 people, involving all the Chairs and Vice-Chairs: Dave Astley, Warwick, United Kingdom (Network Coordinator); Noortje Bas, Wageningen, The Netherlands; Ferdinando Branca, Catania, Italy; Marie-Christine Daunay, Montfavet, France; Maria José Díez, Valencia, Spain; Willem van Dooijeweert, Wageningen, The Netherlands; Emmanuel Geoffriau, Angers, France; Joachim Keller, Gatersleben, Germany; Teresa Kotlińska, Skierniewice, Poland; Katerina Karlová-Smékalová, Olomouc-Holice, Czech Republic; and Rob van Treuren, Wageningen, The Netherlands.

Following the resignation in January 2008 of Dave Astley, UK as the Chair of the Umbellifer Crops WG, a process to find an interim Chair was started by the Secretariat via email. Emmanuel Geoffriau, France, was selected as the new Interim Chair in June 2008 and until the next regular meeting.

The NCG met for an extraordinary meeting on 18 April in Wageningen, The Netherlands, to discuss the preparation of workplans and budget proposals for Phase VIII.

Lower priority funds (Solanaceae) were used by Marie-Christine Daunay, France to visit the Botanical and Experimental Garden, Radboud University Nijmegen, The Netherlands, which is the managing institute for the **ECPGR Solanaceae Database**. Corrections to be made to the database, which were pending since the beginning of 2005, were finally made. The DB data integrity was improved, eliminating inconsistencies in the accession numbering system and providing clearer characterization data.

The *Allium* and *Brassica* Working Groups were involved in the meeting of curators and database managers of the four **AEGIS Model Crops** that took place in Radzików, Poland, 1-3 July 2008 (see below, Chapter 6). As documented in the model crops reports (see AEGIS Web site [http://www.ecpgr.cgiar.org/AEGIS/AEGIS\\_home.htm](http://www.ecpgr.cgiar.org/AEGIS/AEGIS_home.htm)), clear guidelines were agreed on the treatment of *in vitro* stored and cryopreserved material.

The Model Crops meeting included also a presentation by Daniela Horna (International Food Policy Research Institute - IFPRI), in which she presented a tool for economical evaluation of genebank procedures. The *Allium* Working Group was interested in using this tool to analyze the costs of the cryopreservation protocol. A student from the Hannover University, Germany, will use this tool and work on technological and economic evaluation of garlic cryopreservation vs. field culture in the frame of his Master Thesis.

The European **GENRES project EURALLIVEG** continued its activities that are fully in line with the *Allium* WG plans. Molecular screening of 550 shallot accessions was completed and other accessions were cryopreserved. In the framework of this project, a project meeting was held at the University of Potenza, Italy on 8-9 July 2008. A further special meeting was organized at the Crop Research Institute, Prague on 12 December 2008.

The Chair of the *Brassica* WG participated, as a project partner, in **the meeting of the AEGRO project in Quedlinburg**, Germany, 18-19 September 2008, where he reported about ongoing surveys of wild *Brassica* in Sicily. Demographic data and seed samples were collected in view of undertaking chemical, molecular and morphological characterization.

**An ad hoc meeting of the Cucurbits Working Group** took place at the Warsaw University of Life Science, Poland, on 23-24 October 2008, aimed at starting the implementation of AEGIS within the Working Group. Representatives from Bulgaria, Czech Republic, Georgia, Germany, Hungary, Israel, Latvia, The Netherlands, Poland, Portugal, Spain, Turkey and Ukraine attended the meeting. These countries hold the major part of important Cucurbit collections in Europe.

The status of the National Collections was updated by all the attending members. The current state of the European Central Cucurbits Database (ECCUDB) was presented to the participants, who were asked to provide new passport and characterization data in order to improve the quality of the database. The background, goal and scope of AEGIS, as well as the concept of the Most Appropriate Accessions (MAAs) and the role of the Working Groups in the implementation of AEGIS, were explained. A case study based on the collection of *Cucurbita pepo*, carried out in the COMAV genebank, (Valencia, Spain) was prepared in order to test the selection of the MAAs. Further case studies were planned, in order to cover all the possible features of the collections included in the Working Group. Plans for action were established in order to improve the level of safety storage for cucurbits. Progress was also made on the development of minimum descriptor lists for *Cucurbita*, *Lagenaria* and *Momordica* spp. Being involved in these crops, members from Germany and Israel will develop and review the descriptors. The status of need for regeneration was revised and possible solutions were discussed. A survey for conservation, management and regeneration procedures of cucurbit genetic resources, developed by the *Brassica* WG and adapted by the Vice-Chair of the Cucurbits WG was discussed. Members were encouraged to fill it, in order to initiate the establishment of standards to be used for the maintenance and regeneration of the MAAs.

**A public awareness initiative** mobilizing the Solanaceae WG was started by Wolfgang Palme, Austria. It was decided to dedicate the 2009 Schoenbrunn Seminar to minor crops of Solanaceae. Seeds of *Solanum melongena*, *S. aethiopicum*, *S. macrocarpon* and *Physalis* were requested from partners in the Network. These will be planted as demonstration of the existing diversity. The objective of the seminar will be to connect growers, traders, processors and consumers. Lectures will be offered and tasting and degustation sessions arranged.

Within the framework of the Working Group on Cucurbits, funds were dedicated to priority **safety-duplication of over 1000 Bulgarian accessions** of *Cucumis*, *Cucurbita*, *Lagenaria* and *Luffa*. These unique accessions, conserved at the Institute of Plant Genetic Resources "K. Malkov" (IPGR), Sadovo, will be sent to the Centre for Genetic Resources, the Netherlands (CGN), to be conserved under a "black box" arrangement. It is expected that the accessions that are safety-duplicated as part of this agreement will, in due time, be proposed by Bulgaria for registration as European accessions.

The ECPGR Pepino (*Solanum muricatum*) Database was made available online by the Institute for the Conservation and Improvement of Agrodiversity, COMAV, Universidad Polit cnica de Valencia, Spain (<http://www.comav.upv.es/muricatum.HTML>).

A common entry page (<http://documents.plant.wur.nl/cgn/pgr/lvintro/>) was developed by the Centre for Genetic Resources, the Netherlands (CGN), within the framework of the EU GENRES project entitled "Leafy vegetables germplasm, stimulating use" (AGRI-2006-0262). This Web site provides access to the updated **ECPGR International Lactuca Database (ILDB)** and to three newly developed **ECPGR databases containing information on accessions of spinach, chicory and minor leafy vegetables**, respectively. Data were collected from accessions that, in principle, were available

for distribution. The aim is to cover all known European collections and to include the main collections from outside Europe as well. The databases also provide access to characterization and evaluation data generated within the framework of the EU GENRES project. The Lettuce and Spinach Databases are maintained by CGN; the Chicory Database is maintained by the Groupe d'Etudes et de Contrôle des Variétés et des Semences (GEVES), France and the Minor Leafy Vegetables Database is maintained by the Leibniz-Institute of Plant Genetics and Crop Plant Research (IPK), Germany.

The project has overall enabled the WG in carrying out its priority activities, including removing regeneration backlogs and initiating the arrangements for safety-duplication among some partners.

The **ECPGR Pepper Database**, maintained by the Aegean Agricultural Research Institute (AARI), was made searchable online (<http://www.ecpgr.cgiar.org/Databases/Crops/Pepper.htm>).

The following reports and descriptors lists were made available on the Web:

- Cucurbits WG (<http://www.ecpgr.cgiar.org/Workgroups/Cucurbits/Cucurbits.htm>)
  - Report of a Working Group on Cucurbits. First Meeting, 1-2 September 2005, Plovdiv, Bulgaria
  - Report of a Working Group on Cucurbits. Ad hoc Meeting, 23-24 October 2008, Warsaw, Poland (draft)
  - Minimum descriptors for Cucurbits (*Cucurbita* spp., cucumber, melon and watermelon)
- Leafy Vegetables WG ([http://www.ecpgr.cgiar.org/Workgroups/Leafy\\_Vegetables/Leafy\\_Vegetables.htm](http://www.ecpgr.cgiar.org/Workgroups/Leafy_Vegetables/Leafy_Vegetables.htm))
  - Report of a Working Group on Leafy Vegetables. First Meeting, 13-14 October 2005, Olomouc, Czech Republic
  - Minimum descriptors for Leafy Vegetables (cultivated lettuce, wild *Lactuca* spp., spinach, leaf chicory, witloof, endive, root chicory)
- Solanaceae WG (<http://www.ecpgr.cgiar.org/Workgroups/solanaceae/solanaceae.htm>)
  - Minimum descriptors for *Capsicum*, eggplant and tomato
  - Minimum descriptors for *Cyphomandra*, pepino, *Physalis* (drafts)

#### 4.7. Documentation and Information Network

The composition of the **Documentation and Information Network Coordinating Group** was revised during a meeting of the EURISCO Advisory Group (EAG) in March 2008. A proposal to reduce duplication of coordinating bodies was made, with a suggestion to incorporate all the tasks in the NCG, including the advisory role to EURISCO.

The composition of the NCG was proposed to be enlarged, maintaining a balanced number of Central Crop Database Managers and National Focal Points, including NordGen and SEEDNet representatives, as well as four *ex officio* standing guests (*In situ* and On-farm Network representative, EURISCO Coordinator, ECPGR Coordinator, and the Information Technology representative of the institute hosting EURISCO). The proposal to enlarge the NCGs to a maximum of ten people was accepted by the SC in September 2008.

NCG members in 2008 were the following: Frank Begemann, Bonn, Germany (Network Coordinator); Iva Faberová, Prague, Czech Republic; Theo van Hintum, Wageningen, The Netherlands; Helmut Knüpfner, Gatersleben, Germany; Jonas Nordling, Alnarp, Sweden (NordGen); Idin Fazlic, Sarajevo, Bosnia and Herzegovina (SEEDNet); Ahmet Semsettin Tan, Menemen, Turkey; Ian Thomas, Aberystwyth, United Kingdom. The standing guests were Sónia Dias and Lorenzo Maggioni, ECPGR Secretariat, Rome; Michael Mackay, Bioversity International, Rome and José Iriondo, Spain (*In situ* and On-farm Network representative).

A **EURISCO Advisory Group meeting was held** at the Central Office of the Federal Agency for Agriculture and Food (BLE) in Bonn, Germany **on 12 March 2008** (already reported in the ECPGR Technical report for 2007, available at:

[http://www.ecpgr.cgiar.org/Networks/Info\\_doc/info\\_doc.htm](http://www.ecpgr.cgiar.org/Networks/Info_doc/info_doc.htm)).

Following the initiative to adopt an enlarged Doc & Info NCG, operating also as EAG, new Terms of Reference were drafted, also including the governance of EURISCO, and were approved by the SC in September 2009. The NCG was given the responsibility to act as the specific advisory body with the function to monitor progress in the development and maintenance of EURISCO, as well as to provide advice to Bioversity International, acting on behalf of the ECPGR Secretariat, for the further development of EURISCO.

As part of the **EPGRIS3 project**, a meeting was held in Bonn, Germany on 13-14 March 2008, back-to-back with the EAG meeting (already reported in the ECPGR Technical report for 2007). The minutes of the meeting are available at:

[http://www.ecpgr.cgiar.org/Networks/Info\\_doc/bonn\\_minutes\\_final.pdf](http://www.ecpgr.cgiar.org/Networks/Info_doc/bonn_minutes_final.pdf)

As a result of the proposals agreed during the above meeting, the SC approved the proposed mechanism of registration of accessions in the Multilateral system (MLS) and AEGIS (two new fields in EURISCO on “registry status”), as well as the proposed interim reporting procedure at the national level for Standard Material Transfer Agreement (SMTA) reporting (new table in EURISCO on “SMTA reporting”). The SC concluded that the EURISCO SMTA reporting module should be considered and called an “Interim Module”, and should not be interpreted in such a way as to pre-empt any future discussion and decision of the Governing Body of the Treaty on the necessary elements of such a Module.

Also as a result of the above meeting, a “Vision paper for a European PGR information and documentation landscape” was drafted by Th. Van Hintum, F. Begemann and L. Maggioni and presented at the SC meeting in September 2009. The vision for a future information landscape involves a number of steps to develop and adopt agreed standards, to adopt existing new technologies, to invest in open source software, to carry out capacity building and improve data quality, and to improve coordination of the current information initiatives.

ECPGR was invited to become one of the associate partners in the project on **Global Information on Germplasm Accessions (GIGA)**, which is funded by three investors (Global Crop Diversity Trust, International Treaty and Bioversity International). The project includes three components: 1) Data standards; 2) The GRIN-Global genebank management information system; 3) the Gateway to Accession Level Information Systems (ALIS). Data will be drawn from existing systems, such as the System-wide Information Network for Genetic Resources (SINGER) of the CGIAR, the European Internet Search Catalogue (EURISCO) and the North American Germplasm Resources Information Network (GRIN). As part of this project, support is given for 50% of the time of the EURISCO Coordinator and the technological developments injected in the project will also be applied to EURISCO.

In September 2008 the SC approved the collaboration of ECPGR with the GIGA project and endorsed the nomination of Frank Begemann as the ECPGR representative in the ALIS International Steering Committee. The First International Steering Committee (ISC) meeting was organized in October 2008 in Rome, Italy and the ECPGR representative attended the meeting.

As part of the GIGA project, the Documentation and Information NCG also received an invitation to nominate a representative for the Technical Steering Group (TSG) of the **GRIN-Global project**. The purpose of the TSG is to provide technical input for the development, dissemination, and implementation of GRIN-Global, a joint USDA-ARS/Bioversity International/Global Crop Diversity Trust project, aiming to provide the world’s crop genebanks with a powerful, flexible, easy-to-use global PGR information management system.

The NCG agreed in July 2008 to nominate Iva Faberová, who in August 2008 then attended the first TSG meeting in Beltsville and in Ames, United States, with partial support from ECPGR. In her travel report, I. Faberová thought that GRIN-Global could be a flexible and widely applicable genebank documentation system that will be freely available, including the source codes (possibility to adjust the programme to the local conditions), based on open source software. She thought that it could be used by many European genebanks who are developing their management systems. The system was expected to be ready to be tested by different genebanks during 2009.

During 2008, EURISCO has improved in its content, data quality, and technology.

An evaluation of EURISCO was carried out through an external, independent consultancy commissioned by Bioversity International. The final report on the assessment and the proposed EURISCO road map for the next five years was made available ([http://eurisco.ecpgr.org/documents/EURISCO%20external%20evaluation\\_assessment.pdf](http://eurisco.ecpgr.org/documents/EURISCO%20external%20evaluation_assessment.pdf)).

The European countries representation within EURISCO was raised up to 38 countries, with the inclusion of the National Inventories of Albania and Turkey.

An updated EURISCO Web site, with a more user-friendly and attractive design was launched on 16 July. The new functionalities include the following features: Simple/advanced and multiple searches; Download what has been searched; View passport data; Download Excel, CSV and XML files; Updated information; PA materials available/downloadable; Tools and documents; Meetings and reports and links to other important sources of information. A specific item is informing about implementation of suggestions received as feedback from the users (see <http://eurisco.ecpgr.org/releases/news.php>).

A report on EURISCO activities during ECPGR Phase VII was prepared as a background document to the SC meeting (see "EURISCO Coordinator Report 2004–2008" at: [http://www.ecpgr.cgiar.org/SteeringCommittee/SC11/Docs/EURISCO\\_ProgressReport\\_SD.pdf](http://www.ecpgr.cgiar.org/SteeringCommittee/SC11/Docs/EURISCO_ProgressReport_SD.pdf)).

Two EURISCO fact sheets were made available in 11 languages (see or download them at: [http://eurisco.ecpgr.org/releases/fact\\_sheet.php](http://eurisco.ecpgr.org/releases/fact_sheet.php)). Translations were provided as in-kind contributions from the National Focal Points (NFPs). In 2008 the Spanish translation was made available for the first time.

The EURISCO poster was updated several times and is available for download at: <http://eurisco.ecpgr.org/releases/posters.php>.

At the Regional Meeting of the European Global Biodiversity Information Facility (GBIF) Participant Nodes, EURISCO was presented and appreciated as a model of the European Regional Thematic Network on plant genetic resources. EURISCO data were regularly provided to GBIF.

A new initiative called "EURISCO Seminars and Trainings" was started, with the objectives to strengthen national capacity in data exchange and the sustainability of EURISCO, as well as to improve data completeness by enhancing the quality and quantity of data flowing into the Catalogue. This is obtained by providing one-to-one training to NFPs. Two of these seminar and trainings were given in Spain (November 2008) and Albania (December 2008). These seminars and trainings resulted in agreed outputs and recommendations for the National Inventories (NIs) (more at [http://eurisco.ecpgr.org/contact\\_menu/training.php](http://eurisco.ecpgr.org/contact_menu/training.php)).

In Albania, the EURISCO Seminar and Training was part of the workshop organized by the Agricultural University of Tirana and the Albanian Genebank with support from FAO, SEEDNet and ECPGR/Bioversity International.

Following the decision by the SC to use EURISCO as a mechanism of registration of accessions in the MLS and AEGIS, both fields "MLS" and "AEGIS" were implemented and became searchable in EURISCO as of November. At the end of 2008, three countries (Czech Republic, Germany and the Netherlands) had registered a total of over 158 000 accessions as part of the MLS.

The monitoring of the visitors' log on the new EURISCO Web site provides a good overview of who is looking for information and on what. From 16 July to December 2008, the number of visitors to EURISCO reached almost 3000 visits, with a 50% increase in new visitors, and almost 50% of visitors returning. The information maintained in EURISCO has been searched from 86 countries.

Three e-bulletins, in June, July and December, were produced and made available on the EURISCO Web site (<http://eurisco.ecpgr.org/releases/issues.php>), and three articles were published in the Newsletter for Europe.

Some facts and numbers are worth highlighting regarding changes and improvements of EURISCO during 2008:

- The total number of accessions has increased by 44 443, reaching a total of 1 133 695 accessions.
- Two new NIs joined - Turkey and Albania, raising the number of participating countries to 38.
- There was increase of 21 data sources, reaching 251 institutes conserving PGR.
- The number of species represented in the germplasm collections, increased by 46 species, reaching 8739 species.
- Number of updates of the NIs has increased significantly, and this is reflected by the increase of the number of accessions in NIs' updates, which ranged from 248 to 9747 accessions.

- As for the type of material maintained in these NIs and searchable through EURISCO, e.g. “wild” increased by 15%, “landraces” by 7%, “breeding” by 16% and “founder stock-base population” by 42%.
- MLS registration in less than two months reached 14% of the EURISCO total accessions.

#### 4.8. *In situ* and On-farm Conservation Network

The *In situ* and On-farm Conservation Network Coordinating Group consisted of seven members: Nigel Maxted, Birmingham, United Kingdom (Network Coordinator); Lothar Frese, Quedlinburg, Germany; Paul Freudenthaler, Linz, Austria; José Iriondo, Madrid, Spain; Valeria Negri, Perugia, Italy; Zdeněk Stehno, Prague, Czech Republic and Jens Weibull, Alnarp, Sweden.

In September 2008, the SC recognized that the existing Task Forces of the *In situ* conservation Network have long-term plans of action and therefore deserve the status of “Working Groups”. The two Task Forces were therefore converted into WGs, as follows:

1. WG on “Wild Species Conservation in Genetic Reserves”
2. WG on “On-farm Conservation and Management”

As a consequence, participation in regular meetings of the above WGs will be subject to the “quota system” in Phase VIII of ECPGR.

The first coordination meeting and second workshop of the EU project for “An Integrated European *In Situ* Management Workplan: Implementing Genetic Reserve and On-Farm Concepts (AEGRO)” was held in Quedlinburg, Germany, 18-19 September 2008. ECPGR contributed to this workshop by supporting the participation of a few representatives from Working Groups that were not directly involved as partners in the project, i.e. Forages (Merja Veteläinen, Finland), Grain Legumes (Maria José Suso, Spain) and *Beta* (Maria Cristina Duarte, Portugal).

The AEGRO project, an initiative of the ECPGR *In situ* and On-farm Conservation Network, aims to support ECPGR crop-specific Working Groups to develop strategic *in situ* conservation activities by creating genetic reserve and on-farm case studies for crop complexes (*Avena*, *Beta*, *Brassica*, *Prunus*). A comprehensive step-wise methodology for the identification of genetic reserve sites has been drafted and made available via the online helpdesk in the project Intranet. The project also aims at establishing a Web portal including an information system assisting the four ECPGR Working Groups in the identification of sites suited for the establishment of genetic reserves. The information system is based on the Crop Wild Relatives Information System (CWRIS) (i.e. the product of the EU-funded project PGR Forum) and will be extended by PLIS, a Population Level Information System, assisting the management of individual populations within genetic reserves.

A synthesis of case studies and development of baseline quality standards for genetic reserves will then be produced and act as exemplars for the *in situ* conservation of further crop complexes in Europe.

Additionally, the project aims at facilitating and promoting the establishment of active on-farm conservation sites for landraces (LRs) and policies in favour of LR conservation. Following the publication of the EU Commission Directive 2008/62/EC 20 June 2008 on seed production and marketing, it became relevant to focus on the required decision criteria to implement the above-mentioned Directive. Therefore, the project generated a list of definitions for “landrace”, “biogeographic region” and “genetic erosion threat” that could serve as a basis to further elaborate the definitions at the national level, if necessary. Elements to be considered, problems and constraints necessary to put these definitions into practice were outlined and an example to estimate the risk of LR loss was proposed. At the EU level, general lack of inventory data for LRs and other varieties is considered a limiting factor in view of the possibility to implement the EC Directive.

Further, the On-farm Conservation and Management WG recognized the need to inventory European landrace diversity and draw attention to examples of successful on-farm conservation, as well as publicize examples of novel landrace use, as a means of sustaining landrace diversity. Therefore, case studies of on-farm management of timothy in the Nordic countries and Shetland cabbage in Scotland were provided by Network members and uploaded on the dedicated Web site: [http://www.ecpgr.cgiar.org/Networks/Insitu\\_onfarm/OnfarmTF\\_intro.htm](http://www.ecpgr.cgiar.org/Networks/Insitu_onfarm/OnfarmTF_intro.htm).

The WG also started drafting a comprehensive Technical Bulletin that would specifically address these issues, entitled "On-farm conservation of Crop Landraces in Europe" (Veteläinen et al., to be published by Bioversity International in 2009).

ECPGR contributed to the cost of printing and distribution of the Crop Wild Relatives Newsletter No.6, January 2008, published by the University of Birmingham on behalf of the World Conservation Union/Species Survival Commission (IUCN/SSC) Crop Wild Relative Specialist Group ([http://intranet.iucn.org/webfiles/doc/SSC/Gen\\_docs/e\\_bulletin\\_/CWR\\_6\\_online\\_.pdf](http://intranet.iucn.org/webfiles/doc/SSC/Gen_docs/e_bulletin_/CWR_6_online_.pdf)).

As part of the EC project Diverseeds (Networking on conservation and use of plant genetic resources in Europe and Asia), the University of Perugia, Italy was assigned the task to compile a database of on-farm research and coordination institutions and their contact points in Europe. This activity, started in December 2008, is being carried out within the framework of the On-Farm Conservation and Management Working Group.

**The agreed protocols of PGR Forum Workshop 4, Genetic Reserve Management Guidelines**, held in Menorca, Spain, on 21-24 April 2004 and the proceedings of the project's final Workshop and International Conference on Crop Wild Relative Conservation and Use held in Agrigento, Sicily, Italy in September 2005, were published by CAB International, as follows:

Iriondo JM, Maxted N, Dulloo ME, editors. 2008. Conserving Plant Genetic Diversity in Protected Areas: Population Management of Crop Wild Relatives. CAB International.

Maxted N, Ford-Lloyd BV, Kell SP, Iriondo JM, Dulloo ME, Turok J, editors. 2008. Crop Wild Relatives Conservation and Use. CAB International.

The PGR Forum project also published the XML schema used to create the Crop Wild Relative Information System so that the schema could assist future bioinformatic development:

Moore JD, Kell SP, Iriondo JM, Ford-Lloyd BV, Maxted N. 2008. CWRML: representing crop wild relative conservation and use data in XML. BMC Bioinformatics 9:116.

#### **4.9. Inter-regional Cooperation Network**

The **Inter-regional Cooperation Network Coordinating Group** consisted of five members: Eva Thörn, Alnarp, Sweden (Network Coordinator); Tiberio Chiari, Florence, Italy; Ladislav Dotlačil, Prague, Czech Republic; Vladimir Meglič, Ljubljana, Slovenia; and Bert Visser, Wageningen, The Netherlands.

Network funds were used to ensure the participation of Nezha Saidi, Morocco, as an observer in the Cereals Network meeting in Foça, Turkey, April 2008.

In September 2008, the SC agreed on the importance of defining the task of the Inter-regional Cooperation Task Force, considering that it will have an important role related to cooperation for the implementation of the International Treaty. The SC requested the Secretariat to write these Terms of Reference, in collaboration with the respective NCG.

The minutes of the Inter-regional Cooperation Network Coordinating Group, 6 December 2007, Maccarese, Italy were published at:  
[http://www.ecpgr.cgiar.org/Networks/Inter\\_reg\\_coop/inter\\_reg\\_coop.htm](http://www.ecpgr.cgiar.org/Networks/Inter_reg_coop/inter_reg_coop.htm)

### **5. PUBLIC AWARENESS**

Following the recommendation of the SC in Riga, the ECPGR brochure addressed to the wider public was completed in collaboration with the NGO "Pro Specie Rara" and it was printed in a very limited number of copies, only for display at the SC meeting. The template can be provided to all the National Coordinators, who can translate the brochure in their local language and reproduce it for national use.

The brochure aims at raising awareness on the importance of agrobiodiversity conservation and conservation through use ([http://www.ecpgr.cgiar.org/Introduction/Public\\_Awareness.htm](http://www.ecpgr.cgiar.org/Introduction/Public_Awareness.htm)).

Following the recommendation of the SC in Riga, the collection of various public awareness products prepared by the European National Programmes was started, in order to make them

available from a dedicated section of the ECPGR Web site. In this context, Austria, Estonia, Finland, Germany, Italy, The Netherlands, Romania and Sweden provided information and links to existing public awareness documents, including brochures, leaflets, articles and books (see [http://www.ecpgr.cgiar.org/Introduction/PA\\_NatProg.htm](http://www.ecpgr.cgiar.org/Introduction/PA_NatProg.htm)).

## **6. AEGIS INITIATIVE FOR “A EUROPEAN GENE BANK INTEGRATED SYSTEM”**

During 2008, “A Strategic Framework for the Implementation of a European Genebank Integrated System (AEGIS) – Discussion Paper” was published in hard copy and was also made available electronically. During the 11th ECPGR Steering Committee meeting in Sarajevo in September 2008 a revised draft was endorsed and published as a Policy Guide by the Secretariat (see below).

The draft Memorandum of Understanding (MoU), that will provide the formal basis for the operation of AEGIS, was proposed for endorsement at the aforementioned 11th Steering Committee meeting. A discussion paper on the development of a quality management system for AEGIS was prepared for the meeting of curators and database managers of the four AEGIS model crops (*Allium*, *Avena*, *Brassica* and *Prunus*), that took place in Radzików, Poland, 1-3 July 2008 (see model crops progress reports on the AEGIS Web site: [http://www.ecpgr.cgiar.org/AEGIS/AEGIS\\_home.htm](http://www.ecpgr.cgiar.org/AEGIS/AEGIS_home.htm)).

An economic study was carried out in collaboration with IFPRI, with the aim to develop an appropriate preliminary methodological framework and a tool to gather data with which to evaluate the cost-effectiveness of collection management in AEGIS. Participants in the Radzików meeting discussed key aspects of their progress, such as the identification of Most Appropriate Accessions (MAAs) and the establishment of an AEGIS Quality System. These experiences were then reported during the Steering Committee meeting, where an entire session was dedicated to AEGIS.

Major agreements and developments that resulted from the two aforementioned meetings are listed below:

- The outstanding issues that hindered a full consensus on “A Strategic Framework for the Implementation of AEGIS – Discussion paper” were resolved and an updated policy document version was then published on the ECPGR Web site ([http://www.ecpgr.cgiar.org/AEGIS/Docs/AEGIS\\_StrategicFramework\\_PolicyGuide.pdf](http://www.ecpgr.cgiar.org/AEGIS/Docs/AEGIS_StrategicFramework_PolicyGuide.pdf)).
- The development of a quality system for the management of dispersed accessions of the European Collection was given due attention. The formulation of an agreement on so-called minimum technical standards by the partners concerned was felt to be one of the cornerstones of the quality system. Furthermore, an appropriate system of record-keeping of activities performed, as well as the development of an effective guiding and advisory approach (and not of “policing”) of the AEGIS partners were identified as key elements of the quality system. The SC requested that the authors of the discussion paper “Quality Management System for AEGIS” revise the draft accordingly.
- The so-called primary selection criteria to identify European Accessions were discussed and approved, and the term “selection requirements” was coined for these criteria as these are binding for the countries when accepting responsibilities for the long-term conservation. The previously named “secondary selection criteria” that are intended only for guidance of the selection process, especially of possibly unwanted duplicates, were renamed “selection criteria”.
- National Coordinators (NCs) were encouraged to ensure that all relevant non-confidential collection data were included in the National Inventories and transferred to EURISCO as soon as possible, thus facilitating the selection process of European Accessions.
- The SC noted the importance of establishing a clear road map for the establishment of AEGIS. The text of the Memorandum of Understanding (MoU) for the establishment of AEGIS was also adopted by consensus, subject to further consultation with the Nordic countries concerning the wording of one article related to non-Annex I crops. This document will provide the formal foundation for the establishment and operation of AEGIS and was planned to be sent as soon as possible to the respective NCs for signature of membership to AEGIS. Each of the NCs will conclude so-called Associate Membership Agreements with all institutions and organizations in their respective country that plan to participate in AEGIS activities.
- As defined in the MoU, AEGIS members will present lists of identified Most Appropriate Accessions for all plant genetic resources for food and agriculture to the respective ECPGR



Working Groups. All the ECPGR Working Groups were expected to actively engage in establishing AEGIS.

- Specific budget lines dedicated to AEGIS were agreed for Phase VIII, including the cost of a Coordinator (50% time) and support for activities to be carried out by the Networks under a competitive grant scheme. This opportunity is expected to facilitate the establishment of the European Collection and the management of the European Accessions.

During the year, the AEGIS and ECPGR Coordinators also participated in a number of the aforementioned (as well as non-ECPGR) meetings, to further increase awareness on AEGIS, to discuss the less well understood principles with participants and to receive feedback on the practicability of some of the concepts.

## 7. LINK WITH OTHER NETWORKS AND INITIATIVES

The following interactions between ECPGR and other Networks and initiatives took place during 2008:

### ➤ **Global Crop Diversity Trust**

A project jointly submitted to the Trust by the Cereals Network, the Oil and Protein Crops Network and the Potato WG was approved for partial funding with the purpose of carrying out regeneration and safety-duplication of over 5000 threatened accessions identified in 10 European countries (Albania, Armenia, Azerbaijan, Belarus, Bulgaria, Georgia, Greece, Hungary, Israel and Portugal). The finalization of specific agreements with involved institutions went on in the second part of 2008, with the aim to eventually establish contracts defining the implementation of the project. The ECPGR Secretariat is expected to act as backstopping agent for the project (the total grant is nearly US\$ 130 000), starting in 2009 for two years.

Another important area where ECPGR and the Trust will have the opportunity to collaborate is in the context of the Global Information on Germplasm Accessions (GIGA) Project (see above, Section 4.7).

### ➤ **SEEDNet**

Collaboration with the Sida-funded South East Europe Development Network on Plant Genetic Resources (SEEDNet) continued in 2008, with the participation of the ECPGR Coordinator in the Eighth Regional Steering Committee (RSC) in Durrës, Albania, 31 March-2 April 2008. Exchange of information occurred regarding ECPGR, AEGIS and EURISCO. The agreement to host the SC meeting in Sarajevo, Bosnia and Herzegovina, was consolidated, as well as the pledge from Bosnia and Herzegovina to become a member of ECPGR.

In September 2008, the SC agreed to assign permanent observer status to the Coordinator of SEEDNet, considering the potential synergies and opportunities for harmonization of objectives with ECPGR. This status will be granted for the duration of the Sida-funded project.

### ➤ **European Commission**

The ECPGR Networks continued their involvement in the development of a few ongoing projects: AEGRO (*In Situ* Management), AVEQ (*Avena* for quality in human consumption), EURALLIVEG (vegetative *Allium* core collection), LEAFY VEG (use of leafy vegetables germplasm), GrapeGen06 (management of *Vitis* genetic resources), and Diverseeds – “Networking on conservation and use of plant genetic resources in Europe and Asia”.

The need for a strategy of collaboration with the European Commission to develop and implement an adequate policy framework on plant genetic resources was discussed at the SC meeting in September 2008. It was decided to establish a Task Force who would further develop the ECPGR strategy for collaboration with the EU, with the objective of obtaining long-term support for implementation of the Treaty and PGRFA conservation in general. The Task Force will be composed of the following people: Paul Freudenthaler (Austria), Lars Landbo (Denmark), Siegfried Harrer (Germany), Fernando Latorre (Spain) and Jozef Turok (Bioversity) who will initiate the work of this Task Force.

### ➤ **The International Treaty on PGRFA**

Collaboration in support of the International Treaty (IT) intensified in 2008. Firstly, the AEGIS initiative should be considered a regional effort towards the implementation of the Treaty. Also the measures proposed by the Documentation and Information Network for the registration to EURISCO of the accessions that are parts of the Multilateral System go in the same direction.

The Treaty Secretariat was invited as an observer to the 11th meeting of the SC in Sarajevo, September 2008, with the aim to strengthen the link with ECPGR.

In October 2008, during a meeting at the office of the Secretariat of the IT Governing Body in Rome, ECPGR offered to contribute around € 58 700 in support of Treaty implementation activities, as part of the FAO/Bioversity/Treaty Secretariat Joint Programme. These funds were combined by the Documentation and Information and the Inter-regional Cooperation Network. Funds could be used to jointly organize one or two meetings or workshops, whenever possible, in combination with already scheduled events, with components of training and a facilitation of inter-regional exchange of experiences. A few representatives of ECPGR would join and present the ECPGR options for regional PGR documentation (EURISCO) and for sharing of responsibilities and providing access to germplasm (AEGIS). The IT Governing Body Secretariat welcomed the offer and resolved to jointly explore possible opportunities for inter-regional meetings/workshops. It was also agreed to keep an open channel of communication for frequent exchange of information.

### ➤ **Contribution to National initiatives**

- **France** – The ECPGR Coordinator attended a workshop on genetic resources, organized by the French National Institute for Agricultural Research (INRA), 15 October 2008, Strasbourg. The meeting gathered a few international experts on animal, forest, microbial and plant genetic resources with the objective to collect an overview of facts, opinions, ideas and proposals related to research and management of genetic resources in Europe. The outcome was then presented at the Conference of the French Presidency of the European Union “Biodiversity and Agriculture”, Montpellier, 4-5 November 2008. The objective was to raise the awareness of decision-makers on the most important areas for investment and research on genetic resources and to contribute to the general debate and to “the end of a conflict between agriculture and biodiversity”. Emerging proposals included the need to better coordinate regional, national and local efforts on the definition of genetic diversity indicators and the management of the genetic resources; to reinforce public research, keeping in mind the opportunities and impacts of the use of biotechnologies; to strengthen the link between management of genetic resources and research and engage the European Union as far as possible in funding this undertaking. The possibility to create a “Think Tank Network” on genetic resources at European level as a multi-actor platform was also mentioned.
- **Italy** – The ECPGR Coordinator attended, as invited speaker, the workshop “Tomato genetics and genomics: the Italian contribution”, organized as a homage to the retirement of Prof. Gian Piero Soressi, University of Viterbo, 29 May 2008. He gave a presentation on: “The ECPGR Working Group on Solanaceae: European collaborative activities for genetic resources”.

## **8. ECPGR REVIEW**

Following a proposal made at the 11th Steering Committee Meeting in September 2008, the SC agreed to arrange for an independent external review of the ECPGR Programme.

A regionally balanced Task Force (TF) with the task of facilitating the review process was established, 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, composed of Jan Engels, Lidwina Koop, Lorenzo Maggioni, Patti Sands and Jozef Turok.

A first draft of the Terms of Reference and cost estimates for the Independent External Review was prepared in consultation between the ECPGR TF and the Bioversity Team.

The expected cost of this review is in the range of € 40 000 and the proposed timeframe is pointing at 2010 for the completion of the review. As of the end of 2008, € 10 000 was received as voluntary contributions for this purpose from Switzerland and nearly € 6 000 were pledged by Sweden.

## 9. PUBLICATIONS

### Publications produced in 2008

The following publications were produced in 2008 and can be obtained free of charge from the Secretariat. The ECPGR publications are also available in electronic format through the ECPGR Web site (<http://www.ecpgr.cgiar.org/Publications/Publications.htm>).

- **ECPGR printed publications (also available online)**

- A Strategic Framework for the Implementation of a European Genebank Integrated System (AEGIS) - Discussion Paper
- Report of a Working Group on *Vitis*. First Meeting, 12-14 June 2003, Palić, Serbia and Montenegro

- **ECPGR electronic documents**

- Minutes of the Inter-regional Cooperation Network Coordinating Group, 6 December 2007, Maccarese, Italy
- Minutes of the EURISCO Advisory Group. Fourth Meeting, 12 March 2008, Bonn, Germany
- Report of a Working Group on Cucurbits. First Meeting, 1-2 September 2005, Plovdiv, Bulgaria
- Report of a Working Group on Leafy Vegetables. First Meeting, 13-14 October 2005, Olomouc, Czech Republic
- Report of the Eleventh Steering Committee Meeting, 2-5 September 2008, Sarajevo, Bosnia and Herzegovina
- Report of a Working Group on *Beta* and World *Beta* Network. Third Joint Meeting, 8-11 March 2006, Puerto del Cruz, Tenerife, Spain (Part I, updated draft, March 2008)
- Report of a Working Group on Forages. Ninth Meeting. 23-25 October 2007, Piešťany, Slovakia (Part I, revised draft, May 2008)
- Report of a Working Group on Cucurbits. Ad hoc Meeting. 23-24 October 2008, Warsaw, Poland (Part I, draft, December 2008)
- Minimum descriptors for Solanaceae
- Minimum descriptors for Cucurbits
- Minimum descriptors for Leafy Vegetables
- Terms of Reference for the operational bodies of the European Cooperative Programme for Plant Genetic Resources (ECPGR) (Working Document version 3, October 2008)
- ECPGR Annual report 2007
- ECPGR Financial report 2007
- Technical report on ECPGR Phase VII (background document to 11th SC Meeting)
- Progress and synthesis report on the establishment and operation of AEGIS (background document to 11th SC Meeting)
- Public awareness brochure.

- **Biodiversity publications**

- Issues 36 and 37 of Biodiversity's **Regional Newsletter for Europe** were also published in 2008 with contributions and partial financial support from ECPGR.

- **Other publications**

- Engels JMM, Maggioni L, Maxted N and Dulloo ME. 2008. Complementing *in situ* conservation with *ex situ* measures. In: Iriondo JM, Maxted N, Dulloo ME, editors. Conserving Plant Genetic Diversity in Protected Areas: Population Management of Crop Wild Relatives. CAB International. pp. 169-181.

- Iriundo JM, Dulloo ME, Maxted N, Laguna E, Engels JMM, Maggioni L. 2008. Final considerations for the *in situ* conservation of plant genetic diversity. In: Iriundo JM, Maxted N, Dulloo ME, editors. Conserving Plant Genetic Diversity in Protected Areas: Population Management of Crop Wild relatives. CAB International. pp. 182-202.
- Maggioni, L., N. Maxted and J. Engels. 2008. The European Cooperative Programme for Plant Genetic Resources (ECPGR) and Planta Europa: an opportunity for synergies. *Planta Europa News*, Winter Issue, March 2008.

## Publications in preparation in 2009

### • ECPGR printed publications

- Report of a Working Group on Medicinal and Aromatic Plants. Second Meeting, 16-18 December 2004, Strumica, Macedonia FYR / Third Meeting, 26-28 June 2007, Olomouc, Czech Republic
- Report of a Working Group on *Beta* and World *Beta* Network. Third Joint Meeting, 8-11 March 2006, Puerto del Cruz, Tenerife, Spain
- Crop Genetic Resources in European Home Gardens. Proceedings of a Workshop, 3-4 October 2007, Ljubljana, Slovenia

### • ECPGR electronic documents

- AEGIS Strategy Framework. A Policy Guide (published January 2009)
- Report of a Cereals Network. Second Meeting, 21-24 April 2008, Foça, Turkey (draft published in February 2009)
- Report of a Working Group on Grain Legumes. Fourth Meeting, 16-17 November 2007, Lisbon, Portugal (draft published March 2009)
- Report of a Vegetables Network. Second Meeting. 26-28 June 2007, Olomouc, Czech Republic (published March 2009)
- Report of a Task Force on On-farm Conservation and Management. Third Meeting, 2-3 October 2007, Ljubljana, Slovenia (published April 2009)
- Report of a Working Group on Fibre Crops (Flax and Hemp). First Meeting, 14-16 June 2006, Wageningen, The Netherlands
- Report of a Working Group on *Malus/Pyrus*. Third Meeting, 25-27 October 2006, Tbilisi, Georgia.

### • Bioversity publication

- European landraces: on-farm conservation, management and use. *Bioversity Technical Bulletin* No. 15.

## 10. ECPGR MEETINGS HELD IN 2008

- Fourth Meeting of the EURISCO Advisory Group, 12 March 2008, Bonn, Germany
- Second Meeting of the Cereals Network, 21-24 April 2008, Foça, Izmir, Turkey
- Ad hoc brainstorming session on ECPGR Phase VIII (budget and expected achievements), 12-13 June 2008, Tragliata, Italy
- Ad hoc meetings of the four Fruit Database Managers (*Malus*, *Prunus*, *Pyrus* and *Vitis*) and on fruit synonymy, 23-25 June 2008, Gembloux, Belgium
- Meeting of the AEGIS model crops curators and Database Managers, 1-3 July 2008, Radzików, Poland
- Eleventh Meeting of the Steering Committee, 2-5 September 2008, Sarajevo, Bosnia and Herzegovina
- Ad hoc Meeting of a Working Group on Cucurbits, 23-24 October 2008, Warsaw, Poland.

## **11. COORDINATING SECRETARIAT AND BIOVERSITY INTERNATIONAL**

The following staff members have worked as part of the ECPGR Secretariat at Bioversity (ECPGR personnel budget): Aixa Del Greco (as half-time Scientific Assistant involved (*inter alia*) in support to the Networks, revision of descriptors, Web development/implementation, public awareness); Jan Engels (as half-time AEGIS Coordinator); Lidwina Koop (as half-time ECPGR Programme Assistant); Elinor Lipman (as half-time Scientific Assistant, based in Montpellier, France, involved in the compilation and layout of ECPGR publications and general support to the Secretariat activities);

The scientific and technical contributions, as well as management and administrative support provided by Bioversity International and its staff to the work of ECPGR, is also acknowledged. In particular, Bioversity provided funding for the half-time EURISCO Coordinator (Sónia Dias) and documentation-related activities in Europe, as well as technical inputs to the maintenance and development of EURISCO. Support and advice were provided for the development of descriptors. Several colleagues participated and actively contributed as members of the Local AEGIS Task Force, as well as members of the Local ECPGR Support Team dealing with the external review of ECPGR. Bioversity Policy Unit was instrumental in the development and finalization of the AEGIS Memorandum of Understanding.

★★★

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**Rome, 30 June 2009**

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