Joint ECPGR-DIVERSEEDS-BIOVERSITY Inter-regional Workshop on Crop Genetic Resources Networks, Maccarese, Italy, 3 - 5 December 2007

EXECUTIVE SUMMARY

J.M.M. Engels, L. Maggioni and E. Thörn

1. Introduction

The Thematic Network on Inter-regional Cooperation of the European Cooperative Programme on Plant Genetic Resources (ECPGR), in close collaboration with the EC funded project Diverseeds (Networking on conservation and use of plant genetic resources in Europe and Asia) and Bioversity International, organized a workshop\(^1\) of regional network coordinators \(^2\)at Bioversity Headquarters in Rome from 3-5 December 2007, with the intention of assessing the changes in the environment (FAO International Treaty, Global Crop Diversity Trust, etc.), in which the networks operate, revisiting existing network concepts and strategies, elaborating suggestions for new/revised/improved approaches of regional genetic resources networks and identifying formal channels of communication and cooperation among Regional Networks.

The Inter-regional Cooperation Network Coordinating Group considered that the establishment of regular information channels could be a first step towards an increased collaboration and stronger partnership between regional network coordinators and the networks. The meeting’s agenda addressed, among others, the following points: sharing of conservation responsibilities, information exchange mechanisms, network management and capacity-building strategies, and policies.

2. A new role for the Regional Networks

The meeting took note that a number of changes and developments took place over the recent years that might have a direct impact on the way regional genetic resources networks are operating. These major changes and developments include:

- Entrance into force and implementation of the International Treaty (IT)
- Monitoring and facilitating the Global Plan of Action (GPA) and development of State of the World II Report
- Implementation of Global Crop Diversity Trust (GCDT), and
- Bioversity International strategy\(^3\).

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\(^1\) The workshop agenda is included in Annex I.
\(^2\) The list of participants is included in Annex II.
\(^3\) Bioversity's Priority and Strategy Committee made the following decision with regards to regional networks and national programme strengthening:

<<Bioversity no longer takes responsibility for the establishment, creation or funding of regional PGR networks, as a primary function. Bioversity no longer takes responsibility for the coordination or management of regional PGR networks. Bioversity’s strategic engagement with Regional Networks will continue where there is an opportunity for a functioning network to contribute to the implementation of a strategic agenda that forms part of Bioversity’s core focus. Bioversity will continue to generally support regional networks through the availability of information and knowledge products including guidelines, methodologies, etc., that come from its core programmatic work. Bioversity would also continue to engage with Regional Networks in areas such as priority setting, capacity building, and public awareness activities that support agricultural biodiversity in the wider context of the global system. This Decision does not apply to Europe.>>
The above elements constitute a framework that is conducive to the emergence of a more effective and efficient system for PGRFA conservation and use at the global level, in which the Regional Networks are recognized as supporting components and important players, assuming an additional role as the ideal interface between the national programmes and the global system itself.

The meeting wished to reiterate the added values and benefits to partners related to conservation and use of PGR that are being provided by Regional Networks, as listed below.

1. Providing mechanisms:
   a. To articulate shared needs of the network partners and their positions vis-à-vis international instruments (IT, GPA, etc.), whether contracting party or not. This allows strengthening communication of the members’ needs to donors at the national and international level, as well as to raise awareness on the importance of PGR inside the countries;
   b. To set and legitimize priorities for conservation activities of importance for the region;
   c. To overcome political barriers to collaboration among partners; and
   d. To determine and sharing responsibilities for conservation.

2. Developing capacities through the exchange of expertise, organizing training courses, identifying collaborators for specific activities, formulating and jointly implementing projects, as well as identifying funding opportunities.

3. Providing a discussion forum for the agreement on and/or implementation of access and benefit sharing arrangements within and outside the network.

4. Developing common regional information systems, which could serve as building blocks of accession level global information systems (passport and characterization data).

5. Providing an environment for formal and informal cooperation, and thereby enabling:
   - building trust;
   - increasing awareness of partners’ expertise, needs and priorities;
   - learning from each other through the exchange of information and the transfer of technology; and
   - establishing policies, formal agreements and common protocols (such as exchange of non-Annex I material, collaboration with non-Parties to the IT, etc., ).

6. Ensuring that also the weakest partners in a given region are actively involved in the global system.

3. Strong Networks as the interface between national and global systems

In order to respond in the best possible way to the challenge of becoming the important players as described above, as well as to better serve the needs of the individual member countries, it was shown that the Networks need to be further strengthened. In particular, the following elements ensuring fully functional Networks were identified:

- Efficient coordination;
- Backstopping support;
- A sustainable long-term commitment from the member countries; and
- Visibility in the international fora.
It was noted that the above elements are fulfilled to variable degrees by the existing networks.

The alignment of the Regional Networks’ objectives towards a contribution to the creation of the global system is seen as an important step that will position the Networks in the best condition to be visible in the global arena and to receive support from international agencies and instruments. These objectives include, _inter alia_: 
- Participation in global information systems;
- Securing rationalized long-term conservation of the most important germplasm;
- Ensuring use by facilitating access according to the IT principles; and
- Facilitating linkages with existing regional fora and organizations

It was noted that a coordination of the Networks activities at the global level could be beneficial in order to:
- Help the Networks to focus on ‘global system’ objectives;
- Ensure capacity building across Networks;
- Take advantage of successful ideas, tools and mechanisms developed by individual Networks;
- Identify common interests and create synergies by collaborating across the borders, as opposed to duplicating the efforts, and
- Facilitate the IT ratification process in countries through the sharing of knowledge and experience from countries that already ratified the IT.

It is recommended that an appropriate forum be established to facilitate coordination among the Networks within regional fora and as part of the global system.

Recommendations were made to ensure effective and sustainable Regional Networks and to increase their visibility and recognition in the regional and global context:

1. **Participation in the FAO Commission and the Governing Body**
   It was noted that only a few Regional or Sub-regional Networks have acquired an observer status in the FAO Commission and report to the Commission and that it would be advantageous to the Networks as well as to the Commission and the Governing Body that all Regional Networks would become observers and report to both.

2. **Linking with GFAR**
   Several of the Regional Networks are operating under the umbrella of Regional Global Forum for Agricultural Research (GFAR) Networks, whereas others do not have such formal relationship. Considering that alignment of Regional Networks with GFAR could be another step to facilitate coordination among the Networks and to speak with a common voice, it was proposed to strengthen the links of Regional PGR Networks with GFAR.

3. **Sharpen strategies towards breeding and development (linking conservation and use and research)**
   Traditionally, genetic resources conservation activities have been closely linked to or have even been created by plant breeders. This situation has drastically changed and it was noted during the workshop that one of the main factors undermining the sustainability of Networks is the rather weak use of conserved germplasm, possibly caused by weak linkages between conservation and use. Another strategy to strengthen the utilization of
conserved germplasm could be by a better integration of conservation and development programmes. A third area that will contribute to more sustainable conservation efforts would be by establishing better linkages between conservation efforts and research. It was felt that in all cases Regional Networks could play an important role in sharpening existing strategies.

4. **Linking with the GPA development process**

   It was noted that the ongoing activities in monitoring the implementation of the GPA with countries in the context of developing the second State of the World Report and revising the GPA would provide opportunities to the Regional Networks to engage more effectively in these processes and thus to ensure a more prominent role in the global system.

5. **Capacity building (role of networks as a vehicle for delivery of instruments) - SGRP GPG2**

   Capacity building activities are traditionally an important component of the workplans of Regional Networks, both to strengthen the capacities at institutional and national level as well as at the regional level. It was noted that the Networks could further strengthen this role, in particular by providing an effective vehicle in the dissemination of publications, training materials, tools and methodologies, thus contributing to better opportunities for collaboration and responsibility sharing. The development of common technical standards as part of an emerging quality management system, as supported through the Global Public Goods project number II (coordinated by SGRP), would be greatly facilitated by a more pro-active role by the Networks.

6. **Mutual capacity building of networks**

   It was noted by the workshop participants that the effectiveness of the existing Regional Networks can be further improved and that mutual assistance of each other and advice by the stronger Networks to the weaker ones could be important steps. There was agreement on the benefit to work towards the development of a table of planned or ongoing activities in the various Networks as such a table would facilitate the mutual support.

7. **Linking with the environment and nature conservation programmes**

   Regional Networks provide a good opportunity to strengthen linkages with environmental and conservation programmes, either through Network supported activities or through activities at the national level.

4. **Proposed activities for inter-regional collaboration**

   A number of proposals were made to initiate a more effective inter-regional collaboration:

1. Some regions have initiated activities on rationalizing collections, e.g. AEGIS in Europe, the establishment of a regional PGR genebank or collection in the South Pacific through the Pacific Agricultural Plant Genetic Resources Network (PAPGREN), and building Nodal Centers of Excellence for PGR conservation in West and Central Africa. It is proposed to facilitate the sharing of this information among Regional Networks, including the organization of workshops and other events that facilitate this knowledge sharing. (e.g. invite AEGIS, GRENEWeca and the Caribbean regional network to a workshop in the South Pacific).

2. The SADC regional network proposed collaboration in and requested assistance for the implementation of the IT. It was suggested to consider such activities in
the context of the emerging joint Governing Body Secretariat - FAO - Bioversity International project on assisting countries and regions with the implementation of the IT.

3. There is the need for backstopping within regions, especially on technical matters. Genebanks that will receive funds from the GCDT for the regeneration of priority collections, identified by Regional Networks, might be in need of technical backstopping. Bioversity agreed to organize such backstopping at the regional level, including the mobilization of expertise from other Regional Networks, and this initiative was welcomed by the meeting.

4. The European region, in close collaboration with Bioversity International, has made good experiences with the development of a regional information system (i.e. EURISCO). More recently, an online germplasm ordering tool kit has been developed by Bioversity, on behalf of the CGIAR Centres and in close consultation with the Secretariat of the Governing Body. These tool kits can be made available and assistance provided with their “installment”, in order to facilitate the connection with the global information system.

5. GREneweca requested assistance with the long-term conservation of its important yam collections, through the development of appropriate cryopreservation protocols. A close collaboration with and assistance from the European region was suggested. It was noted that protocols on cryopreservation of vegetatively propagated crops are under development and that also the GCDT intends to boost the developments of such protocols for yam, sweet potatoes, aroids and coconut.

6. As already noted under section 3, point 1 above, regular reporting of the Regional Networks to the FAO Commission and the Governing Body of the IT was seen as an important tool to raise the visibility of the Regional Networks and to demonstrate their importance as supporting components of the global system. It was proposed to discuss the best procedures and modalities of such reporting with the respective Secretariats at FAO.

7. To facilitate communication between regions it is proposed to consider the possibility of organizing and operating a mechanism for communication, e.g. to establish a list server and/or a global information platform. The establishment of a catalogue of ongoing projects carried out by Networks (such as nodal centres of excellence concept in the GREneweca network and AEGIS in ECPGR) was proposed. Such a catalogue could be established and collectively maintained as an open forum on an Inter-regional information portal to be developed in the future. It was proposed to discuss a close collaboration with the FAO coordinated activities on monitoring the GPA implementation.

8. To strengthen communication and collaboration among the Regional Networks the suggestion was made to consider to “link” network Steering Committees and to facilitate the sharing of experiences through a global information platform as already mentioned in section 1 above.

9. Facilitate the use of synergies for capacity development, among other as a result of shared information on priorities, activities and projects. The aforementioned information platform could be instrumental in facilitating this.

5. **Expectations from the Regional Networks by FAO, GCDT and SGRP**

   - The participant from the GCDT confirmed that Regional Networks are seen by the Trust as important mechanisms for working towards the implementation of the IT. They can, for example assist in facilitating the cooperation with non-Parties to the Treaty.

   - As already mentioned before, also with regard to information systems, the Networks provide an interface with the national level and thus, can help to develop global information systems.
With respect to conservation and use, activities can be made more effective and efficient, through the Networks by setting priorities for action and helping in their implementation.

The Trust has supported the Regional Networks in the development of regional strategies for conservation and use. The documents produced in this process contain valuable information on who is holding what accessions, existing priorities for the regions, who is holding important collections, who is facing what kind of constraints and gaps, identified in the collaboration between genebanks and the users of the conserved germplasm.

Regional Networks have recently been invited by the Trust to carry out activities to further identify vulnerable collections within regions. These findings will be important to establish priorities and to subsequently monitor the implementation of projects for the regeneration of these collections.

Networks also provide a brokering role on technical and policy issues, thereby acting as a valuable reference point for the dialogue between the GCDT and the countries. Finally, the Networks also enable national programmes to be more effective in defining national priorities.

The participant from FAO summarized the history of the role of Regional Networks in the conservation and use of PGRFA, as seen from the point of view of the Commission on Genetic Resources for Food and Agriculture (CGRFA). Since 1991, PGRFA Networks (crop, regional and thematic) have been considered as important components of the FAO Global System for the Conservation and Sustainable Use of PGRFA, which is now included in the multi-year programme of work (MYPOW) of the Commission. Priority Activity 16 of the GPA also recognizes Networks as mechanisms for its implementation. The eighth meeting of the Commission emphasized in 2000 the “important role of regional PGRFA Networks in promoting the implementation of the GPA”. During the ninth meeting in 2002 an overview of networks contributing to PGRFA conservation and use was produced with the aim to provide a conceptual basis for analyzing their effectiveness and efficiency. It was further agreed to assess Networks’ effectiveness and to promote synergy among them. For the tenth meeting of the Commission (2004), a background document analyzed the characteristics of successful PGR networks, by assessing their effectiveness. Key factors for the success of a network were identified as follows:

- Objectives (based on common needs assessment, to be periodically revised);
- Participation (number and level of participating organizations);
- Organizational structure (fixed costs; responsiveness; manager and steering committee);
- Fund-raising capacity (from participating organizations and external sources; measure of political support and management capacity);
- In-kind inputs (knowledge, materials and facilities sharing);
- Joint outputs (number and type of such outputs).

A number of PGRFA networks, either global, regional, crop-based or thematic, have been promoted and supported by FAO. Recently, in the context of the GPA implementation and monitoring and of WIEWS, FAO has been supporting member countries in the establishment of national information sharing mechanisms on PGRFA, in collaboration with Bioversity International. The national databases that result from these activities form part of a global information network under WIEWS.

From preliminary results of the GPA monitoring, about 70% of the countries reported to be active members of PGRFA Networks, 63 PGRFA Networks were reported, of which 34 and 26 have a global and regional scope, respectively. Regional/international Networks are reportedly instrumental for sourcing parental materials used in breeding, therefore contributing to the establishment of the
multilateral system (MLS) under the IT. Networks’ activities address mainly information management, characterization/evaluation; capacity building; and crop improvement through breeding and germplasm enhancement. In general, it can be concluded that Regional and national PGRFA Networks are important instruments for GPA implementation, in particular for germplasm exchange, information sharing and technology transfer. The implementation of the GPA at national level strengthens national networks which have also a direct positive effect on regional and global Networks.

Considering that the second State of the World Report will also serve to update the GPA, FAO is trying to find resources for funding regional meetings as being part of this process. However, at the moment, priority to spend the limited available resources is given to national processes, in order to enlarge the group of stakeholders that can take active part in international processes.

The representative from Bioversity International explained that this organization is hosting the System-wide Genetic Resources Programme (SGRP) of the CGIAR. This system has been the platform for the exchange of 100,000 accessions with a Standard Material Transfer Agreement (sMTA) in the last year. Considering that the CGIAR system does not play an active part in PGR Networks, but rather in breeding networks, the relationship with PGR Networks could be improved in a number of areas:

- Capacity building and training;
- Research;
- Utilization (CGIAR genebanks move material and Networks could make sure that the users can get the best germplasm);
- Policy implementation (Networks should help the countries, especially the weak ones, to implement the Treaty);
- Interface between ex situ and in situ could be a role for the Regional Networks (it is useful to think beyond the single countries in terms of in situ genepool conservation; priority settings should be made at the species level; a framework for complementarity between ex situ and in situ conservation could be shaped by the networks).

Rome, 10.12.2007 (and subsequent changes, finalized 23.01.2008)
Annex I

Joint ECPGR-DIVERSEEDS-BIOVERSITY
Inter-regional Workshop on Crop Genetic Resources Networks
Maccarese, Italy, 3 - 5 December 2007

Programme

Monday, 3 December 2007 (Chair: J. Turok)
Venue: Bioversity International – Sakura meeting room

8:30 – 9:00
1. Introduction
   a) Welcome by local organizers (L. Maggioni, M. Schmidt, T. Hodgkin)
   b) Objectives of the meeting and discussion of the programme (J. Engels and L. Maggioni)
   c) Self-introduction of participants

9:00 - 10.15
2. Brief introductions of participating Regional Networks
   (Each Network coordinator reports about the Network objectives, governance and structure, financial arrangements, main activities -in relation to: long-term conservation, contributions to the “global system” and inter-regional collaboration -, as well as major achievements and constraints).
   a) Sub-Saharan Africa (EAPGREN, GRENEWECA, SPGRC) (Kassahun Embaye; R.. Vodouhe; T. Lupula) - 45 min
   b) South, South-East Asia and Pacific (P. Saijse) – 30 min

10:15 – 10:45 Coffee break (Cafetaria)

10:45 - 12.00
Continuation of session 2
   c) Central Asia and Caucasus (Z. Akperov) – 15 min
   d) Americas (M. Ramirez) – 30 min
   e) Europe (ECPGR, SEEDNet) (L. Maggioni; E. Thörn) – 30 min

12:00 – 13:00 Lunch (Staff room)

13:00 - 14.00
Discussion (opportunities for strengthening Networks and collaboration)

14:00 – 15:20
3. Setting the changed context
   a) Inter-regional collaboration towards a global system (T. Hodgkin) – 20 min
   Discussion – 20 min
   b) Regional Networks remaining relevant in a global conservation and use system (J. Toll) – 20 min
   Discussion – 20 min
15:20 – 15:50 Coffee break (Cafetaria)

15:50 – 18:00
Setting the changed context (continued)
c) Revisiting the roles and responsibilities of regional Networks for the rational conservation of PGR in a changed world (Introduced by J. Turok) – 20 min
Discussion – 20 min

General Discussion
(Reflections by each Network on the context presented and suggestions on how to respond to the new global challenges and opportunities)

Tuesday, 4 December 2007 (Chair: E. Thörn)
Venue: Bioversity International – Sakura meeting room

8:30 – 09:50
4. Approaches and mechanisms that strengthen the Networks and facilitate collaboration
   a) Network management and capacity building (E. Thörn) – 20 min
      Discussion – 20 min
   b) Sharing of responsibilities among Network partners (L. Maggioni)
      Discussion – 20 min

09:50 – 10:20 Coffee break (Cafetaria)

10:20 – 12:00
Approaches and mechanisms (continued)
c) Policy issues and procedural aspects (G. Moore) – 20 min
   Discussion – 20 min
d) PGRFA documentation (S. Gaiji and F. Begemann) – 20 min
   Discussion – 20 min
e) Information exchange mechanisms (S. Dias) – 20 min

12:00 – 13:00 Lunch (Staff room)

13:00 – 14:00
Discussion – 20 min
f) AEGIS as an example of using a Network approach to rationalize conservation (J. Engels and L. Maggioni) - 20 min
   Discussion – 20 min

14:00 – 15:00
General Discussion
(Reflections by each Network on approaches and mechanisms and suggestions on how to improve their effectiveness regarding each of the themes presented)

15:00 - 15:30 Coffee break (Cafetaria)

15:30 – 16:30
General Discussion continued
**Wednesday, 5 December 2007 (Chair: J. Engels)**

### MORNING SESSION

**Venue:** Bioversity International - First floor meeting room

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<tr>
<td>8:30 – 10:30</td>
<td>5. Assessment of necessary inputs to ensure effective and sustainable regional Networks</td>
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<td>(Conclusion by each Network regarding inputs needed)</td>
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<td>10:30 – 11:00</td>
<td>Coffee break (Staff room)</td>
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<td>11:00 – 12:00</td>
<td>6. Conclusions and next steps</td>
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<td>12:00 – 13:30</td>
<td>Lunch (Staff room)</td>
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### AFTERNOON SESSION

**Venue:** Bioversity International - Sakura meeting room

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<tr>
<td>13:30 – 15:00</td>
<td>7. Joint ECPGR-DIVERSEEDS-BIOVERSITY Inter-regional session</td>
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<td>a) Introduction and aims of the joint session (<em>L. Maggioni</em>) – 10 min</td>
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<td>b) Introduction of meeting participants – 20 min</td>
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<td>c) Summary of the outcome of Inter-regional Workshop (<em>E. Thörn</em>) – 30 min</td>
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<td>d) Introduction of DIVERSEEDS and presentation of preliminary list of selected</td>
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<td>key issues for inter-regional dialogue (<em>M. Schmidt</em>) – 30 min</td>
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<td>15:00 - 15:30</td>
<td>Coffee break (Cafetaria) and photograph of the Workshop participants</td>
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<td>15:30 – 17:30</td>
<td>Joint ECPGR-DIVERSEEDS-BIOVERSITY Inter-regional workshop session (continued)</td>
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<td>e) Round table discussion (Introductory statements made by GCDT, FAO, IT/CGRFA and CGIAR regarding their expectations from the regional Networks) – 1 h 30 min</td>
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<td>f) Discussion of common ECPGR-DIVERSEEDS-BIOVERSITY issues/opportunities for Networking and collaboration – 30 min</td>
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<td>g) Summing up (<em>J. Engels</em>)</td>
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<td>h) Close of session (<em>L. Maggioni, M. Schmidt, T. Hodgkin</em>)</td>
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<td>20:00</td>
<td>Social dinner (sponsored by Bioversity, Diverseeds and ECPGR)</td>
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<td><strong>Restaurant:</strong> L'Isola, Via Assisi 144/146, Rome</td>
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<td><em>The restaurant is in the same street as Hotel Express by Holiday Inn.</em></td>
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Annex II

Joint ECPGR-DIVERSEEDS-BIOVERSITY Inter-regional Workshop on Crop Genetic Resources Networks
Maccarese, Italy, 3-5 December 2007

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