Minutes of a Joint Meeting of the Documentation and Information Network Coordinating Group and the EURISCO Advisory Group

Planning for the continuation of EPGRIS
2-3 April 2007, Rome, Italy

L. Maggioni, *compiler*

CONTENTS

1. Introduction and comments around the table

A joint meeting of the Documentation and Information (D&I) Network Coordinating Group and the EURISCO Advisory Group, together with Bioversity International and FAO staff, was held on 2-3 April 2007 at the Bioversity International headquarters in Maccarese, Rome, Italy.

Lorenzo Maggioni (Bioversity) welcomed everyone to the meeting and noted that apologies were received from Véronique Jamilloux (INRA, France) and Ahmet Tan (AARI, Turkey), who were unable to attend.

Theo van Hintum (CGN, The Netherlands) summarized the background which had led to the organization of this meeting, i.e. the need to carry out and improve collaborative activities on Plant Genetic Resources (PGR) documentation in Europe. Because a recent proposal to the EU for a European PGR Information Infrastructure (EPGRIS2), along with proposals for other projects with similar aims (AEGIS and EGRISI) were regrettably not approved for funding, it seemed necessary now to take stock of current initiatives and to explore alternative ways of improving collaboration in this field in the future. The existing framework of the ECPGR Documentation and Information Network was considered the most suitable forum to organize a planning meeting.

Th. van Hintum stressed the important role of this group in setting an example by working together in a coordinated manner in order to achieve concrete outputs, even if there were no additional funds available.

Samy Gaiji (Bioversity) described the current relevant activities funded by the World Bank for the CGIAR Global Public Goods information system (GPG2). He also informed the group that the Global Crop Diversity Trust (Trust) has recently received funding for a large project including a substantial informatics component; Bioversity, in collaboration with the Trust, is committed to the implementation of a global accession-level information system linking EURISCO, SINGER, USDA-GRIN and other information systems.

Ian Thomas (IGER, UK) introduced himself as the UK focal person for EURISCO, who collects data for the UK national plant inventory which is on the Department for Environment, Food and Rural Affairs' Web site. He announced that a meeting will be held on 20 April to discuss how the UK will take the national inventory forward. He hoped to report back from this meeting with recommendations.

Theo van Hintum reminded the group that he was one of the members of the management team of the Generation Challenge Programme, responsible for the Bioinformatics Sub-programme (SP4). This programme is also active in the field of data standardization and other PGR documentation-related activities. CGN coordinates collections for the Netherlands for plants, animals and forestry. He wished to improve the exchange of data with EURISCO, especially molecular genetic data, as well as to implement the Core Selector system of tracking useful accessions. CGN is generating a new EURISCO upload every two months.

Helmut Knüpffer (IPK, Germany) reported on the merger process which has taken place within the German genebanks over the past five years; there is now a collection of around 150 000 accessions in Gatersleben. In this context, IPK received a grant from the German Ministry of Education and Research to develop GBIS, a new genebank information system. This system is oriented towards supporting everyday management activities in the

genebank. The main focus is now on consolidating the existing work and the production of a user manual and other technical documentation. A new Internet portal was also created.

Johan Bäckman (Nordic Gene Bank) explained that the Nordic Gene Bank would be reorganized during the summer of 2007. Vegetatively propagated plants are becoming more and more important. In 2006, the focus was on developing methods for handling data for vegetatively propagated accessions. The Nordic Gene Bank has developed a user guide as well as a technical manual to improve accessibility to users and the technical documentation of the SESTO documentation system for genetic resources. There are plans to develop multilingual versions. The Nordic Gene Bank is involved in several projects in Eastern and Southern Africa, South East Europe and the Central Asia and Caucasus region.

Eliseu Bettencourt (Portugal) informed the group that in his country an ongoing reorganization is taking place, leading to changes in the names of institutes, mergers, etc., and this has created some expectations and also some uncertainty. It seems that the Portuguese Genebank (Braga) may soon be merged into a new institute.

Jan Engels (Bioversity), part-time coordinator for "A European Genebank Integrated System" (AEGIS), recently attended a Trust meeting on oats genetic resources in St. Petersburg, Russian Federation, which was interesting from a European point of view. He wished to see developments in the general area and in specific methods of information management to facilitate the AEGIS initiative.

Frank Begemann (BLE, Germany) said that the German Federal Ministry for Agriculture had provided a specific funding opportunity over the past 2-3 years which had been used to obtain better surveys of plant genetic resources; national networks were established. There will soon be a network for ornamental plant genebanks. With the introduction of the International Treaty (IT), preparations with the stakeholders in Germany are in progress, and this is proving complicated. A German update of EURISCO is anticipated for mid-April. He reminded the Group that EURISCO needs to be extended to reflect the requirements from ITPGR (indication of material registered within the Multilateral System).

Iva Faberová (RICP, Czech Republic), who is responsible for the documentation of genetic resources and is the focal point for EURISCO in the Czech Republic, stated that national data have been updated twice in the past year.

Jozef Turok (Bioversity) explained that discussions were going on regarding the redefinition of responsibilities of the regional offices, although the modus operandi has not so far changed at Bioversity. The CCER (Centrally Commissioned External Review) Panel report of the Bioversity Programme on Understanding and Managing Biodiversity is available to anyone requesting it. J. Turok had discussions recently in Brussels regarding funding opportunities on Regulation 870/2004; a third call for proposals seemed unlikely for the next 3-5 years. EC officer Leo Maier was very interested in being involved in further discussions with the PGR community. He might be able to influence priorities for funding in the 7th Framework Programme.

Jarkko Koskela (Bioversity) said that he was working on the establishment of a European Information System on Forest Genetic Resources (EUFGIS), very much in line with the experience of EURISCO. The EUFGIS project started on 1 April 2007 and it is one of the actions supported by the European Commission under Regulation 870/2004 on genetic resources in agriculture.

Dag Terje Filip Endresen (Nordic Gene Bank) is planning to expand data types and data exchange methods by using more modern technology. He is vice-Chair of the GBIF Nodes Committee and proposes to introduce LSIDs (Life Science Identifiers) into PGR documentation.

Milko Skofic (Bioversity) is currently maintaining the EURISCO infrastructure, but also trying to improve data quality as well as the user-friendliness of the public Web site. He said that EURISCO should provide value-added data, and also do some quality analysis on taxonomy and establish links to a suitable standard taxonomy for PGR.

Lorenzo Maggioni reminded the group that that the ECPGR is in its 7th Phase (year 4); two big meetings were held last year, reviewing progress and planning for the future. The Steering Committee was satisfied with the way the Networks were addressing the priorities of ECPGR, while also looking ahead at how the Networks can become more focused. Forthcoming ECPGR meetings were listed, in particular the Steering Committee meeting that will be held in summer 2008.

The following background presentations were then made and will be uploaded on the Web as Appendices:

- Lorenzo Maggioni: ECPGR framework and expectations
- Jan Engels: AEGIS framework
- Samy Gaiji: EURISCO – current status and perspectives
- Ian Thomas: EPGRIS2

2. Brainstorming discussion

Frank Begemann opened the discussion by expressing the opinion that the project proposal EPGRIS2 had identified most of the elements of what is needed in the area of PGR documentation in Europe. The issue is now to find the way of proceeding without any formal framework or funding. The integration of the *in situ* documentation into the existing system was also an issue to be addressed.

The discussion covered the following points:

- The reasons for the lack of success of the project proposal EPGRIS2 are difficult to understand, but no more time should be spent on investigating this, since no further project proposal can be submitted for funding to the same EC Regulation.

- There is a need to create a mode of operation whereby PGR documentation activities can be carried out in collaboration on a voluntary and self-funded basis and thus contribute in a coordinated manner to the achievement of common goals in the European Region. Collaboration should result in adding value to the sum of individual activities.

- It is desirable to create a system that will not be elitist, but rather should constitute a driving force that will be inclusive rather than excluding the less developed countries from the initiative. The system should have the ability to collect contributions from

many partners, either in the form of technological improvements, or through discussions and ideas. Transparency of operation is considered paramount.

- The issue was raised of whether it would be preferable to create a new body or rather to make use of those already existing in the ECPGR Documentation and Information Network. Different opinions were expressed, i.e. 1) the need for the new initiative to serve the European PGR Information infrastructure and not the other way around, or 2) the preference for this initiative to be distinct from the governance of the Network Coordinating Group.

- Focus will need to be on the following items:
  - Data quantity
  - Data quality
  - Exchange of data
  - Functionality of the system
  - Embedding AEGIS and the International Treaty in the documentation system
  - Capacity building and training.

- The requirements of the users of data will be important to keep in mind. So far the documentation activities have been supply-driven; the challenge is to make them demand-driven.

- The need was expressed to better collaborate with the European Central Crop Database (ECCDB) managers, to strengthen the National Inventory Focal Points and to involve the National Coordinators in the process, i.e. by requesting suggestions on potential (old and new) actors who could contribute towards work for this new initiative.

- The need was expressed to keep the collaborative spirit alive among the countries that have contributed to the creation of EURISCO.

3. Coordinated activities to support the International Treaty

Marco Marsella, FAO consultant for the Secretariat of the Treaty, made a short presentation on his work on the preparation of a documentation system for registering Standard Material Transfer Agreement (SMTA) transactions. He reported on the Technical Stakeholders meeting which took place on 13-14 February 2007 at FAO. He gave some explanations about the toolkit prototype and how this tool could be integrated with the existing systems or new systems. A demo of the toolkit will be presented at the Second IT Governing Body Meeting in November 2007. Marco informed the group that a draft SMTA reporting protocol should be ready by 15 May 2007.

Discussion
In the discussion that followed, it was agreed that it would be strategic and feasible to use EURISCO for registration purposes, marking the material that is part of the Multilateral System, as well as the material which will be part of AEGIS. By doing this, it will be possible to add value to EURISCO, as well as to contribute to the implementation of the Treaty. It was noted that Clive Stannard, from the Secretariat of the Governing Body for the ITPGRFA based at FAO, has already confirmed that uploading the relevant information through EURISCO would be an acceptable way for the European countries to comply with the Treaty requirements.

It was specified that it would be sufficient to add a couple of simple descriptors to the list of National Inventory descriptors that are used for EURISCO and by filling these in, automatic uploads of National Inventories onto EURISCO would ensure official reporting of information to the Treaty Secretariat in the most cost-efficient way.

4. Proposed activities

Discussion took place on how to set up a list of documentation activities to be carried out in collaboration. Participants made their proposed offers for contributions as reported below.

Frank Begemann presented the activities that his Institute will be able to provide:
1. Improvement of data flow from National Inventory to EURISCO
2. Linkage between passport data and characterization and evaluation (C&E) data
3. Contribution to adaptation of the Multi-Crop Passport Descriptors (MCPDs), e.g. to accommodate the requirements from the Multilateral System and the SMTA
4. Expansion of *in situ* and on farm data.

He also informed the group that the German inventory will be updated very soon.

Eliseu Bettencourt proposed to keep in mind the need to include capacity building and awareness raising in the initiative (this point was also made in the recommendations received from the evaluation panel of the EPGRIS2 project). Eliseu proposed training of trainers and of National Focal Points, explaining and highlighting the importance of such an action.

Dag Terje Filip Endresen informed the group that NGB is already working with capacity building for the South East European Development Network (SEEDNet) and for the Baltic Countries. Dag affirmed the interest of NGB in providing collaboration in the area of "Infrastructure" and gave a short presentation on some of the key activities NGB will promote, which include:
1. PyWrapper data provision, supporting the Tapir protocol based on BioCASE software; assistance is offered in the use of this tool.
2. EURISCO data flow and portal.
3. ECPGR ECCDB data flow.
4. Life Science Identifier (LSID) service; LSID provides a global unique identifier which is free of charge and can be used for several purposes.
5. Resource Description Framework (RDF) to describe data (the recommended resolve format for LSID).
6. Building ontology and vocabulary.
7. Setting up a collaborative ECPGR Wiki, CVS or SVN Code repository.

Dag agreed to prepare a white paper on RDF.

Samy Gaiji informed the group about the areas that Bioversity is currently working on and for which funding is available:
1. A Central germplasm ordering system: a SINGER/CGIAR project that should enable the users to order accessions on-line. A meeting will take place on 30 April-4 May 2007 and one representative of the ECPGR Documentation and Information (D&I) Network is invited to attend the meeting with all the expenses covered.

2. Crop Information Networks: the World Bank is funding eight Global Crop Information Networks (i.e. worldwide accession-level PGR information systems) of which at least four crops are of high relevance to the initiative (Barley, Wheat, Chickpea and Potato). A proposal for 13 additional Crop Information Networks was accepted by an important donor and is now to being implemented. Bioversity International will provide the informatics expertise for the development of four Model Crops Information Networks.
3. Capacity Building: the Trust is active in five regions and funds might be available for a training workshop in Europe.

Samy Gaiji also informed the group that the Trust intends to support the implementation of the Bioversity global accession level information system linking to the existing systems. He also stated that the EUFGIS proposal has been funded and will also be linked to this.

Milko Skofic told the group that in order to improve EURISCO a consultant was hired for two months with the task of redesigning the user front-end. The Intranet will also be revised in order to better streamline the data input mechanism.

Theo van Hintum informed the group that the CGN contribution will consist of:
1. Coordination of the initiative, which includes the creation of a new Web site, compilation of documents and coordination.
2. Creation of a crop portal for lettuce. This will be a site where users can find what they need in terms of accession- and crop-related information.
3. Contribution to Web services development: BioCASE has been installed, Tapir needs to be installed.
4. Further development of the Core Selector tool.

Ian Thomas informed the group that his Institute is interested in becoming involved in the following two areas:
1. Development of a new Infrastructure: he stated that they do not have the expertise but are interested in collaborating.
2. Crop Portals: they would like to use the lettuce portal developed by CGN as a model for *Lolium* and other forages.

5. Next steps for the initiative
Following a thorough discussion, the meeting reached the following points of agreement:

1) A new initiative will be launched by the ECPGR D&I Network, consisting of a self-funded project called EPGRIS3. The objective of this initiative is to coordinate ongoing, self-funded voluntary actions proposed by European partners for the improvement of the European Plant Genetic Resources Information Infrastructure.

2) EURISCO, currently the European *ex situ* catalogue maintained in Rome by Bioversity on behalf of ECPGR as a central infrastructure, will need to be developed as the entry point for access to all information on European PGR at the accession level.

3) EPGRIS3 will specifically aim to achieve a list of workplan elements, as provisionally listed in Appendix I. This draft list will be circulated to all European countries through the National Coordinators and the members of the D&I Network (Database Managers

and National Inventory Focal Points), with the aim of identifying actors willing to contribute to various elements of the workplan as part of the project.

4) EPGRIS3 will be coordinated by Theo van Hintum, CGN, with the assistance of Frank Begemann, BLE and Lorenzo Maggioni, Bioversity, as sub-coordinators.
   The EPGRIS3 Coordinator will set up a project Web site, to be made accessible from the ECPGR D&I Network Web page. This Web site will include background documents explaining the project objectives and *modus operandi* and will invite wider participation.

5) Following point 4 above and at the latest by the end of May 2007, Lorenzo Maggioni will send a letter to all National Coordinators and D&I Network members inviting their participation in the project and seeking inputs in kind. These may consist of technological inputs, training, staff time, etc.

6) A Wiki environment will be established by the Nordic Gene Bank to allow everyone to contribute to the joint development of plans and visions for the future on issues relevant to PGR documentation.

7) A few general principles for EPGRIS3 are as follows:
   a. **Time-bound**: It is a time-bound project with a 5-year life span (2007–2011). After this period it should be reviewed and a decision about its continuation should be taken.
   b. **Decentralized**: Activities will be decentralized as much as possible, with delegation of responsibilities to activity leaders.
   c. **Transparent**: All the discussion and outputs will be open to the public, unless for very good reasons.
      i. Agreed tentative workplans and time frames will be made public and monitored by the coordinator.
      ii. Reports on progress will be provided by activity leaders to the coordinator, made public and included in the ECPGR annual progress reports.

This initiative will need to send the signal that new actions are starting, with the aim of improving European PGR documentation by adding value to the existing documentation activities through collaboration. Raising funds is not the immediate objective of EPGRIS3, although the project may eventually make clear which elements of the Networks' objectives and/or of national activities will require new funds, and it will provide a platform from which funds can more easily be obtained.

6. Other issues

The issue of the currently unclear link between ECCDBs and EURISCO was raised several times and the meeting undertook a brainstorming discussion, in view to better addressing this problem in the near future. The following points were raised:

- The breeders require characterization and evaluation (C&E) data and the ECCDBs should be able to provide this service. However, in many cases, even when available, C&E data are not easily searchable and the updating mechanism is not resolved.

- ECPGR Working Groups are informally expected to develop central crop databases. However, on one hand, the database managers are sometimes not able, in their current

work conditions to sustain a further heavy responsibility and, on the other hand, the role of the databases may need to be revised, since they should be maintained only if sustainable and effective.

- The concept of a Central Crop Database could evolve towards the Crop Portals concept, providing a wider range of information related to the crop than just accession data.

- The ECCDBs are currently aiming to serve the needs of the breeders, but also the needs of the curators for germplasm management. A centralized management function is likely to become even more relevant, due to the future development of AEGIS.

- The database managers have a unique role due to their knowledge of the crop and of the users of the PGR. They are also considered to have the opportunity to better analyze the data and improve their quality and usefulness.

- Considering the likely future development of global information systems at the accession level, the role of the ECCDBs will need to be revised. The role of the data curator and the ECCDB/Crop Portal managers may be separate in the future.

- Independently from the definition of the respective roles, efficient and easy-to-use mechanisms for C&E data provision, update and accessibility will need to be developed.

- The D&I Network will need to address this issue in the near future and plan the preparation of a "vision paper for the future of the ECCDBs".

The invitation made by Samy Gaiji to the ECPGR D&I Network to be represented in the upcoming meeting in April-May 2007 on the SINGER/CGIAR "Central germplasm ordering system" was appreciated. Helmut Knüpffer and Dag Terje Filip Endresen (depending on funding availability) were invited to represent the Network at this meeting.

Grateful thanks were extended to Theo van Hintum for proposing the meeting and the initiative, to Bioversity International for hosting the meeting, to the Chairs of the various sessions (Frank Begemann, Eliseu Bettencourt, Lorenzo Maggioni and Theo van Hintum) for their leadership, to the programme assistants (Vanessa Alam, Audrey Chaunac and Lidwina Koop) for their help with the logistic organization and for taking the minutes, and to all participants for their constructive contributions.

Appendix I. Draft Workplan Elements for EPGRIS3

- Vision and scope discussion – EURISCO
  - Discussion on scope
  - Role in global system
  - Strategy for promoting the use of EURISCO

- Data quality and quantity – EURISCO
  - Taxonomic backbone (list of taxa)
  - Empty field issue
  - Location data quality
  - Life science identifiers application
  - Characterization and evaluation data
  - Link to ECCDBs

- Uploading mechanism
  - Web services
  - Revision of the MCPDs
  - *In situ* and on-farm data
  - Ontology development

- User interfaces
  - EURISCO Web site functionality
  - Crop portals
  - SMTA reporting
  - Status of the International Treaty Multilateral System and "European Collection"
  - Web services
  - European Collection User Interface

- Network National Focal Points
  - Training and networking National Focal Points
  - Implementation of Web services
  - European Collection Management System

Appendix II. List of participants

EURISCO Advisory Group

Frank Begemann (frank.begemann@ble.de)
Eliseu Bettencourt (eliseu.bettencourt@gmail.com)
Dag Terje Filip Endresen (dag.endresen@nordgen.org)
Iva Faberová (faberova@vurv.cz)
Samy Gaiji (s.gaiji@cgiar.org)
Theo van Hintum (theo.vanhintum@wur.nl)
Unable to attend: Véronique Jamilloux (veronique.jamilloux@inapg.inra.fr)

ECPGR Documentation and Information Network Coordinating Group

Frank Begemann (frank.begemann@ble.de)
Dag Terje Filip Endresen (dag.endresen@nordgen.org)
Theo van Hintum (theo.vanhintum@wur.nl)
Helmut Knüpffer (knupffer@ipk-gatersleben.de)
Ian Thomas (ian.thomas@bbsrc.ac.uk)
Unable to attend: Ahmet Tan (pgr@aari.gov.tr)

ECPGR Secretariat

Lidwina Koop (l.koop@cgiar.org)
Lorenzo Maggioni (l.maggioni@cgiar.org)

Other participants

Vanessa Alam (v.alam@cgiar.org) – Bioversity Programme Assistant
Johan Bäckman (johan.backman@nordgen.org) – Nordic Gene Bank IT Manager
Audrey Chaunac (a.chaunac@cgiar.org) – Bioversity Programme Assistant
Jan Engels (j.engels@cgiar.org) – AEGIS Coordinator
Jarkko Koskela (j.koskela@cgiar.org) – EUFORGEN Coordinator
Marco Marsella (m.marsella@itworks.it) – FAO Consultant
Milko Skofic (m.skofic@cgiar.org) – EURISCO Manager
Jozef Turok (j.turok@cgiar.org) – Director of Bioversity's Regional Office for Europe