Mid-term report on ECPGR Phase IX

January 2014 – April 2016

ECPGR Secretariat c/o Bioversity International, Via dei Tre Denari 472/a, 00057 Maccarese, Italy
Tel: (39) 06 6118251 Email: bioversity-ecpgr@cgiar.org Website: www.ecpgr.cgiar.org

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1. Introduction

This report, prepared for the 14th Steering Committee (SC) meeting, is intended to complement the information provided with the 2014 and 2015 Annual Reports. Chapter 2 of the present report follows the scheme defined by the "ECPGR objectives logframe".[1] Progress made with the implementation of the agreed activities as listed in the objectives is presented here, based on the replies of National Coordinators (NCs) to an online questionnaire, and complemented with information available to the Secretariat. Triggered by the analysis of the questionnaire, Chapter 3 collects a number of proposals for adjustments to the ECPGR objectives logframe document. Results from a questionnaire sent to all the Working Group (WG) members to evaluate the mode of operation of ECPGR during the first part of Phase IX are analysed in Chapter 4, including the WG members' evaluation of the Activity Grant Scheme. This Grant Scheme is further analysed in Chapter 5 with the support of statistics and data on the first three calls and with an assessment made by the Secretariat about achievements reached by the Grant Scheme towards the ECPGR objectives. Chapter 6 summarizes and comments the progress reports received from the WG Chairs. Finally, an update of the financial situation of ECPGR is given in Chapter 7.

The following supporting documents (raw data resulting from the questionnaires) and statistics are available from the ECPGR website:

- Questionnaire on the progress towards the ECPGR objectives during Phase IX
- Evaluation of the mode of operation of ECPGR in Phase IX
- ECPGR Activity Grant Scheme – Phase IX Mid-term statistics

The results of an online evaluation of the WG Chairs requested from all the WG members were provided confidentially to the Executive Committee.

2. Progress on ECPGR objectives for Phase IX (2014-2018)

The document called "ECPGR Objectives" was completed at the beginning of 2014 in the form of a logframe with six Outcomes, each with several Outputs, Activities, Responsibilities, Indicators and Assumptions, with the intention to guide on the plan of work for ECPGR and also to be used for monitoring the progress of ECPGR. A revised version of the original document was issued in April 2015, following the endorsement by the SC of the *Concept for* in situ *conservation of crop wild relatives in Europe.*

As the responsibilities for implementation of Outcomes and Outputs are distributed among different stakeholders, monitoring of implementation requires inputs from the Secretariat, National Coordinators and Working Group Chairs. Specific online surveys have therefore been completed with the involvement of the responsible stakeholders. Scores about progress with the implementation of each Activity were assigned by the responsible stakeholders, as indicated below for each given Output. Score values were in a 4-points scale: 0 = no progress; 1 = low progress; 2 = medium progress and 3 = high progress.

Questionnaires sent to National Coordinators were completed or partially filled in by only 17 countries (Albania, Belarus, Bulgaria, Cyprus, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Latvia, Lithuania, the Netherlands, Romania, Sweden and

[1] Objectives of ECPGR for Phase IX (Long-term Goal and Outcomes

Turkey). Therefore, the information compiled below, albeit complemented by information available to the Secretariat, should be considered only partial.

Outcome 1 – AEGIS is operational. Accessions in AEGIS are characterized and evaluated

Output 1.1 – Membership agreements signed (Average progress score by Secretariat: 2.0)

At the start of Phase IX, 33 countries were members of AEGIS. One additional membership agreement was signed by Italy in 2014. Since the start of the Phase, the Associate membership agreements with institutions increased from 54 in 26 countries to 58 in 27 countries. Activities 1.1.2 and 1.1.3 included in this section of the ECPGR Objectives document are actually not contributing to Output 1.1 and thus it is proposed to move them to a different Output of the logframe (see discussion under Chapter 3 below).

Output 1.2 – AEGIS collections established (Average progress score by NCs: 1.4)

The number of accessions included in the European Collection by the end of April 2016 was 28 686, corresponding to an increase during the first part of Phase IX by 17 305 accessions or 152%.

Based on replies received from 16 countries, the average progress of this Output is low-medium, but variable across countries. The identification of eligible accessions to be proposed for registration as AEGIS accessions varies between countries from none to about 20 000 accessions identified, with the majority of countries declaring a low or medium progress. From the replies, the stage reached by the countries in the process of identifying accessions is not clear. Therefore, an additional Indicator is suggested for the future (see below, Chapter 3, Activity 1.2.1).

Accessions identified as 'eligible for AEGIS' have been by some countries fully designated and flagged in EURISCO as AEGIS accessions (the Netherlands, Nordic Countries, Romania). In other cases only 20% (Estonia) or 40% (Albania, Germany) were flagged, indicating that different mechanisms are adopted by the countries before accessions are eventually flagged.

Monitoring of the management of AEGIS accessions by the Associate Members (AMs) is also very variable, being indicated as 'absent' by 3 countries, 'low' by 6 countries, 'medium' by 3 countries and 'high' by 4 countries. Overall, 7 institutes were listed as having fully adopted the AEGIS principles and 2 institutes at least partially.

Output 1.3 – AQUAS quality system developed and operationalized (Average progress score by Secretariat: 1.3)

The AEGIS Quality System (AQUAS) has been adopted by ECPGR with endorsement of its principles and guiding documents. The system has been developed with the approval of all its components. The operationalization of the system has however only partially started. The various components of AQUAS and the respective level of implementation are described below:

- **Template for operational genebank manuals**: by compiling the template, which was developed during the previous Phase by the Secretariat, Associate Member genebanks publish information on their current mode of operation. The template has been filled by only 7 Associate Member genebanks from the Czech Republic, Germany, the Netherlands and Switzerland, although the preparation of the manual by each of the

AMs was agreed as a requirement. Only two of these manuals were completed during Phase IX.

- **Generic standards**: in the previous ECPGR Phase the revised FAO Genebank standards for PGRFA had been endorsed by the SC as the base standard to be used by Crop WGs to elaborate their crop-specific standards, with justified deviations from the FAO standards.
- **Crop-specific standards**: each WG is expected to formally agree with the FAO standards for its mandate crops and/or to develop crop-specific standards, to be eventually validated by the Steering Committee. Eight WGs completed the exercise and formulated crop-specific standards for the conservation of orthodox seeds (*Avena*, *Beta*, Cucurbits, Leafy Vegetables, *Prunus*, Solanaceae and Wheat WGs) and for field genebanks and *in vitro*/cryopreservation collections (*Allium* and *Prunus* WGs). All these agreements were finalized during Phase IX.
- **Record keeping, reporting and monitoring**: a policy document was endorsed by the SC in January 2016. Implementation by the Secretariat has not been actively pursued while the European Collection is being developed and several member countries still need to complete Associate Agreements with national genebanks and other institutions.
- **Safety-duplication policy and distribution guidelines**: these supporting documents had been approved by the SC in the previous Phase.

Training of Associate Members in the development and implementation of the quality system was not organized (and no requests had been made).

Output 1.4 – Funds mobilized to help Associate Members to implement AQUAS (Average progress score by Secretariat: 0.0)

Fundraising for establishing and implementing Associate Member quality systems has not started.

This activity should be preceded by a request for support from specific Associate Members for the upgrading of their quality system. However, several elements of AQUAS formed part of the 2015 PGR Gold project proposal that met the threshold of the EU but was not funded.

Output 1.5 – Other capacity building schemes for Associate Members operational (Average progress score by NCs: 0.9)

Activities related to this Output have in most cases not started. No specific capacity building needs have been identified and pointed out to the Secretariat by Associate Members or Working Groups. It is foreseen that such needs will emerge once the operations related to the AQUAS reporting and monitoring system will have started. Based on replies received from 16 National Coordinators, the average progress of this Output is absent or low, with few exceptions. Very rarely AMs have been supported with capacity development (one in Estonia and one in Denmark). Turkey declares having supported 30 institutes, but only one institute has signed the AEGIS Associate Member Agreement. Among the training opportunities identified, training of foreign scientists on *Vitis* fingerprinting occurred in Germany and a training course on characterization and documentation principles of vegetatively propagated plant genetic resources took place in Turkey.

Regarding services for characterization, evaluation and phenotyping of AEGIS accessions, few examples were given of ongoing services and only for national needs. Very few cases were mentioned of accessions having been regenerated on behalf of a given Associate Member

by different institutions. Offer of safety-duplication facilities for AEGIS accessions is also very variable. Four countries declared having safety-duplicated accessions at different AMs, supposedly abroad. The Leafy Vegetables WG provided the opportunity for regeneration of genebank material to be carried out by the US company 3 Star Lettuce. This opportunity was used by GEVES, France.

Outcome 2 – Quantity and quality of data in EURISCO, including *in situ* and on-farm data, have been increased. Functionality of EURISCO meets users' expectations

Output 2.1 – All National Focal Points (NFPs) update national inventories effectively and timely (Average progress score by NCs: 2.0; score by EURISCO Coordinator: 2.3)

Based on replies received from 15 National Coordinators, the average progress of this Output was medium with respect to identification of National Inventory collections to be included in EURISCO and strengthening of collaboration between National Focal Points (NFPs) and collection holding institutes.

The number of yearly updates of national inventories in EURISCO varied from 0 to 3, with a peak between 2 and 3 updates per year. EURISCO registered a total of 28 updates in 2015. Number of interactions between NFPs and collection-holding institutes varied between two per year and more than once a week. Fifteen NFPs were trained in a workshop in 2015, and a second training workshop involving other NFPs will take place in 2016.

Output 2.2 – C&E data in EURISCO included, with high quality and wide coverage (Average progress score by EURISCO Coordinator: 1.0)

Extension of the EURISCO database to receive characterization and evaluation (C&E) data was fully implemented. The query interface was improved following receipt of feedback from test users and it is almost ready to go public. C&E data have been imported for 18 404 accessions and data of 24 900 more accessions are under preparation for import.

Output 2.3 – Inclusion of relevant *in situ*/on-farm data in EURISCO realized (Average progress score by EURISCO Coordinator: 0.0; score by NCs related to Activity 2.3.1: 1.0)

Progress with the identification of *in situ*/on-farm PGRFA qualifying for inclusion in EURISCO in each country received an average low score in the replies from 15 countries. A few countries indicated that no crop wild relative (CWR) populations qualify, others lack information. Germany, Lithuania and the Netherlands have identified a small number of important CWR populations, while 120 were recorded in Albania.

A recommendation by the Documentation and Information (Doc&Info) WG was endorsed by the SC, proposing the inclusion into EURISCO of data about designated CWR *in situ* populations, accompanied by a list of National Focal Points who could be contacted in case of the need for *in situ* collecting. The Doc&Info WG made itself available to support the *in situ* community in the creation of an inventory and monitoring system for European CWR *in situ*. Regarding the inclusion of on-farm information into EURISCO, no agreement has yet emerged within the Doc&Info WG on what type of information should be included and for what purpose. The ECPGR *Concept for on-farm conservation and management of PRGFA*, currently under development, is expected to provide guidance on this point, once endorsed by the Steering Committee.

Output 2.4 – Users' expectations explored and functionalities of EURISCO increased (Average progress score by Chair of the Documentation & Information WG: 2.0; by EURISCO Coordinator: 2.5)

Expectations from users were not yet collected through structured interviews, but feedback was received from bilateral communications. As a consequence, the functionalities of EURISCO were highly improved with several functions adapted to the expressed needs or newly added. For the EURISCO website, a total of 9 database packages with 107 functions (import, integrity checks, AEGIS auditing etc.) were established and for the EURISCO backend, 6 packages with 25 functions (newsletter subscription system, download, C&E, statistics etc.) have been completed. In addition, 29 Java classes for data import were created.

Outcome 3 – *In situ* conservation of priority crop wild relative (CWR) and landrace (LR) populations are implemented throughout Europe. Mechanisms are in place for more effective utilization of the conserved germplasm

Output 3.1 – National CWR conservation strategies produced (Average progress score by NCs: 1.2; by Chair of the Wild Species Conservation in Genetic Reserves WG: 1.5)

Evaluation of this Output according to replies received from 16 countries indicated an average low progress, but a medium progress specifically regarding the production of checklists. According to the evaluation made by the Chair of the Wild Species Conservation WG, partial or complete CWR checklists have been prepared in most countries, nearly always prioritized at a level of ca. 10% of checklist taxa. About 10 national inventories, including the distribution of CWR, have been prepared in Europe. On the other hand, low progress has been attributed to diversity and gap analysis of national priority CWR taxa, which was only partially achieved in 8 countries. Low progress was also achieved regarding the production of national CWR conservation actions, which were defined in 8 countries but rarely implemented. CWR conservation action plans were only achieved or under way in Cyprus, Finland, Hungary, Spain, UK and partially in Albania, Germany and Italy.

Outputs 3.2 – 3.6

These Outputs refer to regional actions that have not been initiated yet (production of an integrated European CWR conservation strategy, establishment of a network of Most Appropriate crop Wild relative Populations (MAWP), European strategy made operational and germplasm from the network effectively utilized).

Outcome 4 – Commitment and regular resources of national governments are sustained or increased, and commitments and resources of the European Commission (EC) as well as other potential donors towards ECPGR are increased

Output 4.1 – Relationship between ECPGR and EC/EU and responsible national ministries strengthened and sustainable funding of ECPGR secured (progress score by Secretariat: 1.0)

The number of countries renewing ECPGR membership in Phase IX reached 33, and 4 additional countries paid contributions without formalizing the agreement. Former member countries that have not renewed membership or contributed are Armenia, Georgia, Malta, Poland, Russian Federation and Ukraine. Contributions in the first two years of Phase IX were regularly paid by 31 countries. A special agreement was made with Bosnia and Herzegovina,

which was given the option of contributing 'in-kind' to the local costs of the Mid-term SC meeting, equivalent to 3 years of contributions.

Progress for this Output was scored as 'low', considering that 38 countries contributed to ECPGR in the past Phase.

Regarding the opportunity to receive a regular contribution from the EU, no progress was made, as ECPGR is not recognized as a formal regional instrument of cooperation by the EU. The development of a strategy to improve this situation is linked to the outcome of the ongoing 'Preparatory action on EU plant and animal genetic resources in agriculture' and its recommendations, expected to be announced on 9 June 2016.

Output 4.2 – Increased awareness of the value of PGRFA amongst policy-makers at national and regional level (Average progress score by NCs: 1.4)

Based on replies from 16 countries, regular communication with policy-makers scored an average medium level (2.1) within relevant ministries, but a low level (0.8) within the European Commission.

Regular or frequent communication with policy-makers within relevant national ministries was confirmed to take place in the majority of countries. Communication with policy-makers within the EC was reported by half of the responding countries, but is much less frequent with the exception of Germany and the Netherlands.

Output 4.3 – Increased collaboration between ECPGR and the International Treaty for Plant Genetic Resources for Food and Agriculture (ITPGRFA) and FAO Commission on Genetic Resources for Food and Agriculture (CGRFA) (progress score by Secretariat: 2.0)

A Memorandum of Understanding (MoU) between the Secretariats of the International Treaty and of ECPGR was prepared for signature. The MoU establishes a framework for cooperation on a range of activities related to access to and exchange of information and the sharing of expertise, in order to collaborate in areas of mutual interest, with the aim of promoting synergies and the coherent implementation of Art. 5, 6, 16 and 17 and the objectives of the Treaty. A comparable initiative has been planned by the Secretariat with the Commission on PGRFA, but not yet started apart from preliminary talks.

Output 4.4 – Increased awareness of the value of PGRFA amongst users and the wider public (progress score by Secretariat: 1.0)

Although several events have taken place within ECPGR countries, including by initiative of individual ExCo and SC members as well as by the Secretariat, the development of a communication and public relations strategy has not yet been planned.

Outcome 5 – Relations with users of germplasm are strengthened

Output 5.1 – Good knowledge of which C&E data are of high relevance to potential users (average progress score by NCs: 0.8)

No or very low progress was registered by 17 countries. No specific survey and analysis of users' needs was made at national level.

Output 5.2 – Expectations of users regarding genebank services known and answered (average progress score by NCs: 1.8)

Medium progress was registered on average by 17 countries responding to the survey. Among the services to users that are available across ECPGR, the following have been listed: crop and institutional databases, including characterization and evaluation data and online ordering systems; Finland offered webpages on knowledge sharing for field crops for hobby farmers and online PGR-related teaching material is available for schools. Training on any aspect of *ex situ* conservation is offered upon request by the Romanian genebank. Training and cooperation with non-governmental organizations (NGOs) is offered by Hungary.

Output 5.3 – Enhanced use of CWRs realized (average progress score by NCs: 1.2)

Low progress was registered on average by 17 countries responding to the survey. In many countries specific data are not available. In three countries precise numbers of CWR accessions distributed nationally to users are known and range from 33 to 750 accessions per year.

Output 5.4 – Improved collaboration with users in public and private sector (average progress score by NCs: 1.9)

A medium-level progress was registered on average by 16 countries responding to the survey. In nearly every country, research partnerships are more or less regularly established between genebanks and researchers, often based on project funds financed by national governments, the EC and/or ECPGR.

Outcome 6 – Organizational structure and secretarial support are adequate to effectively sustain the operations of ECPGR

Output 6.1 – New structure for the operations of WGs implemented and operational (average progress score by Secretariat: 3.0)

Progress was high. The new structure for ECPGR operations in Phase IX was entirely defined and implemented. Terms of Reference (ToRs) of WG Chairs were defined and published online. Rules for Phase IX were defined, including a country quota system; quotas can be monitored online. The possible range of fields of expertise of Working Group members was defined, although the respective criteria not in detail. All the Working Groups were formed as pools of experts and Chairs were nominated for each WG. Updated lists of WG members are available from the ECPGR website. Procedures for WGs to submit expressions of interest and proposals for Grant Scheme Activities were defined and three calls for proposals were launched. Procedures to select proposals and to grant projects were established. Twelve Activities were granted funds under the first two calls.

Output 6.2 – Effective operation of Executive Committee (ExCo) and Steering Committee (SC) (average progress score by Secretariat: 3.0)

The ExCo operated effectively in the first part of Phase IX, with rotation by selection of a new member each year (current and past members are listed on the website). The Committee held meetings every year (minutes of the meetings are published on the website). The ExCo reported regularly to the SC, either with minutes of their meetings or with specific messages sent by the ExCo Chair. The ExCo activity is also reported in the ECPGR Annual Progress Report and at the Steering Committee meeting. The Steering Committee has effectively

interacted with the ExCo and approved the budget for Phase IX. The 14th meeting of the SC was scheduled to be held in May-June 2016 in Bosnia and Herzegovina.

Output 6.3 – Synergies with external partners are realized (i.e. BGCI, CPVO, EC, ESA, ETP, EUCARPIA, FAO, SEEDNet (average progress score by NCs: 1.2) (progress score by Secretariat: 2.0)

The Secretariat attended a SEEDNet meeting in 2014, with the aim to inform the Southeast European countries about the developments of ECPGR and to promote active participation in its activities.

The European Seed Association (ESA) was involved in collaboration with ECPGR during the preparation of project proposal PGR Gold, as part of a Horizon 2020 submission, unfortunately unsuccessful. The Secretariat participated in the final conference jointly organized in Cambridge, June 2014, by EUCARPIA and the EC-funded PGR Secure project Consortium. The Secretary participated in a panel discussion on the Vision for the future of European PGRFA utilization and conservation. The EUCARPIA Genetic Resources Section board includes among its members two ECPGR National Coordinators (Netherlands and Switzerland), two WG Chairs (Forages and Leafy Vegetables) and the ECPGR Secretary. Interactions with FAO are mainly focused on relationships with the Secretariat of the International Treaty. A MoU between ECPGR and the Treaty is being finalized (see above) and the ECPGR Secretary has been invited to participate in the Scientific Advisory Committee of the Global Information System (GLIS), as well as to an expert meeting on the Toolbox for Sustainable Use of PGRFA (July 2016). Several interactions with the EC have taken place in the first part of Phase IX. Particularly significant is the participation of the Centre for Genetic Resources, Wageningen (CGN), the Netherlands and of the Federal Office for Agriculture and Food (BLE), Germany in the 'Preparatory action on EU plant and animal genetic resources in agriculture', respectively as Coordinator and participant.

Several ECPGR members participated in workshops organized as part of this action, or were interviewed in related surveys. ECPGR WG members also participated in a Focus Group on 'Genetic Resources – Cooperation models', organized in the framework of 'A European Innovation Partnership for Agricultural productivity and Sustainability (EIP-AGRI)'. The final report produced in July 2015 is available from the EC website. Officers from DG-AGRI and DG-ENV have been invited to the Mid-term SC meeting. Botanic Gardens Conservation International (BGCI) has been invited for the first time as an observer to the Mid-term SC meeting, to promote future interactions. No interactions have been developed so far with the Community Plant Variety Office (CPVO) or the European Technology Platform (TP) 'Plants for the Future'.

Output 6.4 – Fundraising is undertaken (average progress score by NCs: 1.2) (average progress score by Secretariat: 1.7)

Fundraising within the traditional circle of ECPGR implementing agencies has ensured a higher budget than originally established, raising Phase IX budget by ca. € 150 000 (from € 2.79M to € 2.94M). This increase was mainly due to the receipt of outstanding contributions from previous Phases. Fundraising was also pursued by the Secretariat, but without success, through participation in three project proposals under Horizon 2020 calls. Additional scouting opportunities for funding have not been undertaken.

Output 6.5 – Effective operation of the Secretariat (average progress score by Secretariat: 3.0)

Activities coordinated by the Secretariat in the first part of Phase IX included:

- the finalization of the hosting arrangement with Bioversity International and of the budget for Phase IX
- fine-tuning and finalization of the agreement between Bioversity and the Leibniz Institute of Plant Genetics and Crop Plant Research (IPK) for the hosting arrangement of EURISCO
- facilitation of the move of EURISCO from Bioversity to IPK
- preparation of the new mode of operation for ECPGR in Phase IX, including the compilation of the ECPGR *Rules of procedure and Terms of Reference of the operational bodies* and the log-framed Objectives of ECPGR
- launching of three calls of the Activity Grant Scheme
- help-desk support for the preparation and submission of proposals by the WG Chairs
- supporting the evaluation of the proposals by the ExCo and preparation of contracts with partners for the implementation of the Activities
- monitoring of Activities' implementation and dissemination of results on webpages
- organization of the Documentation and Information workshop in 2014 and of On-farm concept meeting in 2015
- organization of two ExCo meetings (2014 and 2015) and of the Mid-term SC meeting (2016)
- maintenance and development of ECPGR website
- preparation of AEGIS Quality System documents
- assistance to Associate Members for the compilation of genebank manuals
- assistance to WG Chairs for the compilation of crop-specific standards
- facilitation of selection and appointment of WG Chairs
- monitoring of WG composition and use of country quotas
- assistance to ExCo Chair and members for document preparation and general advice
- presentations offered at Activity meetings and other national or international events
- drafting of third version of ECPGR *Concept for on-farm conservation and management of PGRFA*
- production of quarterly e-bulletins and annual technical and financial reports
- production of public awareness publications and ECPGR and AEGIS brochures
- managing and monitoring the ECPGR funds (receipt of contributions and disbursements)
- distribution of information through the listserver
- publication of news on the ECPGR website
- preparation of scientific papers and book chapters, etc.

Overall, the Secretariat has operated effectively.

Output 6.6 – ECPGR Secretariat adequately staffed (average progress score by Secretariat: 3.0)

The ECPGR Secretary for Phase IX was reconfirmed by the Steering Committee and consequently re-appointed by Bioversity International. One full-time programme assistant and one half-time scientific assistant were also reconfirmed for Phase IX. The AEGIS Coordinator (senior scientist consultant) was reconfirmed at 50% time (2014), 25% (2015) and 15% (2016).

Output 6.7 – ECPGR Secretariat effectively hosted by Hosting institution (progress score by Secretariat: 3.0)

This Output aims to achieve a regular cash flow from the member countries to the Hosting institution to avoid the need for cash anticipation by the Hosting institution. Membership Letters of Agreement were signed by 33 countries, representing 90% of the budgetary contributions of Phase IX.

3. Proposed adjustments of ECPGR objectives logframe

The Secretariat noted that the internal consistency and clarity of the ECPGR Objectives logframe document might be improved in a few cases. The following changes are proposed for consideration by the SC:

Activity 1.1.2 – Establishment of proper documentation of AEGIS accessions

- This Activity does not belong to Output 1.1 (Membership agreements signed), and it is proposed to move it to Output 1.2 (AEGIS collections established). Moreover, responsibility 1.1.2 should be shared among Associate Members and National Inventory Focal Points.

Activity 1.1.3 – Establishment of a monitoring and reporting plan

- This Activity does not seem to belong to Output 1.1 (Membership agreements signed), and it is proposed to move it to Output 1.2 (AEGIS collections established) or 1.3 (AQUAS quality system developed and operationalized), depending on clarification about what needs to be reported and monitored.

Activity 1.2.1 – Identification of eligible accessions to be proposed for registration as AEGIS accessions

- It is suggested to add an Indicator showing the level of progress in the process of identification of eligible accessions: Indicator 1.2.1.2: "Percentage of the national collection analysed for eligible accessions to be proposed for registration as AEGIS accessions".

Activity 1.3.1 – Development of crop-specific management system, including procedures and protocols for all crops

- It is not clear which 'procedures' should be set up on a crop-by-crop basis. It is suggested to either clarify the need for crop-specific procedures or remove the word 'procedures' from the Activity and from the related Indicator 1.3.1.2.

Indicator 1.3.1.3 – Number of AQUAS-certified collections, related to Activity 1.3 (AQUAS quality system developed and operationalized)

- The meaning of 'AQUAS-certified collection' is not defined. It is suggested either to discuss and define the meaning or to delete this Indicator.

Indicator 1.5.3.1 – Number of services provided, related to Activity 1.5.3 (Services for C&E and/or phenotyping of AEGIS accessions provided to AMs)

- It is suggested to reinforce the clarity of the Indicator and split it in two parts:
  - Indicator 1.5.3.1: "Number and description of services made available for characterization, evaluation, phenotyping and genotyping of AEGIS accessions"

- Indicator 1.5.3.2: "Which types of services have been effectively provided to which AEGIS accessions (number of accessions and their holding institutes)".

Indicator 1.5.4.1 – Number of accessions regenerated by other AMs, related to Activity 1.5.4 (Regeneration capacity for AEGIS accessions offered to AMs)

- It is suggested to re-word this Indicator to improve its clarity: "Number of accessions regenerated on behalf of a given AM by institutes from a different country (indicate which AM(s) and which other institutes/countries were involved)".

Indicator 2.4.2.1 – Number of adaptations realized, related to Activity 2.4.2 (Database functions adapted or added)

- The wording "adaptations realized" is unclear. It is suggested to change the wording to: "Number of functions of EURISCO adapted or added in response to users' requests".

4. Evaluation of the mode of operation of ECPGR in Phase IX

A questionnaire was sent to all the Working Group members to evaluate various aspects of the new mode of operation of the ECPGR Working Groups during Phase IX and specifically the Grant Scheme approach. Replies were received from 212 members out of 738 (29% response rate). Replies by WG varied from 2 (Fibre Crops WG) to 21 (Documentation and Information WG) respondents. Most represented categories of respondents were genebank curators (33%), crop specialists (23%) and plant breeders (22%).

Structure and composition of Working Groups (Questions 3-7)

Eighty-six percent of respondents were highly satisfied (HS) or satisfied (S) with the creation of WGs as pools of experts proposed by the NCs, although some concern was expressed about the level of participation of these experts in the implementation of the WG activities. A high rate of HS+S (78%) was also noted about the composition of the WGs no longer based on one single representative per country, although the difficulty to identify responsible persons and to select Activity participants from large national groups were expressed. A lower rate of HS+S (59%) was recorded for the possibility of WGs to expand without limitation the number of experts. On this point, critical remarks were made on the difficulty to operate effectively as a Working Group and establish a good level of communication among so many members who do not know each other. The categories of members represented in the WG were considered adequate by 91% of respondents, but other categories were also suggested for inclusion (social scientist, economist, *in situ* conservationist, molecular genetics expert). Coordination of the WG by a Chair finds the agreement of 93% (HS+S) of the respondents. It was however noted that the responsibilities of the Chair are high, and supportive positions (Vice-Chairs or committees) could be of help.

WG mandate and implementation through Activities (Questions 8-13)

There is general agreement (HS+S = 87%) that WGs should carry out Activities mandated by the Steering Committee or proposed by the WG and approved by the SC. It is less satisfactory (HS+S = 50%) that Activities are carried out with a budget that should not exceed € 15 000 per Activity.

Actually this point receives one of the lower rates of satisfaction, with 14% of not satisfied (NS). Several remarks point out that this limitation does not offer a sufficient incentive, it is perceived as an obstacle to collaborative Activities within the WGs, and it is a severe limiting factor for the type of action that can be carried out. More flexibility in the budget threshold is suggested. It is generally appreciated that Activities can also be carried out jointly by more than one WG (HS+S = 80%). Another critical point is the limit of 12 members per Activity (HS+S = 49% and NS = 14%). Twelve members per Activity are considered to be insufficient to represent all the countries that have an interest for certain crops. More flexibility is suggested, allowing to evaluate on a case-by-case basis. A 'bottom limit' in the number of participants is indicated as more important than an upper limit. However, the higher effectiveness of small groups has also been noted, as well as the impracticability to expand the group when the budget is low. Not all the members seem to have understood that self-funding is allowed to increase participation. On the other hand, it was also remarked that it would be fair to assign a budget to all the participants.

The principle that participants in Activities are selected on the basis of an 'Expression of interest', where potential participants indicate their commitment, is satisfactory for the large majority (HS+S = 84%). One remark points at the administrative burden of this step. Another comment considered the process leading to preparation of Activity proposals to be insufficiently transparent. Similarly, the established process of selection of the participants for an Activity is in general accepted (HS+S = 72%), but several remarks were made about the complexity of the entire procedure. Some members suggest simplifying the procedures, for example by eliminating the need to involve all the NCs for endorsement of the composition of the Activity groups, after the proposals have been accepted for funding.

The Grant Scheme rules (questions 14-18)

Evaluation of the proposals by the ExCo is considered satisfactory (HS+S = 87%), but a couple of remarks hint at the difficulty of anticipating what type of proposals could be more successful. It is also noted that it would be important for WGs to receive positive or negative feedback after the proposals have been evaluated. The limitation in the maximum amount allocated to each WG per year receives a lower level of satisfaction (HS+S = 52%; NS = 10%). Comments indicate that more flexibility would be appreciated to incentivize the most proactive WGs and highly relevant Activities. The opposing principle is also expressed, i.e. that with limited funds it is wise to ensure that as many WGs as possible remain active. Most respondents (HS+S = 76%) accept the rules about eligible expenditures, with only 6% not satisfied, presumably owing to the established ineligibility of reimbursing overheads. The principle that the overall budget (but not each individual Activity) is split among meetings and 'other actions' with a 75:25 ratio is accepted by 63% (HS+S). However, a number of comments express concern about the complex formulation of this rule and call for more flexibility and more opportunities to fund 'other actions'. Others acknowledge that ECPGR is not a rich funding agency, but rather a platform that facilitates collaboration, hence meetings. The country quota system is generally accepted (HS+S = 77%), but its complexity is criticized.

Communication within and across groups (questions 19-20)

The principles that outputs of Activities should be circulated to the entire WGs for information and comments and that a listserver is established for the WG Chairs to communicate across WGs are unanimously appreciated. It is questioned whether these practices are effectively implemented and indeed the Chairs' listserver has not been used.

Clarity and user-friendliness of the Grant Scheme Calls for proposals (questions 21-24)

Generally good levels of satisfaction (HS+S) are expressed about various aspects of the Call for proposals, such as: timing and deadline for submission of proposals (83%), clarity of the Call (78%), user-friendliness of the webpage providing instructions (78%) and user-friendliness of the forms (78%). Only a couple of comments call for better clarity of which actions are considered suitable.

Overall evaluation on the adequacy of the Grant Scheme (questions 25-28)

The adequacy of the Grant Scheme approach for involving WG members receives a good level of satisfaction from 69% (HS+S) of respondents. It is noted that involvement in granted Activities might be the only chance to act as WG. A couple of comments regret the change of the past arrangement, when whole WGs used to meet regularly. The Grant Scheme approach is satisfactory (HS+S) for 69% of respondents, also for the implementation of the WG objectives. However, a comment also points out that, given the funding limitation, the approach can hardly be sufficient to implement the objectives. The overall evaluation of the Grant Scheme mechanism is rated at a similar level of satisfaction (HS+S = 68%). Suggestions for improvement consistently refer to the need for more flexibility and reduction of some elements of complexity, such as the country quota and the 75:25 ratio. Activity Coordinators reported having encountered some problems to interact with the WG members (low participation and slow reactivity) or difficulties to select among members from the same country. Frustration is also expressed regarding the rejection of proposals and the uncertainties that are inherent to the country quota system.

Overall rate of the Mode of Operation of ECPGR in Phase IX and general comments (questions 29-30)

The Mode of Operation of ECPGR in Phase IX was rated overall as satisfactory or highly satisfactory by 76% of respondents. About 20% are only partly satisfied and 1% is not satisfied.

General comments on the Mode of Operation refer to the need for more funds in general in order to implement the objectives and to the difficulty to offer inputs-in-kind, including by the Chairs, who are overloaded with responsibilities; more flexibility (possibility to assign larger budget to certain activities) and less complications in the system are suggested. The ability of ECPGR to involve all countries is thought to be a driver for success which may be at risk in this Phase, as the occasions for interactions among scientists and curators across the region have been reduced. Interestingly, one comment suggested evaluating AEGIS and AQUAS on the short term as many genebanks, according to this respondent, doubt about their effectiveness.

5. ECPGR Activity Grant Scheme

Statistics

Data and statistics about the Activity Grant Scheme were collected after three Calls, two of which have been completed with selection of awarded proposals. All details are included in the background document *ECPGR Activity Grant Scheme – Phase IX Mid-term statistics*. The three Calls were launched in June 2014, April 2015 and January 2016. At the time of writing, 12 proposals were awarded with a total budget of € 176 200, out of 21 eligible proposals received in the first two Calls. The budgeted ratio of meetings vs. 'other actions' after two

Calls is 56:44. An additional 10 eligible proposals will be evaluated by the ExCo prior to the SC meeting of May-June 2016. Seventeen WGs have submitted proposals under the three Calls and 10 WGs are involved in the 12 proposals that have been awarded so far. The WGs on *Allium*, *Avena*, Fibre Crops and Potato have never tried to submit a proposal.

Figure 6 in the background document shows the level of use of country quotas by country after the first two Calls. It can be noted that Bulgaria has already used all its available quotas, other countries have used a large part (Albania, Croatia, Portugal, Serbia, Slovakia) and still others only a small part or none (Belgium, Denmark, Iceland, Israel).

For the First Call, a total of 87 WG members were involved in meetings using country quotas (Table 6 of background document) while 11 participants attended meetings on a self-funded basis (Table 7).

Figure 7 shows the funds allocated to each country for 'other actions' after the first two Calls. A number of countries stand out for their success in attracting funds (France, Italy, Norway, Portugal, Spain, Switzerland and United Kingdom).

Progress towards ECPGR objectives as a result of the Grant Scheme

The first eight proposals approved under the First Call of the Grant Scheme started to be implemented during 2015 and were completed or at advanced stage at the time of writing. Four additional proposals approved under the Second Call are starting in 2016. Only preliminary indications can therefore be formulated about the contribution deriving from the Grant Scheme Activities towards the objectives of ECPGR:

ECPGR Outcome 1 (AEGIS Operational, including characterization and evaluation)

This Outcome was the target of the Activities successfully submitted under the First Call by the Barley, *Beta*, *Brassica*, Forages, *Malus/Pyrus*, *Prunus* and Wheat WGs. In these Activities, so far about 15 000 barley, 20 *Patellifolia*, 7000 forages, 100 *Prunus* and 5600 wheat accessions were suggested for inclusion into AEGIS, while lists of *Brassica* and *Pyrus* accessions are still being prepared. Criteria for selection were variable and jointly agreed by each Activity Group. As a result of the Activities from the first Call, an estimate of 11 000 accessions, mostly barley, forages and wheat have effectively been included in AEGIS, while the remaining suggested accessions have not yet received the National Coordinators' approval or are held in countries that have not implemented the AEGIS procedures or signed the AEGIS MoU. In the case of *Prunus*, one reason to keep on hold the inclusion of accessions into AEGIS was due to the heavy phytosanitary requirements that are preventing the transfer of material.

All the above-mentioned accessions have also been characterized to various extents, either morphologically and/or for molecular or biochemical traits, according to agreed minimum descriptors and uniform protocols.

The *Prunus* WG will extend its action to sweet cherry with a second proposal approved under the Second Call, aiming to characterize, evaluate and select a first core of accessions for inclusion into AEGIS.

ECPGR Outcome 2 (EURISCO)

All the Activities mentioned in the previous paragraph also contribute to Outcome 2 (Quantity and quality of data in EURISCO). Updated passport data were transferred to the respective National Focal Points for inclusion into EURISCO and C&E data were fed into the *Prunus* and Wheat Databases. The Forages WG is planning to use its C&E data as one of the first datasets testing the new capacity of EURISCO to host this type of data. Outcome 2 was also the focus

of the main Doc&Info Activity, which provided training of National Inventory Focal Points, mainly from South-East Europe. Another training targeting National Focal Points of West Europe will be carried out in 2016 under a Second Call Activity.

ECPGR Outcome 3 (*In situ* conservation)

This Outcome was targeted by the WG on Wild Species Conservation in Genetic Reserves that joined forces in the Activities carried out by the *Beta* and Forages WGs. The *Beta* WG's Activity, focusing on *Patellifolia*, has defined taxonomic standards and developed microsatellites for the identification of the accessions and the characterization of their diversity. Survey of population sites and characterization of genebank material will provide conclusive recommendations on most appropriate sites for the establishment of genetic reserves and filling in gaps in the *ex situ* collections. Development of strategies for *in situ* conservation of forages and planning of a joint workshop with the Wild Species Conservation in Genetic Reserves WG was the contribution of the Forages Activity to Outcome 3.

Under the Second Call, the *Vitis* WG's Activity will work towards the identification and planning of the most appropriate genetic reserves of wild grapes, while the Activity of Wild Species Conservation in Genetic Reserves WG is expected to increase the number of National CWR inventories and conservation action plans and to make steps towards the endorsement of prioritized European CWR inventories and action plans.

ECPGR Outcome 5 (Relations with users of germplasm are strengthened)

Research partnerships between genebanks and researchers were established within several Activities, specifically involving the Julius-Khün Institut, Quedlinburg, Germany, Agroscope, Wädenswil, Switzerland, the Swedish University for Agricultural Sciences, Balsgård, Sweden and East Malling Research, United Kingdom for molecular analysis, the University of Coimbra, Portugal for flow cytometric analysis, the Instituto de Investigação Científica Tropical, Lisbon, Portugal, for taxonomic identification, the Food Technology Research Unit (CRAA-IAA), Milan, Italy, and the Spanish National Research Council (CSIC), Córdoba, Spain for biochemical analysis.

6. Reports from Working Group Chairs

Chairs were invited to report on mid-term progress in the implementation of their tasks, as described by the WG Chairs' *Terms of Reference*. Reports were received from 16 out of 21 Chairs, with missing reports from Barley, *Brassica*, Grain Legumes, *Malus/Pyrus* and Potato WGs. It should be noted that Phase IX Chairs were all formally nominated by the ExCo at the end of 2014 or beginning of 2015, therefore their reports mainly refer to roughly one year of activity (2015). From the reports it is evident that the transition from Phase VIII to Phase IX mode of operations has been difficult for some WGs with low or no activity in some cases. Main difficulties have been the communication with expanding groups (ranging between 40 and 90 members) composed of peoples who often do not know each other and generally showed a very low response to solicitations from the Chairs. This situation has generated disappointments among several Chairs. The new and very large composition of the WGs has also determined shifts of interests compared to the WGs' perceived mission, and the absence of relevant expertise in the WGs has been noted in some cases.

The groups having submitted successful proposals under the ECPGR Grant Scheme usually managed to create a small group of more responsive people and to address the ECPGR

objectives. Other groups did not manage to prepare a single proposal submission for any of the three calls (*Allium*, *Avena*, Fibre Crops and Potato). Still other Chairs expressed frustration after rejection of up to two proposals under the Grant Scheme (Cucurbits, MAPs and Solanaceae) and felt unable to mobilize the WG into action as a consequence. It should be noted that several WGs were involved in fund-raising with project applications to Horizon2020 and COST actions. However, their rate of success was very low, owing to very limited opportunities and grants offered by the EC during this period. In fact, only the On-Farm conservation and management WG declared success with the approval of the projects Diversifood and Traditom under Horizon 2020, while the *Prunus* WG benefited from a COST action on 'Sustainable production of high-quality cherries for the European market'. Several WG members participated in workshops organized within the framework of the 'Preparatory action on EU plant and animal genetic resources in agriculture' and are looking forward to renewed funding opportunities by the EC in the near future.

A few groups stand out for having squarely addressed the implementation of AEGIS. They got engaged into the designation of their crops' European Collection (most extensively in the case of Barley, Forages and Wheat WGs), or started to monitor the composition of the crop collection (Leafy Vegetables and Umbellifer Crops) and the state of safety duplication and regeneration needs (Leafy Vegetables). Several WGs also completed (*Allium*, *Avena*, *Beta*, Cucurbits, Leafy Vegetables, *Prunus*, Solanaceae and Wheat) or made progress (Fibre Crops, MAPs, Umbellifer Crops) with the crop-specific standards as part of the AEGIS Quality System. Among the Crop WGs, the Forages WG developed a detailed and exemplary workplan covering all the important targets that can be feasible for the group, with individual responsibilities assigned. The *in situ* thematic WGs have benefited from the EC-funded FP7 project 'PGR Secure' and managed to develop national and regional strategies, as well as monitor progress across Europe at the national level and keep track of the relevant publications records of the various WG members. The WG on Wild species Conservation in Genetic Reserves has been very active with the inclusion of the CWR theme in successful proposals submitted to the ECPGR Grant Scheme either individually or jointly with other WGs. Equally successful has been the Documentation and Information WG in collaborating with other WGs for joint proposals as well as in organizing sub-regional training activities.

7. Mid-term financial situation

The last available official figures are those of the 2015 Financial Report. As indicated there, new pledges and outstanding contributions were received after Phase IX budget was set at € 2 796 868 at the beginning of the Phase. The budget for Phase IX was therefore raised up to € 2 944 418 in 2015.

This is equivalent to an increase of ca. € 128 000 (net of overheads) that could be theoretically spent for more activities. However, until further notice, the Secretariat considers uncertain the receipt of outstanding contributions from Azerbaijan, Greece, Israel, Poland and Spain, which is equivalent to € 290 250 (net of overhead = € 245 662). Therefore, it seems premature to firmly allocate the increased budget's amount to specific activities.

Expenditures for staff costs and travel and for ExCo costs and travel during the first two years have been maintained below the budgeted figures. Combined savings in this regard amount to ca. € 15 500. Also the EURISCO maintenance and development costed less than budgeted during the first two years, mainly owing to a late start of the operations at IPK at the beginning of 2014. Savings in this regard amount to ca. € 25 400. As IPK informed the

Secretariat about an upcoming increase of EURISCO staff costs in 2016-18, no further savings on this budget line can be expected.

The budget allocated for Grant Scheme Activities was € 454 170 (see Table 1 in the *Terms of Reference of ECPGR*). After two Calls for proposals, € 176 200 have been granted to 12 successful proposals. Therefore, based on the original plan, € 277 970 can still be assigned through future Phase IX Calls.

The cash balance throughout the Phase was positive, amounting to € 267 858 at the end of 2015. Therefore, no advance funds from Bioversity were necessary.

As at the end of April 2016, member contributions for 2016 had been received from 18 countries for a total amount of € 259 750, which is ca. 50% of the expected total annual contribution.

Finally, it should be noted that, as of January 2016, Azerbaijan, Greece, Poland and Spain were subjected to the provisions of Rule 1.7 of the ECPGR *Rules of procedures*. Owing to non-payment of outstanding membership fees for two calendar years, these countries have lost the right to use any ECPGR funds and the right to vote until the contributions will have been paid.

★★★

Lorenzo Maggioni
ECPGR Secretary

(with inputs from Jan Engels, Lidwina Koop and Elinor Lipman)

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Bioversity International, Via dei Tre Denari 472/a 00057 Maccarese (Fiumicino), Rome, Italy
Tel: (39) 06 6118 231; Fax: (39) 06 61979661; Email: l.maggioni@cgiar.org