



Benefits of establishing and operating a European Collection of unique and important germplasm

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Introduction

AEGIS entered into force in 2009 with the signature of the Memorandum of Understanding (MoU) by ten ECPGR member countries. By June 2015, 34 member countries and 57 Associate Member institutions had joined AEGIS. However, the growth of the European Collection has been slow. One of the possible reasons is that the benefits of AEGIS and its European Collection have not been sufficiently elaborated. This paper has therefore been prepared to present a number of perceived or reported benefits.

While assessing the benefits reported in 2009 in [A Strategic Framework for the Implementation of a European Genebank Integrated System \(AEGIS\). A Policy Guide](#), it became apparent that the benefits are not equally relevant and applicable to various stakeholders. These reported benefits are reviewed here, taking into account the effects on stakeholders, and indicating for which stakeholder group a given benefit is of particular interest.

Perceived and principal benefits of the European Collection:

1. A clearly defined **set of accessions** that is flagged in EURISCO and is made available according to standard terms of access by the European Region, under the ECPGR umbrella.

Currently, only a limited number of genebanks in Europe offer transparently online lists of available accessions. Existing regional catalogues such as EURISCO do not guarantee the availability of the material or the terms for access. By consulting the European Collection (i.e. searching for records flagged 'AEGIS' in EURISCO), the user has an immediate overview of the material available for certain from the entire Region and can be assured that the terms of access to the accessions included in the Collection are those defined by the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA; thereafter 'the Treaty'), i.e. the Standard Material Transfer Agreement (SMTA). In addition, an agreed AEGIS distribution policy informs the recipient about related conditions. Thus, it is foreseen that the list of European Accessions will benefit the users as they can select more easily which material to request, and be sure to receive it. Such a comprehensive list allows to appreciate instantly which countries participate in this European effort, how much they contribute in terms of genetic diversity and which institutions are the holders of this material.

2. **High-quality germplasm**, conserved in accordance with agreed technical standards together with high-quality and comprehensive data.

*The aim of AEGIS is that the European Collection is conserved according to the best possible quality standards¹, that it has been duplicated at another genebank for safety reasons, and that the material is well characterized. The technical standards are defined by formal agreements at the ECPGR Crop Working Group level. The implementation of the standards is to be ensured through a monitoring and reporting system which also sets up a mechanism for capacity-building. (**The user will benefit** from a guaranteed high-quality standard; **curators benefit from** a clear framework establishing and revising the standards, and have the possibility to request capacity-building support, either from national or international sources).*

3. All accessions have been selected and designated by the National Coordinators and the Associate Members concerned and countries have formally placed these in the **public domain**.

AEGIS was established within the legal framework of the Treaty. In addition, all accessions included in the European Collection have been selected and designated by the AEGIS members. The SC further agreed to use the SMTA for all the material (including non-Annex I) that AEGIS Associate Members distribute from the European Collection. The use of the SMTA satisfies the users obligations related to the acquisition of germplasm, as set forth in the Nagoya protocol and in EU Regulation 511/2014.

4. **Well-managed and documented** sub-sets of accessions make up the European Collection for a given crop, with reduced or even no duplication, and established on the basis of agreed priorities and criteria.

*The SC defined the scope of the European Collection as to include unique and important accessions for Europe, along with their related information. By identifying within each member country those accessions that were either collected or bred in that country, it is expected that there will be limited duplication of accessions included in the Collection. Through the technical advisory role of the Crop Working Groups, it will be ensured that the respective crop components will be selected, included in the European Collection and collectively managed in accordance with the agreed standards. In addition, the well-documented material in the European Collection will allow **users** to select the best possible accessions for research, breeding and other purposes more easily and in a well-informed manner. This is expected to contribute to more effective and efficient research and breeding activities as well as to increase the direct use by farmers and growers.*

5. **Rationalization** of the European conservation of unique and important germplasm could free up capacity of the Associate Members to undertake additional activities such as characterization and evaluation and sharing responsibilities or services, thus adding more value to the accessions in the European Collection.

With the aim of conserving unique and important germplasm accessions and with the understanding that the level of unwanted duplication between germplasm collections in

¹ As a reference for standard definition, the AEGIS Quality System is based on the [FAO Genebank Standards for Plant Genetic Resources for Food and Agriculture](#)

Europe is high for historical reasons, it is anticipated that a wide participation in the European Collection could lead to a reduction of the number of accessions to be conserved. As access to the conserved accessions is guaranteed, it is anticipated that Associate Members holding duplicate accessions might decide to eliminate these. Through an intensified collaboration in collectively managing the European Collection, it is foreseen that Associate Members might offer specific know-how, infrastructure or procedures as a service to other Members and/or share responsibilities with each other. Such rationalization process will result in more efficient operations, for instance such as joint characterization and evaluation programmes under diverse agro-ecological conditions throughout Europe. This would add value to the conserved germplasm and contribute to a more sustainable conservation effort. (**Users would be benefitting from better characterized accessions and curators from more options to add value to their respective collections**).

6. Through the inclusion of germplasm material not listed in Annex I but treating it in the same way as Annex I germplasm, the European Collection countries directly contribute to the desired expansion of the coverage of the Multilateral System of the Treaty.

The ECPGR SC decided that AEGIS would operate squarely from within the Treaty's legal framework and follow the Treaty's provisions. The decision of the SC to treat non-Annex I material in the same way as Annex I material (in the case of Europe this would de facto include all other germplasm accessions maintained in genebanks of ECPGR member states), was intentionally aimed at expanding the Multilateral System (MLS) in Europe to all material included in the European Collection. This means that Europe makes a significant contribution to strengthening the MLS and to increasing the overall genetic diversity of material in the MLS. The well-coordinated, high-standard and efficient conservation approach at the European regional level will set an example to the rest of the world of what can be achieved through an effective regional cooperation. (**Policy-makers and users would be the beneficiaries of this approach**).

7. Participation in the European Collection provides a framework and stimulus for collaboration and cooperation and builds trust among genebanks, based on sharing of responsibilities and building on strengths.

Through their participation in the European Collection, maintained in a dispersed and virtual genebank, all countries and institutions accept the same responsibilities for the long-term conservation and contribute to the sustainable use of these precious resources, i.e. the unique and important germplasm accessions in Europe. Thus, countries and their institutions become part of a truly European system that is jointly operated and governed. Such an approach enables all members to make use of their respective strengths and to gradually eliminate the weaknesses, through capacity-building and possibly even specialization on those aspects and activities where the respective member has indeed a true comparative advantage. **This is a true benefit to policy-makers and curators.** The observance of established standards guarantees the delivery of a high-quality product, together with the related information obtained directly from the most relevant source, i.e. the very genebanks holding the accessions. Overall, the European Collection can be seen as a product of true and active participation of all European countries, resulting in a public product available to users worldwide. Such a win-win situation would also contribute to the objectives of the European Union.