

## **OBJECTIVES OF ECPGR FOR PHASE X (2019-2023)**

(agreed at the 15th Steering Committee meeting, May 2018)

#### **LONG-TERM GOAL**

Stakeholders in Europe collaboratively, rationally and effectively conserve ex situ and in situ PGRFA, provide access and increase sustainable use.

#### **OBJECTIVES**

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1	To efficiently conserve and provide access to unique germplasm in Europe through AEGIS and the European Collection
2	To provide passport and phenotypic information of actively conserved European PGRFA diversity <i>ex situ</i> and <i>in situ</i> through the EURISCO catalogue
3	To improve in situ conservation and use of crop wild relatives
4	To promote on-farm conservation and management of European PGRFA diversity
5	To promote use of PGRFA

### **OBJECTIVE 1**

# To efficiently conserve and provide access to unique germplasm in Europe through AEGIS and the European Collection

Outputs	Activities	Responsibility	Indicators	Assumptions
1.1 New membership agreements & Associate Member Agreements signed	1.1.1 Continue discussions with ECPGR members on AEGIS membership and Associate Membership	1.1.1 National Coordinators with support of Secretariat	1.1.1.1 Number of Membership Agreements 1.1.1.2 Number of Associate Member Agreements	- Funds for conservation and the promotion of utilization, and qualified personnel are available at the national level (see also outputs 1.5 / 1.6) - ECPGR member countries share the AEGIS vision
1.2 European Collection represents the European <i>ex situ</i> PGR diversity	1.2.1 Identification of new European Accessions for inclusion into AEGIS	1.2.1 Associate Members and National Coordinators	1.2.1.1 Number of new accessions flagged as part of AEGIS 1.2.1.2 Percentage of the national collection analysed for eligible accessions to be included into AEGIS	

Outputs	Activities	Responsibility	Indicators	Assumptions
	1.2.2 Verification of the European Collection by crops in terms of representation of the ex situ PGR diversity	1.2.2 Respective Crop Working Groups	1.2.2.1  Number of recommendations made by WGs to improve representation	
1.3 European Accessions properly maintained	1.3.1 Maintenance of AEGIS accessions in good viability condition through multiplication and safety-duplication	1.3.1 Respective Associate Members	1.3.1.1 Number of AEGIS accessions multiplied/rejuvenated and safety-duplicated 1.3.1.2 Percentage of AEGIS accessions not requiring multiplication/rejuvenation and safety-duplication	
1.4 Issues limiting access to material explored and addressed (e.g. phytosanitary issues)	1.4.1 Survey of issues impacting on the possibility to access material	1.4.1 Relevant WG members and AEGIS Associate Members	1.4.1.1 Published survey results	
	1.4.2 Investigate ways to improve access to material subject to prior identified issues	1.4.2 Relevant WG members and AEGIS Associate Members	1.4.2.1 Published recommendations for solutions	

Outputs	Activities	Responsibility	Indicators	Assumptions
1.5 Options and opportunities for a cryopreservation network explored	1.5.1 Organize a meeting to identify cryopreservation needs and aims and consider	Relevant WG members; Secretariat	1.5.1.1 Recommendations published; Framework for a cryopreservation network defined	
	setting up a dedicated network		1.5.1.2  Number of vegetatively propagated accessions cryopreserved	
1.6 AEGIS Quality System (AQUAS) operational	1.6.1 Transparency: preparation and online provision of genebank manuals	1.6.1 Associate Members and Secretariat	1.6.1.1 Number of online genebank manuals	
	1.6.2 Standards: agree on crop-specific genebank standards	1.6.2 Crop WGs	1.6.2.1 Number of new or updated crop-specific standards	
1.7 Capacity building schemes for Associate Members (AMs) operational	1.7.1 Identify capacity building needs, including training of AMs (continuing activity)	1.7.1 Associate Members; National Coordinators; WGs; Secretariat	1.7.1.1 Number of AMs needs identified	Capacity for conservation and the promotion of utilization are available at the national level

Outputs	Activities	Responsibility	Indicators	Assumptions
1.8 Funds mobilized to help Associate Members to implement AQUAS	1.8.1 Undertake fundraising among potential donors to improve Associate Members capacities	1.8.1 National Coordinators; ExCo; Secretariat	1.8.1.1 Volume of dedicated grants available for capacity development of Associate Members	
	1.8.2 ECPGR-mediated characterization, evaluation and/or phenotyping/genotyping of AEGIS accessions	1.8.2 Associate Members; National Coordinators; WGs; Secretariat	1.8.2.1  Number of AEGIS accessions characterized/evaluated via ECPGR	
	1.8.3 ECPGR-mediated regeneration of AEGIS accessions	1.8.3 Associate Members; National Coordinators; WGs; Secretariat	1.8.3.1  Number of AEGIS  accessions regenerated  via ECPGR	
	1.8.4 ECPGR-mediated safety duplication of AEGIS accessions	1.8.4 Associate Members; National Coordinators; WGs; Secretariat	1.8.4.1  Number of AEGIS  accessions safety  duplicated via ECPGR	

Outputs	Activities	Responsibility	Indicators	Assumptions
1.9 Visibility of AEGIS accessions improved	1.9.1 Increase visibility of AEGIS accessions available under the terms and conditions of the International Treaty	1.9.1 Associate Members; Secretariat	1.9.1.1 Number of AEGIS accessions and samples provided to users 1.9.1.2 Percentage of AEGIS accessions provided to users compared to the total number of AEGIS accessions	
1.10 AEGIS system evaluated	1.10.1 Develop a questionnaire together with users for feedback from users	1.10.1 Secretariat; users; AEGIS Associate Members	1.10.1.1 Number of filled-in questionnaires received	
	1.10.2 Evaluate results of the questionnaire and develop recommendations for improvement	1.10.2 Secretariat; users; Associate Members	1.10.2.1 Results of the questionnaire and recommendations published	
1.11 System of genebank peer review established and functioning	1.11.1 Set up system of mutual peer review of ECPGR national genebanks and AEGIS Associate Members	1.11.1 ExCo, based on pilot project led by CGN; Secretariat; National Coordinators	1.11.1.1 Principles of the system agreed and published	Consensus of national genebanks/AEGIS Associate Members to undergo mutual peer review

Outputs	Activities	Responsibility	Indicators	Assumptions
	1.11.2 ECPGR-coordinated peer reviews performed and reported	1.11.2 Secretariat; selected peer reviewers	1.11.2.1 Number of peer-reviewed genebanks	
Options for the integration of <i>in situ</i> and on-farm conservation into AEGIS explored and AEGIS used as European <i>in situ</i> and on-farm conservation official designation system	1.12.1 Wild Species Conservation in Genetic Reserves WG-mediated discussion and recommendations concerning integration	1.12.1 Wild Species Conservation in Genetic Reserves WG members, Secretariat and Farmer's Pride project	1.12.1.1 Discussion Report and Recommendations published	
	1.12.2 On-farm Conservation and Management WG-mediated discussion and recommendations concerning integration	1.12.2 On-farm Conservation and Management WG members, Secretariat and Farmer's Pride project	1.12.2.1 Discussion Report and Recommendations published	

#### **OBJECTIVE 2**

## To provide passport and phenotypic information of actively conserved European PGRFA diversity *ex situ* and *in situ* through the EURISCO catalogue

Outputs	Activities	Responsibility	Indicators	Assumptions
2.1 All National Focal Points (NFPs) update national <i>ex situ</i> inventories effectively	2.1.1 Identification of National Inventory (NI) PGRFA accessions to be included in EURISCO	2.1.1  National Focal Points, in consultation with ECPGR members	2.1.1.1  Number of yearly  updates of national  inventories in  EURISCO	<ul> <li>ECPGR member countries are able to invest in the establishment and/or improvement of data</li> </ul>
and timely			2.1.1.2 Increase in the number of accessions in EURISCO	repositories, including for high-quality C&E data - ECPGR member
	2.1.2 Improving quality of data in EURISCO (including taxonomic data as well as coverage and	2.1.2 National Focal Points, in collaboration with genebanks and WG members	2.1.2.1 Increase in the average number of filled-in descriptors in EURISCO	countries are prepared to share their data
	precision of descriptors; inclusion of DOIs)		2.1.2.2  Number of descriptors updated for data quality improvement (including taxonomic data)	- Genebanks and
			2.1.2.3 Number of accessions with DOI	National Focal Points are able to adopt DOIs

Outputs	Activities	Responsibility	Indicators	Assumptions
	2.1.3 Training of National Focal Points (how to compile, maintain, update and upload National Inventory)	2.1.3 EURISCO Coordinator; Doc&Info WG	2.1.3.1 Number of National Focal Points trained	
2.2 C&E data in EURISCO included, with high quality and wide coverage	2.2.1 Identification of available C&E data and their inclusion into EURISCO	2.2.1 National Focal Points and delegates to upload C&E data	2.2.1.1  Number of European accessions with C&E data in EURISCO  2.2.1.2  Number of updates of C&E data sets in EURISCO per year	
	2.2.2 Training of National Focal Points and selected C&E data providers in gathering and uploading C&E data	2.2.2 EURISCO Coordinator; Doc&Info WG	2.2.2.1  Number of National  Focal Points and selected C&E data providers trained on uploading C&E data	

Outputs	Activities	Responsibility	Indicators	Assumptions
2.3 Inclusion of relevant in situ CWR data in EURISCO realized	2.3.1 Identification of CWR in situ populations/sites qualifying for inclusion in EURISCO in each country	2.3.1 National Focal Points, Wild Species Conservation in Genetic Reserves WG, in consultation with	2.3.1.1  Number of <i>in situ</i> CWR data sets qualifying for inclusion in EURISCO identified in each country	Crop wild relative (CWR) genetic reserves are formally established (see also output 3)
		ECPGR members	2.3.1.2 Number of <i>in situ</i> PGRFA data sets included in EURISCO	
	2.3.2 Development of an agreed minimum <i>in situ</i> data exchange format on the basis of existing CWR descriptor lists	2.3.2 Chairs of Doc&Info WG and Wild Species Conservation in Genetic Reserves WG and in situ National Focal Points	2.3.2.1 Minimum in situ data exchange format agreed by National Coordinators	
	2.3.3 Inclusion of first <i>in situ</i> data into EURISCO	2.3.3 EURISCO Coordinator and <i>in situ</i> National Focal Points	2.3.3.1 Number of PGRFA <i>in situ</i> data included in EURISCO	
	2.3.4 Training of <i>in situ</i> National Focal Points on gathering and uploading <i>in situ</i> data	2.3.4 EURISCO Coordinator Doc&Info WG; Wild Species Conservation in Genetic Reserves WG	2.3.4.1 Number of <i>in situ</i> National Focal Points trained	

Outputs	Activities	Responsibility	Indicators	Assumptions
2.4 Users' expectations explored and functionalities of EURISCO increased	2.4.1 Perform users' surveys; analyse results and formulate recommendations for improvements	2.4.1 EURISCO Coordinator, Doc&Info WG and Wild Species Conservation in Genetic Reserves WG with support from National Focal Points; users	2.4.1.1 Number of respondents to survey	
	2.4.2 Adapting or adding database functions	2.4.2 EURISCO Coordinator; Doc&Info WG	2.4.2.1 Number of adaptations realized	

## OBJECTIVE 3 To improve in situ conservation and use of crop wild relatives

Outputs	Activities	Responsibility	Indicators	Assumptions  Note: the "assumptions" listed apply to the whole set of items
3.1 National crop wild relative (CWR) conservation strategies produced	3.1.1 Identify official national conservation authorities  3.1.2 Generation of national	3.1.1 National Coordinators, Wild Species Conservation in Genetic Reserves WG members  3.1.2 – 3.1.6 Wild Species	3.1.1.1 Lists of official national conservation authorities available  3.1.2.1 Number of national	<ul> <li>Funds for European level in situ activities are available</li> <li>Funds for national in situ conservation management of PGR are available</li> </ul>
	CWR checklists  3.1.3 Prioritization of CWR	Conservation in Genetic Reserves WG members with official national conservation authorities and EC-funded Farmer's Pride project	CWR checklists produced	- Collaboration between Wild species Conservation WG members and official national authorities and, as appropriate, other stakeholders is viable and all partners are willing to share data
	checklists  3.1.4  Production of national  CWR inventories		3.1.4.1  Number of national  CWR inventories  produced	- There is access to sustainable use of in situ conserved CWR germplasm located in genetic reserves

Outputs	Activities	Responsibility	Indicators	Assumptions  Note: the "assumptions" listed apply to the whole set of items
	3.1.5 Diversity and gap analysis of national priority CWR taxa  3.1.6 Definition of national			<ul> <li>European policy is developed to support the establishment and operation of the integrated European strategy for CWR conservation</li> </ul>
	CWR conservation actions  3.1.7  Production of national CWR conservation action plans		3.1.7.1  Number of national  CWR conservation  action plans produced	- The European Commission facilitates the long-term monitoring of the integrated European strategy for CWR conservation
3.2 Regional (European) CWR conservation strategy produced	3.2.1 Generation of regional (European) CWR checklist	3.2.1–3.2.6 Wild Species Conservation in Genetic Reserves WG members in cooperation with official national conservation authorities	3.2.1.1 Checklist produced	- Barriers to accessing CWR germplasm by user communities are removed and the use of CWR germplasm promoted, encouraged and facilitated
	3.2.2 Prioritization of regional (European) CWR checklists			<ul> <li>Cooperation between the conservation and user communities is improved</li> </ul>

Outputs	Activities	Responsibility	Indicators	Assumptions  Note: the "assumptions" listed apply to the whole set of items
	3.2.3 Production of regional (European) CWR inventories  3.2.4 Diversity and gap analysis of regional (European) priority CWR taxa  3.2.5 Elaboration and agreement of regional (European) CWR conservation actions  3.2.6 Production of regional		3.2.3.1 Regional (European) CWR inventories produced and endorsed by Wild Species Conservation in Genetic Reserves WG members  3.2.6.1 Regional (European)	<ul> <li>Coordination between in situ and ex situ conservation managers is operational</li> <li>The Most Appropriate crop Wild relative Population (MAWP) concept will be supported at national level</li> </ul>
	(European) CWR conservation strategy, including CWR conservation action plans		CWR conservation action plans produced and endorsed by Wild Species Conservation in Genetic Reserves WG members	

Outputs	Activities	Responsibility	Indicators	Assumptions  Note: the "assumptions" listed apply to the whole set of items
3.3 Integrated European strategy for CWR conservation produced	3.3.1 Drafting of integrated European strategy for CWR conservation strategy, integrating national and regional level activities	3.3.1 Wild Species Conservation in Genetic Reserves WG	3.3.1.1 Integrated European strategy for CWR conservation published	
	3.3.2 Agreement on regional (European) and national MAWPs (Most Appropriate crop Wild relative Populations) to form European <i>in situ</i> network	3.3.2 National government agencies responsible for PGR conservation in association with ECPGR National Coordinators and members of the Wild Species Conservation in Genetic Reserves WG	3.3.2.1 List of agreed regional (European) and national MAWPs for inclusion in the <i>in situ</i> network published	
3.4 National and European MAWP networks established	3.4.1 Official designation of national and regional (European) MAWPs at national level	3.4.1 National government agencies and authorities responsible for PGR conservation and utilization	3.4.1.1 List of officially designated national and regional (European) MAWPs published	

Outputs	Activities	Responsibility	Indicators	Assumptions  Note: the "assumptions" listed apply to the whole set of items
3.5 National and European MAWP Networks operational	3.5.1 Active conservation management of national and regional (European) MAWPs	3.5.1 National official authorities for <i>in situ</i> conservation and local administrators and landowners	3.5.1.1 Periodic reports submitted to European Topic Centre for Biodiversity indicating national and regional (European) MAWP conservation status and conservation management actions 3.5.1.2 Adherence to minimum quality standards for genetic reserve conservation of CWR	
3.6 Germplasm of National and European MAWPs networks effectively utilized	3.6.1 Germplasm samples collected and actively managed <i>ex situ</i>	3.6.1 National PGR genebanks	3.6.1.1  Number of germplasm accessions of MAWPs collected and actively managed ex situ	
	3.6.2 MAWP germplasm characterized through ex situ regeneration	3.6.2 National PGR genebanks and plant breeding research institutes	3.6.2.1 Number of MAWP germplasm accessions characterized	

Outputs	Activities	Responsibility	Indicators	Assumptions  Note: the "assumptions" listed apply to the whole set of items
	3.6.3 Access to MAWP germplasm facilitated	3.6.3 National official authorities for ex situ and in situ conservation and utilization of PGRFA	3.6.3.1  Number of MAWP  germplasm accessions  provided to users	
	3.6.4 MAWP germplasm evaluated	3.6.4 National plant breeding research institutes and public and private plant breeding companies	3.6.4.1 Number of MAWP germplasm accessions evaluated	
	3.6.5 MAWP germplasm utilized in crop improvement programmes	3.6.5 Public and private plant breeding companies	3.6.5.1  Number of MAWP  utilized in crop improvement programmes  3.6.5.2  Number of MAWP  utilized successfully for	
			crop improvement	

## OBJECTIVE 4 To promote on-farm conservation and management of European PGRFA diversity

Outputs	Activities	Responsibility	Indicators	Assumptions
4.1 Snapshot Inventory of the European on-farm diversity (landraces, obsolete cultivars and conservation varieties) carried out	4.1.1 Designation of National On-farm Inventory Focal Points	4.1.1 National Coordinators	4.1.1.1 On-line list of Focal Points	
	4.1.2 Promoting agreement on data exchange format	4.1.2 On-farm Inventory Focal Points, On-farm Conservation and Management WG members	4.1.2.1 Published data exchange format (list of descriptors and instructions)	
	4.1.3 Defining the coordination mechanism and responsibility for on-farm data gathering and compiling	4.1.3 On-farm Inventory Focal Points and relevant stakeholders	4.1.3.1 Responsible manager(s) of European Inventory identified	

Outputs	Activities	Responsibility	Indicators	Assumptions
	4.1.4 Collecting on-farm data	4.1.4 On-farm Inventory Focal Points	4.1.4.1 On-line available on-farm data	<ul> <li>National or international funds are made available for database management and for data collecting</li> </ul>
4.2 European on-farm diversity and trends monitored	4.2.1 Defining simple and effective indicators of on-farm diversity and trends	4.2.1 Task Force on on-farm diversity indicators	4.2.1.1 On-line agreed indicators	
	4.2.2 Analysing on-farm diversity and trends, based on agreed indicators and the European on-farm Inventory	4.2.2 Task Force on on-farm diversity indicators	4.2.2.1 Published reports of on-farm diversity analysis	
	4.2.3 Establishing a knowledge base of case studies aiming to analyse genetic diversity and its trend in the field	4.2.3 On-farm Conservation and Management WG; Secretariat	4.2.3.1 Published knowledge base	

Outputs	Activities	Responsibility	Indicators	Assumptions
	4.2.4 Monitoring relevant initiatives aiming at refining indicators of genetic diversity and trends	4.2.4 On-farm Conservation and Management WG; Secretariat	4.2.4.1 Published reports on relevant initiatives	
4.3 Good practices for on-farm management and conservation and adding value promoted	4.3.1 Provision of store of knowledge and evidence-based practices, related to successful experiences of conservation and sustainable use of landraces and other heterogeneous genetic resources in Europe	4.3.1 On-farm Conservation and Management WG; Secretariat	4.3.1.1 Store of knowledge and evidence-based practices made available on the ECPGR website	
4.4 Definition of Most Appropriate Areas (MAPAs) sites of on- farm cultivated plant diversity discussed and implemented	4.4.1 Through dedicated meetings of interested country representatives, promoting agreement on criteria for definition of MAPAs containing unique landrace populations	4.4.1 On-farm Conservation and Management WG; Secretariat	4.4.1.1 Agreement on the Terms of Reference for the creation of a Network of MAPAs	

Outputs	Activities	Responsibility	Indicators	Assumptions
	4.4.2 Identification of MAPA sites for recognition at National /European level	4.4.2 On-farm Conservation and Management WG with appropriate national stakeholders and authorities	4.4.2.1 List of proposed MAPA sites 4.4.2.2 List of recognized MAPA sites at National/European level	
	4.4.3 Promoting planning and implementation of conservation/ management activities within MAPAs	4.4.3 On-farm Conservation and Management WG with appropriate national stakeholders	4.4.3.1 Number of drafted/approved MAPA management plans	Steering Committee agrees to consolidate ECPGR position on specific issues of ownership, access, availability, marketing, etc.
4.5 Obstacles to on-farm conservation and management analysed and solutions proposed	4.5.1 Establishing task forces of appropriate experts to study, analyse and propose solutions to issues of regional interest	4.5.1 On-farm Conservation and Management WG; Secretariat	4.5.1.1 Number of issues analysed 4.5.1.2 Number of solutions to issues proposed/implemented 4.5.1.3 Number of Task Force recommendations endorsed by the Steering Committee	

Outputs	Activities	Responsibility	Indicators	Assumptions
	4.5.2 Exercise lobbying at the appropriate level to encourage implementation of the proposed solutions	4.5.2 Steering Committee; National Coordinators; On-farm Conservation and Management WG; Secretariat		

## OBJECTIVE 5 To promote use of PGRFA

Activities	Responsibility	Indicators	Assumptions
5.1.1 Survey of existing national evaluation programmes (research partnerships between genebanks, researchers, breeders; e.g. public private partnerships)	5.1.1 ECPGR Secretariat and genebanks, researchers, breeders	5.1.1.1  Number of existing national evaluation programmes	
5.1.2 Development of a concept for an European Evaluation Programme	5.1.2 ECPGR Secretariat and genebanks, researchers, breeders supported by National Coordinators	5.1.2.1 European Evaluation Programme for PGRFA agreed	
5.1.3 Generation of evaluation data throughout the European region	5.1.3 Researchers and breeders	5.1.3.1 Number of crops and accessions evaluated	
5.1.4 Inclusion of evaluation data generated by the European Evaluation Programme in EURISCO	5.1.4 Partners of the Evaluation Programme and EURISCO coordinator, National Focal Points	5.1.4.1 Data sets available in EURISCO (see also objective 2)	
	5.1.1 Survey of existing national evaluation programmes (research partnerships between genebanks, researchers, breeders; e.g. public private partnerships)  5.1.2 Development of a concept for an European Evaluation Programme  5.1.3 Generation of evaluation data throughout the European region  5.1.4 Inclusion of evaluation data generated by the European Evaluation	5.1.1 Survey of existing national evaluation programmes (research partnerships between genebanks, researchers, breeders; e.g. public private partnerships)  5.1.2 Development of a concept for an European Evaluation Programme  5.1.3 Generation of evaluation data throughout the European region  5.1.4 Inclusion of evaluation data generated by the European Evaluation Programme in EURISCO  5.1.1 ECPGR Secretariat and genebanks, researchers, breeders  5.1.2 ECPGR Secretariat and genebanks, researchers, breeders  5.1.2 Schedularion genebanks, researchers, breeders  5.1.3 Researchers and breeders  5.1.4 Partners of the Evaluation Programme and EURISCO coordinator, National	5.1.1  Survey of existing national evaluation programmes (research partnerships between genebanks, researchers, breeders, e.g. public private partnerships)  5.1.2  Development of a concept for an European Evaluation Programme  5.1.3  Generation of evaluation data throughout the European region  5.1.4  Inclusion of evaluation data generated by the European Evaluation Programme in EURISCO  S.1.1  ECPGR Secretariat and genebanks, researchers, breeders  5.1.2  ECPGR Secretariat and genebanks, researchers, breeders supported by National Coordinators  5.1.3  Generation of evaluation data throughout the European region  5.1.4  Inclusion of evaluation data generated by the European Evaluation Programme  European Evaluation and EURISCO  coordinator, National

Outputs	Activities	Responsibility	Indicators	Assumptions
Facilitated use and consumption of crop species and varieties or landraces by consumers	5.2.1 Survey about new consumer trends and their demands regarding crop species and varieties including consumer behaviour and potential links to promote PGRFA diversity by consumption of species-or variety-based products as well as the analysis of the interests of the food industry in this matter	5.2.1 ECPGR Secretariat, WG members, researchers, food industry	5.2.1.1 Survey report available	Consideration of similar surveys available may influence this activity
	5.2.2 Support for the development and promotion of innovative value chains for PGRFA	5.2.2 ECPGR Secretariat, WG members, researchers, food industry	5.2.2.1 New value chains for PGRFA established	
5.3 Working Groups' structure and composition provide the entire range of expertise required for efficient (ex/in situ) conservation and promotion of the use/consumption of all crops	5.3.1 Review of WG structure and composition	5.3.1 ECPGR Secretariat, National Coordinators	5.3.1.1 Report of the review available 5.3.1.2 Working Group structure provides a platform for all relevant crops (e.g. maize and small fruits/berries)	