

Draft OBJECTIVES OF ECPGR FOR PHASE X (2019-2023) (agreed at the 15th Steering Committee meeting, May 2018)

Annotated by the ECPGR Secretariat with carried-out activities and accomplished indicators

May 2022

LONG-TERM GOAL

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

OBJECTIVES

Click on the 'objective' below to go to the respective page

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 <i>in situ</i> 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**AEGIS: the European Collection efficiently conserves and provides access to unique germplasm in Europe**

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 Discussion was continued with France and Spain; France produced a draft Letter of Intent, currently in circulation at internal (ministerial) level	1.1.1 National Coordinators with support of Secretariat	1.1.1.1 Number of Membership Agreements One new agreement (Serbia); Total 35 1.1.1.2 Number of Associate Member Agreements Three new agreements; Total 68	- 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

Outputs	Activities	Responsibility	Indicators	Assumptions
<p>1.2 European Collection represents the European <i>ex situ</i> PGR diversity</p>	<p>1.2.1 Identification of new European Accessions for inclusion into AEGIS</p> <p>Task included in the following Grant Scheme Activities of Phase X and ongoing of Phase IX:</p> <ul style="list-style-type: none"> • AEG-VIT-IS: 75 <i>Vitis</i> candidates identified • EUBRASWILD: ongoing • CUCURBITLOCAL: ongoing • EUROPE.BERRIES: ongoing • Bidifferent: ongoing • ImprovLoliumCol: ongoing • EUGrainLeg: final report pending • EUROMAPCOLLECTION: 241 accessions proposed for inclusion 	<p>1.2.1 Associate Members and National Coordinators</p>	<p>1.2.1.1 Number of new accessions flagged as part of AEGIS</p> <p>23,137 new accessions; Total 70,186 (+49%)</p> <p>1.2.1.2 Percentage of the national collection analysed for eligible accessions to be included into AEGIS</p> <p>unknown</p>	

1.2.2
Verification of the European
Collection by crops in terms
of representation of the
ex situ PGR diversity

Partially carried out through
the Grant Scheme, as per
indicators, summarizing Phase
IX actions

1.2.2
Respective Crop
Working Groups

1.2.2.1
Number of
recommendations made
by WGs to improve
representation

- 1) *Allium* (potato onion)
[SafeAlliDiv]
- 2) Barley [Barley C&E data
and HordEva]
- 3) *Beta (Patellifolia)* [GeDiPa]
- 4) *Brassica (B. oleracea* and
wild brassica)
[CochevaBras]
- 5) Forages (*Lolium* and
others) [ImprovLoliumColl;
ForageDataAccess and
Forages 2020]
- 6) Grain legumes (*Lathyrus*)
– pending [EUGrainLeg]
- 7) Leafy vegetables (*Lactuca*
Crop Wild Relatives)
[CCLeafy]
- 8) *Prunus* (Cherry) [*Prunus*
alignment] [EU.Cherry]
- 9) Wheat (wheat and rye)
[TRISECA] [TRAID]

Outputs	Activities	Responsibility	Indicators	Assumptions
1.3 European Accessions properly maintained	1.3.1 Maintenance of AEGIS accessions in good viability condition through multiplication and safety- duplication unknown	1.3.1 Respective Associate Members	1.3.1.1 Number of AEGIS accessions multiplied/rejuvenated and safety-duplicated unknown 1.3.1.2 Percentage of AEGIS accessions not requiring multiplication/rejuvenation and safety-duplication unknown	
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 For phytosanitary issues, workshop held in 2021 as part of GenRes Bridge 1.4.2 Investigate ways to improve access to material subject to identified issues For phytosanitary issues, workshop held in 2021 as part of GenRes Bridge	1.4.1 Relevant WG members and AEGIS Associate Members 1.4.2 Relevant WG members and AEGIS Associate Members	1.4.1.1 Published survey results Phytosanitary workshop (here) Related webinars published (here) 1.4.2.1 Published recommendations for solutions Phytosanitary workshop (here)	

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 setting up a dedicated network Part of the plans of the new Cryopreservation WG	1.5.1 Relevant WG members; Secretariat	1.5.1 Recommendations published; Framework for a cryopreservation network defined 1.5.2 Number of vegetatively propagated accessions cryopreserved	
1.6 AEGIS Quality System (AQUAS) operational	1.6.1 Transparency: preparation and online provision of genebank manuals Two new manuals were prepared in Phase X (JKI, Siebeldingen, Germany and SVGB, Suceava, Romania) and one was updated (CRI, Prague, Czech Republic)	1.6.1 Associate Members and Secretariat	1.6.1.1 Number of online genebank manuals Eleven genebank manuals are published on the AEGIS website	
	1.6.2 Standards: agree on crop-specific genebank standards One new standard was in preparation in Phase X (Berries)	1.6.2 Crop WGs	1.6.2.1 Number of new or updated crop-specific standards Crop-specific standards have been published by nine Working Groups	

Outputs	Activities	Responsibility	Indicators	Assumptions
1.7 Capacity building schemes for Associate Members (AMs) operational	1.7.1 Identify capacity building needs, including training of AMs (continuing activity) No specific action has been organized, but various training courses are organized as part of the AEGIS project, to train in efficient data curation, data mining, digital genebank and genebank genomics	1.7.1 Associate Members; National Coordinators; WGs; Secretariat	1.7.1.1 Number of AMs needs identified 1) multiplication of soybean accessions in the Bulgarian genebank	Capacity for conservation and the promotion of utilization are available at the national level
1.8 Funds mobilized to help Associate Members to implement AQUAS	1.8.1 Undertake fundraising among potential donors to improve Associate Members capacities This specific fundraising was not undertaken by the Secretariat	1.8.1 National Coordinators; ExCo; Secretariat	1.8.1.1 Volume of dedicated grants available for capacity development of Associate Members none at ECPGR level - Unknown at national level	

Outputs	Activities	Responsibility	Indicators	Assumptions
	<p>1.8.2 ECPGR-mediated characterization, evaluation and/or phenotyping/genotyping of AEGIS accessions</p> <p>Characterization, evaluation and phenotyping take place as part of the EVA activities</p>	<p>1.8.2 Associate Members; National Coordinators; WGs; Secretariat</p>	<p>1.8.2.1 Number of AEGIS accessions characterized/evaluated via ECPGR</p> <p>In total, 14,480 AEGIS accessions have C&E data in EURISCO.</p> <p>At least 749 AEGIS accessions are being characterized through the EVA Network</p>	
	<p>1.8.3 ECPGR-mediated regeneration of AEGIS accessions</p> <p>Multiplication takes place as part of EVA activities (as Single Seed Descent lines)</p>	<p>1.8.3 Associate Members; National Coordinators; WGs; Secretariat</p>	<p>1.8.3.1 Number of AEGIS accessions regenerated via ECPGR</p> <p>At least 749 AEGIS accessions multiplied (as Single Seed Descent lines)</p>	
	<p>1.8.4 ECPGR-mediated safety duplication of AEGIS accessions</p> <p>No activity</p>	<p>1.8.4 Associate Members; National Coordinators; WGs; Secretariat</p>	<p>1.8.4.1 Number of AEGIS accessions safety duplicated via ECPGR</p> <p>None under formal safety-duplication arrangement</p>	

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 AEGIS website provides the list and examples of available accessions	1.9.1 Associate Members; Secretariat	1.9.1.1 Number of AEGIS accessions and samples provided to users At least 749 AEGIS accessions provided to EVA Networks 1.9.1.2 Percentage of AEGIS accessions provided to users compared to the total number of AEGIS accessions unknown 1.9.2.1 Number of AEGIS accessions and samples to different categories of users	
1.10 AEGIS system evaluated	1.10.1 Develop a questionnaire together with users for feedback from users Not developed	1.10.1 Secretariat; users; AEGIS Associate Members	1.10.1.1 Number of filled-in questionnaires received N/A	

Outputs	Activities	Responsibility	Indicators	Assumptions
	<p>1.10.2 Evaluate results of the questionnaire and develop recommendations for improvement</p> <p>N/A</p>	<p>1.10.2 Secretariat; users; Associate Members</p>	<p>1.10.2.1 Results of the questionnaire and recommendations published</p> <p>N/A</p>	
<p>1.11 System of genebank peer review established and functioning</p>	<p>1.11.1 Set up system of mutual peer review of ECPGR national genebanks and AEGIS Associate Members</p> <p>Proof on concept tested within the framework of GenRes Bridge - Under further development within AGENT</p> <p>1.11.2 ECPGR-coordinated peer reviews performed and reported</p> <p>See above</p>	<p>1.11.1 ExCo, based on pilot project led by CGN; Secretariat; National Coordinators</p> <p>1.11.2 Secretariat; selected peer reviewers</p>	<p>1.11.1.1 Principles of the system agreed and published</p> <p>Proof of concept described on the AEGIS AQUAS website (here)</p> <p>1.11.2.1 Number of peer-reviewed genebanks</p> <p>Three peer-reviewed and other nine scheduled</p>	<p>Consensus of national genebanks/AEGIS Associate Members to undergo mutual peer review</p>

Outputs	Activities	Responsibility	Indicators	Assumptions
1.12 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 <i>Guidelines for integrated in situ and ex situ conservation of plant genetic resources were developed by Farmer's Pride</i>	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 <u>Guidelines for integrated in situ and ex situ PGR conservation</u>	
	1.12.2 On-farm Conservation and Management WG-mediated discussion and recommendations concerning integration <i>See 1.12.1</i>	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 <i>See 1.12.1.1</i>	

OBJECTIVE 2

The EURISCO catalogue provides passport and phenotypic information of actively conserved European PGR diversity *ex situ* and *in situ*

Outputs	Activities	Responsibility	Indicators	Assumptions						
2.1 All National Focal Points (NFPs) update national <i>ex situ</i> inventories effectively and timely	2.1.1 Identification of National Inventory (NI) PGRFA accessions to be included in EURISCO Ongoing activity	2.1.1 National Focal Points, in consultation with ECPGR members	2.1.1.1 Number of yearly updates of national inventories in EURISCO	- ECPGR member countries are able to invest in the establishment and/or improvement of data repositories, including for high-quality C&E data - ECPGR member countries are prepared to share their data						
			<table border="1"> <thead> <tr> <th>Year</th> <th>No. of passport updates</th> </tr> </thead> <tbody> <tr> <td>2019</td> <td>40</td> </tr> <tr> <td>2020</td> <td>38</td> </tr> <tr> <td>2021</td> <td>49</td> </tr> <tr> <td>2022</td> <td>8 (ongoing)</td> </tr> </tbody> </table>		Year	No. of passport updates	2019	40	2020	38
Year	No. of passport updates									
2019	40									
2020	38									
2021	49									
2022	8 (ongoing)									
			2.1.1.2 Increase in the number of accessions in EURISCO Additional 92,796 accessions between January 2019 and April 2022	- Genebanks and National Focal Points are able to adopt DOIs						

Outputs	Activities	Responsibility	Indicators	Assumptions
	<p>2.1.2 Improving quality of data in EURISCO (including taxonomic data as well as coverage and precision of descriptors; inclusion of DOIs)</p>	<p>2.1.2 National Focal Points, in collaboration with genebanks and WG members</p>	<p>2.1.2.1 Increase in the average number of filled-in descriptors in EURISCO</p>	
	<p>Ongoing activity</p>		<p>No time series are collected for this purpose since they would not represent data quality. A passport completeness index could rather be developed</p>	
			<p>2.1.2.2 Number of descriptors updated for data quality improvement (including taxonomic data)</p>	
			<p>This information is not collected</p>	
			<p>2.1.2.3 Number of accessions with DOI</p>	
			<p>229,230</p>	

Outputs	Activities	Responsibility	Indicators	Assumptions
	<p>2.1.3 Training of National Focal Points (how to compile, maintain, update and upload National Inventory)</p> <p>Online training workshop organized in 2021 and bilateral training courses on ad hoc basis – GRIN Global training organized for October 2022</p>	<p>2.1.3 EURISCO Coordinator; Doc&Info WG</p>	<p>2.1.3.1 Number of National Focal Points trained</p> <p>No training in 2019 and 2020; 22 NI representatives in 2021.</p>	

Outputs	Activities	Responsibility	Indicators	Assumptions										
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 German-funded support given to identify existing C&E data of wheat, barley and maize	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 Out of the 2,076,172 accessions documented in EURISCO, 90,598 have C&E data. 2.2.1.2 Number of updates of C&E data sets in EURISCO per year <table border="1"> <thead> <tr> <th>Year</th> <th>No. of passport updates</th> </tr> </thead> <tbody> <tr> <td>2019</td> <td>5</td> </tr> <tr> <td>2020</td> <td>6</td> </tr> <tr> <td>2021</td> <td>14</td> </tr> <tr> <td>2022</td> <td>0 (ongoing)</td> </tr> </tbody> </table>	Year	No. of passport updates	2019	5	2020	6	2021	14	2022	0 (ongoing)	
	Year	No. of passport updates												
2019	5													
2020	6													
2021	14													
2022	0 (ongoing)													
	2.2.2 Training of National Focal Points and selected C&E data providers in gathering and uploading C&E data Online training workshop organized in 2021	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 No training in 2019 and 2020; 22 NI representatives in 2021											

Outputs	Activities	Responsibility	Indicators	Assumptions
2.3 Inclusion of relevant <i>in situ</i> CWR data in EURISCO realized	2.3.1 Identification of CWR <i>in situ</i> populations/sites qualifying for inclusion in EURISCO in each country German-funded project (2021–2023) is covering this activity for eight pilot countries	2.3.1 National Focal Points, Wild Species Conservation in Genetic Reserves WG, in consultation with ECPGR members	2.3.1.1 Number of <i>in situ</i> CWR data sets qualifying for inclusion in EURISCO identified in each country N/A	Crop wild relative (CWR) genetic reserves are formally established (see also output 3)
	2.3.2 Development of an agreed minimum <i>in situ</i> data exchange format on the basis of existing CWR descriptor lists Data exchange format has been developed as part of German-funded project	2.3.2 Chairs of Doc&Info WG and Wild Species Conservation in Genetic Reserves WG and <i>in situ</i> National Focal Points	2.3.1.2 Number of <i>in situ</i> PGRFA data sets included in EURISCO N/A	
	2.3.3 Inclusion of first <i>in situ</i> data into EURISCO Expected for 2023	2.3.3 EURISCO Coordinator and <i>in situ</i> National Focal Points	2.3.2.1 Minimum <i>in situ</i> data exchange format agreed by National Coordinators Agreement pending	
			2.3.3.1 Number of PGRFA <i>in situ</i> data included in EURISCO N/A	

Outputs	Activities	Responsibility	Indicators	Assumptions
	<p>2.3.4 Training of <i>in situ</i> National Focal Points on gathering and uploading <i>in situ</i> data</p> <p>Expected in 2023</p>	<p>2.3.4 EURISCO Coordinator Doc&Info WG; Wild Species Conservation in Genetic Reserves WG</p>	<p>2.3.4.1 Number of <i>in situ</i> National Focal Points trained</p> <p>N/A</p>	
<p>2.4 Users' expectations explored and functionalities of EURISCO increased</p>	<p>2.4.1 Perform users' surveys; analyse results and formulate recommendations for improvements</p> <p>Ongoing activity by EURISCO Coordinator</p>	<p>2.4.1 EURISCO Coordinator, Doc&Info WG and Wild Species Conservation in Genetic Reserves WG with support from National Focal Points; users</p>	<p>2.4.1.1 Number of respondents to survey</p> <p>The collection of additional requirements/change requests takes place primarily in direct contact with users and in discussions at workshops</p>	
	<p>2.4.2 Adapting or adding database functions</p> <p>The operation and development of EURISCO is based on annual workplans agreed with the EURISCO Advisory Committee and the ECPGR Secretariat</p>	<p>2.4.2 EURISCO Coordinator; Doc&Info WG</p>	<p>2.4.2.1 Number of adaptations realized</p> <p>A total of 66 versions and sub-versions of the public EURISCO web interface have been completed since 2014, 22 of which since 2019. The range of functions changed in each case varies greatly</p>	

OBJECTIVE 3

***In situ* conservation and use of crop wild relatives are improved via inventory, prioritization, management of populations representing the European crop wild relative (CWR) diversity and mechanisms to facilitate access**

Outputs	Activities	Responsibility	Indicators	Assumptions
<p>3.1 National crop wild relative (CWR) conservation strategies produced</p>	<p>3.1.1 Identify official national conservation authorities</p> <p><i>Known national <i>in situ</i> focal points and contact details database being prepared</i></p>	<p>3.1.1 National Coordinators, Wild Species Conservation in Genetic Reserves WG members</p>	<p>3.1.1.1 Lists of official national conservation authorities available</p> <p><i>List of protected area authorities and Plant Genetic Resource Centre partners under preparation</i></p>	<p>Note: the “assumptions” listed apply to the whole set of items</p> <ul style="list-style-type: none"> - Funds for European level <i>in situ</i> activities are available - Funds for national <i>in situ</i> conservation management of PGR are available - 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
	<p>3.1.2 Generation of national CWR checklists</p> <p><i>Promoted by Wild species WG members and EC-funded projects</i></p>	<p>3.1.2 – 3.1.6 Wild Species Conservation in Genetic Reserves WG members with official national conservation authorities and EC-funded Farmer’s Pride project</p>	<p>3.1.2.1 Number of national CWR checklists produced</p> <p><i>All countries in Europe have developed national CWR checklists</i></p>	

Outputs	Activities	Responsibility	Indicators	Assumptions
	<p>3.1.3 Prioritization of CWR checklists</p> <p>Promoted by Wild species WG members and EC-funded projects</p>			<p>Note: the "assumptions" listed apply to the whole set of items</p>
	<p>3.1.4 Production of national CWR inventories</p> <p>It is planned as part of the German-funded "In situ CWR in EURISCO" project (here)</p>		<p>3.1.4.1 Number of national CWR inventories produced</p>	<ul style="list-style-type: none"> - There is access to sustainable use of <i>in situ</i> conserved CWR germplasm located in genetic reserves - European policy is developed to support the establishment and operation of the integrated European strategy for CWR conservation - The European Commission facilitates the long-term monitoring of the integrated European strategy for CWR conservation
	<p>3.1.5 Diversity and gap analysis of national priority CWR taxa</p> <p>unknown</p>			<ul style="list-style-type: none"> - Barriers to accessing CWR germplasm by

Outputs	Activities	Responsibility	Indicators	Assumptions
	<p>3.1.6 Definition of national CWR conservation actions</p> <p>Implementation of CWR population management guidelines produced by Farmer's Pride (here)</p>			<p><i>Note: the "assumptions" listed apply to the whole set of items</i></p>
	<p>3.1.7 Production of national CWR conservation action plans</p> <p>unknown</p>		<p>3.1.7.1 Number of national CWR conservation action plans produced</p> <p>The Ministry of Agriculture of Spain has developed the 'National Strategy for Conservation and Utilization of Crop Wild Relatives and Wild Food Plants'</p>	<p>user communities are removed and the use of CWR germplasm promoted, encouraged and facilitated</p> <ul style="list-style-type: none"> - Cooperation between the conservation and user communities is improved - Coordination between <i>in situ</i> and <i>ex situ</i> conservation managers is operational - The Most Appropriate crop Wild relative Population (MAWP) concept will be supported at national level

Outputs	Activities	Responsibility	Indicators	Assumptions
<p>3.2 Regional (European) CWR conservation strategy produced</p>	<p>3.2.1 Generation of regional (European) CWR checklist</p>	<p>3.2.1–3.2.6 Wild Species Conservation in Genetic Reserves WG members in cooperation with official national conservation authorities</p>	<p>3.2.1.1 Checklists produced <i>Kell et al. (in preparation)</i></p>	<p><i>Note: the “assumptions” listed apply to the whole set of items</i></p>
	<p>3.2.2 Prioritization of regional (European) CWR checklists</p> <p><i>An inventory of priority European CWR was developed by Farmer’s Pride</i></p>		<p><i>Prioritization achieved (Kell et al. in preparation)</i></p>	

Outputs	Activities	Responsibility	Indicators	Assumptions
	<p>3.2.3 Production of regional (European) CWR inventories</p> <p>See above</p>		<p>3.2.3.1 Regional (European) CWR inventories produced and endorsed by Wild Species Conservation in Genetic Reserves WG members</p> <p>Regional (European) CWR inventory produced by Kell et al. (in preparation)</p> <p>Inventory of priority European CWR containing 863 taxa (here)</p>	<p>Note: the “assumptions” listed apply to the whole set of items</p>
	<p>3.2.4 Diversity and gap analysis of regional (European) priority CWR taxa</p> <p>Analysis of taxonomic and ecogeographic diversity undertaken by EC Projects (e.g. Farmer’s Pride)</p>		<p>Results of initial analysis produced by Rubio Teso et al. 2021 (here)</p>	

Outputs	Activities	Responsibility	Indicators	Assumptions
	<p>3.2.5 Elaboration and agreement of regional (European) CWR conservation actions</p> <p>European strategy for CWR conservation and sustainable use developed by Farmer's Pride</p>		<p>Preparatory documents by Farmer's Pride here</p>	<p><i>Note: the "assumptions" listed apply to the whole set of items</i></p>
	<p>3.2.6 Production of regional (European) CWR conservation strategy, including CWR conservation action plans</p> <p>See above</p>		<p>3.2.6.1 Regional (European) CWR conservation action plans produced and endorsed by Wild Species Conservation in Genetic Reserves WG members</p> <p>Preparatory documents by Farmer's Pride here</p>	

Outputs	Activities	Responsibility	Indicators	Assumptions
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 <i>Not yet undertaken</i>	3.3.1 Wild Species Conservation in Genetic Reserves WG	3.3.1.1 Integrated European strategy for CWR conservation published	<i>Note: the "assumptions" listed apply to the whole set of items</i>
	3.3.2 Agreement on regional (European) and national MAWPs (Most Appropriate crop Wild relative Populations) to form European <i>in situ</i> network <i>Concept developed as part of Farmer's Pride</i>	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 <i>Not yet available. Substantial progress made at the regional level by the Farmer's Pride project</i>	

Outputs	Activities	Responsibility	Indicators	Assumptions
<p>3.4 National and European MAWP networks established</p>	<p>3.4.1 Official designation of national and regional (European) MAWPs at national level</p> <p>Germany officially designated genetic reserves at national level and other countries (Lithuania, Spain, UK) are in the process of doing so</p>	<p>3.4.1 National government agencies and authorities responsible for PGR conservation and utilization</p>	<p>3.4.1.1 List of officially designated national and regional (European) MAWPs published</p> <p>Not yet available</p>	<p>Assumptions</p> <p><i>Note: the “assumptions” listed apply to the whole set of items</i></p>

Outputs	Activities	Responsibility	Indicators	Assumptions
<p>3.5 National and European MAWP Networks operational</p>	<p>3.5.1 Active conservation management of national and regional (European) MAWPs</p> <p>Implemented in genetic reserves in Germany. In preparation in other countries</p>	<p>3.5.1 National official authorities for <i>in situ</i> conservation and local administrators and landowners</p>	<p>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</p> <p>N/A</p> <p>3.5.1.2 Adherence to minimum quality standards for genetic reserve conservation of CWR</p> <p>Germany took into account as far as possible the minimum quality standards provided in publications</p>	<p>Assumptions</p> <p><i>Note: the “assumptions” listed apply to the whole set of items</i></p>

Outputs	Activities	Responsibility	Indicators	Assumptions
3.6 Germplasm of National and European MAWPs networks effectively utilized	3.6.1 Germplasm samples collected and actively managed <i>ex situ</i> The number of CWR seed accessions collected and stored in the national genebanks has increased, although the MAWP have not yet been defined	3.6.1 National PGR genebanks	3.6.1.1 Number of germplasm accessions of MAWPs collected and actively managed <i>ex situ</i> unknown	Note: the "assumptions" listed apply to the whole set of items
	3.6.2 MAWP germplasm characterized through <i>ex situ</i> regeneration Not done, identification of MAWP pending	3.6.2 National PGR genebanks and plant breeding research institutes	3.6.2.1 Number of MAWP germplasm accessions characterized N/A	
	3.6.3 Access to MAWP germplasm facilitated Not done, identification of MAWP pending	3.6.3 National official authorities for <i>ex situ</i> and <i>in situ</i> conservation and utilization of PGRFA	3.6.3.1 Number of MAWP germplasm accessions provided to users N/A	

Outputs	Activities	Responsibility	Indicators	Assumptions
	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	<i>Note: the "assumptions" listed apply to the whole set of items</i>
	<i>Not done, identification of MAWP pending</i>		<i>N/A</i>	
	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	
	<i>Not done, identification of MAWP pending</i>		3.6.5.2 Number of MAWP utilized successfully for crop improvement	
			<i>N/A</i>	

OBJECTIVE 4

On-farm conservation and management of European PGRFA diversity is promoted

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 <i>Old list exists, not updated recently. No terms of reference defined</i>	4.1.1 National Coordinators	4.1.1.1 On-line list of Focal Points ECPGR On-farm National Inventory Focal Points	
	4.1.2 Promoting agreement on data exchange format <i>A descriptor list adapted from Negri et al. 2012 was used for on-farm landraces data recording in Farmer's Pride.</i>	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) <i>Exchange format used by Farmer's Pride available here</i>	

Outputs	Activities	Responsibility	Indicators	Assumptions
	<p>4.1.3 Defining the coordination mechanism and responsibility for on-farm data gathering and compiling</p> <p><i>In situ stakeholder analysis carried out in the frame of Farmer's Pride project</i></p>	<p>4.1.3 On-farm Inventory Focal Points and relevant stakeholders</p>	<p>4.1.3.1 Responsible manager(s) of European Inventory identified</p> <p><i>Farmer's Pride stakeholder analysis: Development of a European network for <i>in situ</i> conservation and sustainable use of plant genetic resources</i></p>	

4.1.4 Collecting on-farm data

Data collected as part of Farmer's Pride, describing a total of 19,335 Landrace Cultivation Sites from 14 European countries

Members of the ECPGR On-Farm WG collaborate directly or indirectly to register conservation varieties

4.1.4 On-farm Inventory Focal Points

4.1.4.1 On-line available on-farm data

As part of Farmer's Pride project results:

- Best practice evidence-based database including 105 examples of *in situ* management practices and of adding value to landraces – for different crops and socio-cultural contexts – available on the [ECPGR website](#).

- Different elaborations of the 19,335 Landrace Cultivation sites available in Raggi et al. 2022. Analysis of landrace cultivation in Europe: A means to support *in situ* conservation of crop diversity. *Biological Conservation*, 267, 109460

Some data are collected as part of the plant variety catalogue as “conservation varieties” (national and EU catalogues): species, area of cultivation, responsible for conservation, etc. (according to Commission Directive 2008/62/EC of 20 June 2008): [here](#) (select attribute ‘conservation varieties’)

- National or international funds are made available for database management and for data collecting

Outputs	Activities	Responsibility	Indicators	Assumptions
4.2 European on-farm diversity and trends monitored	4.2.1 Defining simple and effective indicators of on-farm diversity and trends Not defined	4.2.1 Task Force on on-farm diversity indicators	4.2.1.1 On-line agreed indicators N/A	
	4.2.2 Analysing on-farm diversity and trends, based on agreed indicators and the European on-farm Inventory N/A	4.2.2 Task Force on on-farm diversity indicators	4.2.2.1 Published reports of on-farm diversity analysis N/A	
	4.2.3 Establishing a knowledge base of case studies aiming to analyse genetic diversity and its trend in the field Several genetic studies on landrace diversity are published in scientific journals and could form the basis for analyzing future changes	4.2.3 On-farm Conservation and Management WG; Secretariat	4.2.3.1 Published knowledge base N/A	

Outputs	Activities	Responsibility	Indicators	Assumptions
	<p>4.2.4 Monitoring relevant initiatives aiming at refining indicators of genetic diversity and trends</p> <p>The GenRes Bridge project reviewed all indicators</p>	<p>4.2.4 On-farm Conservation and Management WG; Secretariat</p>	<p>4.2.4.1 Published reports on relevant initiatives</p> <p>Charvolin et al 2021. Indicators for monitoring the efficiency and effectiveness of conservation and management of GenRes (here)</p>	
<p>4.3 Good practices for on-farm management and conservation and adding value promoted</p>	<p>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</p> <p>Best practice evidence-base database prepared by Farmer's Pride</p>	<p>4.3.1 On-farm Conservation and Management WG; Secretariat</p>	<p>4.3.1.1 Store of knowledge and evidence-based practices made available on the ECPGR website</p> <p>In situ landraces: best practice evidence-base database</p>	

Outputs	Activities	Responsibility	Indicators	Assumptions
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 Farmer's Pride promoted an <i>in situ</i> Network for conservation and sustainable use	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 Not achieved	
	4.4.2 Identification of MAPA sites for recognition at National /European level Identification of hotspots of diversity carried out by Farmer's Pride	4.4.2 On-farm Conservation and Management WG with appropriate national stakeholders and authorities	4.4.2.1 List of proposed MAPA sites Landrace hotspots identification in Europe 4.4.2.2 List of recognized MAPA sites at National/European level N/A	

Outputs	Activities	Responsibility	Indicators	Assumptions
	<p>4.4.3 Promoting planning and implementation of conservation/management activities within MAPAs</p> <p>Action promoted by Farmer's Pride</p>	<p>4.4.3 On-farm Conservation and Management WG with appropriate national stakeholders</p>	<p>4.4.3.1 Number of drafted/approved MAPA management plans</p> <p>N/A</p>	<p>Steering Committee agrees to consolidate ECPGR position on specific issues of ownership, access, availability, marketing, etc.</p>
<p>4.5 Obstacles to on-farm conservation and management analysed and solutions proposed</p>	<p>4.5.1 Establishing task forces of appropriate experts to study, analyse and propose solutions to issues of regional interest</p> <p>Task forces not established</p>	<p>4.5.1 On-farm Conservation and Management WG; Secretariat</p>	<p>4.5.1.1 Number of issues analysed</p> <p>N/A</p> <p>4.5.1.2 Number of solutions to issues proposed/implemented</p> <p>N/A</p> <p>4.5.1.3 Number of Task Force recommendations endorsed by the Steering Committee</p>	

Outputs	Activities	Responsibility	Indicators	Assumptions
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4.5.2
 Exercise lobbying at the appropriate level to encourage implementation of the proposed solutions

N/A

4.5.2
 Steering Committee;
 National Coordinators;
 On-farm Conservation and Management WG;
 Secretariat

N/A

OBJECTIVE 5**Use of PGR is promoted**

Outputs	Activities	Responsibility	Indicators	Assumptions
5.1 European Evaluation Network for PGRFA developed	5.1.1 Survey of existing national evaluation programmes (research partnerships between genebanks, researchers, breeders; e.g. public private partnerships) A survey on recent, ongoing and planned public-private partnerships on use of PGRFA at national and regional level across the ECPGR countries was completed in 2017 through a German-funded project	5.1.1 ECPGR Secretariat and genebanks, researchers, breeders	5.1.1.1 Number of existing national evaluation programmes A knowledge base on PPP projects is available on the ECPGR website (here)	

Outputs	Activities	Responsibility	Indicators	Assumptions
	<p>5.1.2 Development of a concept for an European Evaluation Programme</p> <p>The concept was developed in 2017–2018 through a German-funded project</p>	<p>5.1.2 ECPGR Secretariat and genebanks, researchers, breeders supported by National Coordinators</p>	<p>5.1.2.1 European Evaluation Programme for PGRFA agreed</p> <p>EVA network established at the 15th Steering Committee meeting, May 2018. Establishment agreement here</p>	
	<p>5.1.3 Generation of evaluation data throughout the European region</p> <p>Data generated by EVA networks between 2019–2024 (through German-funded and AGENT projects)</p>	<p>5.1.3 Researchers and breeders</p>	<p>5.1.3.1 Number of crops and accessions evaluated</p> <p>Workplan of the ongoing EVA networks foresees the evaluation of up to 1,700 wheat, 1,200 barley, 750 maize, 60 carrot, 150 lettuce and 200 pepper accessions</p>	
	<p>5.1.4 Inclusion of evaluation data generated by the European Evaluation Programme in EURISCO</p> <p>Inclusion is planned and in preparation as part of the EVA networks activities</p>	<p>5.1.4 Partners of the Evaluation Programme and EURISCO coordinator, National Focal Points</p>	<p>5.1.4.1 Data sets available in EURISCO (see also objective 2)</p> <p>In progress and currently under a three-year embargo</p>	

Outputs	Activities	Responsibility	Indicators	Assumptions
5.2 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 <i>No action carried out</i>	5.2.1 ECPGR Secretariat, WG members, researchers, food industry	5.2.1.1 Survey report available <i>N/A</i>	Consideration of similar surveys available may influence this activity
	5.2.2 Support for the development and promotion of innovative value chains for PGRFA <i>Specific action of ongoing Grant Scheme Activity "Bidifferent" (Wheat and On-farm WGs), promoting the value chain of Binkel (<i>Triticum aestivum</i> subsp. <i>compactum</i>)</i>	5.2.2 ECPGR Secretariat, WG members, researchers, food industry	5.2.2.1 New value chains for PGRFA established <i>N/A</i>	

Outputs	Activities	Responsibility	Indicators	Assumptions
<p>5.3 Working Groups' structure and composition provide the entire range of expertise required for efficient (<i>ex/in situ</i>) conservation and promotion of the use/consumption of all crops</p>	<p>5.3.1 Review of WG structure and composition</p> <p><i>A full review was not carried out, but SC decided on a few amendments to the Network's structure, with two new WGs for Berries and Maize (October 2018) and subsequently the addition of a Cryopreservation WG (February 2022)</i></p>	<p>5.3.1 ECPGR Secretariat, National Coordinators</p>	<p>5.3.1.1 Report of the review available</p> <p>N/A</p> <p>5.3.1.2 Working Group structure provides a platform for all relevant crops (e.g. maize and berries)</p> <p>ECPGR Network structure – Phase X amendments</p>	