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**REGIONAL CONSULTATION FOR NEAR EAST AND NORTH
AFRICA: REVIEW OF THE SECOND GLOBAL PLAN OF ACTION
FOR PLANT GENETIC RESOURCES FOR FOOD AND
AGRICULTURE**



Food and Agriculture
Organization of the
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COMMISSION ON
GENETIC RESOURCES
FOR FOOD AND
AGRICULTURE



International Treaty
on Plant Genetic Resources
for Food and Agriculture



**REGIONAL CONSULTATION FOR NEAR EAST
AND NORTH AFRICA:
REVIEW OF THE SECOND GLOBAL PLAN OF ACTION
FOR PLANT GENETIC RESOURCES
FOR FOOD AND AGRICULTURE**

MEETING REPORT

KUWAIT CITY, KUWAIT

9–11 July 2024

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I. ORGANIZATION OF THE CONSULTATION

1. The Regional Consultation for the Near East and North Africa: Review of the Second Global Plan of Action for Plant Genetic Resources for Food and Agriculture was held at the premises of the Millennium Hotel and Convention Centre in Kuwait City, Kuwait from 9 to 11 July 2024. The workshop was co-organized by the Secretariat of the Commission on Genetic Resources for Food and Agriculture (Commission) and the International Treaty for Plant Genetic Resources for Food and Agriculture (Treaty) and was hosted by the Kuwait Institute for Scientific Research (KISR). The list of participants is given in *Appendix IV* to this report.
2. The consultation was divided into six sessions. Session 1 included welcoming remarks to open the regional consultation, as well as presentations to set the scene for the consultation. Session 2 addressed the state of *in situ* conservation and management of plant genetic resources for food and agriculture (PGRFA), including key regional findings from the draft Third Report on the State of the World's Plant Genetic Resources for Food and Agriculture (SOW3). Session 3 addressed the state of *ex situ* conservation of PGRFA. Session 4 addressed the state of sustainable use of PGRFA. Session 5 addressed the state of human and institutional capacities. Session 6 addressed the structure of the revised Second GPA. The full agenda of the regional consultation is provided in *Appendix I* to this report.

II. WELCOMING REMARKS AND OPENING OF THE WORKSHOP

3. Welcoming remarks were provided by representatives from, Kuwait Institute for Scientific Research, the FAO Regional Office for Near East and North Africa and the Secretariats of the Commission and Treaty.
4. Mr Meshan Mohamed Al-Otaibi, Acting Director-General, KSIR, welcomed participants to Kuwait and expressed his gratitude to the sponsors of this meeting, led by the Kuwait Foundation for the Advancement of Sciences, the Commission and the Treaty. He highlighted the efforts in preserving plant genetic resources in Kuwait, including the development of a unit for the collection and preservation of seeds and the establishment of natural reserves, herbaria, tissue culture laboratories and the KSIR Innovation Station. Finally, he called on the countries of the region to collaborate closely for the conservation and use of PGRFA.
5. Mr Ahmad Mukhtar, Senior Economist, FAO Regional Office for the Near East and North Africa, welcomed participants, on behalf of FAO's Regional Office for the Near East and North Africa. He stressed the urgent need to enhance crop innovation and use, particularly in relation to water efficiency. Mr Mukhtar stated that all countries of the region shared the common goal of increasing crop production and food security.
6. Mr Dan Leskien, Senior Liaison Officer, Secretariat of the Commission on Genetic Resources for Food and Agriculture, welcomed participants and expressed his gratitude the FAO Regional Office for the Near East and North Africa for supporting the organization of the workshop and to the Treaty for its collaboration. He also acknowledged the exemplary efforts of KISR in hosting the workshop. He highlighted that the outcomes of the regional workshops would be brought to the attention of the Twelfth session of the Intergovernmental Technical Working Group on Plant Genetic Resources that will be held in December 2024 and the Twentieth Regular Session of the Commission in March 2025.
7. Mr Francisco López, Technical Officer, Secretariat of the Treaty, reiterated the importance of collaborating with the Commission and thanked KISR for hosting the workshop. He expressed his hope that the support provided will enable Contracting Parties to actively participate in the process of updating the Second GPA noting that it is particularly relevant for the Treaty's work on conservation and sustainable use under Articles 5 and 6 of the Treaty.

III. SETTING THE SCENE: INTRODUCTION TO THE REGIONAL CONSULTATION

8. Mr Chikelu Mba, Deputy Director, Plant Production and Protection Division, FAO, provided an introduction to the objectives of the consultation. Mr Stefano Diulgheroff, Information Management Officer, Plant Production and Protection Division, FAO, gave a presentation on the *Second Global Plan of Action for Plant Genetic Resources for Food and Agriculture (Second GPA)*¹ and the preparation of the draft *Third Report on the State of the World's Plant Genetic Resources for Food and Agriculture (SOW3)*.² Mr Leskien presented possible options for revising the Second GPA.

IV. IN SITU CONSERVATION AND MANAGEMENT OF PGRFA

9. Ms Arshiya Noorani, Agricultural Officer, Plant Production and Protection Division, FAO, presented the key findings of the SOW3 for *in situ* conservation and management of PGRFA at both the global and regional levels, including gaps and needs. The gaps and needs identified are presented in Section 1 of *Appendix II* to this report.

10. Participants broke into subregional working groups to discuss the relevance and fit for purpose of Priority Activities (PAs) 1–4 of the Second GPA in light of the gaps and needs and to provide suggestions for any revisions. The working groups reported back to the plenary. Summary recommendations are provided in Section 1 of *Appendix III* to this report.

V. EX SITU CONSERVATION OF PGRFA

11. Mr Diulgheroff presented the key findings of the SOW3 for *ex situ* conservation of PGRFA at both the global and regional levels, including gaps and needs. The gaps and needs identified are presented in Section 2 of *Appendix II* to this report.

12. Participants then broke into subregional working groups to discuss the relevance and fitness for purpose of PAs 3–7 of the Second GPA in light of the gaps and needs and to provide suggestions for any revisions. The working groups reported back to the plenary. Summary recommendations are provided in Section 2 of *Appendix III* to this report.

VI. SUSTAINABLE USE OF PGRFA

13. Mr Mba presented the key findings of the SOW3 for sustainable use of PGRFA at both the global and regional level, including gaps and needs. The gaps and needs identified are presented in Section 3 of *Appendix II* to this report.

14. Participants then broke into subregional working groups to discuss the relevance and fitness for purpose of PAs 8–12 of the Second GPA in light of the gaps and needs and to provide suggestions for any revisions. The working groups reported back to the plenary. Summary recommendations are provided in Section 3 of *Appendix III* to this report.

VII. BUILDING INSTITUTIONAL AND HUMAN CAPACITIES

15. Mr Diulgheroff, presented the key findings of the SOW3 for building institutional and human capacities at both the global and regional levels, including gaps and needs. The gaps and needs identified are presented in Section 4 of *Appendix II* to this report.

16. Participants then broke into subregional working groups to discuss the relevance and fitness for purpose of PAs 13–18 of the Second GPA in light of the gaps and needs and to provide suggestions for any revisions. The working groups reported back to the plenary. Summary recommendations are provided in Section 4 of *Appendix III* to this report.

¹ FAO. 2012. *Second Global Plan of Action for Plant Genetic resources for Food and Agriculture*. Rome. <https://openknowledge.fao.org/handle/20.500.14283/i2624e>

² CGRFA/WG-PGR-12/24/3/Inf.1.

VIII. STRUCTURE OF THE REVISED SECOND GPA

17. Mr Leskien led a discussion on the format and structure of a revised Second GPA, providing three potential options. These included: (1) a lightly revised version to reflect new policy developments/guidelines and technical developments since the publication of the Second GPA; (2) a condensed version in which PAs would be shortened to approximately one to two pages per PAs and would include technical and policy updates and minor rearrangements of PAs; and (3) a focused action plan for action by governments. Options 2 and 3 would be complemented by standalone guidelines for their implementation. Discussions were held in plenary. Participants reflected on the current PAs and considered that all of them were still relevant. The discussions also addressed the food insecurity in the region due to civil strife and water shortages. Overall, it was felt that there is a need for greater coordination among countries and institutions to share knowledge for the conservation and sustainable use of PGRFA.

IX. CLOSING

18. Mr Mba congratulated KISR for having provided excellent support for the organization and operation of the consultation. He conveyed his appreciation to all the speakers and participants for their enthusiasm and active engagement and extended his gratitude to the Commission and Treaty Secretariats for having co-organized the event. He also thanked the staff of the Millennium Hotel and Convention Centre, the interpreters and the technicians for their excellent work.

APPENDIX I

AGENDA OF THE REGIONAL CONSULTATION FOR THE NEAR EAST AND NORTH AFRICA: REVIEW OF THE SECOND GLOBAL PLAN OF ACTION FOR PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

9 July – Day 1	
08:30 – 09:00	Registration
SESSION 1	WELCOME AND INTRODUCTION
09:00 – 09:30	<p>Welcome and opening remarks</p> <ul style="list-style-type: none"> • Mr. Ahmad Mukhtar, Senior Economist, FAO Regional Office for the Near East and North Africa • Mr Meshan Mohamed Al-Otaibi, Acting Director-General, Kuwait Institute for Scientific Research • Mr Dan Leskien, Senior Liaison Officer, Commission on Genetic Resources for Food and Agriculture • Mr Francisco López, Technical Officer, International Treaty on Plant Genetic Resources for Food and Agriculture
9:30 – 9:45	<p>Introduction to objectives of the consultation</p> <p>Mr Chikelu Mba, Deputy Director, Plant Production and Protection Division, FAO</p>
09:45 – 10:00	<p>The Second Global Plan of Action for Plant Genetic Resources for Food and Agriculture and the preparation of the draft <i>Third Report on the State of the World's Plant Genetic Resources for Food and Agriculture</i></p> <p>Mr Stefano Diulgheroff, Information Management Officer, Plant Production and Protection Division, FAO</p>
10:00 – 10:15	<p>Revising the Second Global Plan of Action for Plant Genetic Resources for Food and Agriculture: Possible options</p> <p>Mr Dan Leskien, Senior Liaison Officer, Commission on Genetic Resources for Food and Agriculture</p>
10:15 – 10:45	<i>Coffee Break</i>
SESSION 2	IN SITU CONSERVATION AND MANAGEMENT OF PGRFA
10:45 – 11:00	<p>Priority Activities of the Second GPA (1–4) and key findings of the Third Report:</p> <p>Ms Arshiya Noorani, Agricultural Officer, Plant Production and Protection Division, FAO</p>
11:00 – 12:45	WORKING GROUPS
12:45 – 14:15	<i>Lunch</i>
14:15 – 15:00	PLENARY: WORKING GROUP REPORTS AND DISCUSSION
SESSION 3	EX SITU CONSERVATION OF PGRFA
15:00 – 15:15	<p>Priority Activities of the Second GPA (5–7) and key findings of the Third Report</p> <p>Mr Stefano Diulgheroff, Information Management Officer, Plant Production and Protection Division, FAO</p>
15:15 – 15:45	WORKING GROUPS
15:45 – 16:15	<i>Coffee Break</i>

16:15 – 17:15	WORKING GROUPS (ctd)
17:15 – 18:00	PLENARY: WORKING GROUP REPORTS AND DISCUSSION
18:00 – 20:00	Reception
10 July – Day 2	
9:00 – 10:30	PLENARY: DRAFT RECOMMENDATIONS <ul style="list-style-type: none"> • <i>In Situ</i> Conservation and Management of PGRFA • <i>Ex Situ</i> Conservation
10:30 – 11:00	<i>Coffee Break</i>
SESSION 4	SUSTAINABLE USE OF PGRFA
11:00 – 11:15	Priority Activities of the Second GPA (8–12) and key findings of the Third Report Mr Chikelu Mba, Deputy Director, Plant Production and Protection Division, FAO
11:15- 12:45	WORKING GROUPS
12:45 - 14:15	<i>Lunch</i>
14:15 – 15:00	PLENARY: WORKING GROUP REPORTS AND DISCUSSION
SESSION 5	BUILDING INSTITUTIONAL AND HUMAN CAPACITIES
15:00 – 15:15	Priority Activities of the Second GPA (13–18) and key findings of the Third Report Mr Stefano Diulgheroff, Information Management Officer, Plant Production and Protection Division, FAO
15:15 – 16:00	WORKING GROUPS
16:00 – 16:30	<i>Coffee Break</i>
16:30 – 17:15	WORKING GROUPS (ctd)
17:15 – 18:00	PLENARY: WORKING GROUP REPORTS AND DISCUSSION
11 July – Day 3	
9:00 – 10:30	PLENARY: DRAFT RECOMMENDATIONS <ul style="list-style-type: none"> • Sustainable use of PGRFA • Institutional and Human Capacities
10:30 – 11:00	<i>Coffee Break</i>
SESSION 6	THE REVISED SECOND GPA
11:00 – 12:30	Format, structure, purpose, target group(s) of the revised Second GPA – Final discussion
12:30 – 12:40	Closing remarks Mr Chikelu Mba, Deputy Director, Plant Production and Protection Division, FAO
12:40 – 14:00	<i>Lunch</i>

APPENDIX II

MAIN REGIONAL GAPS AND NEEDS IDENTIFIED

The following sections summarize the regional gaps and needs identified from the draft *Third Report on the State of the World's Plant Genetic Resources for Food and Agriculture*.

SECTION 1: *IN SITU* CONSERVATION AND MANAGEMENT OF PGRFA

Main gaps in the region

- Surveying and inventorying not explicit in national strategies.
- Knowledge-sharing mechanisms and increased coordination among national genebanks.
- Government agencies, and *in situ* conservation authorities, especially with regard to crop wild relatives (CWR) and wild food plants (WFP).
- Capacities in taxonomic identification/classification of plant genetic resources for food and agriculture (PGRFA) and methods for surveying and inventorying.
- Standardized methodology across the different ministries to assess genetic erosion of PGRFA
- Access to data on surveys/inventories.
- Increased costs of preferred local seeds and varieties.
- Awareness of the importance of PGRFA conservation and sustainable use in promoting food security and nutrition.

Main needs in the region

- Increased support and incentives for the *in situ* and on-farm conservation of PGRFA, including post-disasters.
- National policies should include wild and cultivated PGRFA diversity.
- Consolidated inventory lists and distribution maps to assess changes in PGRFA diversity over time.
- Designation of biodiversity hotspots by international organizations to include wild PGRFA.
- Increased coordination (ministerial and institutional) and improved participatory approaches for the conservation and management of farmers' varieties/landraces (FV/LR).
- Developing and networking community seed banks in countries.
- National seed policies to address emergency preparedness and disaster risk management.

SECTION 2: *EX SITU* CONSERVATION OF PGRFA

Main gaps in the region

- Poor cooperation between national gene banks, government agencies, and *in situ* conservation authorities.
- Shortage of trained technical personnel (taxonomists).
- Gaps in *ex situ* collections exists but insufficiently documented.
- Lack of or inadequate information systems to document national inventories of PGRFA.
- Insufficient funding for collection missions to cover basic costs.
- Insufficient government support for genebanks' adequate maintenance and development.
- Deterioration of infrastructure and equipment in different facilities.
- Shortage of trained technical staff for morphological and genetic characterization.
- Lack of expertise in conservation techniques, such as cryopreservation, *in vitro* conservation, and DNA sample storage.
- Deficiency of physical infrastructure such as irrigation systems, isolation tents, greenhouses, etc.
- Insufficient laboratory and/or field technical support to assist in the activities.
- Inadequate database management system to flag accessions requiring regeneration.

Main needs in the region

- Programmes for enhanced capacities in gap analysis, ecogeographical referencing, handling CWR and other collected materials, etc.
- Focused collection strategies with targeted efforts to fill geographical and species gaps, particularly focusing on underrepresented areas and species.
- Inclusion of CWR presence as a criterion for designating protected areas and expanding existing ones.
- National strategies for the conservation and sustainable use of PGRFA.
- Institutional and technical collaboration.
- Better coordination among institutions and field stations to carry out regeneration.

SECTION 3: SUSTAINABLE USE OF PGRFA**Main gaps in the region**

- Characterization of local crops and varieties, especially wild and underutilized species.
- Coordination among farmers, research programmes and germplasm banks for determination and identification of subsets related to specific characteristics.
- Use of local PGRFA, including landraces and CWR, in pre-breeding and breeding programmes.
- Underrepresentation of genetic variation in breeding materials stored in genebanks.
- Insufficient funding, capacities and infrastructure for the use of advanced technologies.
- Collaboration between public–private partnerships in pre-breeding and breeding activities.
- Lack of capacity of farmers, technical staff, and agricultural extension workers on the benefits and methods of crop diversification.
- Absence of strategies and regulations to ensure the production and distribution of quality seeds and planting materials.
- Outdated or insufficient seed laws and policies across the region.
- Investment/incentives for the release and adoption of new varieties.
- Distribution of seed not adapted to local environments – implication of losses for farmers.

Main needs in the region

- Improved capacities, documentation, characterization and evaluation of farmers' varieties, wild PGRFA and underutilized species.
- Long-term, sustainable breeding programmes.
- Comprehensive data management systems to ensure systematic documentation and easy access to characterization and evaluation data sharing.
- Integration of modern technologies (e.g. speed breeding, marker-assisted selection) in breeding programmes.
- Promotion of a broader range of crops and varieties to reduce vulnerability to biotic and abiotic stresses.
- Nutritional analysis of CWR, WFP and FV/LR, and inclusion of dietary diversity considerations into public policies.
- Well organized, sustainable mechanism for quality seed production and distribution.
- Policies/legal frameworks for the development and commercialization of farmers' varieties and underutilized species.

SECTION 4: HUMAN AND INSTITUTIONAL CAPACITIES**Main gaps in the region**

- CWR, WFP and FV/LR neglected, at risk and poorly documented.
- Shortage of qualified professionals (staff turnover and few young people to replace retiring staff).

- Lack of strategy and policy to develop human capacity.
- Insufficient formal training programmes.
- Communicative messages not sufficiently tailored to audiences.

Main needs in the region

- Financial sustainability.
- Incorporation into national programs.
- Fill the lack of skills.
- Improve technical capacity.
- Good infrastructure.
- Inter-institutional collaboration.
- Comprehensive inventories of CWR and FV/LR.
- Leverage existing platforms.
- Indicators and methods to monitor diversity and minimize genetic erosion and its drivers.
- Establish national, regional and global baselines.
- Foster collaboration with regional and international centres.
- Update inventories of CWR, WFP and FV/LR.
- Attractive career paths and recognition to retain PGRFA professionals.
- Interdisciplinary and international collaboration.
- Improve awareness of the importance of PGRFA.
- Coordination, collaboration and inter-institutional partnerships with respect to communication activities to be improved.

APPENDIX III

RECOMMENDATIONS FOR THE REVISION OF THE SECOND GPA

The following sections summarize and consolidate inputs and comments received from the subregional working groups.

SECTION 1: *IN SITU* CONSERVATION AND MANAGEMENT OF PGRFA
PA 1. Surveying and inventorying plant genetic resources for food and agriculture

- Highlight importance of technical capacities in updated taxonomic identification.
- Develop “red lists” (IUCN) to indicate the status of wild PGRFA.
- Incorporate key biodiversity areas (KBAs) and active conservation measures in protected areas.

PA 2. Supporting on-farm management and improvement of PGRFA

- Implement the biodiversity for food and agriculture (BFA) and inclusive agriculture measures – develop capacity and awareness on the importance of BFA and ecosystem services.
- Address neglected and underutilized species (NUS) in this PA.
- Support the development of inventories of NUS.
- Address cooperation between public and private sectors in mainstreaming farmer’s varieties.
- Promote the inclusion of gender and youth in on-farm management activities.

PA 3. Assisting farmers in disaster situations to restore crop systems

- Change title to: Assisting farmers in disasters, conflicts and crisis situations to restore seed and crop systems.
- Support the documentation and development of catalogues for restoring and repatriating FV/LR.

PA 4. Promoting *in situ* conservation and management of crop wild relatives and wild food plants

- Foster the development of standardized databases relating to *in situ* conservation of wild PGRFA.
- Support the national coordination among ministries, institutions and related stakeholders.
- Develop distribution maps to monitor crop wild relatives (CWR) and wild food plants (WFP).
- Encourage cultivation of WFP to relieve harvesting pressure in the wild.
- Promote restoration of WFP in areas of degradation.

SECTION 2: *EX SITU* CONSERVATION OF PGRFA
PA 5. Supporting targeted collecting of plant genetic resources for food and agriculture

- Develop a cadre of experts in taxonomy.
- Establish common criteria and methodologies for collecting and sampling wild species.
- Take into consideration the challenges faced in areas of conflicts for collecting germplasm.
- Highlight risks of habitat degradation and consequent loss of plant diversity.
- Support collecting PGRFA of social and cultural importance.
- Promote establishment of national mechanisms for coordinating the PGRFA conservation.
- Strengthen capacities to conduct gap analysis through advanced tools.

PA 6. Sustaining and expanding *ex situ* conservation of germplasm

- Develop risk management plans for genebanks.

- Encourage applications of artificial intelligence (including development of quality management systems).
- (Development of core collections need to be promoted to enhance use of germplasm; capacity in this regard should be foreseen).

PA 7. Regenerating and multiplying *ex situ* accessions

- Improve database management systems including to flag accessions requiring regeneration.
- Strengthen infrastructure and capacity for regeneration and multiplication of CWR and WFP (for example, as far as pollinators, manual crossing and breaking dormancy are concerned).

SECTION 3: SUSTAINABLE USE OF PGRFA

PA 8. Expanding the characterization, evaluation and further development of specific subsets of collections to facilitate use

- Change title to: Supporting and expanding the characterization, evaluation and further development of specific collection subsets to facilitate use.
- Strengthen collaboration between extension, breeders, researchers and genebanks.
- Promote evaluation in farmers' fields (through e.g. participatory breeding), with role of extensionists emphasized.
- Establish descriptor lists of those species or crops where no descriptors are available.
- Support characterization and evaluation activities for locally important crops and varieties.
- Encourage private sector engagement, including seed industry.
- Highlight existing lack of funds and skills for characterizing and evaluating PGRFA.
- Refer to potential role of characterizing and evaluating wild PGRFA in the restoration of degraded ecosystems.

PA 9. Supporting plant breeding, genetic enhancement and base broadening efforts

- Change title to: Supporting plant breeding, genetic enhancement and base-broadening efforts (pre-breeding).
- Promote long-term, nationally supported breeding programmes.
- Strengthen the use and functioning of the multilateral system (MLS) and make materials available under the terms and conditions of the MLS.
- Encourage predictive breeding using modern technologies, such as artificial intelligence.
- Highlight lack of funds and skills for pre-breeding and breeding.

PA 10. Promoting diversification of crop production and broadening crop diversity for sustainable agriculture

- Support cultivation of FV/LR, including through traditional practices.
- Highlight importance of ecosystem services and low-input approaches.

PA 11. Promoting development and commercialization of all varieties, primarily farmers' varieties/landraces and underutilized species

- Consider developing, revising, harmonizing and implementing as appropriate national laws, policies and regulations to facilitate the registration of FV/LR and NUS and the production, and marketing of their seeds and planting materials.
- Encourage assessment of nutritional and other unique qualities of FV/LV and NUS
- Promote inventorying of NUS (including documentation of traditional knowledge) and their re-introduction, where relevant.
- Support the development of NUS and FV/LR catalogues and promotion through geographic indication strategies.

PA 12. Supporting seed production and distribution

- Promote capacity of farmers and local communities in producing quality seeds (encourage farmer seed systems).
- Support more efficient national seed systems.

SECTION 4: HUMAN AND INSTITUTIONAL CAPACITIES

PA 13. Building and strengthening national programmes

- A strategy and action plan for the conservation and sustainable use of PGRFA needs to be in place and periodically revised and updated, as needed. The strategy should be as specific as possible for PGRFA, and address both cultivated and wild relevant species. It should provide for the implementation and compliance of relevant international agreements and instruments, including the revised Second Global Plan of Action.
- It should be pointed out that a fragmentation of regulations and policies governing PGRFA is sometimes observed. It should be avoided and harmonized as it greatly complicates the achievement of the primary objectives of the Plan.
- Collaboration and synergies among stakeholders within the national programme are paramount and should be strengthened. In many countries national programmes are more like institutional programmes implemented by individual institutions and do not integrate all relevant stakeholders. This represents a missed opportunity to maximize progress towards the Plan's main objectives.
- Representation of farmers' organizations in national PGRFA decision-making bodies and initiatives should be promoted.
- National programmes in the region should be able to count on skills and resources suited to the tasks and priorities envisaged in the revised Second GPA.
- Responsibility of the national programmes will also be to maintain and strengthen links to the existing national, regional and international networks.

PA 14: Promoting and strengthening networks for PGRFA

- Financial sustainability and incorporation into national programs. Networks tend to chronically suffer from resource gaps as they often depend on short-term projects. The national programmes should allocate a minimum of resources while the networks should serve as platforms for the development of inter-institutional project proposals that could ensure their sustainability in the medium and long terms.
- Networks can serve to fill gaps in competencies within the national programmes and contribute to the implementation of the Plan.

PA 15: Constructing and strengthening comprehensive information systems for PGRFA

- Weaknesses in information management expertise and bioinformatics and lack of necessary digital infrastructure should be addressed.
- Foster collaboration between government agencies, research institutions and international platforms to create robust, inter-operable and standardized information systems.
- Comprehensive inventories of CWR, WFP and farmers' varieties should be developed, periodically updated³ and made accessible through information systems.
- Existing international and regional platforms including GLIS, GRIN-Global, WIEWS, GENESYS and other relevant platforms should be leveraged to improve national PGRFA information systems.

³ To be moved to PA4.

PA 16: Developing and strengthening systems for monitoring and safeguarding genetic diversity and minimizing genetic erosion of PGRFA

- CWR and WFP continue being neglected, at risk and poorly documented, the same goes for traditional varieties and underutilized species. Efforts should be invested to improve this status.
 - Early warning system for plant genetic resources should be established at national level.
 - Methods and indicators to assess inter- and intra-specific diversity and minimize genetic erosion and the impact of associated drivers need to be refined and routinely applied. In assessing and monitoring wild PGRFA, IUCN methodology for the development of red lists and available eco-geographic tools could be complementarily applied.

PA 17: Building and strengthening human-resource capacity

- Disparities in the capacities to conserve and sustainably use PGRFA among countries in the region exist and should be reduced.
- Frequently national programmes face a shortage of qualified professionals due to staff turnover and difficulties in hiring young people to replace retiring staff.
- The lack of a national strategy, policy or programme that focuses on the development of human capacity often results in insufficient availability of formal training programmes.
- "PGRFA conservation and sustainable use" should be provided in sciences curricula at secondary, graduate and post-graduate levels in all countries.
- It is important to create attractive career paths and recognition strategies to retain professionals in the field of PGRFA.
- It is important to foster relationships with world-class institutions and facilitate the formation of interdisciplinary research teams to address complex PGRFA challenges.

PA18: Promoting and strengthening public awareness of the importance of PGRFA

- Improving the understanding of the importance of PGRFA among policy makers, local authorities and the general population in the region is paramount for a successful establishment and implementation of the national PGRFA programme.
- Collaboration with all media should be sought.
- Improve communication skills of national programme staff.

APPENDIX IV**LIST OF PARTICIPANTS****NATIONAL FOCAL POINTS AND DESIGNATED REPRESENTATIVES****ALGERIA**

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