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# COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE

**Item 9.3 of the Provisional Agenda**

**Twentieth Regular Session**

**Rome, 24–28 March 2025**

**REGIONAL CONSULTATION FOR LATIN AMERICA AND THE  
CARIBBEAN: REVIEW OF THE SECOND GLOBAL PLAN OF  
ACTION FOR PLANT GENETIC RESOURCES FOR FOOD AND  
AGRICULTURE**





Food and Agriculture  
Organization of the  
United Nations

COMMISSION ON  
GENETIC RESOURCES  
FOR FOOD AND  
AGRICULTURE



International Treaty  
on Plant Genetic Resources  
for Food and Agriculture



**REGIONAL CONSULTATION FOR LATIN AMERICA  
AND THE CARIBBEAN:  
REVIEW OF THE SECOND GLOBAL PLAN OF ACTION  
FOR PLANT GENETIC RESOURCES  
FOR FOOD AND AGRICULTURE**

**MEETING REPORT**

**PALMIRA, COLOMBIA,**

**20–23 MAY 2024**

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**TABLE OF CONTENTS**


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		Paragraphs
I.	Organization of the workshop .....	1–2
II.	Welcoming remarks and opening of the workshop.....	3–7
III.	Setting the scene: introduction to the regional consultation .....	8
IV.	The state of <i>in situ</i> conservation and management of PGRFA .....	9–10
V.	The state of <i>ex situ</i> conservation of PGRFA .....	11–12
VI.	The state sustainable use of PGRFA .....	13–14
VII.	The state of human and institutional capacities for PGRFA .....	15–16
VIII.	Structure of the revised Second GPA .....	17
IX.	Closing .....	18
	<i>Appendix I Agenda of the Regional Consultation for Latin America and the Caribbean: Review of the Second Global Plan of Action for Plant Genetic resources for Food and Agriculture</i>	
	<i>Appendix II Main regional gaps and needs identified</i>	
	<i>Appendix III Recommendations for the revision of the Second GPA</i>	
	<i>Appendix IV List of participants</i>	

## I. ORGANIZATION OF THE CONSULTATION

1. The Regional Consultation for Latin America and the Caribbean: Review of the Second Global Plan of Action for Plant Genetic Resources for Food and Agriculture was held in Palmira, Colombia, from 20 to 23 May 2024. The workshop was co-organized by the Plant Production and Protection Division (NSP) of the Food and Agriculture Organization of the United Nations (FAO), 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 Alliance of Bioversity and the International Center for Tropical Agriculture (Alliance). 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 the FAO Regional Office for Latin America and the Caribbean, the Alliance, and the Secretariats of the Commission and Treaty.

4. Mr Mario Lubetkin, Assistant Director-General, FAO Regional Representative for Latin America and the Caribbean, welcomed participants, highlighted the importance of regional collaboration to address food security challenges and emphasized FAO's commitment to sustainable agricultural practices.

5. Ms Marcela Quintero, Research Director, Alliance of Bioversity International and CIAT, discussed the role of the Alliance in promoting biodiversity and sustainable agriculture, stressing the need for innovative research to tackle climate change impacts.

6. Mr Dan Leskien, Senior Liaison Officer, Secretariat of the Commission, welcomed attendees and expressed his gratitude to the FAO Regional Office for Latin America and the Caribbean and the FAO office in Colombia for supporting the organization of the workshop. He further thanked the Treaty for its collaboration in the workshops organization and recognized the excellent work of the Alliance in hosting the workshop. He emphasized that the outcomes of the regional workshops would be presented at 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 Álvaro Toledo, Senior Technical Officer, Secretariat of the Treaty, reiterated the importance of collaborating with the Commission and thanked Alliance 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),<sup>1</sup> and provided the context of the rolling GPA and the periodic assessments of its implementation. Mr Diulgheroff also introduced the draft of the periodic assessments and the draft *Third Report on the State of the World's Plant Genetic Resources for Food and Agriculture* (SOW3).<sup>2</sup> Mr Leskien then 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 *Appendix II* to this report.

10. Participants broke into subregional working groups to discuss the relevance and fitness 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. Ms Bonnie Furman, Agricultural Officer, Plant Production and Protection Division, FAO, 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 levels, including gaps and needs. The gaps and needs identified are presented in Section 3 *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 Stefano Diulgheroff, Information Management Officer, Plant Production and Protection Division, FAO, 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.

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<sup>1</sup> 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>

<sup>2</sup> 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. There was a preference to avoid major changes to the existing 18 PAs and the monitoring framework to maintain consistency and continuity in tracking implementation. The challenge of managing the balance between detailed scientific monitoring needs and countries' preference for simplified reporting was noted. Resource mobilization remained a critical issue, and part of the discussion was on the need for governments to collaborate and support each other financially.

### **IX. CLOSING**

18. Mr Mba reiterated the importance in convening such a workshop. He congratulated the Alliance for having provided excellent support for the organization and operation of the consultation. He expressed his appreciation to all the speakers and participants for their enthusiasm and active engagement. Furthermore, he expressed his gratitude to the Commission and Treaty Secretariats for having co-organized the event. He also thanked the interpreters and the technicians for their excellent work.

**APPENDIX I**

**AGENDA OF THE REGIONAL CONSULTATION FOR LATIN AMERICA AND THE  
CARIBBEAN: REVIEW OF THE SECOND GLOBAL PLAN OF ACTION FOR PLANT  
GENETIC RESOURCES FOR FOOD AND AGRICULTURE**

<b>21 May – Day 1</b>	
08:30 – 09:00	Registration
<b>SESSION 1</b>	<b>WELCOME AND INTRODUCTION</b>
09:00 – 09:30	<p><b>Welcome and opening remarks</b></p> <ul style="list-style-type: none"> <li>• Mr Mario Lubetkin, Assistant Director-General, FAO Regional Representative for Latin America and the Caribbean</li> <li>• Ms Marcela Quintero, Research Director, Alliance of Bioversity International and CIAT</li> <li>• Mr Dan Leskien, Senior Liaison Officer, Secretariat of the Commission on Genetic Resources for Food and Agriculture</li> <li>• Mr Álvaro Toledo, Senior Technical Officer, Secretariat of the International Treaty on Plant Genetic Resources for Food and Agriculture</li> </ul>
9:30 – 9:45	<p><b>Introduction to objectives of the consultation</b></p> <p>Mr Chikelu Mba, Deputy Director, Plant Production and Protection Division, FAO</p>
09:45 – 10:00	<p><b>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></b></p> <p>Mr Stefano Diulgheroff, Information Management Officer, Plant Production and Protection Division, FAO</p>
10:00 – 10:15	<p><b>Revising the Second Global Plan of Action for Plant Genetic Resources for Food and Agriculture: Possible options</b></p> <p>Mr Dan Leskien, Senior Liaison Officer, Secretariat of the Commission on Genetic Resources for Food and Agriculture</p>
10:15 – 10:45	<i>Coffee Break</i>
<b>SESSION 2</b>	<b>IN SITU CONSERVATION AND MANAGEMENT OF PGRFA</b>
10:45 – 11:00	<p><b>Priority Activities of the Second GPA (1–4) and key findings of the Third Report:</b></p> <p>Ms Arshiya Noorani, Agricultural Officer, Plant Production and Protection Division, FAO</p>
11:00 – 12:45	<b>WORKING GROUPS</b>
12:45 – 14:15	<i>Lunch</i>
14:15 – 15:00	<b>PLENARY: WORKING GROUP REPORTS AND DISCUSSION</b>
<b>SESSION 3</b>	<b>EX SITU CONSERVATION OF PGRFA</b>
15:00 – 15:15	<p><b>Priority Activities of the Second GPA (5–7) and key findings of the Third Report</b></p> <p>Ms Bonnie Furman, Agricultural Officer, Plant Production and Protection Division, FAO</p>



15:15 – 15:45	<b>WORKING GROUPS</b>
15:45 – 16:15	<i>Coffee Break</i>
16:15 – 17:15	<b>WORKING GROUPS (ctd)</b>
17:15 – 18:00	<b>PLENARY: WORKING GROUP REPORTS AND DISCUSSION</b>
18:00 – 20:00	<b>Reception</b>

<b>22 May – Day 2</b>	
9:00 – 10:30	<b>PLENARY: DRAFT RECOMMENDATIONS</b> <ul style="list-style-type: none"> <li>• <i>In Situ</i> Conservation and Management of PGRFA</li> <li>• <i>Ex Situ</i> Conservation</li> </ul>
10:30 – 11:00	<i>Coffee Break</i>
<b>SESSION 4</b>	<b>SUSTAINABLE USE OF PGRFA</b>
11:00 – 11:15	<b>Priority Activities of the Second GPA (8–12) and key findings of the Third Report</b> Mr Chikelu Mba, Deputy Director, Plant Production and Protection Division, FAO
11:15 – 12:45	<b>WORKING GROUPS</b>

12:45 - 14:15	<i>Lunch</i>
14:15 – 15:00	<b>PLENARY: WORKING GROUP REPORTS AND DISCUSSION</b>
<b>SESSION 5</b>	<b>BUILDING INSTITUTIONAL AND HUMAN CAPACITIES</b>
15:00 – 15:15	<b>Priority Activities of the Second GPA (13–18) and key findings of the Third Report</b> Mr Stefano Diulgheroff, Information Management Officer, Plant Production and Protection Division, FAO
15:15 – 16:00	<b>WORKING GROUPS</b>
16:00 – 16:30	<i>Coffee Break</i>
16:30 – 17:15	<b>WORKING GROUPS (ctd)</b>
17:15 – 18:00	<b>PLENARY: WORKING GROUP REPORTS AND DISCUSSION</b>

<b>23 May - Day 3</b>	
9:00 – 10:30	<b>PLENARY: DRAFT RECOMMENDATIONS</b> <ul style="list-style-type: none"> <li>• Sustainable use of PGRFA</li> <li>• Institutional and Human Capacities</li> </ul>
10:30 – 11:00	<i>Coffee Break</i>
<b>SESSION 6</b>	<b>THE REVISED SECOND GPA</b>

<i>11:00 – 12:30</i>	<b>Format, structure, purpose, target group(s) of the revised Second GPA – Final discussion</b> Mr Dan Leskien, Senior Liaison Officer, Secretariat of the Commission on Genetic Resources for Food and Agriculture
<i>12:30 – 12:40</i>	<b>Closing remarks</b> Mr Chikelu Mba, Deputy Director, Plant Production and Protection Division, FAO
<i>12:40 - 14:00</i>	<b><i>Lunch</i></b>
<i>14:00 – 16:00</i>	<b>Visiting tour / field trip</b>

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**APPENDIX II**


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**MAIN REGIONAL GAPS AND NEEDS IDENTIFIED**


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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**

- Insufficient coordination among plant genetic resources for food and agriculture (PGRFA) stakeholders.
- Shortage of trained technical personnel (taxonomists).
- Insufficient baseline assessments: difficult to assess trends.
- Inadequate or lack of information systems to document national inventories of PGRFA.
- Insufficient funding for collection missions.
- Emergency provision of quality seeds and planting materials not fully adapted to local conditions/cultural environment.
- Loss of traditional varieties in restored crop systems.
- Lack of mechanisms for monitoring changes in crop diversity post-disasters.
- Conservation activities are often fragmented.
- Inadequate response to genetic erosion of crop wild relatives (CWR) and wild food plants in protected areas and enclosures.

**Main needs in the region**

- Enhanced capacities in gap analysis, ecogeographical referencing, handling CWR and other collected materials, etc.
- A national system of coordination needed to enhance efficiency in resource utilization.
- Financial resources to carry out participatory research with PGRFA.
- On-farm and *ex situ* complementarity.
- Farmers' access to farmers' varieties/landraces (FV/LR) through community seed banks, national genebanks and seed fairs.
- Documentation and information systems on the use of FV/LR (to monitor genetic erosion).
- Multistakeholder engagement in participatory plant breeding for farmer demand-driven varietal development.
- Information systems to include germplasm stocks (regional) of wild and cultivated PGRFA, especially in vulnerable and at-risk areas.
- Capacity of technical staff on germplasm physiology and germination.
- Adequate policies for restoration of cropping systems.
- *In situ* – *ex situ* linkages.

**SECTION 2: *EX SITU* CONSERVATION OF PGRFA**
**Main gaps in the region**

- Insufficient coordination among PGRFA stakeholders.
- Shortage of trained technical personnel (taxonomists).
- Inadequate or lack of information systems to document national inventories of PGRFA.
- Insufficient funding for collection missions.
- Insufficient government incentives for development of genebanks.
- Deterioration of infrastructure and equipment in different facilities.
- 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**

- Enhanced capacities in gap analysis, ecogeographical referencing, handling CWR and other collected materials, etc.
- National strategies for the conservation and sustainable use of PGRFA.
- Institutional and technical collaboration for field collections.
- Coordination among institutions and field stations to carry out regeneration.

## **SECTION 3: SUSTAINABLE USE OF PGRFA**

### **Main gaps in the region**

- Insufficient characterization of local varieties, especially underutilized species.
- Inadequate coordination between research programmes and germplasm banks for determination and identification of subsets related to specific characteristics.
- Lack of national programmes for crop improvement.
- Insufficient capacities and infrastructure for the use of advanced technologies.
- Inadequate access to information on germplasm conserved as well as characterization and evaluation data.
- Difficulties acquiring foreign germplasm to enrich germplasm bank collections.
- Weak plant breeding networks.
- Insufficient national policies to promote and incentivize the increase in inter- and intra-specific crop diversity.
- Inadequate development of value chains for new crops/varieties.
- Insufficient seed supply of local materials.
- Insufficient national inventories and catalogues.
- Inadequate seed supply.
- Insufficient understanding of the important role of local and traditional seed systems.
- Weak extension systems.

### **Main needs in the region**

- Enhanced capacities and infrastructure for molecular characterization.
- Standardization of characterization activities and data sharing.
- National registries of local varieties.
- Create programmes and raise awareness in the farming community about the purpose and importance of diversification and broadening crop diversity.
- Address native crops and underutilized species across the value chain that encompasses all stakeholders, from characterization, evaluation, genetic improvement, extension, post-harvest processing to commercialization.
- Seed production centres or certified seed multiplication centres for traditional varieties to supply adequate quantities of quality seeds to farmers.
- Reform seed legislation to include aspects and/or topics not covered in the current law.

## **SECTION 4: HUMAN AND INSTITUTIONAL CAPACITIES**

### **Main gaps in the region**

- National programmes lack a specific strategy for PGRFA.
- Fragmentation of regulations and policies.
- Insufficient resources and capacities for conservation and use of PGRFA.
- Poor documentation of at risk CWR, wild food plants (WFP) and FV/LR *in situ*.
- Shortage of qualified professionals (staff turnover and few young people to replace retiring staff).
- Lack of a strategy and policy to develop human capacity.

- Insufficient formal training programmes.
- Weak coordination, collaboration and inter-institutional partnerships with respect to communication activities.
- Communicative messages not sufficiently directed to audiences.

**Main needs in the region**

- Financial sustainability.
- Incorporation of networks into national programmes.
- Enhanced capacities, especially technical.
- Sound infrastructure.
- Inter-institutional collaboration.
- Comprehensive inventories of CWR, WFP and FV/LR.
- Leveraging of existing platforms.
- Indicators and methods to monitor diversity and minimize genetic erosion and its drivers.
- Establishment of national, regional and global baselines to monitor diversity and develop effective early warning systems.
- Updating CWR, WFP and FV/LR inventories.
- Attractive career paths and recognition to retain PGRFA professionals.
- Improved understanding of the importance of PGRFA.
- Production of impactful media and educational materials on the importance of PGRFA.

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**APPENDIX III**


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**RECOMMENDATIONS FOR THE REVISION OF THE SECOND GPA**


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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 (PGRFA)**

- Provide a glossary of terms.
- “Study” in Spanish is very general – amend to baseline studies.
- Identify priority conservation areas for *in situ* conservation based on information from studies and inventories.
- Raise awareness at national level on *in situ* conservation.
- Develops information systems, including financial sustainability, for collecting data.
- Establish Red Lists for of PGRFA.
- Address legal issue of access to protected areas for monitoring purposes.
- Improve information collection for genetic erosion assessments.
- Establish traceability and identification measures (e.g. DOIs) to facilitate monitoring and benefit sharing mechanisms.

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

- Enhance level of detail for methodologies in paragraph 53 – make clearer and include evaluation.
- Include role of agrobiodiverse farms as an ecosystem service.
- Address legal and formal recognition of on-farm conservation activities by local communities.

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

- Include restoration of systems affected by pests and diseases/invasive alien species (address loss of traditional crops and varieties).
- Highlight role of community seed banks (CSBs) and their role in rapid and adequate provision of germplasm.
- Improve linkages and coordination between national genebanks and CSBs and their coordination in disaster response.
- Identify strategies that countries have developed to respond to disasters.

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

- Strengthen legal, institutional and technical frameworks for the conservation and use of wild PGRFA.
- Address issue of legal access to wild PGRFA.
- Improve knowledge on conservation status of these species.
- Develop national plans for wild PGRFA management and monitoring systems for them.
- Add sustainable use into title (especially for wild food plants (WFP)).

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

- It is necessary to quantify issues related to national regulations for PGRFA collection.

- Collecting plans must take into account information on threat and nutritional value.
- Include use of computer tools that allow efficiency in collecting given the scarce resources available to germplasm banks.
- Review the glossary for terms and footnotes if applicable.
- Paragraph 98: Include examples of research methodologies as would be very useful for policy makers, especially in countries where there are not so many activities.
- Paragraph 100:
  - add characterization as part of the conservation process to strengthen collaboration and benefit-sharing. Support capacity building and policy-level;
  - move molecular characterization for Activity 8; and
  - review translation – cataloguing in the Spanish version should be inventorying.

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

- Global Plan of Action for Plant genetic resources for Food and Agriculture's (GPA's) support for seed conservation banks/collections/community houses should be made explicit.
- It is necessary to conserve either in seed, field, in vitro or cryopreservation superfoods that are not yet in *ex situ* conditions, as well as CWR and WFP.
- Creation of a fund to establish the phytosanitary status (screening) of national germplasm collections. Qualified personnel in banks are needed for this purpose.
- Establish *ex situ* conservation networks at national and even regional levels to establish commitments on the conservation of non-overlapping species, avoiding redundancy.
- Training and strengthening of human resources for the management of documentation in the different areas handled by a germplasm bank and the interaction with information at a global level.
- Generation of standardized strategies for detecting redundancy within and between genebanks.
- Clarification is needed when *in situ* conservation ends and *ex situ* conservation begins. For example, CSBs and their role should be defined.
- Modify the title to: Analysing, sustaining and expanding *ex situ* conservation of germplasm.
- Paragraph 110 related Policy/Strategy: The international community has interests and responsibilities in relation to *ex situ* conservation and genetic analysis of PGRFA.
- Paragraph 119 mentions expanding protocols but expanding *ex situ* collections may refer to more than this. Although reflected under capacities, expanding infrastructure could be also emphasized here.

#### **PA 7. Regenerating and multiplying *ex situ* accessions**

- Emphasize the role of national support for regeneration and multiplication.
- Conservation systems and their effectiveness, including regeneration, need to be studied.
- Studies need to be carried out on the genetic integrity of the materials once regenerated and their similarity to the original populations.
- Need to assess the physical (infrastructure), economic and human capacity needs for the regeneration of non-orthodox seed species and asexual reproduction.
- Support is needed for the multiplication of collections (creation of a fund for this purpose), especially for creation of safety duplicates.
- Identify potential institutions that have the ability to duplicate security through cryopreservation.

### **SECTION 3: SUSTAINABLE USE OF PGRFA**

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

- Other types of characterization, such as ecogeographic or adaptive, should be strengthened, and much more emphasis should be placed on physical, chemical characterization and bioactive principles.

- The concept of genetic representativeness of collections should be included in the GPA.
- Promote the compatibility that the curator must have regarding the need to preserve the maximum genetic representativeness and that of the consumer to use the conserved genetic diversity quickly and simply.
- Improve the systematization, coordination and availability/visibility of information on germplasm characterization and evaluation at the national and international level, among genebanks and breeding programmes and other users.
- Paragraph 143: include high-throughput phenotype (genotype) determination techniques.
- Paragraph 147: update the examples.

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

- Add production systems to the English language title.
- Short-term plans are needed to encourage the training of plant breeding professionals, especially in participatory and traditional plant breeding, aimed at agrobiodiverse areas and sustainable production systems.
- Promotion of public plant breeding to ensure the provision of varieties suitable for local conditions, compatible with traditional production systems, and co-created with farmers.
- Plant breeding should include enhancing secondary metabolites and other food-grade metabolites of cultivated plants.
- Farmers should also be considered plant breeders and receive attention in the GPA as breeding programmes include the advances that farmers make in their production systems and with their FV/LR.

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

- Consideration should be given to the adaptability of germplasm in order to broaden the genetic base with a more targeted approach towards specific adaptation.
- Diversified production systems need to be considered as ecosystem services, and a greater number of studies of the environmental benefits of these systems are needed.
- Recognition given to the conservation farmer as a user of the final germplasm and as a direct user of farmer varieties, a user who increasingly demands traditional seeds conserved in genebanks.

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

- Consideration should be given to the adaptability of germplasm in order to broaden the genetic base with a more targeted approach towards specific adaptation.
- Diversified production systems need to be considered as ecosystem services, and a greater number of studies of the environmental benefits of these systems are needed.
- Recognition given to the conservation farmer as a user of the final germplasm and as a direct user of farmer varieties, a user who increasingly demands traditional seeds conserved in genebanks.

#### **PA 12. Supporting seed production and distribution**

- Change title: Support for seed production, storage and distribution.
- Develop seed mechanisms or systems for farmers' varieties or native varieties and underutilized crops with recognition and support from countries.
- Recognition of the existence of parallel seed systems of farmer varieties and native varieties and associated traditional processes such as exchange.
- Encourage the exchange of experiences in the promotion and commercialization of seeds of farmer varieties and native varieties.



## **SECTION 4: HUMAN AND INSTITUTIONAL CAPACITIES**

### **PA 13. Building and strengthening national programmes**

- Include need for regional and international financial support (paragraph 225).
- Place intellectual property rights (IPRs) at the end of the text with World Intellectual Property Organization (paragraph 230).

### **PA 14: Promoting and strengthening networks for PGRFA**

- Include a glossary of terms: network, collaboration to be defined and emphasized more than a physical network.
- Include activation and reactivation of networks, and associate with a strategic plan and financial strategy.
- Seek national institutional support for the networks, which should address also continuity in financing.
- Regional networks to take priority over national agricultural research institutes.
- In Objectives, merge paragraph 237 with paragraph 238 as follows: Foster partnerships and synergies among countries for the conservation and use of PGRFA, specifically through the creation and strengthening of networks.
- Remove objective in paragraph 239 as no need to establish objectives and priorities before the formation of networks; it is in the formation of networks that this is defined.

### **PA 15: Constructing and strengthening comprehensive information systems for PGRFA**

- Streamline information systems as diverse ones exist and can create confusion and prevent efficient information exchange.
- Simplify access to information systems for users with lower technical capabilities.
- Promote inclusive PGRFA information systems for both *in situ* and *ex situ* data and that monitor the germplasm once delivered to user.
- Remove the word samples from the text and replace it with accession levels (paragraph 251).
- Change the text to: Promote interoperability and the use of information systems (paragraph 254).

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

- Promote studies and surveys for consolidation of indicators of genetic diversity surveillance systems.
- Encourage community-level activities for PGRFA conservation to assess the state of conservation and possible genetic erosion.
- Clarify objective: need to define how a system of monitoring genetic diversity and the factors that cause erosion would be implemented (paragraph 269).

### **PA 17: Building and strengthening human-resource capacity**

- Promote institutional dialogue to strengthen national and international financing opportunities for training personnel in PGRFA management.
- Include “strengthening” in Building and strengthening national and regional capacities to...” (paragraph 282).
- Substitute encourage to promote in the middle of the text (paragraph 283).

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

- Highlight the value of local and traditional knowledge associated with PGRFA.
- Improve linkages between consumers and PGRFA, promoting identity and sovereignty.

- Promote consumption of foods from native or local and highly diverse PGRFA through the relevant authorities.

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