



The International Treaty

ON PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE



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REPORT OF THE FAO ACTIVITIES RELATED TO THE SUPPORTING COMPONENTS OF THE TREATY

EXECUTIVE SUMMARY

This document provides a brief report on the most relevant activities undertaken in relation with the supporting components of the Global Plan of Action for Plant Genetic Resources for Food and Agriculture and The State of the World's Plant Genetic Resources for Food and Agriculture during the current biennium (2012-13) and where relevant, indicates the guidance received from the Fourteenth Regular Session of the Commission on Genetic Resources for Food and Agriculture held from 15-19 April 2013.

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I. INTRODUCTION

1. The supporting components of the International Treaty on Plant Genetic Resources for Food and Agriculture are as follows:

- a) The rolling *Global Plan of Action for Plant Genetic Resources for Food and Agriculture* (Articles 14 and 17);
- b) *Ex Situ* Collections of Plant Genetic Resources for Food and Agriculture held by the International Agricultural Research Centres of the CGIAR (Article 15);
- c) International Plant Genetic Resources Networks (Article 16);
- d) Global Information System on Plant Genetic Resources for Food and Agriculture (Article 17);
- e) *The State of the World's Plant Genetic Resources for Food and Agriculture* (Article 17.3).

2. This document provides a brief review of the most relevant activities undertaken for the supporting components of the *Global Plan of Action for Plant Genetic Resources for Food and Agriculture* and *The State of the World's Plant Genetic Resources for Food and Agriculture* during the current biennium (2012-13) and where relevant, indicates the guidance received from the Fourteenth Regular Session of the Commission on Genetic Resources for Food and Agriculture held from 15-19 April 2013. Information on the Global Information System and on the relationship between the Governing Body and the International Agricultural Research Centres of the Consultative Group on International Agricultural Research and other relevant international institutions under Article 15 of the Treaty is contained in relevant working documents¹.

II. SECOND GLOBAL PLAN OF ACTION FOR PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

3. The Governing Body, at its Third Session, reiterated the importance of the rolling *Global Plan of Action for Plant Genetic Resources for Food and Agriculture* and invited the Commission on Genetic Resources for Food and Agriculture (Commission), to adequately reflect the provisions of the International Treaty and take into account specific issues of relevance to the Treaty in the revision of the *GPA*. A *Draft updated Global Plan of Action for the conservation and sustainable utilization of plant genetic resources for food and agriculture* was presented to the Fourth Session of the Governing Body².

4. Subsequently, the Commission at its Thirteenth Regular Session, agreed on the *Second Global Plan of Action for Plant Genetic Resources for Food and Agriculture* (Second *GPA*), and welcomed it as a major achievement in global efforts for the conservation and sustainable use of plant genetic resources for food and agriculture

¹ IT/GB-5/13/17 and IT/GB-5/13/21, respectively.

² IT/GB-4/11/Inf. 14.

(PGRFA).³ The Commission emphasized the essential role of the *Second GPA* for the implementation of the International Treaty and agreed that the *Second GPA* requires the concerted efforts of all stakeholders at national, regional and global levels, as well as adequate financial and other resources, to ensure its full implementation and monitoring of its priority activity areas.

5. The *Second GPA* was unanimously adopted by the FAO Council at its 143rd Session held in November 2011⁴. Following the adoption it has been disseminated widely in all official languages of FAO, including a synthetic account and through a dedicated website⁵, as requested by the Commission⁶. The wide recognition of the importance of the *Second GPA* provides an excellent opportunity to increase the awareness of the value and potential of PGRFA as well as the need for implementation of the International Treaty to address the challenges facing food and nutrition security.

III. TARGETS AND INDICATORS FOR MONITORING THE SECOND GLOBAL PLAN OF ACTION

6. According to the *Second GPA*, the overall progress on its implementation and the related follow-up processes are monitored and guided by FAO Member Countries through the Commission. For monitoring the implementation of the *Second GPA*, FAO together with the Secretariat of the Commission, the Secretariat of the International Treaty, the Global Crop Diversity Trust and Bioversity International prepared indicators for monitoring its implementation, building on the previous work on indicators and the reporting format.

7. A technical consultation was also convened in collaboration with the Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (INIA) in 2012 in Madrid, Spain. The Commission at its Fourteenth Regular Session adopted the indicators for monitoring the implementation of the *Second GPA*, as well as three targets for PGRFA. It also requested FAO to finalize the *Reporting format for monitoring the implementation of the Second GPA*, taking into account the adopted indicators.⁷

8. The identification and adoption of targets and related indicators for PGRFA conservation and use is particularly timely as it contributes to the Aichi Biodiversity Targets and helps to assess the contribution of PGRFA to food security and sustainable development. The proposed targets and indicators for the monitoring of the implementation of the *Second GPA* also offer an opportunity to strengthen cooperation between the Commission and the Governing Body of the International Treaty. Monitoring the implementation of the *Second GPA* will help to monitor the implementation of the International Treaty at least for those aspects that are covered by the *Second GPA*. They

³ CGRFA-13/11/Report, paragraphs 21-22.

⁴ CL 143/REP, paragraph 43; *Appendix B*.

⁵ Accessible through www.fao.org/agriculture/seed and www.pgrfa.org/gpa/gpa.htm

⁶ CGRFA-13/11/Report, paragraph 22.

⁷ CGRFA-14/13/Report, paragraphs 23-24.

could also be extended to incorporate targets or indicators related to specific provisions of the Treaty, such as the Multilateral System of Access and Benefit Sharing, which is not covered by the *Second GPA*. This could help to further align reporting methods and processes and reduce the reporting obligations for governments.

IV. FAO ACTIVITIES IN SUPPORT OF THE IMPLEMENTATION OF THE SECOND GLOBAL PLAN OF ACTION

9. Within the framework of FAO's new Strategic Objectives⁸, the implementation of the *Second GPA* is directly aligned to increasing and improving the goods and services from agriculture in a sustainable manner.

10. FAO provides policy and technical assistance to Member Countries for country-based implementation of the *Second GPA*, through capacity development of national programmes, development and implementation of seeds and PGRFA strategies, publication of technical tools and guidelines, as well as fostering partnerships and collaborations.

11. The section below highlights the main ongoing activities in support of the priority activities of the *Second GPA* in the areas of *in situ* conservation and management, *ex situ* conservation, sustainable use, and building sustainable institutional and human capacities.

In-situ conservation and management

12. FAO is working with regional partners in Europe, Asia and Latin America to promote the conservation and use of crop wild relatives (CWR) and local crop diversity⁹ and is preparing guidelines for active *in situ* management of CWR and landraces at national level.

13. Following the request from the Commission¹⁰, FAO is also working to elaborate the means and opportunities for a global network for *in situ* conservation and on-farm management of PGRFA in coordination with the Secretariat of the International Treaty, the Global Strategy for Plant Conservation of the Convention on Biological Diversity (CBD) and other relevant stakeholders. A survey and assessment identifying demands for and mechanisms to support on-farm management was conducted in 2012, followed by a multi-stakeholder workshop, held in Rome in November 2012¹¹. The analysis of the survey and the recommendations from the workshop support the establishment of a global network to provide the necessary platform to raise awareness of the social and economic value of *in situ* conservation and on-farm management amongst a wider range of stakeholders; increase funding for improving the sector; promote knowledge sharing and capacity development and strengthening partnerships at national and regional levels. It

⁸ CL 145/4.

⁹ 'Guidelines for active *in situ* management of crop wild relatives and landraces' - to be published in 2013.

¹⁰ CGRFA-13/11/Report, paragraph 41.

¹¹ Report of Technical Workshop – 'Towards the establishment of a global network for *in situ* conservation and on-farm management of PGRFA' - 13 Nov, 2012, Rome Italy <http://www.fao.org/agriculture/crops/core-themes/theme/seeds-pgr/itwg/6th/technical-workshop/en/>

could also play an important facilitating role, coordinating the many ongoing initiatives dealing with this issue.¹²

14. A concept note detailing the possible structure, functions and financial implications of the establishment of either a global network for *in situ* conservation and on-farm management or two networks separately addressing these areas, is currently under preparation, taking into account the need to strengthen national and regional networks and avoid duplications of efforts.¹³

Ex-situ conservation

15. Under the guidance of the Commission¹⁴, FAO in cooperation with the International Treaty, the CGIAR and several other relevant international institutions and national focal points, prepared the *Genebank Standards for Plant Genetic Resources for Food and Agriculture* (Genebank Standards). They were endorsed by the Commission at its Fourteenth Session, and recognized as extremely valuable for facilitating germplasm conservation worldwide.

16. The *Genebank Standards* comprise standards for the conservation of orthodox seeds, non-orthodox seeds and vegetatively propagated plants¹⁵ and have been made as part of the documentation prepared for this session of the Governing Body¹⁶. It provides an important tool for the implementation of the priority activities of the *Second GPA*, related to *ex situ* conservation¹⁷ as well as contribute to the development of an efficient and sustainable system of *ex situ* conservation¹⁸, as envisioned by the International Treaty.

17. They will assist International Agricultural Research Centres of the CGIAR in managing and assisting their *ex situ* collections in accordance with the International Treaty which explicitly refers to Genebank Standards as endorsed by the Commission¹⁹. Necessary budgetary resources for a program on capacity development is required for implementation of the *Genebank Standards* in developing countries.

Sustainable use

18. Several activities were undertaken to reinforce the sustainable use of PGRFA and the role of plant breeding including, through the Global Partnership Initiative for Plant Breeding Capacity Building (GIPB) and implementation of projects²⁰.

¹² Including under the CBD Programme of Work on Protected Areas, FAO's Globally Important Agricultural Heritage Systems, UNESCO's World Heritage Sites and Man and Biosphere Reserves, the International Treaty's Benefit-Sharing Fund projects and the International Union for Conservation of Nature (IUCN) Programme on conserving biodiversity.

¹³ CGRFA-14/13/Report, paragraph 96.

¹⁴ CGRFA-13/11/report para. 30-31.

¹⁵ <http://www.fao.org/agriculture/crops/core-themes/theme/seeds-pgr/conservation/gbs/en/>

¹⁶ IT/GB-5/13/Inf. 9.

¹⁷ (5) Supporting targeted collecting of plant genetic resources for food and agriculture; (6) Sustaining and expanding *ex situ* conservation of germplasm; (7) Regenerating and multiplying *ex situ* accessions.

¹⁸ Article 5.1(e).

¹⁹ Article 15.1(d).

²⁰ i. GEF-Mainstreaming use and conservation of agro-biodiversity in public policies through integrated strategies in the Andean highlands in Ecuador, ii. GEF-Conservation and sustainable use of agricultural biodiversity to improve human nutrition in five macro eco-regions in Bolivia.

19. An e-Learning Course on Pre-breeding,²¹ developed with partners, was distributed widely, and joint project activities were undertaken, including with the Global Crop Diversity Trust, to enhance the use of conserved germplasm and promote new multi-purpose crop varieties. Furthermore, a Consultation to *Promote a Public-Private Partnership for Pre-breeding*, in response to the Rio Six-Point Action Plan for the International Treaty²² was also organised in Rome, Italy from 30 to 31 May, 2013, together with the Secretariat of the Treaty and Academy of National Science of Italy.

20. To increase plant sciences, develop interactions and forge new partnerships for sustainable production intensification for food security, a consultation on “*Plant Sciences for Sustainable Crop Production: Strengthening Partnerships between Europe and Developing Countries*” was organized in collaboration with the European Plant Science Organization (EPSO) from 25 to 27 June 2012. The workshop highlighted the need for establishing long-lasting partnerships between scientists and institutions from Europe and sub-Saharan Africa.²³

21. In collaboration with GlobalHort, and supported by the Global Forum on Agricultural Research (GFAR), the International Treaty and a range of other stakeholders²⁴, the Diversity for Development Alliance²⁵ was launched in 2012. Together with international and regional institutions, FAO is supporting the International Year of Quinoa and the organization of an international conference on the neglected and underutilized species of Africa to increase research opportunities in Africa, develop value chains and diversify diets and livelihood options.²⁶

22. With regard to the development of seed systems, FAO continues to provide policy and technical assistance to Member Countries supporting the development of seed systems and seed enterprises, and facilitating farmers’ access to highly performing varieties in Africa, Asia and Latin America²⁷. Through a combination of Technical

²¹ “Pre-breeding for Effective Use of Plant Genetic Resources”: <http://km.fao.org/gipb/e-learning/gipb-pre-breeding-course/en/>

²² <http://www.planttreaty.org/content/rio-six-point-action-plan-2012>

²³ Information about the workshop, as well as the report can be found at: <http://www.fao.org/agriculture/crops/core-themes/theme/seeds-pgr/epso/en/>

²⁴ The initiative includes at the moment: GlobalHort, INBAR, Crops for the Future (CFF), Plant Resources of Tropical Africa (PROTA), the Platform for Agrobiodiversity Research (PAR), AVRDC - The World Vegetable Center, PROLIINOVA, GFAR, AARINENA, APAARI, FARA, ITPGRFA, and the Crop Diversification for Improved Livelihoods Team within FAO-AGPM

²⁵ *Development Opportunity of Crop Networks for Promotion of Agro-biodiversity*, 10-11 January 2012, FAO, Italy. <http://www.globalhort.org/activities/advocacy/>

²⁶ *3rd International Conference on Neglected and Underutilized Species for a Food-Secure Africa’ Accra, 23-25 September 2013.*

²⁷ a) GCP/RLA/182/SPA Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, Panamá y Belize Reforzamiento de las políticas de producción de semilla de granos básicos en apoyo a la agricultura campesina para la seguridad alimentaria en países miembros del Consejo Agropecuario Centroamericano”;

b) GCP/RLC/183/SPA Programa de apoyo a la agricultura familiar campesina en Perú, Bolivia y Ecuador para mejorar la disponibilidad, el acceso y el uso de semillas de calidad en las zonas Alto Andinas;

Cooperation Projects and Trust Funds, projects were implemented for the preparation and/or review of seed policies and seed regulations with the view to strengthen institutions and establish local seed enterprises²⁸.

23. FAO also prepared a *Draft Guide for National Seed Policy Formulation* through stakeholder consultations²⁹ organised in collaboration with International Treaty, relevant CGIAR centers and national and regional seed associations.³⁰

24. In partnership with the International Seed Federation (ISF), the International Seed Testing Association (ISTA), the Organisation for Economic Co-operation and Development (OECD) and the International Union for the Protection of New Varieties of Plants (UPOV), FAO also assisted countries³¹ in developing regulatory frameworks and capacities for the emergence of seed industries and the delivery of quality seed to small farmers.

25. To cope with disaster situations in the long-term, FAO supports the use of better seed security assessment methodologies that improve emergency seed relief interventions in around the world.³² A technical consultation on the subject was held in Rome in November 2012.³³

Building institutional and human capacities

26. The need to improve linkages between conservation, plant breeding and seed systems for the sustainable management of PGRFA has been reaffirmed by several bodies, including by the Commission.³⁴ Work is in progress at national and regional levels in Africa³⁵ and Near East, to support countries in developing national strategies as a means for mainstreaming the continuum approach to the management of PGRFA where conservation, plant breeding and seed systems are interlinked to sustain crop production systems.³⁶

c) GCP/RAF/453/SPA Improving Rice Production in West Africa in Response to Rising of Food Prices.

²⁸ In 2011-2012 national seed policy review/ enterprises establishment was supported in Afghanistan, Benin, Burkina Faso, Lebanon Mauritania, Sierra Leone and Togo.

²⁹ Seed policy workshop for Central Asian region 12-13 October 2011, Turkey; Seed policy workshop for West Africa, Benin 5 - 6 May 2011; Seed policy experts workshop, Italy, 28-30 March, 2010.

³⁰ CGRFA-14/13/Inf.20.

³¹ Pilot countries are Tanzania, Ghana and Senegal.

³² Seed Security Assessment Report for Darfur Region, Sudan. FAO, 2011, Italy. Seed Security Assessment Southern Sudan. FAO, 2010, Italy.

³³ Briefing on Seed System Security Assessment (SSSA): What is it and how we plan to promote it in FAO Emergency Operations? <http://www.fao.org/agriculture/crops/thematic-sitemap/theme/seeds-pgr/sss-a-workshop/en/>

³⁴ CGRFA-13/11/Report, paragraph 40.

³⁵ a) TCP/RWA/3401 *Preparation of a National PGRFA Strategy in Rwanda*, and b) TCP/SFS/3402 *Support for the development of national strategies for plant genetic resources for food and agriculture in six countries within SADC* (Botswana, Lesotho, Malawi, Mozambique, Tanzania and Zambia).

³⁶ Mba C., Guimaraes EP., Guei RG., Hershey C., Paganini M., Pick B and Ghosh K. 2011. Mainstreaming the continuum approach to the management of plant genetic resources for food and agriculture through national strategy. *Plant Genetic Resources: Characterization and Utilization* 10(1): 24–37.

27. A national PGRFA strategy is meant to guide a country in accomplishing specific goals through a coordinated, systematic and integrated approach to conservation, management and use of plant genetic resources. Focusing on collaborative implementation of the priority activities of the *Second GPA*, identifying timelines, partners and responsible stakeholders, this may provide a model for Treaty implementation, and a basis for developing and implementing relevant legislation and tools. Resources and national stakeholder's support are necessary for establishing and implementing such strategies within national systems.

National Information Sharing Mechanisms (NISMs)

28. Further progress has been made in establishing NISMs in Africa and South America³⁷, supported by the FAO Regular Programme and extra-budgetary resources from Japan³⁸. In light of the adoption of the *Second GPA* and the draft revised indicators and reporting format for monitoring its implementation³⁹, additional resources will be needed to ensure the current multi-lingual coverage, improved graphical features for data analysis, as well as data migration to the new indicators and reporting format. With regards to the Facilitating Mechanism, FAO has made efforts to update and reorient the portal in view of the adoption of the *Second GPA* and to maintain the Facilitating Mechanism database through support from the Regular Programme. Extra-budgetary resources are required in order to support these activities in the future. The Commission has reiterated the need for strengthening collaboration with the International Treaty to ensure that the NISMs and the Facilitating Mechanism provide a cost effective support for building the Global Information System.⁴⁰

V. THIRD REPORT ON THE STATE OF THE WORLD'S PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

29. *The Third Report on the State of the World's Plant Genetic Resources for Food and Agriculture* (Third Report) is due in 2020. In this regard, a proposed structure, scope and the preparatory process for the Third Report was presented to the Commission at its last session⁴¹.

30. The structure of the Third Report would be thematically aligned to the *Second GPA*, covering the four key areas: *in situ* conservation and management; *ex situ*

³⁷ Completed in Bhutan, Cambodia, Guyana, Indonesia, Mongolia, Myanmar and Suriname; on-going in Ethiopia, Honduras and Rwanda.

³⁸ GCP/RAS/240/JPN: Capacity Building and Regional Collaboration for Enhancing the Conservation and Sustainable Use of Plant Genetic Resources in Asia.

³⁹ Document CGRFA/WG-PGR-6/12/Inf.2, Report of Workshop on the Updating and Improvement of NISM-GPA. National Bureau of Plant Genetic Resources, New Delhi, India, 6-7th December 2011.

⁴⁰ CGRFA/14/13/Report, paragraph 36.

⁴¹ CGRFA-14/13/21.

conservation; sustainable use; and building sustainable institutional and human capacities. It would mainly focus on policies, processes and practices which have an impact on the status of PGRFA for the future of food and nutrition security, and identify gaps and needs in this respect. The Third Report would take into account the emerging global challenges for sustainable crop production and food security, the provisions of the International Treaty and other relevant instruments as well as the major findings of *The State of the World's Biodiversity for Food and Agriculture*.⁴² It would be a succinct, analytical and forward looking document, balancing details to provide a sound factual basis for updating the *Second GPA*, with conciseness for reaching a wide audience, including policy makers.

31. The preparatory process for the Third Report should be fully integrated with the process of monitoring the implementation of the *Second GPA*. Periodic data gathering would be undertaken through assessments of a) GPA implementation and b) status of plant genetic resources during the period, and based on the indicators for the implementation of the *Second GPA*⁴³ as adopted by the Commission at this session⁴⁴. This would make the process efficient and curtail heavy-reporting obligations of member countries. Country reports will be prepared as an additional important source of information. They should be concise, analytical and strategic assessments of the progress in the implementation at national level in each of the four key areas of the *Second GPA*, and focus on existing gaps, needs and challenges.

32. The timeline for its preparation was endorsed by the Commission⁴⁵, and the FAO was requested to provide a detailed outline of the Third Report, including suggested chapters and thematic areas, as well as an estimated budget at the next Session of the Commission. It invited FAO to engage with relevant international organizations to ensure their participation in the preparation of the Third Report from an early stage and invited donors to provide the necessary extra-budgetary resources to facilitate the preparatory process.

⁴² To be presented in 2017 at the 16th Session of the Commission.

⁴³ CGRFA-14/13/4.1 Rev.1: *Targets and Indicators for Plant Genetic Resources for Food and Agriculture*

⁴⁴ CGRFA-14/13/Report, paragraph 23

⁴⁵ CGRFA-14/12/Report, paragraph 101.