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IMPLEMENTATION AND REVIEW OF THE GLOBAL PLAN OF ACTION FOR THE CONSERVATION, SUSTAINABLE USE AND **DEVELOPMENT OF FOREST GENETIC RESOURCES**

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Documents can be consulted at www.fao.org

I. INTRODUCTION

1. At its Eighteenth Regular Session in 2021, the Commission on Genetic Resources for Food and Agriculture (Commission) considered the implementation of the Global Plan of Action for the Conservation, Sustainable Use and Development of Forest Genetic Resources¹ (Global Plan of Action). The Commission invited countries to strengthen their efforts to implement the Global Plan of Action and to contribute, through their National Focal Points (NFPs), to the development and testing of the new global information system on forest genetic resources (FGR), and to continue providing data on FGR. In addition, it encouraged countries to continue mainstreaming FGR into larger and holistic actions on sustainable forest management and forest-based climate change adaptation and mitigation measures, as well as to identify needs for specific and strategic actions on FGR.²

2. This document summarizes the activities FAO has undertaken since the Commission's last session to support, in collaboration with its partners, the implementation of the Global Plan of Action. The activities are grouped according to the four Priority Areas of the Global Plan of Action, for consideration by the Commission. The document *Second Report on the Implementation of the Global Plan of Action for the Conservation, Sustainable Use and Development of Forest Genetic Resources*³ (Second Implementation Report) provides a summary of national efforts to implement the Global Plan of Action, based on country reports received by FAO. The present document also proposes a process for reviewing the Global Plan of Action in response to the findings of the draft *Second Report on the State of the World's Forest Genetic Resources* (Second Report).⁴

II. SUPPORT TO THE IMPLEMENTATION OF THE GLOBAL PLAN OF ACTION FOR THE CONSERVATION, SUSTAINABLE USE AND DEVELOPMENT OF FOREST GENETIC RESOURCES

(a) Improving the availability of, and access to, information on forest genetic resources (Priority Area 1)

3. The conservation, sustainable use and development of FGR require reliable information and knowledge on forest trees and other woody plant species, as well as on the ecosystems in which these species grow naturally or are planted by people. One of the key findings of the first report on *The State of the World's Forest Genetic Resources*⁵ was that the availability of information on FGR varies considerably from country to country, and that additional, accurate information on FGR aggregated at regional and global levels is crucial. The Global Plan of Action therefore calls for improvements to the availability of, and access to, information on FGR at national, regional and international levels.

Monitoring the implementation of the Global Plan of Action

4. At its Sixteenth Regular Session, the Commission adopted targets, indicators and verifiers for FGR to be used as assessment tools for monitoring the implementation of the Global Plan of Action, as well as a monitoring schedule.⁶ The reporting process for the *First Report on the Implementation of the Global Plan of Action for the Conservation, Sustainable Use and Development of Forest Genetic Resources* (First Implementation Report) took place in 2017–2018, and FAO presented the report to the Seventeenth Regular Session of the Commission in 2019.⁷

¹ FAO. 2014. *Global Plan of Action for the Conservation, Sustainable Use and Development of Forest Genetic Resources*. Rome. http://www.fao.org/3/i3849e/i3849e.pdf

² CGRFA-18/21/Report, paragraph 62.

³ CGRFA-19/23/8.3/Inf.1.

⁴ CGRFA-19/23/8.2; CGRFA-19/23/8.2/Inf.1.

⁵ FAO. 2014. *The State of the World's Forest Genetic Resources*. Rome.

https://www.fao.org/3/i3825e/i3825e.pdf

⁶ CGRFA-16/17/Report, paragraph 74.

⁷ CGRFA-17/19/10.2/Inf.1.

The preparation of the Second Implementation Report⁸ was initiated in June 2019 and 5. coincided, as agreed by the Commission, with the preparation of the Second Report.⁹ Further information on the preparation of both reports is provided in the document Preparation of The Second Report on the State of the World's Forest Genetic Resources.¹⁰ By April 2023, a total of 73 countries had provided data and information through the online questionnaire for the preparation of the Second Implementation Report.¹¹ Reports were also received from the Asia-Pacific Forest Genetic Resources Programme (APFORGEN)¹² and the European Forest Genetic Resources Programme (EUFORGEN).¹³ In addition, Bioversity International,¹⁴ Botanic Gardens Conservation International (BGCI),¹⁵ the Royal Botanic Gardens, Kew (RBG)¹⁶ and World Agroforestry¹⁷ submitted reports.¹⁸ The Second Implementation Report provides detailed information on the progress made by reporting countries in the implementation of the Global Plan of Action and highlights the contributions of the regional networks and international organizations. It indicates that progress has been made under all four priority areas of the Global Plan of Action. It also confirms that the four priority areas remain highly relevant, and that efforts aimed at implementing them at national, regional and global levels should be continued and increased. Given the higher number of countries reporting, the Second Implementation Report provides a more comprehensive picture of progress made than the First Implementation Report, for which only 44 countries reported. On the other hand, it should be noted that the 73 countries reporting for the Second Implementation Report represent only 68 percent of the countries that have so far nominated a NFP for FGR and only 41 percent of the 179 member countries of the Commission.

Global information system on forest genetic resources

6. In 2020, FAO launched two global projects on FGR: one to strengthen the technical capacity of NFPs to gather and report FGR data and another supporting the development of a global information system on FGR. The projects contribute directly to the implementation of the Global Plan of Action and in particular Priority Area 1.

7. During the reporting period, FAO briefed NFPs and other national experts on the development of the new global information system on FGR. The information system will be composed of a public website and a restricted reporting interface, accessible only to the NFPs, for managing the data.

- On the **public website**, the reported data will be visualized using dynamic dashboards and maps. Search functions will allow users to search and display the data by countries, regions, species or specific indicators. Users will also be able to download data and export summary graphs and tables.
- On the **restricted site**, the online questionnaire will be presented with improved visualization as compared to the OpenForis platform. NFPs will be able to download the completed questionnaire and species-specific data for their own use. The restricted site will also include a country summary page providing an overview of the reported data, including the date and time of the earlier data submissions. Through the restricted site, the NFPs will also be able to propose the addition of new species names to the global list of species in the online questionnaire.

8. Between December 2021 and January 2022, FAO carried out a survey of NFPs to identify key functionalities for the user-interface of the information system. Inputs were received from 37 NFPs. In

⁸ CGRFA-19/23/8.3/Inf.1.

⁹ CGRFA-17/19/10/3, Appendix II.

¹⁰ CGRFA-19/23/8.2.

¹¹ See CGRFA-19/23/8.2, Table 1.

¹² http://www.apforgen.org/

¹³ http://www.euforgen.org/

¹⁴ https://alliancebioversityciat.org/

¹⁵ https://www.bgci.org/

¹⁶ https://www.kew.org/

¹⁷ https://www.worldagroforestry.org/

¹⁸ See CGRFA-19/23/8.2, Table 1.

their responses, the NFPs recommended that the information system provide access to previously reported data, be user-friendly and allow for the use of different operating systems and different internet browsers for data entry.

9. Regarding the public website, the NFPs recommended that the data be visualized and summarized in an appealing way for non-experts and policymakers using tables, graphics, dashboards and maps. In addition, it was suggested that the data be searchable based on different criteria, such as countries, species and the indicators used for monitoring the implementation of the Global Plan of Action. Possibilities for downloading or printing the reported data and for reporting data offline were also mentioned by several NFPs. It was also stressed that the reporting interface should be made available in different languages. Concerning other potential uses of the new information system, the NFPs recommended keeping in mind the reporting requirements of international processes relevant to FGR, such as the Convention on Biological Diversity.

10. Currently, FAO is preparing a user manual explaining the structure and functionalities of the new information system. It is planning to organize regional online training events for the NFPs in all regions in 2023. These events will also allow NFPs to check whether data they reported in the current reporting system have been correctly migrated into the new one.

(b) In situ and ex situ conservation of forest genetic resources (Priority Area 2)

11. *In situ* conservation is the preferred means of conserving FGR, as it allows forest trees and other woody plant species to continue their evolutionary processes and adaptation to changes. *Ex situ* conservation of FGR is a necessary complement to *in situ* conservation, especially when population size is critically low in the wild. The Global Plan of Action recognizes the important roles of protected areas, managed forests and trees on farms in the conservation of FGR and, under its Priority Area 2, calls for action to maintain genetic diversity and the evolutionary processes of these species by better implementing and harmonizing measures to conserve FGR, both *in situ* and *ex situ*.

12. FAO has supported many countries across regions in developing large national projects that aim to strengthen the conservation and sustainable management of forests, including forest and landscape restoration. These projects contribute, directly or indirectly, to the implementation of the Global Plan of Action, and while they are more relevant to Priority Area 3 (sustainable use, development and management of FGR) several of them also include activities that enhance *in situ* conservation of FGR. Funding for such large national projects has been predominantly provided by the Global Environment Facility (GEF) and the Green Climate Fund (GCF). The details of the projects are provided below under Priority Area 3 (see II.[c]). Currently, there is no FAO-coordinated project specifically focusing on *ex situ* conservation of FGR. However, FAO continues to contribute to relevant discussions, such as those at a recent workshop on tree genebanking held by CIFOR-ICRAF, in Nairobi, Kenya, which focused on specific features of trees and their implications for genebanking, and considered the application of the FAO Genebank Standards¹⁹ to the seed and field collections of trees.

(c) Sustainable use, development and management of forest genetic resources (Priority Area 3)

13. Sustainable forest management aims at using forests and trees in such a way that their capacity to provide wood and non-wood products, socioeconomic benefits and environmental services does not diminish over time. Paying due attention to FGR and genetic considerations is therefore crucial for truly sustainable forest management as well as for the long-term conservation of forest biodiversity. Under its Priority Area 3, the Global Plan of Action aims to enhance the sustainable use, development and management of FGR as a contribution to sustainable development, food security and poverty alleviation.

¹⁹ FAO. 2014. *Genebank Standards for Plant Genetic Resources for Food and Agriculture*. Rev. ed. Rome. https://www.fao.org/3/i3704e/i3704e.pdf

14. The FAO portfolio of GEF projects focusing on forests and trees has increased significantly.²⁰ It includes the Sustainable Forest Management Impact Programme on Dryland Sustainable Landscapes (DSL), which supports efforts to avoid, reduce and reverse deforestation, degradation and desertification in 11 countries in Africa and Asia (Angola, Botswana, Burkina Faso, Kazakhstan, Kenya, Malawi, Mongolia, Mozambique, Namibia, United Republic of Tanzania and Zimbabwe). The DSL Impact Programme became operational in June 2021 and is led by FAO in partnership with the World Bank, the International Union for Conservation of Nature (IUCN) and the World Wide Fund for Nature (WWF). The GEF funding for this programme is about USD 104 million. Most programme partner countries are planning to strengthen their tree seed systems as part of the national projects. Furthermore, FAO is currently assisting other countries²¹ to implement GEF-funded projects that aim to enhance sustainable forest management or forest and landscape restoration.

15. FAO's portfolio of GCF projects has also grown rapidly and now includes ongoing projects and approved full proposals with special emphasis on forests and trees in 12 countries.²² These GCF projects aim to combat deforestation and mitigate climate change with tree-planting efforts and by enhancing the management of existing forests. They often also include other forest-related activities intended to improve the livelihoods of local people and conserve forest biodiversity.

16. Other FAO projects and programmes have also continued to contribute to the implementation of the Global Plan of Action. Under the framework of the Action Against Desertification (AAD) initiative,²³ FAO and its partners are reinforcing tree seed systems in Burkina Faso, Eritrea, Ethiopia, Fiji, Gambia, Haiti, Mali, Mauritania, Niger, Nigeria, Senegal and Sudan as part of the efforts to restore forests and trees. Furthermore, the Forest and Landscape Restoration Mechanism (FLRM)²⁴ has expanded its activities and is currently supporting large-scale restoration initiatives with different donors and partners in 20 countries.²⁵ These projects are increasingly also exploring ways of enhancing the management of FGR and restoring genetically diverse forests. Moreover, through its technical cooperation programme (TCP), FAO is implementing a project in Benin to support the production of seed from indigenous and introduced tree species.

17. Once launched, the new global information system on FGR will also be able to support the development of new GEF, GCF and TCP projects by making available data, for example on tree seed and breeding programmes and on seed production capacity for different species. This information will also benefit the implementation of ongoing projects.

²⁰ Further information on FAO-led GEF projects is available at: http://www.fao.org/gef/en/

²¹ Integrated forest and biodiversity management for sustainable development in the Biban mountain range in Algeria (2022–2027); Rehabilitation and integrated sustainable development of Algerian cork oak forest production landscapes (2021–2025); Forest and landscape restoration supporting landscape and livelihoods resilience in the Central African Republic (2018–2023); Sustainable forest management to enhance the resilience of forests in China to climate change (2016–2023); Sustainable management of wooded production landscapes for biodiversity conservation in Haiti (2022–2028); Smart adaptation of forest landscapes in mountain areas in Lebanon (2016–2023); Reversing deforestation and degradation in high conservation value chilgoza pine forests in Pakistan (2018–2024); Enhancing biodiversity, ecosystem flows, carbon stocks through sustainable forest management and restoration of degraded forestlands in the Philippines (2021–2025); Landscape restoration for ecosystem functionality and climate change mitigation in the Democratic Republic of Sao Tome and Principe (2018–2024); Landscape approach to riverine forest restoration, biodiversity conservation and livelihood improvement in Sudan (2022–2027); Strengthening the conservation of biodiversity and sustainable management of forest landscapes in Türkiye's Kazdaglari Region (2022–2027); Sustainable management of forests in mountain and valley areas in Uzbekistan (2018–2025).

²² Argentina, Armenia, Chile, Colombia, Congo, Côte d'Ivoire, Cuba, Guatemala, Kyrgyzstan, Nepal, Paraguay and Sudan. Further information on FAO-led GCF projects is available at: https://www.fao.org/gcf/en ²³ http://www.fao.org/in-action/action-against-desertification/en/

²⁴ http://www.fao.org/in-action/forest-landscape-restoration-mechanism/en/

²⁵ Burkina Faso, Cambodia, Central African Republic, Democratic Republic of the Congo, Fiji, Guatemala, Kenya, Lebanon, Malawi, Morocco, Niger, Pakistan, Peru, Philippines, Guinea, Rwanda, Sao Tome and Principe, Uganda and Vanuatu.

18. In 2022, FAO opened a call for case studies on the use of agricultural biotechnologies to meet the needs of smallholders in developing countries.²⁶ Selected case studies from different sectors, including forestry, will be published in 2023.

(d) Policies, institutions and capacity building (Priority Area 4)

19. National policies and regulatory frameworks for FGR are often partial, ineffective or nonexistent. This situation results from the fact that FGR are often not properly managed and awareness of their importance is low in many countries. The Global Plan of Action calls for the development of national strategies for FGR and stresses the importance of awareness raising and capacity building at all levels. The Global Plan of Action recognizes the need to reinforce regional and international collaboration, and to mobilize the necessary resources, including financing, for the conservation, sustainable use and development of FGR. The Commission, at its Eighteenth Regular Session, requested FAO to continue its efforts to increase international awareness of the Global Plan of Action and the importance of FGR.²⁷

20. FAO continued during the reporting period to collaborate with regional networks on FGR. It also plans to strengthen their role in the implementation of the Global Plan of Action, subject to the availability of extra-budgetary resources. FAO also continued collaborating with its international partners, in particular with Bioversity International, BGCI, RBG and World Agroforestry.

21. During the XV World Forestry Congress, held in Seoul, Republic of Korea, from 2 to 6 May 2022, FAO, Bioversity International and World Agroforestry organized a session on the role of FGR and integrated management of pests and diseases in maintaining healthy and resilient forests. The aim of the session was to increase awareness among policymakers and practitioners of the importance of FGR and integrated management of pests and diseases in the context of forest management, biodiversity conservation and climate change mitigation and adaptation. The recording of the session is available through the FAO website.²⁸

22. In October 2022, the Twenty-sixth Session of the FAO Committee on Forestry reviewed the draft 2024–27 Action Plan for the Implementation of the FAO Strategy on Mainstreaming Biodiversity across Agricultural Sectors.²⁹ The Committee recommended that FAO also take into account developments under the Commission and its Working Group on FGR when finalizing the Action Plan.³⁰ Following a request by the Committee at its Twenty-fifth Session,³¹ FAO also published, in 2022, in collaboration with the CIFOR, a study on biodiversity mainstreaming in forestry.³² The study analysed the progress made in integrating biodiversity aspects into forest policies and management practices and stressed the importance of managing FGR.

23. In the context of the FLRM work, FAO also reviewed, in collaboration with IUCN and the United Nations Environment Programme, the activities of The Restoration Initiative (TRI).³³ The review shows that the TRI country projects created a high demand for tree seed and that the projects are increasingly paying attention to the importance of FGR. The need to pay attention to the proper management of FGR is also supported by a study published by FAO in 2021³⁴ addressing the implementation of forest and landscape restoration in Africa. The study identified as major challenges

²⁶ https://www.fao.org/research-extension-systems/resources/detail/en/c/1492888/

²⁷ CGRFA-18/21/Report, paragraph 63.

²⁸ https://www.fao.org/event/world-forestry-congress/wfc-programme/sub-theme-sessions/sub-theme-2/en

²⁹ COFO/2022/6.2, Annex 2.

³⁰ COFO/2022/REP, paragraph 22e.

³¹ COFO/2020/REP, paragraph 17b.

³² Harrison, R.D., Shono, K., Gitz, V., Meybeck, A., Hofer, T. & Wertz-Kanounnikoff, S. 2022. *Mainstreaming biodiversity in forestry*. FAO Forestry Paper, No. 188. Rome, FAO and Bogor, Indonesia, CIFOR. https://doi.org/10.4060/cc2229en

³³ IUCN, FAO & UNEP. 2022. *The Restoration Initiative: 2021 Year in Review*. Rome. Available at https://doi.org/10.4060/cc2051en

³⁴ Mansourian, S., & Berrahmouni, N. 2021. *Review of forest and landscape restoration in Africa*. Accra. FAO and AUDA-NEPAD. https://doi.org/10.4060/cb6111en

the inadequate supply of tree seeds for restoration and issues related to the genetic diversity of the seeds used.

24. As requested by the Commission,³⁵ FAO updated the *Voluntary Guidelines for Preparing a National Strategy for Forest Genetic Resources* with examples of approaches based on the country reports received by FAO for the preparation of the Second Report. The publication will be made available on the FAO website.³⁶

III. REVIEW OF THE GLOBAL PLAN OF ACTION

25. The Global Plan of Action, adopted by the FAO Conference in 2013, constitutes a rolling document that can be updated in line with any follow-up the Commission may decide upon.³⁷ It is a voluntary and non-binding policy instrument and was developed on the basis of strategic priorities identified by the Commission in response to the findings of the first global assessment of FGR.³⁸ The Commission's Multi-Year Programme of Work foresees a review of the Global Plan of Action at the Commission's Twentieth Regular Session.

26. The Commission may therefore wish to consider how the review of the Global Plan of Action should be undertaken. The review of the Global Plan of Action could be undertaken in two steps. In a first step, Commission Members and stakeholders could consider the findings of the Second Report and other relevant information with a view to identifying new priority areas or existing priority areas that should be amended. In a second step, the Commission and its Working Group could consider submissions by Commission Members and stakeholders, as consolidated by the Secretariat.

27. At its Seventh Session, the Working Group recommended that the Global Plan of Action be reviewed and, if necessary and appropriate, revised in the light of the findings of the Second Report.³⁹ It also recommended that immediately following the publication of the Second Report, Commission Members and National Focal Points be consulted on the need to revise the Global Plan of Action. It further recommended that FAO prepare, based on the outcome of the written consultation, a draft revised Global Plan of Action or any other document, as appropriate, for consideration by the Working Group at its Eight Session and the Commission at its Twentieth Regular Session. Moreover, the Working Group recommended that the Commission encourage donors to support the implementation of the Global Plan of Action and its Funding Strategy.⁴⁰

28. It should be kept in mind that changing the Global Plan of Action may not be the only option the Commission may wish to consider in response to the findings of the Second Report. When changing the Global Plan of Action, implications for the monitoring of its implementation, including the targets, indicators and verifiers for FGR, as adopted by the Commission, should also be considered. Therefore, the outcome of the review of the Global Plan of Action could also be a self-standing document stressing or de-emphasizing certain strategic priorities or priority areas of the Global Plan of Action or identifying additional ones.

29. At its Twentieth Regular Session, the Commission could then review and finalize the updated Global Plan of Action or any other document that might be the outcome of the review process, and submit it, as appropriate, to the FAO Conference for endorsement or adoption.

IV. GUIDANCE SOUGHT

30. The Commission may wish to:

(i) take note of the activities FAO has undertaken since the Commission's last session to support, in collaboration with its partners, the implementation of the Global Plan of

https://www.fao.org/3/i3825e/i3825e.pdf

³⁹ CGRFA-19/23/8.1, paragraph 15.

³⁵ CGRFA-18/21/Report, paragraph 63.

³⁶ https://www.fao.org/forest-genetic-resources/en/

³⁷ FAO. 2014. Global Plan of Action for the Conservation, Sustainable Use and Development of Forest Genetic Resources. Rome, paragraph 7.

³⁸ FAO. 2014. The State of the World's Forest Genetic Resources. Rome.

⁴⁰ CGRFA-19/23/8.1, paragraph 16.

Action and recommend that FAO continue to support countries in the implementation of the Global Plan of Action;

- (ii) welcome the development by FAO of the new global information system on FGR in line with the FAO Data Protection Policy;
- (iii) invite countries to continue implementing the Global Plan of Action, taking into account the findings of the Second Implementation Report, as appropriate;
- (iv) invite countries to continue monitoring the status of FGR and the implementation of the Global Plan of Action;
- (v) request the Secretariat to consult Commission Members and NFPs, immediately after the publication of the Second Report, on the need to revise the Global Plan of Action;
- (vi) recommend that FAO prepare, taking into account the outcome of the written consultation, a draft revised Global Plan of Action or any other document, as appropriate, for consideration by the Working Group at its Eighth Session and the Commission at its Twentieth Regular Session; and
- (vii) encourage donors to support the implementation of the Global Plan of Action and its Funding Strategy.