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

TABLE OF CONTENTS

Paragraphs

I. Introduction.....	1 – 2
II. Background.....	3 - 5
III. Targets, indicators and verifiers for forest genetic resources	6 - 11
IV. Schedule for monitoring the implementation of the Global Plan of Action	12 - 18
V. Guidance sought.....	19

Appendix A: Proposed targets, indicators and verifiers for monitoring the implementation of the Global Plan of Action for the Conservation, Sustainable Use and Development of Forest Genetic Resources

Appendix B: Proposed targets, indicators and verifiers for assessing the state of conservation, use and development of forest genetic resources

Appendix C: Proposed schedule for monitoring the implementation of the Global Plan of Action for the Conservation, Sustainable Use and Development of Forest Genetic Resources, including key steps for preparing the *The Second Report on the State of the World's Forest Genetic Resources*

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I. INTRODUCTION

1. The Commission on Genetic Resources for Food and Agriculture (the Commission), at its Fifteenth Regular Session in 2015, considered draft indicators for forest genetic resources. It welcomed the progress made and recognized that more work was needed to finalize the draft list of indicators for monitoring the implementation of *The Global Plan of Action for the Conservation, Sustainable Use and Development of Forest Genetic Resources* (the Global Plan of Action).¹ The Commission requested FAO to continue the work on indicators for forest genetic resources, in consultation with the FAO Statistics Division, and to coordinate an inter-sessional consultative process with the participation of the Intergovernmental Technical Working Group on Forest Genetic Resources (Working Group) to further refine the draft list of indicators, and to identify a set of targets for the conservation, sustainable use and development of forest genetic resources as well as a draft schedule for monitoring the implementation of the Global Plan of Action, for the consideration of the Working Group and the Commission at their next sessions.²

2. This document presents the proposed targets, indicators and verifiers for forest genetic resources to be used for monitoring the implementation of the Global Plan of Action, and explains the approach taken for finalizing them. Furthermore, the document provides information on the monitoring process and proposes a schedule for monitoring the implementation of the Global Plan of Action. As monitoring activities should be closely integrated with the preparation of *The Second Report on the State of the World's Forest Genetic Resources* (SoW-FGR-2), the proposed monitoring schedule also refers to key steps required for the preparation of the SoW-FGR-2.

II. BACKGROUND

3. Targets for forest genetic resources should specify objectives for countries to achieve in response to the Global Plan of Action and track the extent to which countries have met the objectives. Indicators measure the progress countries make against the objectives. Monitoring the implementation of the Global Plan of Action will also contribute to monitoring progress against Aichi Biodiversity Target 13 (and a subsequent target possibly replacing it for 2021-2030) and relevant targets of the Sustainable Development Goals³.

4. Targets (also called criteria or objectives) and indicators, together with goals and verifiers, are used to conceptualize and evaluate the management of forest genetic resources.⁴ They are interlinked and have the following hierarchy:

- Goals provide the overall justification for targets, indicators and verifiers.
- Targets make goals more meaningful and operational without being themselves direct measures for implementation.
- Indicators are based on components of natural or man-made systems that can be attributed to, or used as a proxy for, the sustainability or other aspects of these systems and their utilisation.
- Verifiers are data or information that provide means of verification. Each indicator needs one or more verifiers.

5. Indicators are usually developed within a conceptual framework that is based on state, pressure, benefit and response indicators.⁵ The formulation of a target determines largely the type of an indicator that is needed to assess progress against the target. Similarly, the indicator type influences

¹ CGRFA-15/15/Report, paragraph 19.

² CGRFA-15/15/Report, paragraph 20.

³ UN Sustainable Development Goals, <https://sustainabledevelopment.un.org/?menu=1300>.

⁴ See Boyle, T.J. 2000. Criteria and indicators for the conservation of genetic diversity, in: Young, A. G., Boshier, D. H., Boyle, T. J. (Eds.), *Forest Conservation Genetics: Principles and Practice*. CABI Publishing, Wallingford, pp. 239–251.

⁵ See UNEP/CBD/AHTEG 2011. Report of the Ad Hoc Technical Expert Group on Indicators for the Strategic Plan for Biodiversity 2011-2020, <https://www.cbd.int/doc/meetings/ind/ahteg-sp-ind-01/official/ahteg-sp-ind-01-03-en.pdf>.

the choice of verifiers. Monitoring the implementation of the Global Plan of Action mainly requires state and response indicators. Obviously, the development of indicators always involves trade-offs between what should be monitored and what can be monitored with the human and financial resources available. Therefore, indicators and verifiers should build on the current or expected availability of data and information.

III. TARGETS, INDICATORS AND VERIFIERS FOR FOREST GENETIC RESOURCES

6. As requested by the Commission, FAO held consultations on targets and indicators for forest genetic resources by electronic means in February and March 2016. Members of the Working Group, National Focal Points for *The State of the World's Forests Genetic Resources* and relevant international organizations were invited to provide their feedback. Subsequently, FAO prepared, in the light of comments received⁶, a document on targets and indicators⁷ for review by the Working Group. The Working Group, at its Fourth Session, reviewed and revised the proposed targets and indicators, as contained in *Appendices A and B* to this document. It recommended that the Commission adopt them as assessment tools to monitor the implementation of the Global Plan of Action, taking into account its voluntary nature.⁸

7. The targets and indicators, recommended by the Working Group are based on the following considerations:

- Two sets of targets and indicators are needed. The first set of indicators, developed to monitor the responses of countries to the Global Plan of Action are contained in *Appendix A*. The second set of targets and indicators, developed to assess the state of conservation, use and development of forest genetic resources, are contained *Appendix B*. *Appendix A* indicators are response indicators; *Appendix B* indicators are state indicators.
- The targets and indicators are formulated based on the broader needs and actions identified at the level of priority areas in the Global Plan of Action.
- The targets and indicators focus on actions that need to be carried out at the national level. Regional and/or sub-regional networks on forest genetic resources and international organizations will be invited to prepare separate reports on actions that they have carried out at the regional and global levels, respectively.

8. In *Appendix A*, each priority area of the Global Plan of Action has one target and two or more indicators focusing on key actions that are crucial for achieving the proposed targets. The targets provide clear objectives for countries to respond to the Global Plan of Action and the indicators track progress of countries against the targets. Closely related strategic priorities of the Global Plan of Action have been grouped under one and the same indicator.

9. Ten indicators and their verifiers are proposed in *Appendix A* for monitoring how many countries have met, or made progress against the targets. For the first set of targets and indicators, countries can report progress by indicating the degree to which targets are achieved on a Likert-type scale (e.g. if the establishment of a national inventory for forest genetic resources or similar arrangement is completed, underway or not started).

10. In *Appendix B*, each priority area has one target and two or more indicators focussing on the state of conservation, use and development of forest genetic resources. The targets provide clear objectives for countries to enhance the conservation, use and development of forest genetic resources. Progress against these targets would be measured with 10 indicators.

11. In addition to the targets and indicators, *Appendices A and B* also present the proposed verifiers. At its last session, the Working Group reviewed some of the verifiers and requested the Secretariat to invite the National Focal Points to comment, by email, on the draft verifiers and then

⁶ Canada, Ethiopia, Fiji, Finland, Germany, Hungary, Madagascar, Norway, Russian Federation and United States of America.

⁷ CGRFA/WG-FGR-4/16/3.

⁸ CGRFA-16/17/18, paragraph 13.

prepare a revised list of verifiers for consideration and adoption by the Commission at its Sixteenth Regular Session.⁹ In June 2016, FAO invited the National Focal Points to comment on a list of draft verifiers. By September 2016, feedback and comments were received from 12 countries¹⁰. The verifiers, as presented in Appendix A and B, reflect the final comments received by FAO. Upon the endorsement of the targets, indicators and verifiers, FAO will develop a glossary of technical terms for reporting purposes, as requested by the Working Group.¹¹

IV. SCHEDULE FOR MONITORING THE IMPLEMENTATION OF THE GLOBAL PLAN OF ACTION

12. The Working Group, at its last session, also reviewed and revised a draft schedule for monitoring the implementation of the Global Plan of Action. It recommended that the Commission adopt the schedule¹², as contained in *Appendix C* of this document.

13. According to the proposed Strategic Plan for the Commission (2018-2017)¹³, the SoW-FGR-2 should be launched at the Commission's Nineteenth Regular Session (tentatively 2023). It is proposed that, prior to the launch of the SoW-FGR-2, FAO prepares two reports on the status of implementation of the Global Plan of Action that will be based on Country Progress Reports.

14. The First Implementation Report should be presented to the Commission at its Seventeenth Regular Session (tentatively 2019). The Second Implementation Report would be prepared in parallel with the SoW-FGR-2 and presented to the Commission at its Nineteenth Regular Session. Monitoring the implementation of the Global Plan of Action and the preparation of the SoW-FGR-2 would thus be integrated processes complementing each other.

15. The schedule, given in *Appendix C*, summarizes efforts to monitor the implementation of the Global Plan of Action and the main steps required for the preparation of the SoW-FGR-2. The schedule is based on the assumption that the Commission will adopt the targets and indicators for forest genetic resources at its Sixteenth Regular Session. This would allow FAO to finalize reporting guidelines for Country Progress Reports, as well as for progress reports of regional networks and international organizations, by March 2017. Countries, regional networks and international organizations would then be invited to submit their reports to FAO by December 2017. In 2018, FAO would process and analyse the information and data received, and prepare the Draft First Implementation Report for review by the Working Group at its Fifth Session. Quality and comprehensiveness of the First Implementation Report will largely depend on the number of countries that provide First Country Progress Reports and the quality of the information contained in these reports. Following the review by the Working Group, FAO would finalize the First Implementation Report for consideration by the Commission, at its Seventeenth Regular Session (2019).

16. Concerning the preparation of the Second Implementation Report, it is proposed that the reporting interval is shortened from five to three years. With this arrangement, countries could prepare only one report that provides information for both the Second Implementation Report and the SoW-FGR-2 to be submitted to FAO by June 2020. As the next *Global Forest Resources Assessment* is also scheduled for 2020, FAO would not request any overall data on forest resources as part of this report. The proposed arrangement would allow the Working Group to review both the Draft Second Implementation Report and the Draft SoW-FGR-2 at its Seventh Session in 2022, and recommend, if needed, a review of the Global Plan of Action to the Commission's Nineteenth Regular Session in 2023. This would subsequently allow the Commission to agree upon an updated Global Plan of Action at its Twentieth Regular Session in 2025, as necessary and appropriate.

⁹ CGRFA-16/17/18, paragraph 14.

¹⁰ Brazil, Canada, Czech Republic, Finland, France, Germany, Italy, Morocco, Norway, Tanzania, United Kingdom and Vanuatu.

¹¹ CGRFA-16/17/18, paragraph 16.

¹² CGRFA-16/17/18, Appendix E.

¹³ CGRFA-16/17/22.

Country reporting

17. At its Fourth Session, the Working Group recommended that the Commission request FAO to prepare draft Guidelines for the Preparation of Country Progress Reports, as well as Reporting Guidelines for Regional Networks and International Organizations. It further recommended that the Commission request FAO to consult the Working Group and National Focal Points, by electronic means, on the draft Guidelines for the Preparation of Country Progress Reports, prior to their finalization by 31 March 2017. It also recommended that the Guidelines for the Preparation of Country Progress Reports clarify in detail the reporting requirements and include a glossary explaining various terms, such as “*in situ* and *ex situ* conservation”, “domestication of forest trees”, and “tree seed and breeding programmes”.¹⁴

18. Once endorsed by the Commission, the targets, indicators and verifiers will be used as a basis for developing a questionnaire and a template for a Country Progress Report that countries will be invited to submit to FAO for the preparation of a global Implementation Report. It is important to distinguish the different scopes of the Implementation Report and the SoW-FGR-2. The Implementation Report mainly tracks national implementation of the Global Plan of Action and the state of conservation, use and development of forest genetic resources while the SoW-FGR-2 aims to provide a more comprehensive and in-depth assessment of the state of the forest genetic resources themselves.

V. GUIDANCE SOUGHT

19. The Commission may wish to:

- i) Consider the targets, indicators and verifiers for forest genetic resources, as given in *Appendices A and B*, with a view to adopt them as assessment tools to monitor the implementation of the Global Plan of Action;
- ii) Request FAO to prepare draft Guidelines for the Preparation of Country Progress Reports, as well as Reporting Guidelines for Regional Networks and International Organizations;
- iii) Request FAO to consult the Working Group and the National Focal Points, by electronic means, on the draft Guidelines for the Preparation of Country Progress Reports prior to their finalization by March, taking into account the need to clarify in detail the reporting requirements and to include a glossary;
- iv) Consider the schedule for monitoring the implementation of the Global Plan of Action, as given in *Appendix C*, with a view to adopt it;
- v) Encourage countries to prepare themselves for the collection of information and data, as appropriate, to facilitate timely submission of the First Country Progress Reports;
- vi) Request FAO to pursue extra-budgetary funds to support developing countries, in particular least developed countries, in the preparation of Country Progress Reports; and
- vii) Request FAO to invite regional networks on forest genetic resources and relevant international organizations to report on their contributions to the implementation of the Global Plan of Action.

¹⁴ CGRFA-16/17/18, paragraph 16.

APPENDIX A

PROPOSED TARGETS, INDICATORS AND VERIFIERS FOR MONITORING THE IMPLEMENTATION OF THE GLOBAL PLAN OF ACTION FOR THE CONSERVATION, SUSTAINABLE USE AND DEVELOPMENT OF FOREST GENETIC RESOURCES

Priority area	Target*	Indicator (response)	Verifier(s)**
Improving the availability of, and access to, information on forest genetic resources (FGR)	Availability of data and information on FGR is increased	Extent of national*** FGR inventories or similar arrangements	Number and list of countries with operational national FGR inventories or similar arrangements
		Extent of up-to-date national FGR information systems	Number and list of countries with up-to-date national FGR information system(s) or other similar arrangements
<i>In situ</i> and <i>ex situ</i> conservation of FGR	National <i>in situ</i> and <i>ex situ</i> systems for FGR conservation are strengthened	Extent of national <i>in situ</i> conservation systems	Number and list of countries with operational national <i>in situ</i> conservation systems
		Extent of national <i>ex situ</i> conservation systems	Number and list of countries with operational national <i>ex situ</i> conservation systems
Sustainable use, development and management of FGR	Tree seed and breeding programmes, as well as extension efforts on FGR use, are reinforced, including for conservation collections	Extent of national tree seed programmes	Number and list of countries with operational national tree seed programmes or similar arrangements
		Extent of tree breeding programmes	Number and list of countries with operational tree breeding programmes
		Extent of extension efforts promoting appropriate use of FGR	Number and list of countries with ongoing extension programmes or activities on FGR use
Policies, institutions and capacity-building	National coordination mechanisms on FGR are created, and national strategies for FGR conservation and use are developed and implemented	Extent of national coordination mechanisms on FGR	Number and list of countries with national coordination mechanisms on FGR
		Extent of national strategies for FGR conservation and use	Number and list of countries implementing national strategies for FGR conservation and use
		Extent to which national strategies contribute to the implementation of regional or sub-regional FGR conservation strategies	Number and list of countries whose national strategy contribute to the implementation of regional or sub-regional FGR conservation strategy

* Targets are understood as the means to assess the implementation of the Global Plan of Action and are a result of the compilation of the strategic priorities identified by the Plan.

** Countries can report progress by indicating the degree to which targets are achieved on a Likert-type scale.

*** In the context of monitoring the implementation of the Global Plan of Action, national reporting can be based on data collected at national and/or sub-national level, recognizing that some countries may not have national level systems in place; they may be at a sub-national level.

APPENDIX B

PROPOSED TARGETS, INDICATORS AND VERIFIERS FOR ASSESSING THE STATE OF CONSERVATION, USE AND DEVELOPMENT OF FOREST GENETIC RESOURCES

Priority area	Target*	Indicator (state)	Verifier(s)**
Improving the availability of, and access to, information on forest genetic resources (FGR)	FGR are regularly assessed and characterized	Assessment of FGR	Number and list of species for which an up to date national distribution range is available
		Characterization of FGR	<p>Number and list of species which have been characterized based on non-molecular information (e.g. provenance trials, ecological or climatic zonation)</p> <p>Number and list of species which have been characterized based on molecular information (e.g. range-wide sampling of populations for molecular marker studies)</p>
<i>In situ</i> and <i>ex situ</i> conservation of FGR	FGR are conserved <i>in situ</i> , and complementary <i>ex situ</i> measures have been implemented	Amount FGR conserved <i>in situ</i>	<p>Number and list of species included in <i>in situ</i> conservation programmes</p> <p>Number of <i>in situ</i> conservation units by species</p> <p>Area (ha) designated and managed for <i>in situ</i> conservation by species</p>
		Amount of FGR conserved <i>ex situ</i>	<p>Number and list of species included in <i>ex situ</i> conservation programmes</p> <p>Number of <i>ex situ</i> conservation units by species</p> <p>Area (ha) designated and managed for <i>ex situ</i> conservation by species</p> <p>Number of <i>ex situ</i> accessions (in seed and clone banks) by species</p>

Priority area	Target*	Indicator (state)	Verifier(s)**
Sustainable use, development and management of FGR	Use and development of FGR are enhanced	Species included in tree seed and breeding programmes (including international breeding cooperation and efforts carried out by the private sector)	Number and list of species included in national tree seed programmes Number and list of species included in tree breeding programmes
		Production of forest reproductive material	Area (ha) and number of seed stands by species Area (ha) and number of seed orchards by species Amount (average number per year) of planting stock produced through macro and micropropagation by species
		State of tree breeding programmes	Testing and selection cycle (1 st , 2 nd etc. generation) by species
Policies, institutions and capacity-building	Policies and capacities supporting FGR conservation and sustainable use are strengthened	Integration of FGR conservation and use into relevant national policies	Number of countries which have integrated FGR conservation and use into their national forest programme and/or national forest policy Number of countries which have integrated FGR conservation and use into their national biodiversity action plans and/or related policies Number of countries which have integrated FGR conservation and use into their national adaptation strategies for climate change
		Participation in regional/sub-regional collaboration on FGR	Number of countries participating in regional/sub-regional networks on FGR
		Participation in international research and development cooperation on FGR	Number of countries and national organizations participating in international R&D cooperation on FGR

* Targets are understood as the means to assess the implementation of the Global Plan of Action and are a result of the compilation of the strategic priorities identified by the Plan.

** In the context of monitoring the state of conservation, use and development of forest genetic resources, national reporting can be based on data collected at national and/or sub-national level, recognizing that some countries may not have national level systems in place; they may be at a sub-national level.

APPENDIX C

PROPOSED SCHEDULE FOR MONITORING THE IMPLEMENTATION OF THE GLOBAL PLAN OF ACTION FOR THE CONSERVATION, SUSTAINABLE USE AND DEVELOPMENT OF FOREST GENETIC RESOURCES, INCLUDING KEY STEPS FOR PREPARING *THE SECOND REPORT ON THE STATE OF THE WORLD'S FOREST GENETIC RESOURCES*

Timeline	Steps / Activities
Preparatory steps	
2017	<p>CGRFA-16 considers:</p> <ul style="list-style-type: none"> • FAO progress report; • Targets and indicators for forest genetic resources; • Schedule for monitoring the implementation of the Global Plan of Action.
March 2017	<p>Finalization of <i>Guidelines for the Preparation of Country Progress Reports</i> in consultation with Members of the Working Group and National Focal Points.</p> <p>Circulation of <i>Guidelines for the Preparation of Country Progress Reports</i> / guidelines for progress reports by regional networks and international organizations.</p>
First Implementation Report	
December 2017	<p>Deadline for the submission of First Country Progress Reports/ progress reports by regional networks and international organizations.</p>
2018	<p>ITWG-FGR-5 considers:</p> <ul style="list-style-type: none"> • FAO progress report; • Draft First Implementation Report, prepared on the basis of First Country Progress Reports and progress reports by regional networks and international organizations; • Preparation of <i>The Second Report on the State of the World's Forest Genetic Resources</i> (SoW-FGR-2); • <i>Draft Guidelines for the Preparation of Country Reports</i> (combined reporting for Second Implementation Report and for SoW-FGR-2).
2019	<p>CGRFA-17 considers:</p> <ul style="list-style-type: none"> • FAO progress report; • First Implementation Report, as reviewed by ITWG-FGR-5; • Preparation of the SoW-FGR-2; • <i>Draft Guidelines for the Preparation of Country Reports</i> (combined reporting for Second Implementation Report and for SoW-FGR-2).

Timeline	Steps / Activities
Second Implementation Report / Preparation of SoW-FGR-2	
June 2019	Circulation of Guidelines for the Preparation of Country Reports/ guidelines for progress reports by regional networks and international organizations.
2020	ITWG-FGR-6 considers: <ul style="list-style-type: none"> • FAO progress report; • Status of preparation of the SoW-FGR-2; • Status of submission of progress reports by regional networks and international organizations.
June 2020	Deadline for the submission of Country Reports to the Second Implementation Report and the SoW-FGR-2. Deadline for the submission of progress reports by regional networks and international organizations.
2021	CGRFA-18 considers: <ul style="list-style-type: none"> • FAO progress report; • Status of preparation of the Second Implementation Report and the SoW-FGR-2.
2022	ITWG-FGR-7 considers: <ul style="list-style-type: none"> • FAO progress report; • Draft Second Implementation Report; • Draft SoW-FGR-2.
2023	CGRFA-19 considers: <ul style="list-style-type: none"> • FAO progress report; • Second Implementation Report, as reviewed by ITWG-FGR-7; • Draft SoW-FGR-2, as reviewed by ITWG-FGR-7.
2024	ITWG-FGR-8 considers: <ul style="list-style-type: none"> • FAO progress report; • Draft updated Global Plan of Action.
2025	CGRFA-20 considers: <ul style="list-style-type: none"> • FAO progress report; • Draft updated Global Plan of Action, as reviewed by ITWG-FGR-8.