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COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE

Item 2.2 of the Provisional Agenda

Fifteenth Regular Session

Rome, 19 – 23 January 2015

TARGETS AND INDICATORS FOR BIODIVERSITY FOR FOOD AND AGRICULTURE

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I. INTRODUCTION

1. At its Fourteenth Regular Session the Commission on Genetic Resources for Food and Agriculture (the Commission) considered targets and indicators for biodiversity for food and agriculture and welcomed progress made in the development and use of international targets and indicators for biodiversity for food and agriculture. It requested FAO to continue developing, testing and applying indicators for biodiversity for food and agriculture at the genetic level, and, whenever relevant, at species and ecosystem levels, giving due attention to headline and higher-order indicators. The Commission further requested FAO to strengthen work on targets and indicators in relation to the implementation of the Strategic Plan for Biodiversity 2011-2020 and the monitoring of the Aichi Biodiversity Targets.¹

2. The Commission further requested FAO to develop and finalize a thematic study on indicators for the state of genetic resources in fisheries and aquaculture, emphasizing that this study should also explore how genetic information and diversity measures could be integrated into aquaculture and fisheries statistics. It also requested FAO to continue updating the FAO/INFOODS Food Composition Database for Biodiversity on a regular basis, highlighting the need to enhance efforts to collect sufficient reliable data. It further requested FAO to report on the food and nutrition indicators to the Commission at its Fifteenth Regular Session.²

3. This document provides an update of ongoing work on international targets and indicators related to biodiversity for food and agriculture. In addition, FAO's work on targets and indicators for the different sectors of genetic resources for food and agriculture is presented.

II. DEVELOPMENTS IN INTERNATIONAL FORA

4. FAO continues to play a significant role at the global level in the development, refinement and application of targets and indicators related to genetic resources for food and agriculture.

Twelfth Conference of the Parties to the Convention on Biological Diversity

5. The Conference of the Parties to the Convention on Biological Diversity at its eleventh meeting (CBD COP11) considered the indicative list of indicators available for assessing progress towards the goals of the Strategic Plan for Biodiversity 2011–2020 and the Aichi Biodiversity Targets and recognized that these provide a starting point for assessing progress in the achievement of the Strategic Plan for Biodiversity 2011-2020 at various scales.³

6. At its twelfth meeting the Conference of the Parties (COP12) requested the Executive Secretary to convene a meeting of the Ad Hoc Technical Expert Group on Indicators for the Strategic Plan for Biodiversity 2011-2020 with two main specific tasks:

- 1) Identify a small set of measurable potential indicators that could be used to monitor progress at the global level towards the Aichi Biodiversity Targets with a focus on those that are currently not well addressed and those that may be relevant to the United Nations post-2015 development agenda and sustainable development goals;
- 2) Prepare guidance on the different types of indicators and approaches used to monitor progress in the implementation of the Strategic Plan for Biodiversity 2011-2020 at the regional, national and subnational levels, reflecting, as appropriate, different perspectives among Parties for achieving conservation and sustainable use of biodiversity, drawing on a review of national reports and other relevant submissions to the Convention as well as reports prepared in compliance with other relevant processes.⁴

7. The work of the Ad Hoc Technical Expert Group will also draw upon relevant work of the Biodiversity Indicators Partnership (of which FAO is a member) and its member organizations, the Group on Earth Observation Biodiversity Observation Network (GEO–BON), the Intergovernmental

¹ CGRFA-14/13/Report, paragraph 20.

² CGRFA-14/13/Report paragraph 22.

³ CBD COP11 Decision XI/3.

⁴ CBD COP12 Decision XII/1.

Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), the Technical Support Team for the post-2015 United Nations development agenda and the sustainable development goals, the United Nations Statistics Division, the Indicators Working Group of the International Indigenous Forum for Biodiversity, and other partners. The work of the Ad Hoc Technical Expert Group will be informed by background information prepared by the Executive Secretary in collaboration with the members of the Biodiversity Indicators Partnership and other partners. FAO stands ready to contribute to this process.

8. COP12 further highlighted the importance of ensuring that National Biodiversity Strategies and Action Plans be up to date and aligned with the Strategic Plan for Biodiversity 2011–2020 and the Aichi Biodiversity Targets, for example by setting national targets with corresponding indicators and monitoring mechanisms, with the participation of all stakeholders.⁵

Aichi Biodiversity Targets Task Force

9. The second meeting of the Aichi Biodiversity Targets Task Force (ABTTF) was held during CBD COP12.⁶ During the meeting members highlighted their contribution to the implementation of the Strategic Plan for Biodiversity 2011-2020 and FAO offered to lead on Target 13, “*by 2020, the loss of genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species is maintained and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity*” and the offer was welcomed.

Post-2015 Process and Sustainable Development Goals

10. Following the main outcomes of the United Nations Conference on Sustainable Development (Rio+20), held in Rio de Janeiro in June 2012, Member States launched a process to develop a set of sustainable development goals (SDGs).⁷ The process involved the establishment of the Open Working Group (OWG)⁸ and of the Inter-Agency Technical Support Team (TST)⁹. The OWG adopted a proposal for SDGs, containing 17 goals and 169 targets, will be forwarded to the General Assembly for its consideration.¹⁰ Issues related to food security, nutrition, sustainable agriculture and the sustainable use of natural resources, including the need for conservation and sustainable use of genetic resources for food and agriculture, are reflected in the document, particularly under goals 2 on food security, 14 on oceans and 15 on biodiversity.

11. Goal 2 “End hunger, achieve food security and improved nutrition, and promote sustainable agriculture” includes Target 2.5 that is of specific interest to the work of the Commission as it presently reads “by 2020 maintain genetic diversity of seeds, cultivated plants, farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at national, regional and international levels, and ensure access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge as internationally agreed”. FAO, through the TST, has been instrumental to defining this Goal and Target and will need to further invest in this process, especially as indicators are being discussed for monitoring progress towards the identified targets.

⁵ CBD COP12 Decision XII/1.

⁶ The Aichi Biodiversity Task Force includes 27 international agencies, organizations and environmental conventions, aiming to achieve and implement the Strategic Plan for Biodiversity 2011-2020 and its Aichi Biodiversity Targets.

⁷ See General Assembly Resolution 66/288, of 27 July 2012, The future we want, paragraph 248.

⁸ Decision 67/555 of the General Assembly.

⁹ Established by the UN Secretary General † it is, co-chaired by DESA and UNDP, consists of over 40 UN entities, including FAO, and provides technical support, analytical inputs, background material and expert panellists in support to the OWG..

¹⁰ See the “*Outcome Document - Open Working Group on Sustainable Development Goals*” available at <http://sustainabledevelopment.un.org/focussdgs.html>.

III. FAO WORK ON TARGETS AND INDICATORS FOR BIODIVERSITY FOR FOOD AND AGRICULTURE

Plant Genetic Resources for Food and Agriculture

12. For monitoring the implementation of the Second GPA the Commission adopted indicators as well as three targets for plant genetic resources for food and agriculture (PGRFA) at its last session.¹¹ The Commission requested FAO to:

- elaborate higher-order composite indices (HCIs) for each of the PGRFA targets. The Commission requested its Intergovernmental Technical Working Group on Plant Genetic Resources for Food and Agriculture (the Working Group) to review the HCI and to make recommendations;
- finalize the reporting format for monitoring the implementation of the Second GPA (Reporting Format); and
- upgrade the existing computer application for monitoring the implementation of the Second GPA in order to enable the use of the indicators.¹²

13. The document, *Targets and indicators for plant genetic resources*,¹³ reports on steps taken by FAO in response to the Commission's requests. It provides information on three possible HCIs for the three PGRFA targets and reports on the finalization of the Reporting Format and the upgrading of the computer application for monitoring the implementation of the Second GPA. The document, *Preparation of The Third Report on the State of the World's Plant Genetic Resources for Food and Agriculture*,¹⁴ provides information on the use of indicators and HCIs for monitoring the implementation of the Second GPA.

Animal Genetic Resources for Food and Agriculture

14. The Commission agreed at its last session to the use of specific process and resources indicators and related targets to monitor the implementation and impact of the Global Plan of Action for Animal Genetic Resources for Food and Agriculture.¹⁵

15. The most recent process indicators based on a detailed analysis of the reports of countries on the implementation of the Global Plan of Action for Animal Genetic Resources are presented in the document *Synthesis progress report on the implementation of the Global Plan of Action for Animal Genetic Resources – 2014*.¹⁶ The document *Status and trends of animal genetic resources – 2014*¹⁷ presents the set of resource indicators calculated on the basis of the most up-to-date current and historical data available in the Domestic Animal Diversity Information System (DAD-IS).

Forest Genetic Resources

16. The Commission requested FAO at its last session to continue working on a list of indicators to monitor the state of the world's forest genetic resources and the status of implementation of the *Global Plan of Action for the Conservation, Sustainable Use and Development of Forest Genetic Resources* (GPA FGR) and invited its Working Group on Forest Genetic Resources to review the indicators.¹⁸

¹¹ CGRFA-14/13/Report, Appendix C.

¹² CGRFA-14/13/Report, paragraphs 24-27.

¹³ CGRFA-15/15/4.1.

¹⁴ CGRFA-15/15/16.

¹⁵ CGRFA-14/13/Report, paragraph 28.

¹⁶ CGRFA-15/15/Inf.19.

¹⁷ CGRFA-15/15/Inf.18.

¹⁸ CGRFA-14/13/Report, paragraph 33.

17. The document, *Targets and indicators for forest genetic resources*,¹⁹ provides background information and a revised draft list of indicators designed to specifically monitor the implementation of each Strategic Priority of the GPA FGR, as revised by the Working Group.

Aquatic Genetic Resources for Food and Agriculture

18. At its Fourteenth Regular Session, the Commission requested FAO to develop and finalize a thematic study on indicators for *The State of Genetic Resources in Fisheries and Aquaculture*, emphasizing that this study should also explore how genetic information and diversity measures could be integrated into aquaculture and fisheries statistics.²⁰

19. The thematic study requested by the Commission is included in the revised indicative list of background study papers that have been proposed to be prepared in the context of the preparation of *The State of the World's Aquatic Genetic Resources for Food and Agriculture*.²¹

Biodiversity and Nutrition

20. At its Fourteenth Regular Session, the Commission also requested FAO to continue updating the FAO/INFOODS Food Composition Database for Biodiversity on a regular basis, highlighting the need to enhance efforts to collect sufficient reliable data, undertake capacity development and develop new survey methods and guidelines for modifying existing methods of dietary consumption. These tools and training will assist countries to better capture information on the role of food biodiversity in food security and nutrition, for which food composition and consumption data are needed at the level of variety, cultivar and breed but also for wild and underutilized foods which are often forgotten. The Commission further requested FAO to report on the nutrition indicators for biodiversity to the Commission at its Fifteenth Regular Session.²²

21. FAO continued updating the FAO/INFOODS Food Composition Database for Biodiversity.²³ In 2013, a new version was published with 86 new items. The 2014 edition is expected to include about 300 new food entries, mainly on pork and cassava. All pork data were collected and compiled by students of the Iowa State University through a long-standing collaboration with FAO.

22. The two Nutrition Indicators for Biodiversity on food composition²⁴ and on food consumption²⁵ have the objective of reporting the extent to which existing food biodiversity has been explored. In 2013,²⁶ FAO reported 6321 foods under the food consumption indicator, representing an increase of 1375 foods in two years. For food composition, 15,679 foods were reported with an increase of 1309 foods in 2013. In 2014, no reporting was performed due to lack of funding. The data gap for both indicators has therefore remained almost unchanged since 2012.

IV. GUIDANCE SOUGHT

23. The Commission may wish to invite FAO to:
- (i) Continue to contribute to the development and use of international targets and indicators related to genetic resources for food and agriculture with a view to ensure consistency and coherence among the relevant fora and processes;
 - (ii) Continue updating the FAO/INFOODS Food Composition Database for Biodiversity and developing, testing and applying indicators for biodiversity for food and agriculture at the genetic level, and, whenever relevant, at species and ecosystem levels;

¹⁹ CGRFA-15/15/4.2.

²⁰ CGRFA-14/13/Report paragraph 22.

²¹ CGRFA-15/15/17, *Appendix I*.

²² CGRFA-14/13/Report paragraph 22.

²³ See <http://www.fao.org/infoods/infoods/food-biodiversity/en/>.

²⁴ FAO. 2008. *Expert Consultation on Nutrition Indicators for Biodiversity 1. Food composition*. Rome.

²⁵ FAO. 2010. *Expert Consultation on Nutrition Indicators for Biodiversity 2. Food consumption*. Rome.

²⁶ FAO. 2013. *Nutrition indicators for biodiversity. Report on progress of data availability*. Rome (available at <http://www.fao.org/infoods/infoods/food-biodiversity/en/>).

- (iii) Provide support to the Ad Hoc Technical Expert Group on Indicators for the Strategic Plan for Biodiversity 2011-2020; and
- (iv) Continue assisting countries already undertaking food consumption surveys in order to generate food consumption data for biodiversity on a regular basis.