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联合国粮食及农业组织 | Food and Agriculture Organization of the United Nations | Organisation des Nations Unies pour l'alimentation et l'agriculture | Продовольственная и сельскохозяйственная организация Объединенных Наций | Organización de las Naciones Unidas para la Alimentación y la Agricultura | منظمة الأغذية والزراعة للأمم المتحدة

COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE

Item 9.2 of the Provisional Agenda

Seventeenth Regular Session

Rome, 18–22 February 2019

PROPOSAL FOR AN INTERNATIONAL SYMPOSIUM ON *IN SITU* CONSERVATION OF CROP WILD RELATIVES AND WILD FOOD PLANTS

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I. INTRODUCTION

1. The Commission on Genetic Resources for Food and Agriculture (the Commission), at its Sixteenth Regular Session, reviewed a concept note on *Global networking on in situ conservation and on-farm management of plant genetic resources for food and agriculture*[1] and referred it to its Working Group for further consultations[2]. In response to the Commission's request and upon consultation with experts and stakeholders, FAO developed two separate concept notes, on on-farm management[3] and on *in situ* conservation[4].

2. The Commission's Intergovernmental Technical Working Group on Plant Genetic Resources for Food and Agriculture (Working Group), at its Ninth Session held from 25 to 27 July 2018, recognized the importance of *in situ* conservation of crop wild relatives (CWR) and wild food plants. It recommended that the proposal for a global network on *in situ* conservation of CWR and wild food plants be revised to propose instead an international symposium, to be held in cooperation with the International Treaty on Plant Genetic Resources for Food and Agriculture (Treaty). The Working Group further recommended that the Symposium be held prior to the Tenth Session of the Working Group in 2020, subject to availability of the necessary extra-budgetary resources.[5]

3. This document contains the proposal for an international symposium on *in situ* conservation of CWR and wild food plants, as requested by the Working Group. The proposal has been prepared in cooperation with the Secretariat of the Treaty.

II. RATIONALE

Importance of Crop Wild Relatives and Wild Food Plants

4. It is estimated that 50 000 - 60 000 CWR exist worldwide, with approximately 700 vital to the primary and secondary genepools of the most important food crops. Adapted crop varieties have been developed from CWR since the early 20th century: genes for pest and disease resistance have contributed directly to increased crop yields and to reduced use of pesticides and fungicides, while genes for abiotic stress tolerance reduced the need for non-renewable inputs. Wild food plants, on the other hand, can be direct and important sources of vitamins, minerals and other nutrients, complementing those of staple crops. They also serve cultural purposes and are of special relevance to livelihoods, especially in seasonal periods of food scarcity – for example prior to harvesting and during times of crop failure.

Need for **in situ** *conservation of CWR and wild food plants*

5. Natural populations of CWR and wild food plants are increasingly threatened by habitat loss through destruction and degradation of natural environments and/or conversion to other uses. *In situ* conservation maintains these species subject to selective environmental drivers, thus generating genetic variation of potential value to agriculture. *In situ* conservation of CWR and wild food plants can be located in protected areas.

6. The need for conservation of CWR has been recognized by international conventions and instruments, including the Convention on Biological Diversity (CBD)[6], the International Treaty[7] and the Second Global Plan of Action for Plant Genetic Resources for Food and Agriculture (Second GPA). Further, the Fifth Assessment Report of the Intergovernmental Panel on Climate Change stressed that climate change will affect food security as many plant species are unable to naturally shift geographical ranges sufficiently rapidly to keep up with current and projected rates of climate change

[1] CGRFA-16/17/Inf.20.
[2] CGRFA-16/17/Report/Rev. 1, paragraph 64.
[3] CGRFA/WG-PGR-9/18/Inf.5. Rev.1.
[4] CGRFA/WG-PGR-9/18/Inf.6.
[5] CGRFA-17/19/9.1, paragraph 10.
[6] COP 10 Decision X/34.Agricultural biodiversity
[7] The International Treaty refers to CWR in Article 5: Conservation, Exploration, Collection, Characterization, Evaluation and Documentation of Plant Genetic Resources for Food and Agriculture.

in most landscapes and thus are at risk of extinction[8]. The international community has highlighted the importance of conservation of biodiversity and genetic resources towards achievement of Sustainable Development Goal 2 of the 2030 Agenda for Sustainable Development (i.e. to end hunger, achieve food security and improved nutrition and promote sustainable agriculture).

III. JUSTIFICATION, OBJECTIVES AND EXPECTED OUTPUTS

7. *Justification:* The purpose of this Symposium is to exchange information and experiences, identify current needs and challenges, and develop potential areas for collaboration within a global community of practice. It is essential for countries to share experiences since initiatives addressing the conservation of CWR and wild food plants outside genebanks tend to be unaligned to national conservation strategies and hence lack the coordination required for them to coalesce into sustainable national, regional and global mechanisms.[9]

8. *Objectives:* The objective of the Symposium is to discuss the contribution of CWR and wild food plants in assisting countries to meet their commitments to sustainable development. The aim is to develop technical and policy recommendations on *in situ* conservation of CWR and wild food plants, facilitate knowledge exchange and strengthen cooperation. Topics the Symposium could address include:

a) needs and constraints faced by countries in conserving CWR and wild food plants *in situ*;

b) potential added-value of these resources based on pre-breeding initiatives of CWR for resilience and improved nutrition;

c) opportunities to strengthen support to member countries in capacity development;

d) priority-setting in support of the conservation of CWR and wild food plants;

e) scaling up initiatives at national, regional and international levels in cooperation with the Treaty and other partners.

9. *Expected outputs:* The expected output of the Symposium will be a book of *Proceedings* to contain the full set of papers presented, following a process of peer-review and editing.

IV. SCOPE OF THE SYMPOSIUM

10. The Symposium will focus, *inter alia*, on science-led innovations in the field of conservation of CWR and wild food plants, sharing experiences on enhancing national and international cooperation, the further development of information systems and identifying gaps in the conservation of CWR and wild food plants.[10] The Symposium is expected to bring together the global community of technical experts and policymakers who are actively engaged in the conservation of CWR and wild food plants, providing a platform to share best practices and lessons learnt.

11. This Symposium is envisaged to be the first of a series of symposia to be held in response to evolving needs for sharing diverse approaches and information in this area. Held back-to-back with sessions of the Working Group, they offer an evidence-based platform for Working Group Members to engage with relevant stakeholders. The output of the Symposium, a book of proceedings, will detail the state of knowledge on such topical issues as:

- Gaps, needs and constraints identified and possible solutions;
- Cooperation mechanisms to enable countries to benefit from the expertise and experiences of others; and

[8] IPCC, 2014: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp.

[9] FAO 2010. The Second Report on the State of the World's Plant Genetic Resources for Food and Agriculture. Rome. Available from: http://www.fao.org/docrep/013/i1500e/i1500e.pdf

[10] FAO. 2017. Voluntary Guidelines for the Conservation and Sustainable Use of Crop Wild Relatives and Wild Food Plants. Available online from: http://www.fao.org/3/a-i7788e.pdf

- Possible financing opportunities.

The outcomes of the Symposium will be presented to the Tenth Session of the Working Group in 2020 and to the Ad Hoc Technical Committee on Sustainable Use of the Treaty.

V. TENTATIVE PROGRAMME AND STRUCTURE

12. The Symposium is tentatively scheduled as a two-day event, to be held prior to the Tenth Session of the Working Group, which is scheduled for mid-2020. A list of possible key themes is given in the Annex to this document.

VI. ESTIMATED BUDGET

13. The estimated budget for the proposed two day meeting is USD 42 400 USD (see table below) which includes meeting logistics and travel expenses of external keynote speakers and session chairs. The Symposium is subject to availability of extra-budgetary funds, as the estimated costs do not include participant travel expenses, preparation and publication of the Symposium proceedings, and interpretation/translation costs as the Symposium and proceedings will be in English.

<table>
<tr><th colspan="2">Items of Expenditure</th><th>Cost (USD)</th><th>Total (USD)</th></tr>
<tr><td>Meeting logistics</td><td>Book of abstracts, communication, technical support, meeting rooms</td><td>10 000</td><td>10 000</td></tr>
<tr><td rowspan="2">Sponsored participants (15 Keynote speakers and session chairs)</td><td>Travel (economy round trip airfare): 1500 x 15</td><td>22 500</td><td rowspan="2">32 400</td></tr>
<tr><td>Ad hoc per diem: 220 x 3 x 15</td><td>9 900</td></tr>
<tr><td>Total</td><td></td><td></td><td>42 400</td></tr>
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ANNEX

INTERNATIONAL SYMPOSIUM ON *IN SITU* CONSERVATION OF CROP WILD RELATIVES AND WILD FOOD PLANTS

POSSIBLE KEY THEMES

Setting the scene: *National, Regional and Global experiences*

- Threats and the need for conservation of CWR and wild food plants;
- Securing CWR and wild food plants *in situ* and complementary *ex situ* approaches;
- Relevant policy frameworks for the *in situ* conservation of CWR and wild food plants.

Conservation status and use of CWR and wild food plants: tools, analyses and planning

- Prioritization of CWR and wild food plants for conservation in protected areas and in farmers' fields;
- Pre-breeding, predictive characterization and utilization of CWR and wild food plants;
- Systematic collection of data and monitoring CWR and wild food plant diversity;
- Implementation of conservation priorities.

The way forward: strategies and coordinated approaches

- Building consensus between biodiversity and agrobiodiversity communities;
- Capacity development and partnership building among different stakeholders;
- Emerging opportunities, necessary actions and recommendations.