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منظمة  
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للأمم المتحدة

# COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE

## Item 2.4 of the Provisional Agenda

### Sixteenth Regular Session

Rome, 30 January - 3 February 2017

## REVIEW OF THE PROGRAMME OF WORK ON CLIMATE CHANGE AND GENETIC RESOURCES FOR FOOD AND AGRICULTURE

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## I. INTRODUCTION

1. The Commission on Genetic Resources for Food and Agriculture (Commission), at its Fourteenth Regular Session, reaffirmed the importance of genetic resources for food and agriculture for coping with climate change and the need for raising awareness of their potential roles. The Commission adopted a Programme of Work on Climate Change and Genetic Resources for Food and Agriculture (2013 - 2017)<sup>1</sup>, which it revised at its Fifteenth Regular Session, as given in *Appendix I* to this document.

2. The Commission's Multi-Year Programme of Work and the Programme of Work on Climate Change and Genetic Resources for Food and Agriculture (Programme of Work) foresee a report to the Commission's Sixteenth Regular Session on progress in the implementation of the Programme of Work, for consideration of possible future work. This document provides an overview of the implementation of the Programme of Work.

## II. FAO'S WORK ON CLIMATE CHANGE

3. Climate change is a cross-cutting theme of FAO's work, but of particular importance in *Strategic Objective 2: Make agriculture, forestry and fisheries more productive and sustainable*; and *Strategic Objective 5: Increase the resilience of livelihoods to threats and crises*. The Commission's work on climate change takes place within FAO's broader engagement in this important topic of the 2030 Agenda for Sustainable Development. FAO, in 2015-16, is supporting 172 projects at national, regional and global levels, for around 190 Million USD. In October 2016, FAO was accredited to the Green Climate Fund, the main vehicle for securing and distributing finance for climate adaptation and mitigation.

4. The *Strategy for FAO's work on climate change* has been reviewed by FAO's Committees on Fisheries, Forestry and Agriculture as a cross-cutting issue, as well as the 120s Session of the Programme Committee<sup>2</sup>, and continues to develop. COAG looked forward for the climate change strategy to encompass issues relating to biodiversity, exploring synergies between adaptation and mitigation, as well as fostering collaboration among countries, and requested FAO and countries to mainstream biodiversity in agriculture, including livestock to promote its contribution to ecosystem services and to climate change adaptation and mitigation. COAG also requested that the issues of mainstreaming biodiversity be addressed by COAG, but also by COFI and COFO, as a cross-cutting issue, at the next meetings in 2018.<sup>3</sup>

## III. REVIEW OF IMPLEMENTATION OF THE PROGRAMME OF WORK ON CLIMATE CHANGE AND GENETIC RESOURCES FOR FOOD AND AGRICULTURE

5. For the implementation of the Programme of Work, the Commission Secretariat took advantage of already established as well as emerging programmes and activities in FAO.

6. **Activities towards the *Voluntary Guidelines to Support the Integration of Genetic Diversity into National Climate Change Adaptation Planning (Voluntary Guidelines)***. As requested by the Commission at its Fourteenth Regular Session, the Commission's Intergovernmental Technical Working Groups considered the draft Voluntary Guidelines which took into account, *inter alia*, information obtained through other activities of the Programme of Work, such as a global survey on *Lessons learned about the ways and means to conserve and use genetic diversity to build resilience to climate change in food and agriculture systems*<sup>4</sup>, conducted in 2013, and a workshop<sup>5</sup> organized by FAO in April 2014, at FAO Headquarters in Rome, Italy. A revised version of the draft Voluntary

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<sup>1</sup> CGRFA-14/13/Report, *Appendix D*.

<sup>2</sup> PC 120/2; CL 155/5.

<sup>3</sup> C 2017/21, paragraph 9 and 12.

<sup>4</sup> CGRFA-15/15/Inf.16.

<sup>5</sup> <http://www.fao.org/3/a-b1973e.pdf>

Guidelines was considered and subsequently endorsed by the Commission at its Fifteenth Regular Session.

7. The Voluntary Guidelines were approved by the Thirty-ninth Session of the FAO Conference in June 2015. They were published in all official FAO languages in November 2015 in time for the Twenty-first session of the Conference of the Parties to the UNFCCC (UNFCCC COB 21), held from 30 November to 11 December 2015, in Paris, France. They were officially transmitted by the FAO Director-General to the Executive Secretaries of the UNFCCC and of the Convention on Biological Diversity (CBD). The Voluntary Guidelines are available as supplementary material to the National Adaptation Plan (NAP) Technical Guidelines at the NAP Central<sup>6</sup>, an information platform for supporting the NAP process. The CBD made them available as information document at the Twentieth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA 20), held from 25 to 30 April 2016, in Montreal, Canada.<sup>7</sup>

8. ***Coping with climate change - The roles of genetic resources for food and agriculture.*** In line with the Programme of Work, FAO developed technical and awareness-raising material. The publication, *Coping with climate change - The roles of genetic resources for food and agriculture*<sup>8</sup> provides an overview of the complex interactions between genetic resources and climate change, and has been widely promoted. FAO also prepared an infographic [Livestock diversity helps cope with climate change](#).

9. **Other publications.** The key role of genetic resources for food and agriculture has been highlighted in several FAO publications, including FAO's flagship publication *The State of Food and Agriculture 2016: Climate change, agriculture and food security*<sup>9</sup>, and *Climate change and food security: risks and responses*<sup>10</sup>.

10. **Web site and online tools.** The Commission's web site contains a separate page on climate change which is regularly updated<sup>11</sup>. An updated module on genetic resources for food and agriculture for climate smart agricultural production is being prepared for the web based Second Edition of the *Climate-Smart Agriculture Sourcebook*<sup>12</sup>.

11. FAO has developed an online tool for animal genetic resources, to model suitable areas for breeds under current and expected future climate conditions. The tool contributes to better informed decision-making on breed management in a changing climate and hence may strengthen the capacity of governments, livestock keepers and farmers to protect and enhance food security and manage their animal genetic resources sustainably.<sup>13</sup>

12. **Organization of workshops on the integration of GRFA into adaptation planning.** Regional workshops on the integration of GRFA into adaptation planning could not be organized due to limited resources. However, the Commission Secretariat engages in the Integrating Agriculture in National Adaptation Plans (NAP-Ag) Programme<sup>14</sup>. The NAP-Ag Programme, a joint FAO and United Nations Development Programme (UNDP) initiative, supports 11 developing countries (Colombia, Gambia, Guatemala, Kenya, Nepal, Philippines, Thailand, Uganda, Uruguay, Viet Nam and Zambia) in integrating their agriculture sectors in NAPs. The programme aims to identify and integrate climate adaptation measures in the agriculture sectors (crop, livestock, forestry, fisheries and aquaculture) into relevant national planning and budgeting through the National Adaptation Plan (NAP) process. To integrate activities related to genetic resources into the programme, the Commission's national focal

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<sup>6</sup> <http://unfccc.int/nap/>

<sup>7</sup> UNEP/CBD/SBSTTA/20/INF/4.

<sup>8</sup> <http://www.fao.org/3/a-i3866e.pdf>; Also available as e-book: <http://www.fao.org/publications/e-book-collection/jp/>

<sup>9</sup> <http://www.fao.org/publications/sofa/sofa2016/en/>

<sup>10</sup> <http://www.fao.org/3/a-i5188e.pdf>

<sup>11</sup> [www.fao.org/nr/cgrfa/cross-sectorial/climate-change](http://www.fao.org/nr/cgrfa/cross-sectorial/climate-change)

<sup>12</sup> The first version of the Sourcebook is available at <http://www.fao.org/docrep/018/i3325e/i3325e00.htm>

<sup>13</sup> <http://www.fao.org/breed-distribution-model/en/>

<sup>14</sup> <http://www.fao.org/in-action/naps/en/>

points / coordinators (sectoral, biodiversity for food and agriculture, as well as to the Commission) are encouraged to participate in the programme, as appropriate.

13. **Submissions.** FAO provided submissions to the United Nations Framework Convention on Climate Change (UNFCCC) on issues relating to agriculture<sup>15</sup>, stressing the importance of genetic resources for food and agriculture. Relevant materials on genetic resources and climate change for countries embarking on the National Adaptation Plan (NAP) process was also shared with the UN Climate Change Secretariat.

14. **Events.** The Secretary attended the Nineteenth Conference of the Parties to the United Nations Framework Convention on Climate (UNFCCC) and parallel meetings, held 11-22 November 2013, in Warsaw, Poland. The Secretariat of the Commission provided technical inputs to many climate change related side events, conferences and technical meetings, including

- Expert Workshop on Crop and Livestock Diversity for Climate Change Adaptation (8-11 October 2013, Maccarese, Italy)<sup>16</sup> and
- Genetic Resources for Food and Agriculture in a Changing Climate (27-29 January 2014, Lillehammer, Norway).

15. The Voluntary Guidelines were presented and promoted at different events, including

- Training on National Adaptation Planning (23-27 February 2015, Livingstone, Zambia);
- EXPO Milan 2015 at a Conference on Climate Change and Food Security: Challenges for Plant Health, Plant Breeding and Genetic Resources (14 July 2015, Milan, Italy);
- Global Capacity Development Workshop: Integrating Agriculture in NAPs (5-7 April 2016, Rome, Italy)<sup>17</sup>;
- NAP EXPO 2015 (14-15 April 2015, Bonn, Germany) and NAP EXPO 2016 (11-15 July 2016, Bonn, Germany); and
- At UNFCCC COP 22, FAO will be disseminating its key climate change documents and publications including the Voluntary Guidelines to UNFCCC member countries and multiple stakeholders. A FAO-UNDP event “Accelerating investment in adaptation action through NAPs” on 08 November in the UNDP Pavilion will highlight FAO’s technical support to countries on agriculture forestry fisheries including the Voluntary Guidelines.

#### **Human and financial resources**

16. Regular programme as well as extra-budgetary resources made available by the Governments of Germany, Norway and Sweden have mainly been used for the implementation of the Programme of Work. Support in the implementation of the Programme of Work was provided by staff funded from extra-budgetary resources.

### **IV. FUTURE WORK ON CLIMATE CHANGE AND GENETIC RESOURCES FOR FOOD AND AGRICULTURE**

#### *Climate change effects and genetic resource adaptation measures*

17. There is an urgent need for raising awareness among policy makers and relevant stakeholders of the importance of genetic resources to cope with climate change. Future work should therefore include a country-driven global assessment of the effects of climate change on the conservation and sustainable use of genetic resources for food and agriculture. The global assessment should in addition take stock of measures taken by the different sectors to cope with climate change. Exchanging

<sup>15</sup> <http://www.fao.org/climate-change/international-fora/submissions/2016/en/>

<sup>16</sup> Boettcher et al 2015. Genetic resources and genomics for adaptation of livestock to climate change; <http://www.fao.org/3/a-av223e.pdf>

<sup>17</sup> <http://www.fao.org/in-action/naps/news-events/events/global-capacity-development-workshop-2016/en/>

information on these measures may assist sectors and policy-makers in the development of adequate genetic-resource-based climate change adaptation measures and will facilitate the Commission to identify gaps and needs at national level which, through international collaboration, may be addressed more efficiently and effectively.

18. Future activities could also include the continuous preparation and updating of technical and awareness-raising material, submissions to the UNFCCC, as appropriate, and support the national implementation of the Voluntary Guidelines.

## V. GUIDANCE SOUGHT

19. The Commission may wish to:

- (a) Review the progress made in the implementation of the Programme of Work and comment on future activities;
- (b) Integrate the Commission's work on climate change into the proposed Strategic Plan for the Commission on Genetic Resources for Food and Agriculture (2018-2027);
- (c) Invite the Secretary of the Commission to continue raising awareness on the importance and potential role of genetic resources for food and agriculture; and
- (d) Invite its Members to
  - i.* implement the *Voluntary Guidelines to Support the Integration of Genetic Diversity into National Climate Change Adaptation Planning* and provide feedback;
  - ii.* integrate genetic resources diversity into national climate change adaptation planning, addressing both their potential for adaptation to and mitigation of the effects of climate change,
- (e) Request the Secretary to prepare a proposal for the preparation of a country-driven global assessment of climate change effects and genetic resource adaptation measures, for consideration of the Commission at its next session.

## APPENDIX I

### PROGRAMME OF WORK ON CLIMATE CHANGE AND GENETIC RESOURCES FOR FOOD AND AGRICULTURE (2013 -2017)<sup>18</sup>

Recognizing that the Commission's Programme of Work does not prejudice efforts under the United Nations Framework Convention on Climate Change (UNFCCC) to address climate change, and that the Programme of Work will refrain from providing policy prescriptive recommendations; the Programme of Work has two objectives:

- A. Promote the understanding of the roles and importance of genetic resources for food and agriculture in food security and nutrition and in ecosystem function and system resilience in light of climate change.
- B. Provide technical information to enable countries to understand the role of genetic resources for food and agriculture in climate change mitigation and adaptation, as appropriate.

#### 2013

<u>Tools and technologies</u>	<ul style="list-style-type: none"> <li>• Preparation of technical material on genetic resources for food and agriculture and climate change to facilitate the implementation of national adaptation programmes of action (NAPAs) and national adaptation plans (NAPs), as well as awareness-raising material for planners, policy makers and farming communities.</li> <li>• Conduct a survey on the theme of "Lessons learned about ways and means to conserve and use genetic diversity to build resilience to climate change in food and agriculture systems".</li> <li>• Organize expert meeting to finalize results of the survey.</li> </ul>
<u>Strategies and policies</u>	<ul style="list-style-type: none"> <li>• Provide formal submission to the UNFCCC on the importance of genetic resources for food and agriculture with respect to climate change.</li> <li>• Explore the possibility of a side event at the 19<sup>th</sup> Session of the Conference of the Parties (COP) to the UNFCCC (November 2013, Poland).</li> <li>• Respond to invitation from the UNFCCC Adaptation Committee to provide information.</li> <li>• Provide material and information in support of training workshops on adaptation.</li> <li>• Explore the possibility of a side event at, or providing documentation to, the 17<sup>th</sup> Session of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) of the Convention on Biological Diversity (CBD).</li> </ul>

<sup>18</sup> As adopted by the Commission's Fourteenth Regular Session (CGRFA-14/13/Report, *Appendix D*) and revised by the Fifteenth Regular Session (CGRFA-15/15/8, *Appendix II*; CGRFA-15/15/Report, para. 35).

**2014**

<u>Tools and technologies</u>	<ul style="list-style-type: none"> <li>• Compile information on hotspots of biodiversity for food and agriculture under particular threat from climate change.</li> <li>• Commission's intergovernmental technical working groups to develop guidelines for the integration of genetic-diversity considerations into climate change adaptation planning (NAPs, NAPAs).</li> </ul>
<u>Strategies and policies</u>	<ul style="list-style-type: none"> <li>• Participate in activities of the work plan of the UNFCCC Adaptation Committee, as relevant.</li> <li>• Explore the possibility of a side event at, or providing documentation to, CBD SBSTTA 18.</li> <li>• Explore the possibility of a side event at CBD COP 12.</li> </ul>

**2015**

<u>Tools and technologies</u>	<ul style="list-style-type: none"> <li>• Preparation, translation, publishing and distribution of technical and awareness-raising material (e.g. <i>Guidelines to support the integration of genetic diversity into national climate change adaptation planning; Coping with climate change - The roles of genetic resources for food and agriculture</i>; further develop the Commission's web site on climate change)</li> <li>• Organization of regional workshops on the integration of GRFA into adaptation planning</li> </ul>
<u>Strategies and policies</u>	<ul style="list-style-type: none"> <li>• Mainstreaming and awareness-raising activities</li> <li>• Explore the possibility of a side event, or delivering a submission, at UNFCCC Subsidiary Body for Implementation, COP 21 or other relevant events</li> <li>• Explore the possibility of a side event at, or providing documentation to, CBD SBSTTA 19 or other relevant events</li> </ul>

**2016**

<u>Tools and technologies</u>	<ul style="list-style-type: none"> <li>• Preparation, translation, publishing and distribution of technical and awareness-raising material</li> </ul>
<u>Strategies and policies</u>	<ul style="list-style-type: none"> <li>• Mainstreaming and awareness-raising activities</li> <li>• Explore the possibility of a side event or submission at UNFCCC COP 22 or other relevant events</li> <li>• Explore the possibility of a side event or document at CBD SBSTTA 20.</li> <li>• Explore the possibility of a side event at CBD COP 13.</li> </ul>

**2017**

- Report to the Commission, at its Sixteenth Session, on progress in the implementation of the Programme of Work for consideration of possible future work.