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# COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE

### **Item 4.2 of the Provisional Agenda**

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FAO PROGRESS REPORT ON THE IMPLEMENTATION OF THE GLOBAL PLAN OF ACTION FOR ANIMAL GENETIC RESOURCES AND THE INTERLAKEN DECLARATION

### **Table of Contents**

		Paragraph
I.	Introduction	1
II.	Status of implementation of the Global Plan of Action for Animal Genetic Resources	2 – 10
III.	FAO support to the strategic priority areas of the Global Plan of Action for Animal Genetic Resources	11 – 24
IV.	Collaboration	25 - 26
VI.	Guidance sought	27

### I. INTRODUCTION

1. The present document reports on FAO activities undertaken since the Thirteenth Regular Session of the Commission on Genetic Resources for Food and Agriculture (the Commission) to implement the *Global Plan of Action for Animal Genetic Resources (Global Plan of Action)*. The activities are grouped according to their relevance to the four strategic priority areas of the *Global Plan of Action*. More detailed information is provided in the document, *Detailed FAO progress report on the implementation of the Global Plan of Action for Animal Genetic Resources*. <sup>1</sup>

### II. STATUS OF IMPLEMENTATION OF THE GLOBAL PLAN OF ACTION

- 2. The Commission, at its Twelfth Regular Session, agreed to assess the status of implementation of the *Global Plan of Action*. <sup>2</sup> In response to the Commission's request, <sup>3</sup> FAO initiated the preparation of Country Progress Reports, Regional Progress Reports and reports from international organizations on the implementation of the *Global Plan of Action*. More details on and an analysis of these reports are contained in the document, *Synthesis progress report on the implementation of the Global Plan of Action for Animal Genetic Resources* 2012 (Synthesis report). <sup>4</sup>
- 3. Analysis of the impact of the *Global Plan of Action* at country level reveals that substantial improvements have been made since 2007. However, the Country Progress Reports indicate that the state of implementation of the various elements of the *Global Plan of Action*, and the extent to which progress has been made, vary substantially among countries and regions. Implementation is generally at a high level in Europe and the Caucasus and North America, at a medium level in Asia, and at a low level in other regions. For the world as a whole, the indicator for Strategic Priority Area 4 (Policies, institutions and capacity building) shows a lower level of implementation than the indicators for the other three strategic priority areas. However, for several developing regions, it is Strategic Priority Area 3 (Conservation) that has the lowest indicator scores.
- 4. In all regions, the indicators for the state of collaboration and for the state of funding show a lower level of implementation than those for the strategic priority areas themselves. Financial constraints are also the most frequently mentioned obstacles to the implementation of the *Global Plan of Action*.
- 5. Regional Progress Reports on the state of implementation of the *Global Plan of Action* present a mixed picture. Activities are most advanced in Europe, the region with the longest-established Regional Focal Point, where a range of activities are reported across all the strategic priority areas of the *Global Plan of Action*. A more limited range of activities is reported by the Regional Focal Point for Latin America and the Caribbean and the Animal Genetic Resources Network Southwest Pacific. The Sub-Regional Focal Point for West and Central Africa, launched only in June 2011, has established regional priorities for action in the various strategic priority areas of the *Global Plan of Action*.
- 6. International organizations continue to make an important contribution to the implementation of all four strategic priority areas of the *Global Plan of Action*.
- 7. Despite the significant impact of the *Global Plan of Action*, the task of improving the management of the world's animal genetic resources remains far from complete. The reason for this lies mainly in a lack of sufficient financial resources, but also in low levels of collaboration between countries, a lack of established policies and legal frameworks, and a lack of strong institutional and human capacity for planning in the livestock sector. Decision-makers are

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<sup>&</sup>lt;sup>1</sup> CGRFA/WG-AnGR-7/12/Inf.2.

<sup>&</sup>lt;sup>2</sup> CGRFA-12/09/Report, paragraphs 38-39 and CGRFA/WG-AnGR-5/09/3.2 para 8.

<sup>&</sup>lt;sup>3</sup> CGRFA-12/09/Report, paragraph 38.

<sup>&</sup>lt;sup>4</sup> CGRFA-14/13/Inf.15.

encouraged to use the country-level indicators presented in the Synthesis report as a means of identifying strategic priority areas and strategic priorities where action is particularly required. The number of countries which updated national breed data in the Domestic Animal Diversity Information System (DAD-IS) in 2012 increased from 7 to 28 countries compared to 2011. Population data are now available for 48 percent of avian and 57 percent of mammalian breeds. Based on these data, a total of 1881 breeds (23 percent) are classified as at risk. The latest *Status and trends report on animal genetic resources* – 2012 has been made available by FAO.<sup>5</sup>

- 8. With the currently available data and updating tools, no reliable conclusions can be drawn with regard to global trends in breed risk status. If future status and trends reports are to provide meaningful inputs to decision-making in animal genetic resources management, reporting, including the frequency of reporting, on the size of national breed populations needs to improve. National Coordinators for the Management of Animal Genetic Resources should also enter historical data in DAD-IS, as these will help to identify and analyze trends in breed population size and structure.
- 9. DAD-IS is crucial for monitoring the implementation of the *Global Plan of Action*. A module that enables the geo-referencing of the distribution of national breed populations and the description of their production environments has been developed for DAD-IS. Since its adoption in 2007, the *Global Plan of Action* has become a key policy instrument for the conservation and sustainable use of animal genetic resources at global, regional and national levels. It has, *inter alia*, inspired regional strategies on animal genetic resources, such as The Strategic Plan 2010–2014 of the African Union Interafrican Bureau for Animal Resources, that contains a programme on "Enhancing Africa's capacity to conserve and sustainably use its animal resources and their natural resource base".<sup>6</sup>
- 10. Detailed information on the implementation of the Funding Strategy for the implementation of the *Global Plan of Action* are presented in the document, *Review of the Funding Strategy for the implementation of the Global Plan of Action for Animal Genetic Resources.*<sup>7</sup>

## III. FAO SUPPORT TO THE STRATEGIC PRIORITY AREAS OF THE GLOBAL PLAN OF ACTION

### A. Strategic Priority Area 1: Characterization, inventory and monitoring of trends and associated risks

- 11. FAO, in collaboration with partners, continued to pursue the standardization of methods for molecular and phenotypic characterization of animal genetic resources, a prerequisite for cross-country comparisons and meta-studies, and for the storage of data in publicly accessible databases. In this context, capacity-building workshops and an expert meeting on characterization, inventory and monitoring were held. The Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture (AGE) utilizes molecular data generated through AGE projects to identify genes that could have economic or environmental importance.
- 12. FAO published and widely distributed the guidelines, *Molecular genetic* characterization of animal genetic resources, Phenotypic characterization of animal genetic resources. and Surveying and monitoring of animal genetic resources. 10 11

8 www.fao.org/docrep/014/i2413e/i2413e00.pdf

<sup>&</sup>lt;sup>5</sup> CGRFA-14/13/Inf.16.

<sup>&</sup>lt;sup>6</sup> http://www.au-ibar.org/index.php?option=com\_flexicontent&view=items&cid=85&id=170

<sup>&</sup>lt;sup>7</sup> CGRFA\_14/13/14.

<sup>9</sup> www.fao.org/docrep/015/i2686e/i2686e00.pdf

 $<sup>^{10}\</sup> http://www.fao.org/docrep/014/ba0055e/ba0055e00.htm$ 

### B. Strategic Priority Area 2: Sustainable use and development

13. In response to the Commission's request<sup>12</sup>, during the period under review, FAO supported technically and financially various research projects and capacity-building activities related to the sustainable use and development of animal genetic resources, in cooperation with other stakeholders.

- 14. Several countries received support through Technical Cooperation Projects, administered by FAO and the Joint FAO/IAEA Division (AGE) that focused on a range of issues, including livestock development, animal identification and traceability, breed improvement and reproductive technologies. In addition, technical support was provided to two projects sponsored by the Global Environment Facility, in Southeast Asia and West Africa.
- 15. FAO and the International Committee for Animal Recording and the Pan-American Dairy Federation jointly organized a regional workshop on animal identification and traceability in Latin America and the Caribbean. Guidelines for animal identification, traceability and performance recording in low and medium input production systems are under preparation.
- 16. FAO activities regarding strenghtening the roles of small-scale livestock keepers and pastoralists have evolved around five main themes: Access of small-scale livestock keepers to natural resources and land tenure; Adding value to local breeds, their products and services; Participation of small-scale livestock keepers; Policies relevant to small-scale livestock keepers; Adaptation to and mitigation of climate change. More details are available in the document *Role of small-scale livestock keepers in the conservation and sustainable use of animal genetic resources*.<sup>13</sup>
- 17. Several projects aiming to assess the contribution of local livestock breeds to the delivery of ecosystem services and explore the potential of payment for such services are on-going. A project in China is developing a method to assess the sequestering of soil carbon through improved grazing management, thereby facilitating the access of small-scale herders keeping local breeds to carbon markets. Capacity development on adding value to products from local livestock breeds is also ongoing.

### C. Strategic Priority Area 3: Conservation

- 18. The guidelines, *Cryoconservation of animal genetic resources*, were published at the end of 2012 following the request of the Commission. <sup>14</sup> In accordance with the Commission's request that FAO continue updating and further developing technical guidelines supporting the implementation of the *Global Plan of Action*, <sup>15</sup> FAO prepared the document *Draft technical guidelines for the implementation of the Global Plan of Action for Animal Genetic Resources*. <sup>16</sup> The *Draft guidelines on in vivo conservation of animal genetic resources* were reviewed by the Working Group in October 2012 and revised accordingly. <sup>17</sup>
- 19. Practical constraints, such as a lack of regular access to liquid nitrogen, limit the possibilities to conserve animal genetic resources through cryoconservation at national level in some regions. These constraints could be addressed by regional initiatives, including regional genebanks. However, such regional initiatives may require an agreement on the conditions of which material may be stored and possibly transferred to third parties.

<sup>11</sup> CGRFA/WG-AnGR-7/12/Inf.7.

<sup>&</sup>lt;sup>12</sup> CGRFA-13/11/Report, paragraph 77.

<sup>&</sup>lt;sup>13</sup> CGRFA-14/13/Inf.17

<sup>&</sup>lt;sup>14</sup> CGRFA-13/11/Report, paragraph 79.

<sup>&</sup>lt;sup>15</sup> CGRFA-12/09/Report, paragraph 41; CGRFA-13/11/Report, paragraph 79.

<sup>16</sup> CGRFA/WG-AnGR-7/12/3.

<sup>&</sup>lt;sup>17</sup> CGRFA-14/13/ Inf.18.

### D. Strategic Priority Area 4: Policies, institutions and capacity-building

- 20. FAO published and distributed the guidelines, *Development of the institutional framework for the management animal genetic resources.* <sup>18</sup>
- 21. Over the past two years, FAO and its partners contributed to the development and/or implementation of 37 projects involving more than 45 countries and organized 19 regional capacity-building activities with an average of 14 countries participating.
- 22. FAO contributed to a range of cross-cutting initiatives related to biodiversity, biotechnology and nutrition, including scientific papers on the interactions between animal genetic resources and climate change as well as other environmental issues and sustainable diets. The fiftieth volume of the journal *Animal Genetic Resources* was published in 2012.<sup>19</sup> With its more than 400 papers published over a period of nearly 30 years, the journal continues to be a key publication for the sector and an important supporting tool for the implementation of the *Global Plan of Action*.
- 23. FAO supported National Coordinators and other regional stakeholders in establishing a single Sub-Regional Focal Point for West and Central Africa which culminated in the signing of the "Libreville Declaration" at a workshop held in Gabon,<sup>20</sup> in June 2011. FAO prepared a regional TCP project with the objective of strengthening this Sub-Regional Focal Point and launching activities for the establishment of a Sub-regional Focal Point in Eastern Africa.
- 24. The Thirty-seventh Session of the FAO Conference stressed the importance of addressing the particular needs of small-scale livestock keepers and pastoralists, custodians of much of the world's animal genetic resources, and encouraged their full and effective participation in the implementation of the *Global Plan of Action*. The information document *Roles of small-scale livestock keepers in the conservation and sustainable use of animal genetic resources* 22 describes the current status. A study, *Invisible guardians women manage livestock diversity*, bublished by FAO in 2012, concludes that it is mainly women who act as guardians of the remaining locally adapted livestock breeds, due to their responsibility for shouldering the reproductive economy and their tendency to favour risk-avoiding livelihood strategies.

### IV. COLLABORATION

- 25. The FAO Conference, at its Thirty-seventh Session, requested FAO to continue partnerships with other organizations in the implementation of the *Global Plan of Action*. FAO continued its interaction with various scientific organizations, non-governmental organizations and the breeding industry. It organized joint sessions at scientific conferences and continues to operate DAD-Net as an informal open forum for the discussion of issues relevant to the management of animal genetic resources. FAO's scientific contributions further increased awareness of the *Global Plan of Action* in the scientific community.
- 26. FAO provided support to a wide range of partners working on cross-cutting issues such as climate change, adding value by identifying co-benefits of better animal genetic resources management.

<sup>&</sup>lt;sup>18</sup> http://www.fao.org/docrep/014/ba0054e/ba0054e00.htm

<sup>&</sup>lt;sup>19</sup> http://journals.cambridge.org/action/displayJournal?jid=AGR

<sup>&</sup>lt;sup>20</sup> http://dad.fao.org/cgi-bin/getblob.cgi?sid=-1,1009

<sup>&</sup>lt;sup>21</sup> C 2011/REP, paragraph 70.

<sup>&</sup>lt;sup>22</sup> CGRFA-14/13/Inf.17.

<sup>&</sup>lt;sup>23</sup> http://www.fao.org/docrep/016/i3018e/i3018e00.htm

<sup>&</sup>lt;sup>24</sup> C 2011/REP, paragraph 70.

### V. GUIDANCE SOUGHT

### 27. The Commission may wish to:

- i. Request FAO to continue its activities in support of the implementation of the *Global Plan of Action*;
- ii. Request FAO to maintain and strengthen its work in providing technical assistance to countries in their implementation efforts;
- iii. Stress the need for countries to regularly update their national data and information in DAD-IS or FABIS-net to facilitate well-informed decision-making in the management of animal genetic resources and invite countries to collect and insert data into the production environment descriptor module of DAD-IS.;
- iv. Endorse the *Draft guidelines on in vivo conservation of animal genetic resources* and request FAO to continue developing technical guidelines on animal identification, traceability and performance recording; and
- v. Request FAO to explore if and how payments for ecosystem services provided by livestock species and breeds could benefit all livestock keepers, with special consideration to the important contributions of small-scale livestock keepers and pastoralists, and to report back to the Commission's next session.