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Food and Agriculture  
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# COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE

## Item 3.1 of the Provisional Agenda

### INTERGOVERNMENTAL TECHNICAL WORKING GROUP ON ANIMAL GENETIC RESOURCES FOR FOOD AND AGRICULTURE

#### Eleventh Session

19 – 21 May 2021

### REVIEW OF IMPLEMENTATION OF THE GLOBAL PLAN OF ACTION FOR ANIMAL GENETIC RESOURCES

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## I. INTRODUCTION

1. The Commission, at its Seventeenth Regular Session, called upon countries to continue implementing the Global Plan of Action for Animal Genetic Resources (Global Plan of Action), in order to contribute to global food security and sustainable rural development and, in particular, to the achievement of Strategic Development Goals (SDG) 2 and 15; it requested FAO to strengthen partnerships with stakeholders and donors to continue technical and policy support for country implementation of the Global Plan of Action.<sup>1</sup>

2. This document provides a report on FAO activities since the Commission's Seventeenth Regular Session. The activities are grouped according to their relevance to the four strategic priority areas of the Global Plan of Action. More in-depth information is provided in the document *Detailed FAO progress report on the implementation of the Global Plan of Action for Animal Genetic Resources*.<sup>2</sup>

## II. STATUS OF IMPLEMENTATION OF THE GLOBAL PLAN OF ACTION FOR ANIMAL GENETIC RESOURCES

3. The Commission, at its Twelfth Regular Session, agreed to assess the status of implementation of the Global Plan of Action through process and resource indicators.<sup>3</sup> With respect to the process indicators, countries, regions and international organizations report on activities initiated to implement the Global Plan of Action.

4. Reviews of implementation of the Global Plan of Action have been undertaken in the past, resulting in the *Synthesis Progress Report on the Implementation of the Global Plan of Action for Animal Genetic Resources – 2012*<sup>4</sup> and *2014*<sup>5</sup> (Synthesis Report). At its Seventeenth Regular Session, the Commission endorsed the procedure of following the reporting format that was used for the preparation of the previous Synthesis Reports to undertake a new review of progress in the implementation of the Global Plan of Action and invited countries to submit country progress reports in a timely manner.<sup>6</sup>

5. This section provides a brief summary of the country progress reports, as well as reports received from regions and international organizations. More detail is provided in the document *Synthesis progress report on the implementation of the Global Plan of Action for Animal Genetic Resources – 2020*.<sup>7</sup> The section also provides some recent evidence of the policy impact of the Global Plan of Action at country levels.

6. For the resource indicators, countries use the Domestic Animal Diversity Information System (DAD-IS) to report information regarding the status of their national breed populations. Details are provided in the document *Status and trends of animal genetic resources – 2020*.<sup>8</sup>

### A. Progress reporting by countries, regions and international organizations

7. In response to the Commission's request,<sup>9</sup> FAO, through a Circular State Letter (CSL C/AGA-5 of 4 March 2019) invited countries to submit progress reports on the implementation of the Global Plan of Action by 31 July 2019.<sup>10</sup> FAO contacted all National Coordinators for the

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<sup>1</sup> CGRFA-17/19/Report paragraph 86.

<sup>2</sup> CGRFA/WG-AnGR-11/21/Inf.2.

<sup>3</sup> CGRFA-12/09/Report, paragraph 38, 39.

<sup>4</sup> CGRFA-15/15/Inf.19.

<sup>5</sup> CGRFA-14/13/Inf.15.

<sup>6</sup> CGRFA-17/19/Report paragraph 85.

<sup>7</sup> CGRFA/WG-AnGR-11/21/Inf.3.

<sup>8</sup> CGRFA/WG-AnGR-11/21/Inf.6.

<sup>9</sup> CGRFA-17/19/Report, paragraph 85.

<sup>10</sup> <http://www.fao.org/3/ca3998en/ca3998en.pdf>;

[http://www.fao.org/ag/againfo/programmes/en/genetics/Reporting\\_processes.html](http://www.fao.org/ag/againfo/programmes/en/genetics/Reporting_processes.html)

Management of Animal Genetic Resources (NC-AnGR) and provided them with detailed instructions on the reporting process. Relevant intergovernmental and international non-governmental organizations were also invited to participate in the reporting process. By the end of 2019, FAO had received 104 country progress reports,<sup>11</sup> 4 regional progress reports<sup>12</sup> and 14 reports from international organizations,<sup>13</sup> demonstrating a high level of interest in the implementation and reporting process.

8. Most of the countries providing progress reports have continued to strengthen their activities in the various strategic priority areas of the Global Plan of Action. The overall level of implementation varied substantially among both countries and regions, however. Implementation was generally reported to be at a high level in Europe and the Caucasus and in North America; at a medium level in Africa, Asia, and Latin America and the Caribbean; and at a low level in the Near and Middle East and Southwest Pacific regions. Interpretation of general regional differences is somewhat difficult, however, because reports were not received from all countries in all regions. Countries that did not report may have lower levels of implementation than those that did. Variability was observed within regions, and certain individual countries from all developing regions had high indicator scores for some of the strategic priorities of the Global Plan of Action. Likewise, some countries in regions with high economic development have low indicator scores for some strategic priorities. Within region, the level of implementation for specific countries or subregions appeared to be somewhat associated with relative level of economic development and the of the livestock sector. For example, implementation tended to be higher in southern Africa than in the rest of the continent. In South America, the greatest implementation was reported in Brazil.

9. The questionnaire, and the associated system of indicators, included sections for each of the four strategic priority areas of the Global Plan of Action (to monitor implementation of Part II of the Global Plan of Action – *The Strategic Priorities for Action*), as well as a specific section for Collaboration and another for Funding (to address Part III of the Global Plan of Action - *Implementation and financing of the Global Plan of Action for Animal Genetic Resources*). For the world as a whole, Strategic Priority Areas 1 (Characterization, inventory and monitoring of trends and associated risks) and 4 (Policies, institutions and capacity-building) showed a greater level of implementation, especially compared to Strategic Priority Area 3 (Conservation). One plausible explanation for this result is that the actions of Strategic Priority Areas 1 and 4 are among the first to be undertaken chronologically for management of animal genetic resources. Also, only a subset of breeds per country may require active conservation, whereas the other three strategic priority areas pertain to all breeds. In all regions, the indicators for the state of collaboration and especially for the state of funding showed a lower level of implementation than those for the strategic priority areas.

10. The regional progress reports indicate varying degrees of progress since the first round of reporting. In addition, a few areas lack a formal Regional Focal Point. The European Regional Focal Point (ERFP), the longest established Regional Focal Point, continues to report substantial multi-country collaboration across all strategic priority areas. The Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA), which serves as the Subregional Focal Point for East Africa, also reported activities in all four strategic priority areas. The Regional Focal Point for Latin America and the Caribbean, and the Asian animal genetic resources network each reported activities targeting specific strategic priority areas.

11. International organizations continue to make significant contributions to the implementation of the Global Plan of Action. In general, these actors stress the involvement of local stakeholders to ensure ownership and to maximize impact. The activities of these organizations span the four strategic areas, although different organizations reported emphasis on different strategic priority areas.

12. The results reported by countries on progress in implementing the Global Plan of Action are encouraging, but the task of improving the management of the world's animal genetic resources for

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<sup>11</sup> <http://www.fao.org/animal-genetics/global-policy/reporting-system/countries/en/>

<sup>12</sup> <http://www.fao.org/animal-genetics/global-policy/reporting-system/regions/en/>

<sup>13</sup> <http://www.fao.org/animal-genetics/global-policy/reporting-system/international-organizations/en/>

food and agriculture remains far from complete. The process indicators, when interpreted quantitatively, suggest that implementation is around 50 percent complete and progress may be less in non-reporting countries. The reasons for this shortfall continue to include a lack of financial resources and institutional and human capacity.

## **B. Policy impact**

13. The country progress reporting process confirms that many governments are considering the Global Plan of Action in their development of policy for management of animal genetic resources. Considering the information from all three rounds of reporting, 66 countries have developed National Strategies and Action Plans for the management of animal genetic resources. In 2019, 40 countries reported advancement in this process with respect to 2014, including 12 countries that have begun the process of preparing their first National Strategy and Action Plan. In the European Union, both the *Farm to Fork Strategy*<sup>14</sup> and *Biodiversity strategy for 2030*<sup>15</sup> recognize the need to reverse the loss of genetic diversity, including of traditional breeds.

## **III. REPORTING AND AWARENESS-RAISING ON THE GLOBAL PLAN OF ACTION**

14. FAO completely redesigned its website for animal genetic resources and launched the new version in early 2020. The website “Animal genetics”<sup>16</sup> (available in all official UN languages) provides information under the following headings: Background; Global policy; Breed database, Resources; Fora and Events. FAO has continued to distribute printed versions of the Global Plan of Action, related products and guidelines and to prepare articles for the scientific press.

## **IV. FAO SUPPORT TO THE IMPLEMENTATION OF THE GLOBAL PLAN OF ACTION FOR ANIMAL GENETIC RESOURCES**

15. FAO continued to assist countries in the implementation of all strategic priority areas of the Global Plan of Action, by providing institutional and technical support, facilitating research, and building capacity. The COVID-19 pandemic restricted travel, so normative activities took precedence during most of the 2020 calendar year. This section provides some examples of FAO's activities in the four strategic priority areas and some cross-cutting areas.

### **Strategic Priority Area 1. Characterization, inventory and monitoring of trends and risks**

16. The Commission, at its Seventeenth Regular Session, requested FAO to allocate regular programme resources to the continued maintenance and development of DAD-IS.<sup>17</sup> The Commission further requested FAO to provide technical support to countries on the estimation of breed population sizes and on the use of DAD-IS,<sup>18</sup> and to include in DAD-IS data fields for monitoring the diversity of managed honey bees of relevance for food and agriculture.<sup>19</sup>

17. In response to the Commission's requests, and with the FAO Regular Programme budget, the Global Focal Point has continued to maintain and further develop and update the DAD-IS.<sup>20</sup> Those activities have included (i) the full consolidation of DAD-IS and EFABIS-net, the European Farm Animal Biodiversity Information System; (ii) development and testing of an application allowing the

<sup>14</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020DC0381>

<sup>15</sup> [https://ec.europa.eu/environment/strategy-offline/biodiversity-strategy-2030\\_en](https://ec.europa.eu/environment/strategy-offline/biodiversity-strategy-2030_en)

<sup>16</sup> <http://www.fao.org/animal-genetics/en/>

<sup>17</sup> CGRFA-17/19/Report, paragraph 91.

<sup>18</sup> CGRFA-17/19/Report, paragraph 91.

<sup>19</sup> CGRFA-17/19/Report, paragraph 92.

<sup>20</sup> <http://www.fao.org/dad-is>

exchange of data between DAD-IS and other systems; (iii) preparation of various manuals<sup>21</sup> and e-learning tools<sup>22</sup> on the use of DAD-IS; (iv) provision of support to several countries<sup>23</sup> in the estimation of breed population sizes; and (iv) creation of data fields for monitoring the diversity of managed honey bees of relevance for food and agriculture. More details of these activities are provided in the document *Status of the development of the Domestic Animal Diversity Information System*.<sup>24</sup>

18. In 2009, the Commission requested FAO to make status and trends reports on animal genetic resources available to the Commission at each of its regular sessions.<sup>25</sup> In response, FAO has prepared for each subsequent session a report providing this information. The document, *Status and trends of animal genetic resources – 2020*,<sup>26</sup> has been made available for consideration by the Working Group. The status report is based on information in DAD-IS provided by NC-AnGR. Currently, 178 countries have nominated a NC-AnGR.

19. Since 2018, the proportions of avian and mammalian national breed populations for which population data are available have increased slightly, from 58 to 61 percent, and from 62 to 66 percent, respectively. Among the 8 771 breeds reported in DAD-IS, 26 percent are currently classified as being at risk; 13 percent are classified as not at risk; 54 percent have unknown risk status and 7 percent are reported to be extinct.<sup>27</sup>

20. At its Seventeenth Session, the Commission requested the Secretariat to develop an in-house analytical study on the factors influencing the reporting of unknown risk status for breeds.<sup>28</sup> In response to this request, FAO has prepared the document *Detailed analysis of the factors influencing the reporting of information in the Domestic Animal Diversity Information System*<sup>29</sup> for consideration by the Working Group.

21. The Commission, at its Seventeenth Session, requested FAO to continue developing and updating guidelines to facilitate the application of new scientific discoveries related to the identification, characterization and conservation of animal genetic resources.<sup>30</sup> The document *Recent developments in biotechnologies relevant to the characterization, sustainable use and conservation of genetic resources for food and agriculture*<sup>31</sup> provide an overview of recent relevant scientific discoveries. In response to the Commission's request, FAO has prepared the documents *Genomic characterization of animal genetic resources for food and agriculture*<sup>32</sup> and *Genomic characterization of animal genetic resources – Draft updated technical guidelines*.<sup>33</sup> The latter guidelines supersede the *FAO guidelines on molecular genomic characterization of animal genetic resources*.<sup>34</sup>

22. FAO continued to work through its Technical Cooperation Projects and with various partners to support countries in the characterization, inventory and monitoring of animal genetic resources, in the standardization of methods to undertake these tasks, and in the dissemination of results and related information. The Joint FAO/International Atomic Energy Agency (IAEA) Centre of Nuclear Techniques in Food and Agriculture (CJN) provided capacity building through expert meetings,

<sup>21</sup> <http://www.fao.org/3/cb0697en/cb0697en.pdf>; <http://www.fao.org/3/cb0698en/cb0698en.pdf>

<sup>22</sup> <https://360.articulate.com/review/content/95908ec3-199a-4e93-8811-1340d673f97a/review>

<sup>23</sup> Algeria, Argentina, Colombia, Ecuador, Libya, Mauritania, Morocco, Panama, Tunisia.

<sup>24</sup> CGRFA/WG-AnGR-11/21/5.

<sup>25</sup> CGRFA-12/09/Report, paragraph 39.

<sup>26</sup> CGRFA/WG-AnGR-11/21/Inf.6.

<sup>27</sup> Ibid.

<sup>28</sup> CGRFA-17/19/Report, paragraph 90.

<sup>29</sup> CGRFA/WG-AnGR-11/21/Inf.7.

<sup>30</sup> CGRFA-17/19/Report, paragraph 84.

<sup>31</sup> CGRFA/WG-AnGR-11/21/Inf.11.

<sup>32</sup> CGRFA/WG-AnGR-11/21/4.

<sup>33</sup> CGRFA/WG-AnGR-11/21/Inf.5.

<sup>34</sup> <http://www.fao.org/3/i2413e/i2413e00.htm>

training courses and individual fellowships undertaken at either CJN's laboratory in Austria or in the laboratory of a collaborating country.

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

23. At its Seventeenth Session, the Commission endorsed the *Guidelines on developing sustainable value chains for small-scale livestock producers*<sup>35</sup> and requested FAO to publish and distribute them widely. The guidelines have been published in both electronic<sup>36</sup> and hard-copy formats. Distribution of hard copies has been delayed by the COVID-19 pandemic. The Government of China is supporting the translation of the guidelines into Chinese.

24. In response to the need for technical assistance to ensure the better use and development of animal genetic resources, FAO continued to provide assistance in these fields, both directly and through cooperation with other organizations. Particular topics receiving emphasis in FAO's technical support and capacity building included adaptation and mitigation of climate change, animal identification, community-based breeding programmes, application of biotechnologies, agroecology and development of livestock market chains for smallholders.

25. CJN is currently implementing a Coordinated Research Project (CRP) on "Application of nuclear and genomic tools to enable the selection of animals with enhanced productivity traits".<sup>37</sup> The project emphasizes dairy production and supports the establishment of performance recording systems and the application of genomic tools for the improvement of milk productivity. Ten countries<sup>38</sup> are receiving support through the CRP.

26. Forty-one countries received support through Technical Cooperation Projects (TCP) administered by FAO and CJN. The projects address various issues of priority to each country, including livestock development, value-chain enhancement, genetic improvement, application of reproductive technologies and animal identification and traceability. FAO support to countries that is associated with application of biotechnologies is described in the document *Review of the work on biotechnologies for the sustainable use and conservation of genetic resources for food and agriculture*.<sup>39</sup>

27. FAO continued its work in support of pastoralists and other small-scale livestock keepers. Specifically, with the extra-budgetary support received from the Governments of Germany and Spain, and the International Fund for Agricultural Development (IFAD), FAO continued its operation of the Pastoralist Knowledge Hub.<sup>40</sup> The Pastoralist Knowledge Hub contributed to the preparation of a biocultural community protocol for indigenous livestock keepers in Gujarat, India, and the establishment of a network for yak herders in High-mountain Asia.

28. The Commission, at its Seventeenth Regular Session, requested FAO to continue to improve the knowledge base and scientific evidence of livestock species and breeds in the provision of ecosystem services, including by providing examples, and raise awareness on this topic.<sup>41</sup> FAO, with external collaborators, prepared a scientific editorial<sup>42</sup> emphasizing the indivisibility of local breeds and their agroecosystem in the consideration of ecosystem services. FAO continues to host and expand the Globally Important Agricultural Heritage Systems (GIAHS)<sup>43</sup> programme, which aims to identify and safeguard historically significant traditional communities and agroecosystems and their associated

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<sup>35</sup> CGRFA-17/19/11.2/Inf.5.

<sup>36</sup> <http://www.fao.org/3/ca5717en/CA5717EN.pdf>

<sup>37</sup> <https://www.iaea.org/projects/crp/d31028>.

<sup>38</sup> Argentina, Bangladesh, China, India, Kenya, Peru, Serbia, South Africa, Sri Lanka, Tunisia.

<sup>39</sup> CGRFA/WG-AnGR-11/21/9.

<sup>40</sup> <http://www.fao.org/pastoralist-knowledge-hub/en>

<sup>41</sup> CGRFA-17/19/Report, paragraph 90.

<sup>42</sup> <https://www.cambridge.org/core/journals/animal/article/opinion-paper-livestock-agroecosystems-provide-ecosystem-services-but-not-their-components-the-case-of-species-and-breeds/8E251CA36D3DAC97549234745AE8A491>

<sup>43</sup> <http://www.fao.org/giahs/en>

landscapes, agricultural biodiversity, knowledge systems and culture. Since 2005, GIAHS has designated 62 systems in 22 countries as agricultural heritage sites, many of which include local breeds of livestock. One example is the Argan-based agro-sylvo-pastoral system within the area of Ait Souab-Ait and Mansour, Morocco,<sup>44</sup> which involves 16 local breeds of livestock, goats in particular.

29. In addition to enhancing the inventory and monitoring the diversity of managed honey bees of relevance for food and agriculture by further developing DAD-IS, FAO also undertook activities to improve their sustainable use and development. In collaboration with the Istituto Zooprofilattico Sperimentale del Lazio e della Toscana “M. Aleandri”, Apimondia and the Chinese Academy of Agricultural Sciences, FAO is developing guidelines on good beekeeping practices, and a practical manual for beekeepers on techniques and procedures for a sustainable production in rural areas of Africa. The documents include some sections on breeding and genetics but mainly address other topics related to sustainable beekeeping. In 2017 the United Nations adopted a resolution<sup>45</sup> declaring 20 May to be World Bee Day. Since that time, FAO has each year organized events to commemorate World Bee Day<sup>46</sup> and to raise awareness of the importance of honey bees and other pollinators for food and agriculture.

### Strategic Priority Area 3. Conservation

30. From 2016 to 2020, FAO was a member of a consortium consisting of collaborators from Europe and several African and South American countries that was implementing the project “IMAGE – Innovative Management of Animal Genetic Resources”,<sup>47</sup> supported by the European Union. The project aimed to improve the management and *ex situ* conservation programmes for animal genetic resources and increase the utilization of germplasm stored in gene banks. In particular, FAO was responsible for overseeing the organization of training workshops for the North African<sup>48</sup> and Latin American<sup>49</sup> partners and for benchmarking best practices for quality assurance of gene banks. The contribution of FAO included the preparation of two scientific articles on cryoconservation.<sup>50,51</sup>

31. Technologies for conservation of animal genetic resources, especially for cryoconservation, have advanced substantially in recent years.<sup>52</sup> To facilitate adoption of recent advances in animal gene banking and to complement and update the *FAO guidelines - Cryoconservation of Animal Genetic Resources*<sup>53</sup> in 2012, FAO has prepared the documents *Cryoconservation of animal genetic resources for food and agriculture*<sup>54</sup> and *Innovations in cryoconservation of animal genetic resources - Draft technical guidelines*<sup>55</sup> and made them available for review by the Working Group.

32. FAO supported Vietnam in the cryoconservation of five local pig breeds to help ensure their protection against loss due to African Swine Fever – due either the disease itself or the disease control programmes. In addition to cryopreserving somatic cells, Vietnam reported breed characteristics of these five breeds in DAD-IS and uploaded cryoconservation and population size data for reporting on SDG Indicators 2.5.1b and 2.5.2.

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<sup>44</sup> <http://www.fao.org/giahs/giahsaroundtheworld/designated-sites/near-east-and-north-africa/argan-based-agro-pastoral-system/en/>

<sup>45</sup> RES/72/211.

<sup>46</sup> <http://www.fao.org/world-bee-day/en/>

<sup>47</sup> <http://imageh2020.eu>

<sup>48</sup> Egypt (27 trainees) and Morocco (20 trainees).

<sup>49</sup> Argentina (22 trainees) and Colombia (40 trainees).

<sup>50</sup> <https://doi.org/10.3390/d11120240>

<sup>51</sup> <https://doi.org/10.1089/bio.2019.0128>

<sup>52</sup> CGRFA/WG-AnGR-11/21/Inf.11.

<sup>53</sup> <http://www.fao.org/3/i3017e/i3017e00.pdf>

<sup>54</sup> CGRFA/WG-AnGR-11/21/3.

<sup>55</sup> CGRFA/WG-AnGR-11/21/Inf.4.

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

33. FAO provided support to various countries and regional bodies in the development of policies related to the management of animal genetic resources, including National Strategies and Action Plans, and national laws and legislation. FAO has served on the advisory board or stakeholder panel for several international collaborative research projects.
34. FAO and its partners contributed to the development and/or implementation of two global projects and 49 regional or national projects involving 61 countries. FAO organized, with partners, 12 national and regional capacity-building events with an average of 3 countries and 22 trainees participating.
35. FAO continued to collaborate with NC-AnGR and regional stakeholders to maintain and strengthen Regional and Subregional Focal Points or networks in Asia, the Near East and Africa. FAO continued its collaboration with the Regional Focal Points for Europe and for Latin America and the Caribbean. FAO organized or contributed to six meetings for NC-AnGR in the reporting period.
36. FAO served as guest editors for the special issue *Sustainable Management of Animal Genetic Resources*<sup>56</sup> in the open-access scientific journal *Sustainability*. As of March 2021, the issue included 8 articles, with several others awaiting finalization. FAO also serves on the editorial board of *Genetic Resources*,<sup>57</sup> a new open-access scientific journal launched by the European Union-sponsored GenResBridge<sup>58</sup> project that replaces the discontinued *Animal Genetic Resources*<sup>59</sup> journal.
37. FAO has collaborated with the European Federation of Animal Science (EAAP) and the ERFPP in the organization of special sessions related to animal genetic resources at recent EAAP annual meetings. Topics of the sessions have included value addition, selection of breeds for conservation, awareness raising, and governance of animal genetic resources. FAO has collaborated with the Iberoamerican Network for Conservation of the Biodiversity of Local Domestic Animals (Red CONBIAND)<sup>60</sup> to build capacity on the estimation of population sizes of breeds with a focus on Latin America and the Caribbean and delivered key-note speeches at Red CONBIAND's annual symposia.
38. FAO is providing support to the IAEA in organizing and hosting the *International Symposium on Sustainable Animal Production and Health – Current Status and Way Forward*.<sup>61</sup> The symposium was originally planned as an in-person event in June 2020, but has been postponed due to the COVID-19 pandemic and now will be held virtually from 28 June to 2 July, 2021. The symposium will include several sessions that address issues related to the management of animal genetic resources.
39. FAO continues to maintain DAD-Net and regional subgroups as an informal forum for the discussion of issues relevant to the management of animal genetic resources. Numbers of subscribers and messages continue to increase steadily. As of February 2020, more than 3 380 people from 155 countries were subscribed to the network. From 2018 to 2020, nearly 400 messages per year were exchanged through DAD-Net. DAD-Net continues to be a unique and effective means of sharing experiences, disseminating information and facilitating informal discussions among individuals involved in the management of animal genetic resources.
40. FAO has expanded its use of social media for raising awareness of animal genetic resources for food and agriculture, particularly through the Twitter application. Starting in 2020, FAO has been posting to its “@FAOLivestock account<sup>62</sup> news articles and a weekly quiz on animal breeds. The account has more than 18 500 followers.

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<sup>56</sup> [https://www.mdpi.com/journal/sustainability/special\\_issues/Animal\\_Genetic\\_Resources\\_sus](https://www.mdpi.com/journal/sustainability/special_issues/Animal_Genetic_Resources_sus)

<sup>57</sup> <http://www.genresbridge.eu/resources/genetic-resources-journal/>

<sup>58</sup> <http://www.genresbridge.eu>

<sup>59</sup> <http://www.fao.org/animal-genetics/resources/journal/en/>

<sup>60</sup> <https://conbiand.site/>

<sup>61</sup> <https://www.iaea.org/events/aphs2021>

<sup>62</sup> <https://twitter.com/FAOAnimalHealth>



41. At its 165th Session,<sup>63</sup> the FAO Council recommended that the 42nd Session of the FAO Conference endorse the establishment of the Sub-Committee on Livestock (Sub-Committee) by the Committee on Agriculture (COAG), a technical governing body of FAO, at its 27th Session. The Sub-Committee would serve as an intergovernmental forum with a mandate to discuss and build consensus on livestock issues and priorities and advise COAG, and through it the FAO Council and the FAO Conference, on technical and policy programmes and activities needed to optimize the contribution of the sector to the realization of the 2030 Agenda for Sustainable Development, including contributions to poverty alleviation, food security and nutrition, and sustainable environment and livelihoods.<sup>64</sup> Future interaction between the Sub-Committee and the Working Group on matters of mutual interest is foreseen.

## V. COLLABORATION

42. The Commission, at its Seventeenth Regular Session,<sup>65</sup> requested FAO to strengthen partnerships with stakeholders and donors to continue technical and policy support for country implementation of the Global Plan of Action.

43. FAO continued and strengthened its interactions with scientific and non-governmental organizations, Regional Focal Points and regional networks for the management of animal genetic resources. As described throughout this document, FAO maintains its recognized technical competence in the management of animal genetic resources through participation in various scientific endeavours, including by undertaking in-house research and contributing to research and development projects, organizing and leading sessions at international scientific conferences and publishing scientific publications.

## VI. THE FUNDING STRATEGY FOR THE IMPLEMENTATION OF THE GLOBAL PLAN OF ACTION FOR ANIMAL GENETIC RESOURCES

44. The Commission, at its Twelfth Regular Session, adopted the *Funding Strategy for the implementation of the Global Plan of Action for Animal Genetic Resources*<sup>66</sup> (Funding Strategy) and requested FAO to implement it.<sup>67</sup>

45. The Funding Strategy covers all known and potential sources of financial resources that support the implementation of the Global Plan of Action. The Funding Strategy established, as one of its financial resources, an FAO Trust Account for voluntary contributions to support national and regional projects for implementation of the Global Plan of Action.

### Status of the FAO Trust Account

46. The Commission, at its Seventeenth Regular Session, invited donors to contribute to the implementation of the Global Plan of Action, including to a second call for proposals under the FAO Trust Account, and requested FAO to disseminate the results of the FAO Trust Account projects in relevant fora.<sup>68</sup> In response to this request, the Global Focal Point referred to the FAO Trust Account projects in a plenary address<sup>69</sup> at the 2019 Plant and Animal Genome Asia Conference in Shenzhen, China, the audience of which included representatives of potential donor organizations and project applicants. Technical highlights of the projects from the first call for proposals were presented in guest lectures. To date, activities for the first call have been closed and no funds are available for a second call for proposals under the FAO Trust Account.

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<sup>63</sup> CL 165/REP, paragraph 18 a).

<sup>64</sup> C/2021/21, paragraph 19.

<sup>65</sup> CGRFA-17/19/Report, paragraph 86.

<sup>66</sup> CGRFA-12/09/Report, Appendix C.

<sup>67</sup> CGRFA-12/09/Report, paragraph 43.

<sup>68</sup> CGRFA-17/19/Report, paragraph 87.

<sup>69</sup> <https://pag.confex.com/pag/asia2019/meetingapp.cgi/Session/6299>

### **Status of other resources under the Funding Strategy**

47. Work on animal genetic resources for food and agriculture, including the implementation of the Global Plan of Action, contributed to four outcomes of the FAO's *Medium Term Plan 2018-21*<sup>70</sup> primarily relating to: Strategic Objective 2 - *Make agriculture, forestry and fisheries more productive and sustainable*. For 2018–19, the portion of FAO's Regular Programme resources allocated for work on animal genetic resources was around USD 1.6 million.

48. Efforts concentrated on core activities, namely the intergovernmental process and DAD-IS, but also included inputs to cross-cutting initiatives, particularly those involving biodiversity on a cross-sectoral level. The Global Focal Point benefited from the contributions of an officer for animal genetic resources seconded by the Government of France, who was present throughout the 2018-19 biennium and the first half of 2020. In July 2020, a new Professional Officer (P-3) joined the Animal Production and Genetics Unit of the Animal Production and Health Division.

49. During the 2018-19 biennium, the value of FAO Technical Cooperation Projects contributing to this work amounted to approximately USD 1.3 million, and from the IAEA Technical Cooperation Programme through CJN approximately USD 2.0 million. CJN also contributed approximately USD 0.25 million through its Coordinated Research Project programme.

### **Voluntary contributions to FAO**

50. FAO received funds to support the implementation of the Global Plan of Action, including support for pastoralism, at global level, from France and Germany (total of approximately USD 0.5 million) and for regional and country projects from Austria, Azerbaijan, Bahrain, European Union, Mauritania, Nepal, and Switzerland (total of approximately USD 3.3 million). For some of these countries, the support involved funds the countries had received from donors, specifically IFAD, the World Food Programme and the Global Environment Facility. The funds under these programme cooperation agreements helped FAO provide catalytic funds for special activities at all levels.

### **Resources not under FAO control**

51. The Funding Strategy lists four different types of relevant resources, including resources that are not under FAO control. FAO has a facilitating role in enhancing countries' access to information on funding. It carries out this role by continuing to provide information on scholarships, funding sources and grants, especially through the Domestic Animal Diversity discussion network (DAD-Net). Although information about resources not under FAO control is imprecise, some information from countries was obtained through the process for reporting on implementation of the Global Plan of Action. In particular, 40 percent of the 104 countries reported to have increased their national funding for animal genetic resources since the adoption for the Global Plan of Action.<sup>71</sup> This compares to only 30 percent of the 129 countries reporting during the last round in 2014.<sup>72</sup> Donor support for management of animal genetic resources is often integrated into large comprehensive programmes, such as projects that support pastoralism or enhancement of entire livestock value chains, or through complementary activities, such as projects on animal identification and traceability. For example, the World Bank is developing or supporting, through grants or loans, large-scale livestock production projects in several countries, including Bangladesh, Ethiopia, India, Kazakhstan, Kyrgyzstan, Mongolia, and Nepal; all of which include investments in improving animal breeding and genetics, through the use of both local and transboundary breeds.

## **VII. GUIDANCE SOUGHT**

52. The Working Group is invited to review the progress made in the implementation of the Global Plan of Action. The Working Group may wish to recommend that the Commission:

<sup>70</sup> C 2019/3

<sup>71</sup> CGRFA/WG-AnGR-11/21/Inf.3.

<sup>72</sup> CGRFA/WG-AnGR-8/14/Inf.5.

- 
- call upon countries to continue implementing the Global Plan of Action, to contribute to global food security and sustainable rural development, and in particular to help achieving SDGs 2 and 15;
  - request FAO, in partnership with stakeholders and donors, to continue supporting country implementation of the Global Plan of Action;
  - call upon countries to place particular emphasis on conservation of animal genetic resources through either *in vivo* or *in vitro* methods as appropriate, and to request FAO to provide complementary technical and policy support;
  - invite donors to contribute to the implementation of the Global Plan of Action, including to a second call for proposals under the FAO Trust Account; and
  - request FAO and countries to continue raising awareness on the importance of animal genetic resources and the roles of livestock keepers and of livestock species and breeds and their production systems in the provision of ecosystem services.