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# COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE

## Item 5 of the Provisional Agenda

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

#### Twelfth Session

Rome, 18 – 20 January 2023

### PREPARATION OF *THE THIRD REPORT ON THE STATE OF THE WORLD'S ANIMAL GENETIC RESOURCES FOR FOOD AND AGRICULTURE*

## TABLE OF CONTENTS

|   | Paragraphs |
|---|------------|
| I. INTRODUCTION.....  | 1-5        |
| II. PROPOSED SCOPE AND CONTENT OF THE THIRD REPORT .....    | 6-10       |
| III. TIMELINE FOR THE PREPARATION OF THE THIRD REPORT ..... | 11-13      |
| IV. THE PREPARATORY PROCESS.....                            | 14-19      |
| V. REQUIRED RESOURCES.....                                  | 20-22      |
| VI. GUIDANCE SOUGHT .....                                   | 23-24      |

## I. INTRODUCTION

1. In 2007, FAO launched *The State of the World's Animal Genetic Resources for Food and Agriculture*<sup>1</sup> (First Report). The FAO Conference, at its Thirty-fourth Session in November 2007, welcomed the First Report as the first comprehensive worldwide assessment of the state of animal genetic resources.<sup>2</sup>
2. The Commission on Genetic Resources for Food and Agriculture (Commission), at its Fourteenth Regular Session in April 2013, requested FAO to prepare *The Second Report on the State of the World's Animal Genetic Resources for Food and Agriculture* (Second Report), focusing on changes since the preparation of the First Report.<sup>3</sup> FAO presented the draft Second Report<sup>4</sup> to the Fifteenth Regular Session of the Commission, which welcomed it as a comprehensive, timely and high-quality document.<sup>5</sup> The finalized Second Report was published in 2015.<sup>6</sup>
3. The Strategic Plan for the Commission on Genetic Resources for Food and Agriculture (2019–2027) currently foresees the presentation of *The Third Report on the State of the World's Animal Genetic Resources for Food and Agriculture* (Third Report) for the Commission's Twentieth Regular Session in 2025.<sup>7</sup> However, it is suggested to postpone the presentation of the Third Report to the Commission's Twenty-first Regular Session.<sup>8</sup>
4. It is suggested that, like the Second Report, the Third Report provides an update of the Second Report and, thus, the basis for review and possible updating of the Global Plan of Action for Animal Genetic Resources (Global Plan of Action).<sup>9</sup> The preparation of the Third Report should also contribute to enhancing technical capacity of countries and relevant stakeholders involved in the country-driven reporting process.
5. The present document proposes the timeline, scope, content and process for the preparation of the Third Report and identifies the required resources.

## II. PROPOSED SCOPE AND CONTENT OF THE THIRD REPORT

6. As with the previous reports, the Third Report should be based on: reports from countries, regional focal points and networks, and international organizations; national breed population data submitted through the Domestic Animal Diversity Information System (DAD-IS); and inputs from international experts in the management of animal genetic resources. The process of collecting information for the Third Report should be as efficient as possible and minimize the reporting obligations put on countries. It should focus on changes that have occurred since the preparation of the Second Report and identify gaps and needs that require particular attention, including in the review and implementation of the Global Plan of Action.
7. It is proposed that, in principle, the general structure of the First and Second Reports be maintained, with the Third Report focussing on areas that require particular attention and highlighting emerging issues. This focus will require some cautious modifications. A draft tentative outline of the Third Report is given in Table 1. The presentation of certain aspects could, for example, appear in parts or sections of the Third Report other than those where they appeared in the previous reports. In

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<sup>1</sup> <https://www.fao.org/3/a1250e/a1250e.pdf>

<sup>2</sup> C 2007/REP, paragraph 147 (Resolution 12/2007).

<sup>3</sup> CGRFA-14/13/Report, paragraph 71.

<sup>4</sup> CGRFA-15/15/Inf.17.1, CGRFA-15/15/Inf.17.2, CGRFA-15/15/Inf.17.3

<sup>5</sup> CGRFA-15/15/Report, paragraph 38.

<sup>6</sup> <https://www.fao.org/3/i4787e/i4787e.pdf>

<sup>7</sup> CGRFA-17/19/Report, Appendix F.

<sup>8</sup> CGRFA/WG-AnGR-12/23/10, Annex 1.

<sup>9</sup> <https://www.fao.org/3/a1404e/a1404e.pdf>

particular, livestock sector trends, a distinct part of the Second Report, could be discussed as drivers of change for the state of livestock diversity in Part 1 of the Third Report. The discussion of the state of the art, a separate part of the Second Report, could be incorporated into Part 2 of the Third Report and emphasize only the most recent developments. The Third Report would include a summary and assessment of the breed population data contributing to the biennial FAO status and trends reports on animal genetic resources, describe changes that have occurred since 2015 in countries' capacities to manage their animal genetic resources and in their progress in implementing the Global Plan of Action, and describe significant gains in scientific knowledge since 2015.

**Table 1: Draft tentative outline of *The Third Report on the State of the World's Animal Genetic Resources for Food and Agriculture***

**Part 1. The state of livestock diversity**

- Status and trends of animal genetic resources
- Drivers of change in the livestock sector and impacts on animal genetic resources
- State of science and technology
- Conclusions

**Part 2. The state of capacities in animal genetic resources management**

- Institutions and stakeholders
- Characterization, inventory and monitoring
- Breeding programmes
- Conservation programmes
- Legal and policy frameworks
- Conclusions

**Part 3. Special topics in animal genetic resources management (provisional)**

- Roles of animal genetic resources in adaptation and resilience in the face of climate change
- Establishment and scaling-up of breeding programmes in challenging environments

**Part 4. Needs and challenges in animal genetic resources management**

- Characterization and monitoring
- Sustainable use and development
- Conservation
- Policies, institutions and capacity-building
- Conclusions

8. It is proposed that FAO initiate, subject to the availability of the necessary extra-budgetary funds (monetary or in-kind), the preparation of studies on “special topics” regarding new and emerging issues and issues related to the implementation of the Global Plan of Action that require particular and immediate attention. These studies would be similar to the “thematic studies” undertaken in conjunction with preparation of the First and Second Reports, but their results would be incorporated directly into the Third Report, rather than published as stand-alone publications.

9. FAO has already undertaken an inclusive process with countries to identify topics of particular interest. In May 2022, the Working Group Secretariat identified six topics<sup>10</sup> of importance for the current and future management of animal genetic resources and shared them with the Working Group

<sup>10</sup> (i) gene editing in livestock; (ii) “smart” phenotyping technologies; (iii) monitoring of honeybee genetic diversity; (iv) establishing and scaling up breeding programmes in developing regions; (v) genomic measures of genetic variation and the future of the breed concept; and (vi) climate-smart management of animal genetic resources.

Bureau. Bureau members consulted with National Coordinators for the Management of Animal Genetic Resources (NC-AnGR) in their respective regions to rank the topics and/or to propose other topics. In June 2022, Bureau members discussed and prioritized the topics.

10. Two topics seem to be of particular interest: (i) the roles of animal genetic resources in adaptation resilience in the face of climate change; and (ii) establishment and scaling-up of breeding programmes in challenging environments. The high priority of the latter topic reflects the Commission's response to the Second Report,<sup>11</sup> and the subsequent adoption by the 43rd FAO Conference of the Resolution 3/2017 *Reaffirming the World's commitment to the Global Plan of Action for Animal Genetic Resources*.<sup>12</sup>

### III. TIMELINE FOR THE PREPARATION OF THE THIRD REPORT

11. The Strategic Plan for the Commission on Genetic Resources for Food and Agriculture (2019–2027) currently foresees the presentation of the Third Report for the Commission's Twentieth Regular Session in 2025.<sup>13</sup> However, the COVID-19 pandemic resulted in shifts in the schedule of Commission sessions, which reduces the time available for completion of the Third Report. The pandemic led to the postponement of the Eighteenth and Nineteenth Regular Sessions, with both sessions taking place after the biannual FAO Conference. The Twentieth Regular Session, in contrast, is planned to be held prior to the FAO Conference, in May 2025. These adjustments reduce the time available between the Nineteenth and Twentieth Sessions for completion of the Third Report.

12. In light of the compressed schedule of the Commission's forthcoming sessions, the Working Group may wish to consider to recommend to the Commission that the Third Report be presented to the Commission's Twenty-first, rather than its Twentieth Regular Session. Figure 1 shows a draft tentative timeline for the preparation of the Third Report, considering its presentation at the Twenty-first Regular Session of the Commission.

13. Postponing by one Session the presentation of the Third Report would allow Commission Members and FAO to spread the workload, leaving more time for country reporting and the preparation and review of the report. It would also allow the Working Group to consider the preparation of the Third Report at its Thirteenth and Fourteenth Sessions. The Working Group could, in particular, consider at its next session the next Synthesis Report, which is due at the Twentieth Session of the Commission, and consider the reflection of major results and inferences in the Third Report. Assuming resources allow their preparation, one or more of the studies on the topics in animal genetic resources management may also be sufficiently complete prior to the next session of the Working Group, allowing it to review them.

### IV. THE PREPARATORY PROCESS

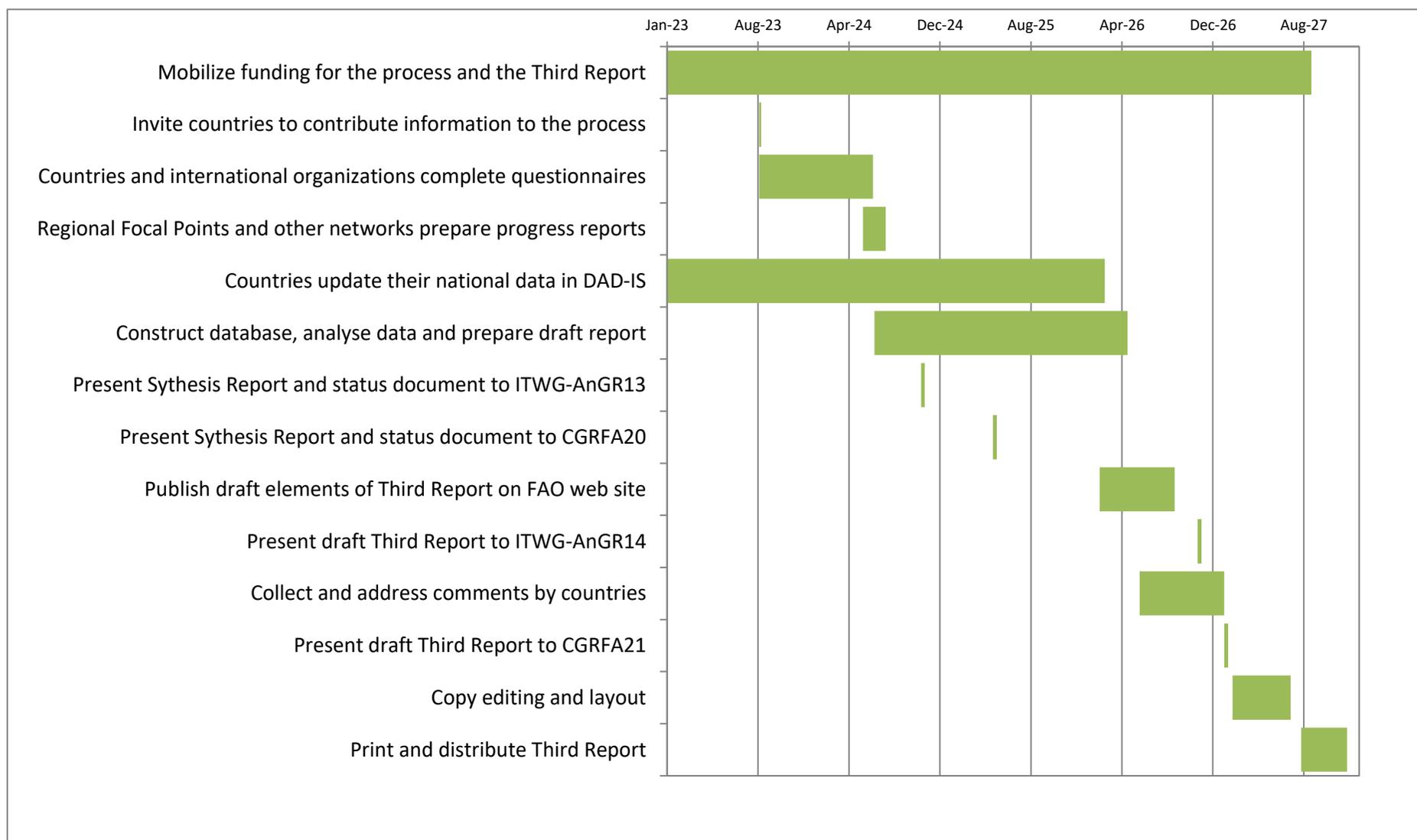
14. The content of the Third Report will originate from three different types of sources: (i) data in DAD-IS will inform the process about the state of livestock diversity; (ii) reports from countries, regional networks and international organization will provide information about the state of capacities in animal genetic resources management; and (iii) international experts will contribute to the analysis of the state of the art and address special topics. Information about drivers of change and needs and challenges will be distilled from both the international experts and the country reports.

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<sup>11</sup> CGRFA-16/17/Report Rev.1, paragraph 50.

<sup>12</sup> C 2017/REP, paragraph 54.

<sup>13</sup> CGRFA-17/19/Report, Appendix F



**Figure 1.** Draft tentative timeline for the preparation of *The Third Report on the State of the World's Animal Genetic Resources for Food and Agriculture*

15. The preparation of the Third Report will take into consideration the need to keep country reporting requirements manageable. FAO will not request countries to provide any data that they provide, or have provided, to FAO as part of other reporting processes. The completion of a questionnaire is simpler for NC-AnGRs than would be the preparation of a full narrative report. A full narrative report was required for the preparation of the First Report. Countries will be requested to provide a limited amount of information through an electronic questionnaire form. The questionnaire, as contained in the document *Draft country report - Supporting the preparation of The Third Report on the State of the World's Animal Genetic Resources for Food and Agriculture*,<sup>14</sup> is based on the questionnaire used for the Second Report.<sup>15</sup> However, some new questions have been added, whereas others could be removed.

16. The Third Report will also rely on information related to animal genetic resources and climate change, as gathered through the questionnaire on genetic resources for food and agriculture and climate change, developed in response to the Commission's request.<sup>16</sup> The questionnaire is contained in the document *Climate change and genetic resources for food and agriculture*.<sup>17</sup>

17. The information, and the way in which it will be provided, will enable FAO to manage, analyse and present the data in a resource- and time-efficient manner. The electronic format of the questionnaire allows for the automatic uploading of the information into a database, facilitating management and analysis of the data. Re-utilization of large parts of the previous questionnaires will also decrease the need for capacity building on reporting, as many countries will have retained some institutional memory from the previous round of reporting; although some capacity building will nevertheless be provided. Finally, from a statistical standpoint, the repetition of questions across the Second Report and Third Report and Synthesis Report questionnaires will increase the validity of comparison of responses within countries across reporting cycles for assessment of progress in the national implementation of the Global Plan of Action.

18. The NC-AnGRs and national advisory committees<sup>18</sup> will be responsible for national data collection and reporting to FAO. Therefore, prior to the initiation of the process, FAO will invite Members of the Commission to confirm the existing NC-AnGR or to nominate a new one. Countries will also be encouraged to nominate an Alternate NC-AnGR to assist in the process. Countries should consult and involve relevant national stakeholders in the preparation of their reports. FAO will support the process by organizing regional and sub-regional capacity-development workshops. It is proposed that the discussion network DAD-Net be used for regular communication with stakeholders on the reporting process and to encourage exchange of information among countries and regions.

19. As shown in Figure 1, the proposed preparatory process provides several opportunities for Commission Members to review the reference information and data and draft content of the Third Report. Initially, a Synthesis Report, which will contribute to the section on the state of capacities for animal genetic resources management, will be presented at the Thirteenth Session of the Working Group and the Twentieth Regular Session of the Commission. In February 2026, FAO intends to start publishing on the FAO website draft elements of the Third Report, for review. Finally, draft versions of the complete Third Report will be made available for review by the Fourteenth Session of the Working Group, allowing for the presentation of a nearly-final version to be presented to the Twenty-first Regular Session of the Commission.

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<sup>14</sup> CGRFA/WG-AnGR-12/23/5/Inf.1.

<sup>15</sup> <https://www.fao.org/3/i4787e/i4787e01.htm>

<sup>16</sup> CGRFA-18/21/Report, paragraph 19.

<sup>17</sup> CGRFA/WG-AnGR-12/23/7.

<sup>18</sup> <https://www.fao.org/3/ba0054e/BA0054E.pdf>, page 85.

## V. REQUIRED RESOURCES

20. Adequate financial and human resources are necessary to ensure the preparation of the Third Report. It is proposed that costs be partially covered by funds provided under FAO's Regular Programme Budget and extra-budgetary funds, as indicated in Table 1. The main areas for funding include:

- appointment of a coordinator who will oversee the process, as outlined in this document and ensure constant two-way communication with NC-AnGRs and stakeholders;
- establishment of a dedicated team within FAO that will support the preparation of questionnaires, compilation and analysis of data and information, presentations of results, preparation of draft and final chapters of the Third Report, and the coordination of studies on the special topics; and
- the preparation of the studies on special topics.

21. FAO Regular Programme will cover approximately two-thirds of the required resources, including staff as follows: 2 months of Chief (Animal Production and Genetics Branch), 24 months of three Animal Production Officers and 7 months of support staff. In order to enable the immediate implementation of the preparation process, including hiring of additional staff, 700 000 USD are required.

22. Table 1 provides cost estimates for the tasks that need to be undertaken in order to prepare and publish the Third Report.

**Table 1. Proposed core activities and budget for developing the preparation process, preparing and publishing the Third Report – January 2023 to December 2027<sup>19</sup> (amounts in USD 000s)**

|  | Regular Programme <sup>20</sup> | Extra-Budget | Total      |
|--|---------------------------------|--------------|------------|
| Mobilize funding and oversee the entire process                            | 64                              | 0            | 64         |
| Capacity building, reporting and communication                             | 45                              | 27           | 72         |
| Data analysis  | 55                              | 6            | 61         |
| Updating of the “state of livestock diversity” sections                    | 58                              | 31           | 89         |
| Updating of the “state of capacities” sections                             | 58                              | 31           | 89         |
| Prepare and publish draft of the Third Report                              | 32                              | 52           | 84         |
| Prepare the Third Report for ITWG-AnGR                                     | 24                              | 13           | 37         |
| Prepare the Third Report for CGRFA   | 16                              | 13           | 29         |
| Publish the Third Report and FAO language versions of its in-brief version | 34                              | 0            | 34         |
| Launch the Third Report (communication strategy)                           | 36                              | 0            | 36         |
| Preparation of studies on special topics (contingent on funding)           | 29                              | 76           | 105        |
| <b>Total</b>   | <b>451</b>                      | <b>249</b>   | <b>700</b> |

<sup>19</sup> It is assumed that the Twenty-first Regular Session of the Commission will take place in May 2027.

<sup>20</sup> Estimated regular programme contribution to the preparation process and the Third Report, covering mainly salaries for Professional and General Staff.

## VI. GUIDANCE SOUGHT

23. The Working Group may wish to review the proposed outline, process, questionnaire and timeline for the preparation of the Third Report.
24. The Working Group may wish to recommend that the Commission:
- review and revise the proposed outline, process, questionnaire and timeline for the preparation of the Third Report, taking into account the Working Group's comments and recommendations;
  - encourage countries to initiate the collection of information and data for the preparation of their country report questionnaires;
  - request FAO to invite by 1 September 2023 Members to complete the questionnaire;
  - call upon countries to submit their completed questionnaires for the preparation of the third Report by 30 June 2024;
  - request FAO to invite regional networks on animal genetic resources and relevant international organizations to contribute to the preparation of the Third Report;
  - urge all FAO Members and international organizations to support and contribute to the implementation of the Global Plan of Action, and to provide in a timely manner the relevant information required for the preparation of the Third Report; and
  - appeal to all FAO Members and relevant international mechanisms, funds and bodies to give immediate and due priority and attention to the effective allocation of predictable and agreed resources for the preparation of the Third Report.