



# COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE

## Item 3 of the Provisional Agenda

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

#### Third Session

1–3 June 2021

### THE FINALIZATION OF *THE STATE OF THE WORLD'S AQUATIC 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 Seventeenth Regular Session, acknowledged the progress made in the preparation of the report on *The State of the World's Aquatic Genetic Resources for Food and Agriculture* (Report) and requested that FAO finalize, launch and widely distribute the Report and its in-brief version in 2019.<sup>1</sup>
2. The Report<sup>2</sup> is the first ever global assessment of the status of aquatic genetic resources for food and agriculture (AqGR). It reviews the state of conservation, sustainable use and development of AqGR, including of: uses and exchanges of AqGR; drivers and trends impacting AqGR; extent of *ex situ* and *in situ* conservation efforts; roles of stakeholders in AqGR and levels of activity in research, education, training and extension; coverage of AqGR in national policies; and levels of regional and international cooperation on AqGR. Needs and challenges are identified based on the findings from the analysis of the data collected from countries. The Report provides a snapshot of the present status of AqGR and represents a milestone publication that will inform future efforts to enhance the management of these important resources.
3. This document briefly describes the process towards the development of the finalized Report and gives a brief overview of its content. Furthermore, it provides an overview of activities undertaken since the Seventeenth Regular Session.

## II. PROCESS TOWARDS THE DEVELOPMENT OF *THE STATE OF THE WORLD'S AQUATIC GENETIC RESOURCE FOR FOOD AND AGRICULTURE*

4. At its Eleventh Regular Session, in 2007, the Commission agreed that improving the collection and sharing of information on AqGR was of high priority and included the preparation of the Report into its Multi-Year Programme of Work (MYPOW).<sup>3</sup> At its Thirteenth and Fourteenth Regular Sessions, respectively held in 2011 and 2013, the Commission considered the scope of the Report and decided, at the latter session, “that the scope of the report would be farmed aquatic species and their wild relatives within national jurisdiction.” In addition, at its Fourteenth Regular Session, the Commission agreed on the structure of the Report.<sup>4</sup>
5. In 2014, FAO received funds from the Government of Germany to support the preparation of the Report through the project *Aquatic Genetic Resources for Food and Agriculture – Contribution to the First State of the World Report*.<sup>5</sup> Among key activities, funded by the project to support the preparation of the Report, FAO organized a series of six regional training workshops on the status of AqGR to support National Focal Points in the preparation of country reports.
6. The Commission, at its Fifteenth Regular Session, in 2015, established an Ad Hoc Intergovernmental Technical Working Group on Aquatic Genetic Resources for Food and Agriculture (Ad Hoc Working Group) specifically with the task to guide the preparation of and to review the draft Report.<sup>6</sup> The Ad Hoc Working Group met for the first time in June 2016 and made recommendations based on the document *Draft State of the World's Aquatic Genetic Resources for Food and Agriculture* (Draft Report).<sup>7</sup>
7. The Draft Report was reviewed and considered by the Second Session of the Committee on Fisheries (COFI) Advisory Working Group on Aquatic Genetic Resources and Technologies (COFI Working Group), held from 19 to 20 October 2017, which endorsed the recommendations provided by the Commission's Ad Hoc Working Group at its first session.<sup>8</sup> The COFI Sub-Committee on

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<sup>1</sup> CGRFA-17/19/Report, paragraph 54.

<sup>2</sup> <http://www.fao.org/3/CA5256EN/CA5256EN.pdf>

<sup>3</sup> CGRFA-11/07/Report, paragraphs 60–61.

<sup>4</sup> CGRFA-14/13/Report, *Appendix H*.

<sup>5</sup> GCP/GLO/559/GER.

<sup>6</sup> CGRFA-15/15/Report, paragraph 63.

<sup>7</sup> CGRFA/WG-AqGR-1/16/Inf.2.

<sup>8</sup> CGRFA-17/19/8.2/Inf.4, pp.1–3.

Aquaculture, at its Ninth Session, held from 24 to 27 October 2017, welcomed the forthcoming Report.<sup>9</sup>

8. A Revised Draft Report was prepared and made available on the FAO website in March 2018. FAO, in response to the Commission's request, invited the Commission Members and observers, through a Circular State Letter, to comment on the revised report. The COFI Advisory Working Group and the COFI Sub-Committee were also invited to comment in writing on the revised draft.

9. The Commission's Seventeenth Regular Session took note of the proofing version of the Report and requested FAO to finalize, launch and widely distribute the report and its in-brief version in 2019.<sup>10</sup>

### III. STRUCTURE AND COVERAGE OF THE STATE OF THE WORLD'S AQUATIC GENETIC RESOURCES FOR FOOD AND AGRICULTURE

10. The Report is based on information provided by 92 countries<sup>11</sup> and five thematic background studies.<sup>12</sup> The reporting countries include the major aquaculture producing countries. Together, the 92 reporting countries represent 96 percent of global aquaculture production and over 80 percent of capture fisheries production. The key findings of the Report are summarized in its Chapter 10 (*Key findings, needs and challenges*) and in the in-brief version.<sup>13</sup>

11. The Report consists of the following ten chapters.

**Chapter 1 – The state of world aquaculture and fisheries:** provides a summary of the current status of aquaculture and capture fisheries and the markets for their products, and summarizes the outlook for these sectors. It also introduces some standard nomenclature used to describe AqGR throughout the Report and recommended for broader adoption.

**Chapter 2 – The use and exchange of aquatic genetic resources of farmed aquatic species and their wild relatives within national jurisdiction:** reviews the use and exchange of AqGR, primarily in aquaculture, and the application of genetic technologies to AqGR.

**Chapter 3 – Drivers and trends in aquaculture: consequences for aquatic genetic resources within national jurisdiction:** explores the effects of drivers of change on farmed AqGR and their wild relatives.

**Chapter 4 – *In situ* conservation of farmed aquatic species and their wild relatives within national jurisdiction:** reviews the current status and future prospects for the *in situ* conservation of genetic resources of farmed aquatic species and their wild relatives.

**Chapter 5 – *Ex situ* conservation of aquatic genetic resources of farmed aquatic species and their wild relatives within national jurisdiction:** reviews the current status and future prospects for the *ex situ* conservation of AqGR of farmed aquatic species and their wild relatives.

**Chapter 6 – Stakeholders with interests in aquatic genetic resources of farmed aquatic species and their wild relatives within national jurisdiction:** identifies the stakeholders in AqGR and their roles in the conservation, sustainable use and development. It provides an overview of the perspectives and needs of the principal stakeholders with interests in AqGR of farmed aquatic species and their wild relatives for food and agriculture within national jurisdiction.

**Chapter 7 – National policies and legislation for aquatic genetic resources of farmed aquatic species and their wild relatives within national jurisdiction:** reviews the status and adequacy of national policies and legislation, including access and benefit-sharing, concerning AqGR of farmed aquatic species and their wild relatives.

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<sup>9</sup> FIAA/R1188 (Tri), paragraph 46.

<sup>10</sup> CGRFA-17/19/Report, paragraph 54.

<sup>11</sup> <http://www.fao.org/aquatic-genetic-resources/activities/sow/countryreports/en/>

<sup>12</sup> <http://www.fao.org/aquatic-genetic-resources/activities/sow/en/>

<sup>13</sup> <http://www.fao.org/3/CA5345EN/CA5345EN.pdf>

**Chapter 8 – Research, education, training and extension on aquatic genetic resources within national jurisdiction: coordination, networking and information:** reviews the status and adequacy of national research, education, training and extension, coordination and networking arrangements, and information systems that support the conservation, sustainable use and development of AqGR of farmed aquatic species and their wild relatives for food and agriculture.

**Chapter 9 – International collaboration on aquatic genetic resources of farmed aquatic species and their wild relatives:** deals with international collaboration on AqGR, including the roles of various mechanisms and instruments through which countries cooperate.

**Chapter 10 – Key findings, needs and challenges:** provides a brief synthesis of the key findings from the review of the Report, and identifies the main challenges and needs that should be addressed to facilitate the development of future actions to enhance the conservation, sustainable use and development of AqGR.

#### **IV. ACTIVITIES IN SUPPORT OF THE DISSEMINATION OF THE STATE OF THE WORLD'S AQUATIC GENETIC RESOURCES FOR FOOD AND AGRICULTURE**

12. The Report was published and launched in August 2019 on the occasion of the Tenth Session of the COFI Sub-Committee on Aquaculture, in Trondheim, Norway. The Report was made available in hard copy and as e-book versions.<sup>14</sup> Its in-brief version was published online in all official languages of the United Nations.<sup>15</sup> The Report, to date, has been cited in numerous publications.

13. Furthermore, FAO presented the main findings of the Report at the following events in order to disseminate its key messages:

- Thirty-third Session of COFI, side event on the *Aquatic Genetic Resources for Food and Agriculture: Challenges and opportunities in the conservation, sustainable use and development*, July 2018, Rome, Italy.<sup>16</sup>
- International Symposium of Genetics in Aquaculture, July 2018, Cairns, Australia.<sup>17</sup>
- AQUA 2018 – World Aquaculture Society (conference), August 2018, Montpellier, France.<sup>18</sup>
- Thirty-seventh Meeting of the Southern African Development Community Technical Committee on Fisheries, March 2019, Windhoek, Namibia.<sup>19</sup>
- Regional Expert Consultation on *Genetically Responsible Aquaculture. Sustainability of genetically fit broodstock and seed of certified origin in Asian aquaculture*, February 2019, Lucknow, India.<sup>20</sup>
- Institute of Aquaculture (guest seminar), Stirling University, March 2019, United Kingdom of Great Britain and Northern Ireland.
- Asian-Pacific Aquaculture (conference) 2019, June 2019, Chennai, India.<sup>21</sup>
- Forum of Fisheries Technologists at the Karnataka Veterinary, Animal and Fisheries Sciences University, June 2019, Bengaluru, India.
- International Forum on Aquaculture for Silk Road Countries, 25-27 September 2019, China.<sup>22</sup>
- Training of the International Council for the Exploration of the Sea (ICES) on *Genetics in support of fisheries and aquaculture management*, September 2019, Faro, Portugal.<sup>23</sup>

<sup>14</sup> [Apple iBooks](#), [Amazon Kindle](#) and [Smashwords](#).

<sup>15</sup> <http://www.fao.org/documents/card/en/c/ca5345en/>

<sup>16</sup> [http://www.fao.org/fileadmin/user\\_upload/COFI/COFI33Documents/9Jul\\_Mo\\_AquaticGeneticResources.pdf](http://www.fao.org/fileadmin/user_upload/COFI/COFI33Documents/9Jul_Mo_AquaticGeneticResources.pdf)

<sup>17</sup> <https://www.science-community.org/en/node/189341>

<sup>18</sup> <https://www.was.org/aqua18pressconference/>

<sup>19</sup> <https://nfdi.info/news/37th-meeting-of-the-southern-african-development-community-technical-committee-on-fisheries/>

<sup>20</sup> <https://icar.org.in/content/icar-naca-regional-expert-consultation-international-meet-organized>

<sup>21</sup> <https://www.was.org/meeting/code/APA2019>

<sup>22</sup> <http://www.fao.org/blogs/blue-growth-blog/aquaculture-has-an-enormous-potential/en/>

<sup>23</sup> <https://www.ices.dk/events/Training/Pages/genetics-in-support-of-fisheries-and-aquaculture-management.aspx>

- Side event of the Eight Session of the International Treaty on Plant Genetic Resources for Food and Agriculture, November 2019, Rome, Italy.<sup>24</sup>
- FAO regional workshops (supported by the Government of Germany) on the development of a global information system of farmed types of aquatic genetic resources (incorporating a review of strategic priorities for a global plan of action) held physically for the African Regional group (December 2019)<sup>25</sup> and virtually for Asia and the Pacific (June 2020),<sup>26</sup> Latin America and the Caribbean and for North America (September 2020),<sup>27</sup> Europe and Central Asia (October 2020)<sup>28</sup> and the Near East (December 2020).<sup>29</sup>
- Virtual international training programme on *Regional capacity building on biotechnological tools in aquatic genetic resource management and ex situ conservation*, National Bureau of Fish Genetic Resources of the Indian Council of Agricultural Research (ICAR-NBFGR), December 2020.<sup>30</sup>

14. The Report was also showcased at the Frankfurt Book Fair, in October 2019, by the FAO Office for Corporate Communication.

## V. GUIDANCE SOUGHT

15. The Working Group may wish to recommend that the Commission
- welcome the Report and take note of its key findings, including the needs and challenges synthesized in Chapter 10; and
  - request FAO to continue distributing the Report and communicating its key messages widely.

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<sup>24</sup> <http://www.fao.org/plant-treaty/eighth-governing-body/list-side-events/en/>

<sup>25</sup> CGRFA/WG-AqGR-3/21/Inf.7.

<sup>26</sup> CGRFA/WG-AqGR-3/21/Inf.8.

<sup>27</sup> CGRFA/WG-AqGR-3/21/Inf.10.

<sup>28</sup> CGRFA/WG-AqGR-3/21/Inf.9.

<sup>29</sup> CGRFA/WG-AqGR-3/21/Inf.11.

<sup>30</sup> <https://www.icar.org.in/content/virtual-international-training-programme-regional-capacity-building-programme-aquatic>