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Item 8.1 of the Provisional Agenda

COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE

Twelfth Regular Session

Rome, 19 -23 October 2009

FOLLOW-UP TO RECOMMENDATIONS REGARDING AQUATIC GENETIC RESOURCES FOR FOOD AND AGRICULTURE

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I. INTRODUCTION

1. At its Eleventh Session, the Commission recognized the importance and vulnerability of aquatic genetic resources, their roles in an ecosystem approach for food and agriculture, and their contributions to meeting the challenges presented by climate change. It agreed that the Multi-Year Programme of Work (MYPOW) should include coverage of aquatic genetic resources for the development of sustainable and responsible fisheries and aquaculture.

2. At its Twenty-seventh Session, the FAO Committee on Fisheries, which had already been informed of the proposal to include aquatic genetic resources within the MYPOW, welcomed "the proposed work for genetic resource management in fisheries and aquaculture"[1] and expressed "its pleasure that the *Code of Conduct for Responsible Fisheries* would serve as a guide for this work."[2] The Committee will be kept informed of progress made in the implementation of the MYPOW.[3]

3. At its Thirteenth Regular Session, the Commission is scheduled to achieve its first major milestone on aquatic genetic resources: a review of the information base for aquatic genetic resources as well as key issues for *The State of the World's Aquatic Genetic Resources*. The Commission agreed that improving the collection and sharing of information on aquatic genetic resources was of high priority.[4]

4. This document provides a first review of progress made since the Eleventh Session of the Commission in the area of aquatic genetic resources, including on the development of technical guidelines for the conservation and sustainable use of aquatic genetic resources in relation to the *FAO Code of Conduct for Responsible Fisheries* (the *Code*), as requested by the Commission.[5] It also describes on-going collaboration with other international organizations in the field of aquatic genetic resources[6] and informs the Commission of selected relevant FAO technical projects on aquatic genetic resources. The document provides suggestions for activities in the inter-sessional period to prepare for the Thirteenth Session, and seeks guidance from the Commission.

II. PROGRESS SINCE THE ELEVENTH REGULAR SESSION

Technical Guidelines on Aquaculture Development - Genetic Resource Management

5. The effective management of genetic resources, risk assessment and monitoring can help promote responsible aquaculture by increasing production output and efficiency and help minimize adverse impacts on the environment. These benefits of the responsible application of genetic principles to aquaculture need to be communicated to consumers, policy-makers, scientists and others interested in responsible fisheries and aquaculture.

6. With this background in mind, FAO has developed technical guidelines for aspects of genetic resource management in aquaculture. Guidance is provided on broodstock management and domestication, genetic improvement programmes, dissemination programmes for genetically improved fish, economic considerations in genetic improvement programmes, risk assessment and monitoring, culture based fisheries, conservation of fish genetic resources, gene banks, a

[1] FIEL/R380, para. 51.
[2] FIEL/R380, para. 19.
[3] CGRFA-11/07/Report, para. 60.
[4] CGRFA-11/07/Report, para. 60.
[5] CGRFA-11/07/Report, para. 61.
[6] CGRFA-11/07/Report, para. 59.

precautionary approach and public relations. The *Technical Guidelines for Aquaculture Development – Genetic Resource Management* have been published in English language in 2008.[7]

7. The Technical Guidelines have been distributed widely, including to FAO members, non-governmental organizations, fisheries/aquaculture institutions and academia. The Fisheries and Aquaculture Department has been receiving many requests for the guidelines from individuals and institutions such as the World Fish Center (WFC) or the Network of Aquaculture Centers in Asia-Pacific (NACA) for further distribution, especially for awareness raising and training purposes. As a result of this demand, partner institutions have been offered to print and distribute copies for non-commercial use, and additional copies of the guidelines are being printed by FAO in 2009. The FAO Aquaculture Management and Conservation Service has commissioned the translation and printing of the guidelines in Spanish and French language versions.

On-going collaboration with international organizations

8. At its Eleventh Regular Session, the Commission requested FAO to seek synergies and build partnerships with relevant international organizations to facilitate the implementation of the Multi-Year Programme of Work.[8] In relation to the coverage of aquatic genetic resources, the Commission requested FAO to enhance collaboration with *inter alia*; the FAO Committee on Fisheries, the Convention on Biological Diversity, the United Nations Convention on the Law of the Sea, the United Nations Informal Consultative Process on Oceans and the Law of the Sea, regional and international fisheries organizations and networks and industry.[9]

9. Since the last Session, FAO has continued its collaboration with relevant international organizations. At the Ninth Meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD), FAO informed Parties of the adoption of the Commission's MYPOW. The CBD Conference of the Parties welcomed work towards the preparation of *The State of the World's Aquatic Genetic Resources*. [10]It encouraged FAO to finalize it as planned and encouraged Parties and the other governments to provide information that would enable FAO to complete its preparation and to support developing countries to that end. At its Tenth Session, the CBD Conference of Parties will review its programmes of work on inland waters and marine and coastal waters. FAO will collaborate with the CBD Secretariat in such reviews, including by providing available information with regard to aquatic genetic resources and their inclusion in the Commission MYPOW.

10. FAO also participated in the Eighth Meeting of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea, and the second United Nations meeting of the Ad Hoc Open-ended Informal Working Group, to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction. On those occasions, FAO provided information with regard to its relevant work, including with regard to the inclusion of aquatic genetic resources within the Commission's MYPOW. The General Assembly through resolution A/RES/62/215, reaffirmed its role relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction and noted the work of relevant complementary intergovernmental organizations and bodies on those issues, including FAO, and invited it to contribute to its consideration of these issues within the areas of their respective competences.

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[7] FAO 2008. *Aquaculture development. 3. Genetic resource management.* FAO Technical Guidelines for Responsible Fisheries. No. 5, Suppl. 3. Rome, FAO. 2008. 125p. Also available at http://www.fao.org/docrep/011/i0283e/i0283e00.htm

[8] CGRFA-11/07/Report, paragraph 92.

[9] CGRFA-11/07/Report, paragraph 59.

[10] COP Decision IX/I, para. 4.

11. FAO also participated in the 10th Conference of the Contracting Parties to the RAMSAR Convention on Wetlands which had Resolution X.31 *Enhancing biodiversity in rice paddies as wetland systems* on its agenda. In a side event, FAO highlighted the critical importance and values of aquatic biodiversity from rice-based ecosystems for nutrition and livelihoods of rural communities by providing case studies and expert views from Cambodia, Lao PDR, P.R. China, Viet Nam and West Africa. It highlighted the need and potential as well as some of the risks and benefits of enhancing rice production and rice-associated biodiversity. Highlights from a National Workshop in Lao PDR[11] with wide participation from different ministries as well as regional/international organizations such as the Mekong River Commission (MRC), World Wildlife Fund (WWF), and the International Rice Research Institute (IRRI), reminded delegates of the need for and benefits of close collaboration among development partners. FAO stressed the need for embracing the concept of an ecosystem approach and the important role of agricultural biodiversity for people and the environment. RAMSAR's Scientific and Technical Review Panel thematic work area on agriculture and wetland for 2009-2012 includes the development of a technical framework and guidance with aspects on rice paddy in supporting the conservation of wetland biodiversity and the delivery of wetland ecosystem services. There is scope and interest for further collaboration between RAMSAR and FAO on this subject both from fisheries and agriculture perspectives.

Relevant technical projects

12. The Spanish-funded FAO Project *"Aquaculture Investments for Poverty Reduction in the Volta Basin: Creating Opportunities for Low-Income African Fish Farmers through Improved Management of Tilapia Genetic Resources"* will run from 2008 to at least 2011. This Project will address practical aspects of responsible management of aquatic genetic resources in the Volta river basin. One objective will be the genetic characterization of both wild and aquaculture stocks of Nile Tilapia and an investigation of the interaction between the two. The project seeks to provide insight and possible protocols for promoting the use of Tilapia genetic resources for aquaculture in African watersheds in a responsible and sustainable manner that minimises the impact of this activity and provides for the long term conservation of natural wild populations, and thus, should be viewed as supportive of the work of the Commission in the area of aquatic genetic resources.

13. The second phase of a project on the availability and use of aquatic biodiversity from rice-based ecosystems[12] under the FAO-Netherlands Partnership Programme culminated in 2008. A *National Workshop on Aquatic Biodiversity and Nutrition from Rice-based Ecosystems: Enhancing Biodiversity and Agricultural Productivity* was held in Vientiane, Lao PDR, from 4 to 5 June 2008[13] . It was jointly organized by the Ministry of Agriculture and Forestry, Lao PDR, and FAO, specifically the Inter-Departmental Working Group on Biological Diversity for Food and Agriculture (IDWG/BIOD).

14. The aims of the workshop were: to share information and experiences on importance and management of aquatic biodiversity from rice-based ecosystems among various stakeholders; to discuss good management practices which combine the enhancement of aquatic biodiversity with an increase in the production of rice; to discuss the role and potential of aquatic biodiversity to alleviate malnutrition; and, to recommend future activities and immediate steps. The workshop

[11] FAO/Lao PDR Ministry of Agriculture and Forestry**.** National Workshop on aquatic biodiversity and nutrition from rice-based ecosystems: Enhancing biodiversity and agricultural productivity. 4-5 June 2008, Vientiane, Lao PDR. Rome, FAO. 2008. 53p. Available at http://www.fao.org/fileadmin/templates/biodiversity/pdf/NationalWorkshoponAquaticBiodiversity.pdf

[12] Halwart, M.; Bartley, D. (eds.). 2005. Aquatic biodiversity in rice-based ecosystems. Studies and reports from Cambodia, China, Lao People's Democratic Republic and Viet Nam. CD ROM. Rome, FAO. Also available at ftp://ftp.fao.org/FI/CDrom/AqBiodCD20Jul2005/default.htm.

[13] See footnote 11.

concluded that agricultural biodiversity in Lao PDR is the basis for food security of the Lao people, and recommended that the ricefield ecosystem and its associated biodiversity, in particular the aquatic domain, needs to be given highest priority in future research and development projects. The findings have relevance beyond national boundaries in the Asia region. Similar activities have been promoted by FAO and the Africa Rice Center (WARDA)[14] and are now to some extent implemented through a Japanese-funded FAO Project on *Intra-African Training and Dissemination of Technical Know-how for Sustainable Agriculture and Rural Development with African-ASEAN Countries Cooperation within the Framework of South-South Cooperation. Conducting FAO Regional Workshops on Rice and Aquaculture for Productivity Increase and Market Development in East and West Africa.*

III. PREPARATION FOR THE THIRTEENTH REGULAR SESSION

15. At its Thirteenth Regular Session, the Commission is scheduled to achieve its first major milestone on aquatic genetic resources, as reflected in the *Draft Strategic Plan 2010-2017 for the implementation of the Multi-Year Programme of Work*.[15] Subject to the availability of the necessary human and financial resources, it is planned that the following activities will be undertaken in preparation for the Thirteenth Regular Session of the Commission:

(i) Preparation of a Status Report on the existing information base for aquatic genetic resources;

(ii) An analysis of key issues for the *State of the World's Aquatic Genetic Resources*, including
- matters in aquatic genetic resources;
- a proposal for the structure and contents of the *State of the World's Aquatic Genetic Resources*;
- a proposal for the preparatory process leading to the *State of the World's Aquatic Genetic Resources*, including an indicative time-table and cost estimates for extra-budgetary resources required in support of the preparatory process; and,
- a list of potential partners FAO should seek cooperation with in preparing the *State of the World's Aquatic Genetic Resources*.

(iii) Preparation of a scoping policy analysis to identify gaps and opportunities related to Aquatic Genetic Resources.

16. FAO also plans to present the Strategic Plan 2010-2017 for the implementation of the Multi-Year Programme of Work (aquatic genetic resources) and the analysis of key issues for *The State of the World's Aquatic Genetic Resources* to the 29th Session of FAO's Committee on Fisheries and the 5th Session of its Sub-Committee on Aquaculture.

IV. GUIDANCE SOUGHT

17. The Commission may wish to:

(i) Welcome progress made on aquatic genetic resources since the last Session and provide its advice on the range of planned activities, as indicated in section III above in preparation for the Thirteenth Regular Session of the Commission; and,

(ii) Invite donors, international organizations and countries to make available extra-budgetary financial resources to enable the undertaking of the planned activities.

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[14] FAO/WARDA 2006. Integrated irrigation and aquaculture in West Africa. Concepts, practices and potential. Rome, FAO. 181 pp. Available at http://www.fao.org/docrep/009/a0444e/a0444e00.htm.

[15] CGRFA-12/09/4, *Annex I,* Section III (Aquatic Genetic Resources for Food and Agriculture).