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Item 4.3 of the Draft Provisional Agenda

COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE

Tenth Regular Session

Rome, 8-12 November 2004

DRAFT OUTLINE FOR THE FIRST REPORT ON THE STATE OF THE WORLD'S ANIMAL GENETIC RESOURCES INCLUDING THE REPORT ON STRATEGIC PRIORITIES FOR ACTION

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I. INTRODUCTION

1. During its third Session, the Intergovernmental Technical Working Group on Animal Genetic Resources for Food and Agriculture (Working Group) reviewed a *Draft Outline for the First Report on the State of the World's Animal Genetic Resources*. It noted with approval that the outline reflected the guidelines for the preparation of Country Reports.
2. In reviewing the Draft Outline, the Working Group identified ways of strengthening it, including by considering the need for regional and sub-regional collaboration in a number of the sections. It noted that the term "Farm Animals" included those animal genetic resources currently or potentially contributing to food and agriculture, as well as underutilized resources.
3. The Working Group stressed that the first Report on the State of the World's Animal Genetic Resources should: report on all roles and functions of animal genetic resources, including their economic and social values; it should consider the changing demands on livestock production and disease factors – including the effects of emergencies and the need to identify disease-resistance; and due attention should be paid to issues of access and benefit-sharing, based on countries' sovereign rights over their natural resources and subject to national legislation. The Working Group emphasized the importance of providing clear options and guidance on ways to improve the conservation and sustainable utilization of animal genetic resources in Part 6, The Way Ahead: Mainstreaming Animal Genetic Resources. The Working Group also requested that provision be made for an executive summary or synopsis, in order to inform senior policy-makers and managers of the agreed strategic priorities and actions.

II. REVISED DRAFT OUTLINE

4. The Working Group endorsed the outline for forwarding to the Commission, following incorporation of the changes requested. The revised Draft Outline, which incorporates the suggestions by the Working Group, is provided in Appendix I.

III. GUIDANCE REQUESTED FROM THE COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE

5. The Commission is requested to provide advice on the proposed overall structure and content of the Draft Outline for the Report on the State of the World's Animal Genetic Resources. The Commission may wish to note that the final structure and content of the Report will be based on the inputs received in the Country Reports and the reports by international organisations, and the outcomes of the thematic studies.

APPENDIX I:**DRAFT OUTLINE FOR THE FIRST REPORT ON THE STATE OF THE WORLD'S ANIMAL GENETIC RESOURCES INCLUDING THE REPORT ON STRATEGIC PRIORITIES FOR ACTION**

I. THE PURPOSE AND OBJECTIVES OF THE FIRST REPORT ON THE STATE OF THE WORLD'S ANIMAL GENETIC RESOURCES

1. The first *Report* will describe the current situation of animal genetic resources for food and agriculture, at the global level, and identify the gaps and needs for their conservation and sustainable utilization. This is likely to involve an assessment of the value of animal genetic resources for development; an analysis of the causes of loss of animal genetic resources; a survey of the methods and resources available for their use and conservation; and an assessment of capacities to employ such methods and resources. It will provide the background to further refine the FAO Global Strategy for the Management of Farm Animal Genetic Resources (Global Strategy).
2. The first *Report* will encompass farm animals of social and economic interest for food and agriculture, concentrating on mammalian and avian species, and their wild relatives of current or potential economic value, as well as under-utilized species of animals, which have the potential for contributing significantly to agriculture.

Overall Objectives

3. The **overall objectives** of the first *Report on the State of the World's Animal Genetic Resources*, as defined in the Guidelines for the Preparation of the Country Reports are to:
 - Analyze and report on the state of animal genetic resources, on the status and trends of these resources, and on their current and potential contribution to food, agriculture and rural development;
 - Assess the state of the country's capacity to manage these essential resources, in order to determine priorities for future capacity building; and
 - Identify the national priorities for action in the field of sustainable conservation and utilization of animal genetic resources and related requirements for international co-operation.

Specific Objectives

4. The specific objectives of the first Report on the State of the World's Animal Genetic Resources are to:
 - Provide Governments and stakeholders with information on the state of animal genetic resources for food and agriculture as the basis for policy and management decisions;
 - Establish essential baseline data and information on the status of animal genetic diversity, which will expose gaps, and help to establish regional and global priorities for the management of animal genetic resources, as part of the overall objective of achieving and sustaining global food security;

- Assess the capacities of public and private institutions as well as those of farmers and indigenous and local communities, individually and collectively, to manage these resources, in order to identify priorities for national capacity-building;
- Assess the roles and values of local and introduced breeds, the impacts of traditional agricultural systems on animal genetic resources, and the roles of women, men and children in the management of animal genetic resources;
- Examine the methodologies and technologies that are being employed, or are available, to better understand the value of, and to better use, develop and conserve these resources in a sustainable manner, taking indigenous and local knowledge into consideration along with modern science;
- Encourage networking to increase awareness of the many roles and values of animal genetic resources, and thereby promote their better use, development and conservation;
- Provide a foundation to enhance existing networking between countries with shared or common animal genetic resources, and/or common production systems or issues;
- Promote communication and better collaboration and co-operation within and between networks, and among governmental and non-governmental organizations involved in the management of animal genetic resources;
- Identify emerging issues where these directly relate to the management of animal genetic resources in relation to animal welfare, animal health, impacts on the environment, and other issues;
- Improve understanding of the status of breeds that are currently not of value to farmers, and of wild relatives of domesticated animals, to provide the foundation for an Early Warning and Early Reaction System for Animal Genetic Resources at risk of being lost, and to identify opportunities for the future use of these resources; and
- Identify situations where an emergency response could be required and measures should be taken to prevent or reduce the loss of animal genetic resources and their genetic variability.

II. STYLE OF THE FIRST REPORT ON THE STATE OF THE WORLD'S ANIMAL GENETIC RESOURCES

5. The first *Report* will be synthetic, providing a global view of the state of genetic resources at all levels. A static "inventory" approach will be avoided by emphasizing existing problems and emergencies at national, regional and global levels. The first *Report* will treat utilisation, development and conservation aspects, as well as the various methods of conservation in an integrated manner. This will permit an analysis of the inter-relations between utilization and conservation, including the issues of improving incentives for conservation.
6. The size of the document should be guided by two principles: it will be as concise as possible, in order to facilitate wide readership, including by policy-makers, whilst being as detailed as necessary to provide a sound basis for the further development of the Global Strategy to assist countries to better manage their animal genetic resources and minimize genetic erosion. Information gathered during the preparatory process, particularly from Country Reports, will ensure that the first *Report* will cover the whole scope of issues, policies, technologies and activities presented in the outline.
7. The *Report* will include illustrations, specific examples, maps, tables and charts. Additionally, the main synthetic document will include a number of annexes, which treat particular regions, production systems, species and other topics in more detail. It will also be issued as a conventional bound report and CD-ROMs, and will be made available on the Internet.

III. RELATIONSHIP OF THE REPORT ON STRATEGIC PRIORITIES FOR ACTION TO THE OVERALL FIRST REPORT ON THE STATE OF THE WORLD'S ANIMAL GENETIC RESOURCES

8. The Commission had requested FAO to bring to its attention priority issues, and urgent needs and actions to halt or reduce the rate of erosion of animal genetic resources, and to improve the use and development of these resources, in advance of completion of the first *Report on the State of the World's Animal Genetic Resources* in 2006. The Second Intergovernmental Technical Working Group on Animal Genetic Resources (Working Group) had recommended to the Commission that the preparation of the *Report on Strategic Priorities for Action* be a crucial part of the overall process for the preparation of first *Report on the State of the World's Animal Genetic Resources*¹.
9. In agreeing to the process for preparing the first *Report on the State of the World's Animal Genetic Resources*, the Commission requested that Country Reports be used to develop the *Report on Strategic Priorities for Action* for consideration by the Commission during its Tenth Regular Session in 2004.²
10. It is envisaged that, following guidance from the Tenth Regular Session of the Commission in late 2004, on the basis of a draft text of the *Report on Strategic Priorities for Action*, the latter will be finalized, and form part five of the Report on the State of the World's Animal Genetic Resources, as explained in section V of this document. In particular, the *Report on Strategic Priorities for Action* would:
 1. propose policies and strategies for the conservation and utilization of animal genetic resources for food and agriculture at national, regional and global levels, with particular attention between conservation programmes and utilization capabilities and programmes;
 2. aim to assist countries in elaborating plans or programmes of priority action for sustainable use and conservation activities at the national level;
 3. focus on assisting countries in strengthening national capabilities for utilizing animal genetic resources;
 4. propose appropriate and feasible measures to make the Global Strategy for the Management of Farm Animal Genetic Resources more effective³; and
 5. propose the basis for the identification of costed programmes, projects and activities for implementation by governments.
11. Possible areas for strategic priority actions may include, *inter alia*:
 1. institutional development and capacity building;
 2. human resources development;
 3. enhancement of characterization and valuation of animal genetic resources;
 4. maintenance and promotion of traditional knowledge;

¹ Report of ITWG-AnGR:2, Paragraph 24 & 29 (<http://dad.fao.org/en/refer/library/reports2/itwg/itwgsep00.pdf>)

² Report of CGRFA:9, Paragraph 8 (<http://dad.fao.org/en/refer/library/reports/CGRFA9.pdf>)

³ Farm animal genetic resources (AnGR): those animal species that are used, or may be used, for the production of food and agriculture, and the populations within each of them. These populations within each species can be classified as wild and feral populations, landraces and primary populations, standardized breeds, selected lines, and any conserved genetic material. (Source: FAO, 1999. *The Global Strategy for the Management of Farm Animal Genetic Resources: Executive Brief*.) Each country is sovereign to designate any species that are considered relevant as AnGR.

5. support for sustainable use and development of animal genetic resources;
 6. strengthening of conservation efforts (*in situ* and *ex situ*) including development of national and international conservation plans;
 7. establishment of national, subregional and regional monitoring and emergency response mechanisms;
 8. enhancement of public and policy maker awareness;
 9. mainstreaming of animal genetic resources into the overall national animal production strategy and programmes;
 10. development of national policy, legislation, regulations and procedures;
 11. co-operation in research and appropriate biotechnology development and transfer;
 12. co-operation in development of information systems and communication networks taking into account developing countries needs of technical and financial support;
12. It is proposed that the draft text of the *Report on Strategic Priorities for Action* will be derived from a preliminary analysis of Country Reports submitted to FAO by May 2004, and the information provided through the regional technical meetings. In a very concise form, and based on preliminary review and analysis of country reports, the draft *Report on Strategic Priorities for Action*, as presented to the Tenth Regular Session of the Commission, will follow the structure of the *First Report* as outlined below. A preliminary *analysis of priorities* for the utilization and conservation and for international co-operation will be the main focus of the document, and will include:
1. a description of the problems, including a summary of relevant conclusions from the initial analysis of Country Reports submitted in the process of preparation of the first Report on the State of the World's Animal Genetic Resources;
 2. identification of gaps and assessment of factors limiting the optimum utilization, development and conservation of animal genetic resources; and
 3. the need for and possible modalities for follow-up action, including financial and technical assistance, policy development and awareness and education building.
13. On the basis of the guidance received, it is envisaged that the information contained in the *Report on Strategic Priorities for Action* will be further refined through the final analysis of all Country Reports submitted to FAO, and become an integral part of the of the *Report*. In the meantime the Commission will be invited to give guidance on the immediate priorities to be addressed, before the *Report on the State of the World's Animal Genetic Resources* is finalized.

IV. STRUCTURE OF THE REPORT ON THE STATE OF THE WORLD'S ANIMAL GENETIC RESOURCES

14. It is proposed that the first *Report on the State of the World's Animal Genetic Resources* be structured around six main sections, and that the *Strategic Priorities for Action* form an integral part of it. A detailed description of the proposed content for each of the main sections of the first *Report* is described below.

Main Sections of the Report

PART 1. THE STATE OF AGRICULTURAL BIODIVERSITY IN THE FARM ANIMAL SECTOR

15. Part 1 will describe the major animal production systems and related animal genetic resources, their utilization and relative importance; indicate the state of their conservation and priorities to overcome major gaps and needs for both enhancement and conservation activities. This assessment will be made at species, country and regional level, where feasible. Case studies, examples, maps and tables will be introduced to illustrate the main issues.
16. The main sources of information for this section will be the existing Country Reports, background information including data in DAD-IS, the State of Food and Agriculture (SOFA), and reports from international organizations, complemented by commissioned thematic studies and assessments by specialists.
17. Possible sub-sections for Part 1 include *inter alia*:
- Animal species diversity, domestication, and origin of animal genetic resources
 - Breed diversity (numbers) and distribution
 - Erosion of animal genetic resources and underlying causes
 - Uses and values of animal genetic resources and contribution to food and agriculture and identification of uses other than food and livestock breeding
 - An overview of animal production systems and development including the successful cases of reintroduction of native breeds
 - Utilization of *farm animal genetic resources*
 - Conservation of farm animal diversity, *in situ* and *ex situ*

PART 2. THE STATE OF THE ART IN ANIMAL GENETIC RESOURCES MANAGEMENT

18. Part 2 will provide an overview of current scientific, technical and other methodologies and tools for the utilisation, development and conservation of animal genetic resources. It will address areas of special interest for animal genetic resources management, such as characterization and valuation, conservation methodologies, biotechnologies, genetic evaluation and improvement. In addition, possible future developments in each of these areas, over next 10 to 15 years may be considered.
19. The main sources of information for this section will be Country Reports as far as the current application of methods is concerned, assessment by specialists, and thematic studies and reports from international organizations.

20. Possible sub sections for Part 2 include *inter alia*:

- Methods for genetic diversity assessment
- Methods for characterization and economic valuation
- Approaches to breeding programmes and genetic improvement
- Methods for evaluation of endangerment and genetic erosion
- Approaches for *in situ* conservation
- Approaches for *ex situ* conservation
- Application of modern biotechnologies in animal production and animal genetic improvement
- Development, access and use of documentation and information systems
- Approaches and mechanisms for rewarding conservation and incentive measures

PART 3. CHANGING DEMANDS ON LIVESTOCK PRODUCTION AND THEIR IMPLICATIONS FOR FUTURE POLICIES, STRATEGIES AND PROGRAMMES

21. Part 3 will provide an overview of past and present policies, strategies, programmes and management practices; analyse future demands and trends of animal products, and changes in production systems and their impacts on animal genetic resources.

22. The main sources of information for this section will be background information including: FAO statistics and publications, Country Reports, the State of Food and Agriculture (SOFA), and reports from international organizations, complemented by commissioned thematic studies and assessment by specialists.

23. Possible sub sections for Part 3 include *inter alia*:

- Impacts of past and present policies on animal genetic resources management
- Implications of the “livestock revolution” on production and production systems
- Environmental issues of livestock production
- Effects of globalization on use, development and conservation of animal genetic resources
- Consumer driven developments in animal production (increased demand, food safety, animal welfare, environmental concerns, etc.)
- Future policies and strategies to ensure sustainable use and conservation of animal genetic resources, including the genetic characterization of resistance to disease
- Guidelines for the inclusion in the legislation of countries that AnGR should be considered national heritage assets

PART 4. THE STATE OF NATIONAL CAPACITIES AND FUTURE CAPACITY BUILDING REQUIREMENTS

24. Part 4 will provide assessment of the state of capacities at the national and regional levels and examine the requirements and opportunities for capacity building.

25. The main sources of information for this section will be Country Reports, reports from international organizations, complemented by commissioned thematic studies and assessments by specialists.

26. Possible sub sections Part 4 include *inter alia*:

- Institutional infrastructure related to animal genetic resources (both public and private sector), community, social and gender related issues, and stakeholders involvement mechanisms
- Future organizational structure requirements, institutional development needs and opportunities
- State of legislation and regulations affecting animal genetic resources conservation, use and development, benefit sharing and possible future developments
- Current human resources, education, training and extension, bottlenecks in human resource development and future needs
- Current infrastructure and technologies used, and future needs
- Information systems and communication facilities
- Education and research facilities
- International co-operation, exchange and trade arrangements in the field of animal genetic resources

PART 5. THE STRATEGIC PRIORITIES FOR ACTION

27. The Report on Strategic Priorities for Action, revised in the light of guidance from the Tenth Regular Session of the Commission and further information available from Country Reports, as explained in section IV of this document, will be included here.

PART 6. THE WAY AHEAD: MAINSTREAMING ANIMAL GENETIC RESOURCES

28. Part 6 will consider options for achieving the effective and efficient implementation of priority actions identified in Part 5 above. This will include:

- Capacity building
- Institutional arrangements
- Possible sources of financing
- Policy development
- Partnerships
- Potential modalities for facilitating interaction among donors and recipients
- Process forward post - state of the world process