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Unidas
para la
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y la
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COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE

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REPORTS FROM FAO ON ITS POLICIES, PROGRAMMES, AND ACTIVITIES ON AGRICULTURAL BIOLOGICAL DIVERSITY:

(2) CROSS-SECTORIAL MATTERS

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**REPORTS FROM FAO ON ITS POLICIES, PROGRAMMES, AND ACTIVITIES ON
AGRICULTURAL BIOLOGICAL DIVERSITY:
(2) CROSS-SECTORIAL MATTERS**

I. INTRODUCTION

1. The Commission on Genetic Resources for Food and Agriculture regularly receives reports from relevant international organizations, including FAO, on their policies, programmes and activities of relevance to the conservation and sustainable use of genetic resources for food and agriculture. These reports contribute to understanding in this area between FAO and its Commission, and other international organizations, and to their further cooperation and coordination of their work.
2. This report provides information on the wide range of FAO's activities of a cross-sectorial nature, relevant to the conservation and sustainable use of genetic resources for food and agriculture. Sectorial activities are addressed in document CGRFA-11/07/20.1 and information on relevant Priority Areas for Interdisciplinary Action (PAIAs) is in document CGRFA-11/07/20.3. Reports submitted by other organizations are in documents CGRFA-11/07/19.1, CGRFA-11/07/19.2 and CGRFA-11/07/19.3.

II. II. FAO ACTIVITIES IN 2005 AND 2006

1. Sustainable Development and Genetic Resources for Food and Agriculture

3. The Natural Resources Management and Environment Department (NRD) is the focal point for biodiversity in FAO with the Assistant Director-General being the main counterpart to the Executive Secretary of the Convention on Biological Diversity (CBD), and with the Environment, Climate Change and Bioenergy Division (NRC – former SDRN) providing the Secretariat to the Inter-Departmental Working Group (IDWG) on Biological Diversity. Activities related to this IDWG are reported in Document CGRFA-11/07/20.3. As of 1 January 2007, the NR Department hosts the Secretariat of the CGRFA.
4. The NRC Division provides technical support in measuring progress towards the achievement of the *2010 Biodiversity Target*, for example through the development of the remote-sensing component of the *2010 Forest Resources Assessment (FRA2010)*, allowing for measuring trends and extent of forest ecosystems and through the promotion of the *Land Cover Classification System (LCCS)* for measuring ecosystems connectivity and fragmentation.
5. Moreover, the NRC Division continues to host the Secretariat for the Global Terrestrial Observing System (GTOS), which was launched in January 1996, to address data and information needs related to global and regional change in areas. Since 2004, GTOS in collaboration with the FAO/ UNEP (United Nations Environment Programme) Global Land Cover Network (GLCN), has been increasingly focusing on biodiversity through linkages and cooperation with Biodiversity-related Conventions, namely the CBD, Convention on Migratory Species (CMS) and the Ramsar Convention on Wetlands. In particular, the cooperation established between GTOS and the Ramsar Convention on Wetlands and the launch of the Partnership on Wetland Mapping and Inventory developed in cooperation with the International Water Management Institute (IWMI) are to be highlighted within GTOS support to Biodiversity-related Conventions in terms of geo-spatial information and data towards the conservation and wise use of fragile ecosystems. Moreover, GTOS has also established a *GTOS Initiative on Biodiversity (B-GTOS)* to increase its focus on

biodiversity observations within the framework of global environmental change and sustainable development.

6. Since 2004, FAO is developing and implementing the conservation and sustainable management of the Globally Important Agricultural Heritage Systems (GIAHS) project, together with interested countries and UN agencies. GIAHS addresses the dynamic conservation of agricultural and associated biodiversity in traditional and family agricultural systems, through an integrated ecosystem and socio-cultural approach. The project implements activities at international, national and local levels, piloted in seven countries representing five major Agricultural Heritage Systems. Activities emphasize capacity building, which focuses on unique agro-biodiversity of global value, which are managed through traditional knowledge systems and linked to food and livelihood security of local farming communities, through the sustainable use of genetic resources for food and agriculture.

7. The Research and Extension Division (NRRR – formerly SDRR) continues to be involved in a number of biotechnology and biosafety activities. Completed or ongoing Technical Cooperation Projects (TCPs) provide assistance in biotechnology policy development to a number of countries, including Nicaragua, Paraguay and Sri Lanka. In 2004-2006, three moderated e-mail conferences were hosted by the FAO Biotechnology Forum covering: biotechnology applications in food processing; public participation in decision-making regarding GMOs; and the role of biotechnology for the characterization and conservation of agricultural genetic resources. The searchable database FAO-BioDeC provides information on biotechnology techniques and products in use, or in the pipeline on developing countries in the crop, livestock and forestry sectors. The FAO Glossary of Biotechnology for Food and Agriculture is now available as a multilingual searchable database. Requests for assistance in the building of national biosafety systems were addressed through the implementation of TCPs. The regional project *Asian Bio-Net*, contributed to strengthening national capacities in biosafety in ten countries in Asia.

8. The Commission may wish to express its views on the policies and activities provided in this document and make suggestions so that the relevant technical units can take these into consideration when carrying out their current tasks, and to assist when planning for the future within the new Natural Resources Management and Environment (NR) Department also including the CGRFA Secretariat.

2. Economic and Social Activities

9. FAO's Economics and Social Department has continued and expanded its applied economics research program on identifying policies and strategies to promote sustainable patterns of crop genetic resource utilization to support the implementation of the International Treaty on Plant Genetic Resources and the programme of work on agricultural biodiversity under the Convention on Biological Diversity. The focus of the departmental work is the management of seed systems to provide incentives for the sustainable utilization of crop genetic resources.

10. A major part of the ES research program is being implemented under a project entitled *Using markets to promote the sustainable utilization of crop genetic resources* initiated by the Agriculture and Development Economics Division (ESA). The objective is analyzing the effect of policies and regulations on the level and content of crop genetic diversity accessible to farmers via seed sales in markets, and to assess the impacts on farm measures of welfare and crop diversity. Three main components of access to crop genetic resources are considered: 1) physical availability of crop genetic diversity, 2) information provided about available genetic resources and 3) costs of obtaining the genetic resources – including transactions costs. The project also seeks to assess the sustainability of utilization, by measuring both private and public benefits associated with the crops and varieties grown. The project focuses on markets as they are an increasingly important source of seeds and thus on farm utilization of crop genetic resources – particularly for poor farmers. Case studies, focusing on a policy or regulation that is expected to have an impact on the accessibility of seeds and crop genetic resources in the market, are being

implemented in Mali, Kenya, India, Mexico and Bolivia. The policies and regulations of key concern are: 1) seed sector regulation, 2) Seed sector interventions (emergency seed, community seed projects) and 3) integration into international markets. Several future harvest centres (CGIAR), including the International Maize and Wheat Improvement Center (CIMMYT), the International Food Policy Research Institute (IFPRI), the International Crops Research Institute for the semi-arid tropics, Bioversity International and the International Potato Center (CIP) are collaborators in this effort, and they are implementers of the field studies in collaboration with national partners including El Programa de Investigación de la Papa (PROINPA) (Bolivia), the M.S. Swaminathan Foundation (India) and L'Institut d'Economie Rurale (Mali). Since 2004, two project workshops have been held at FAO, and several reports and studies have been produced including a draft project methodology, value chain analyses of the input and output market chains for maize in Mexico, Pigeon Pea and Sorghum in Kenya, and Millets in India which will be published in 2007. See <http://www.fao.org/docrep/meeting/009/ae408e.htm> for workshop reports. A presentation about the project was made as a side event to the Interim Committee Meeting to the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) in November 2004.

11. Guidance is requested from the commission on ways and means of disseminating the results of the project work and linking it to the implementation of the ITPGRFA.

12. Other empirical and conceptual research is being conducted in the department on the economics of the relationships between access, exchange and sustainable utilization of plant genetic resources and poverty alleviation. Analysis of data collected by ESA in 2002 on Ethiopia seed systems and utilization has resulted in the production of several reports and papers which are reported on in the annex (CGRFA-11/07/20/Annex).

13. Dataset dissemination and capacity building activities are being implemented as part of the program of work. The Ethiopian seed systems and utilization dataset and all related documentation have been made available to Ethiopian researchers and ESA is hosting an internal website where researchers working on the dataset are encouraged to share insights and results and where they can receive technical assistance from ESA staff.

14. The ES Department has been involved in the publication of several books related to biodiversity in food and agriculture, all of which are listed in the annex.

3. Nutrition

15. FAO, together with Bioversity International, leads a new *international initiative on biodiversity for food and nutrition* under the Convention of Biological Diversity. The overall aim is to promote the sustainable use of biodiversity in programmes contributing to food security and human nutrition, and to thereby raise awareness of the importance of this link for sustainable development.

16. The cross-cutting initiative identifies agricultural biodiversity as a priority to improve the nutrition and food security of the rural and urban poor. It also focuses on other major global issues such as micronutrient deficiencies, and trends such as the decline of dietary diversity and the concomitant rapid rise in obesity and chronic diseases. While many nutrition interventions, including supplementation, fortification and bio-fortification of foods are addressing these challenges, this initiative focuses on promoting the use of local biodiversity—traditional foods of indigenous and local communities, within well-managed ecosystems, with their many sources of nutritionally-rich foods—as a readily accessible, locally empowering, and sustainable sources of quality nutrition through dietary diversity.

17. A plan for joint activities was formulated during the Global Stakeholder Workshop on *Biodiversity for Food and Nutrition*, Rome, February 16-17, 2006, with diverse inputs from many

individuals and organizations. Views and experiences were exchanged, guidance for planning future activities in support of the initiative was received, and is being implemented.

18. Linkages with biodiversity have been included within FAO's program of work in nutrition. There are specific major outputs in food composition analysis and dietary assessments and in projects implemented in FAO's Regional and Subregional offices for promotion of traditional food crops¹. Biodiversity elements are also included within other outputs such as food-based dietary guidelines, household food security, National Plans of Action for Nutrition, Dietary Guidelines and Goals, National Poverty Reduction Strategy Papers, Food Production Systems², The Right to Food, and emergency response and preparedness.

Publications

19. A Special Issue of the Journal of Food Composition and Analysis on Biodiversity and Nutrition was jointly published by FAO and Elsevier in 2006 (CGRFA-11/07/20). It contains original research and review papers on biodiversity in local and traditional food systems, new nutrient data to underpin the sustainable use of plant genetic resources for food and agriculture, diversity of fruits, nuts and their products for improving nutrient intakes, farm animals and fisheries diversity for human nutrition, ecosystems and nutrition: rice-based aquatic ecosystems and dietary diversity.

Upcoming events and publications

20. Progress on the development of nutrition indicators for biodiversity will be facilitated through an International Workshop on *Nutrition Indicators for Biodiversity*, in São Paulo, Brazil on October 21, 2007, planned as an official satellite meeting to the 7th International Food Data Conference (IFDC7). The IFDC7 has adopted the theme Nutrition and Biodiversity for its 3 day meeting (22-25 Oct 2007). In early 2008, FAO and Bioersity International intend to conduct the first West African Graduate Course on Food Composition and Biodiversity in Accra, Ghana. Jointly with United States Department of Agriculture and the International Network of Food Data Systems, FAO (FAO-RLC) is preparing the *Food Composition Manual: Sampling protocols for determining compositional differences at the sub-species level*, to be published in September 2007. FAO is working on a Special Issue of the Journal of Food Composition and Analysis on animal genetic resources for the Interlaken Conference in 2007. Posters are being prepared for the 2nd International Decade of the Worlds Indigenous Peoples: Celebrate Diversity in Indigenous Food for both Latin America and the Middle East.

4. Legal Activities

21. Through the Regular and Field Programmes, the Legal Office provides technical assistance, regionally and nationally, in the formulation of legislation in the field of genetic resources for food and agriculture and related matters.

¹ SAPA has supported the promotion of traditional food crops as a source of beta-carotene to address the vitamin A deficiency problems in some atolls. This focused on the identification of specific cultivars of Pandanus (*Pandanus tectorius*) which are particularly rich in beta carotene (through food compositional work). Once identified, their propagation (in close collaboration with the Ministry of Agriculture and Forestry), preparation and consumption were promoted. Technical assistance included development of promotional material (posters, leaflets) and seminars. This assistance has dual benefits - nutritionally and preserving traditional genetic resources and biodiversity in the atolls - currently knowledge of and the availability of many cultivars that were important in the traditional food systems is being lost rapidly as modernisation is occurring in the islands.

² RAP has supported a project on *Nutrition Orientation to Food Production* (October, 2006) to develop policies and policy frameworks for promoting nutrition in food production, including development and use of crop germplasm with superior nutrient profiles.

Technical Cooperation Projects

22. The Legal Office carried out or contributed to the following TCPs on genetic resources: (1) Legal Assistance to *in-situ* Conservation of Crop Wild Relatives (Armenia, Bolivia, Madagascar, Sri Lanka and Uzbekistan); (2) Capacity Building to Support *in-situ* Conservation and Use of Animal Genetic Resources (Albania); (3) Legal Assistance on Plant Genetic Resources – International Treaty on Plant Genetic Resources for Food and Agriculture (Jamaica); (4) Formulation d'une législation sur les ressources phylogénétiques (Guinée); and (5) Strengthening Capacity in Biotechnology and Biosafety - Legal Aspects of Biosafety and GMOs (Grenada).

Meetings

23. The Legal Office provided legal assistance, including the preparation of various legal background materials and information documents, to the First Meeting of the Contact Group for the *Drafting of the Standard Material Transfer Agreement (SMTA)* (July 2005, Hammamet, Tunisia), the First Meeting of the Open-Ended Working Group on the *Rules of Procedure and the Financial Rules of the Governing Body, Compliance, and the Funding Strategy* (December 2005, Rome), the Second Meeting of the Contact Group for the *Drafting of the SMTA* (April 2006, Alnarp, Sweden), and the First *Session of the Governing Body of the ITPGRFA* (June 2006, Madrid, Spain).

24. The Legal Office has contributed to the inter-departmental work of the Priority Areas for Interdisciplinary Action (PAIA) on biotechnology and biosecurity.

Publications

25. The Legal Office published two Legislative Studies (LS) and a Legal Paper Online (LPO): *Intellectual Property Rights in Plant Varieties - International Legal Regimes and Policy Options for National Governments* by Laurence R. Helfer (LS No. 85, 2004), *The Legal Framework for the Management of Animal Genetic Resources* by Antonella Ingrassia, Daniele Manzella, Elzbieta Martyniuk (LS No. 89, 2005), and *Effectivité de la protection de la biodiversité forestière en République Démocratique du Congo: Cas du Parc National des Virunga (PNVI)* by Christol Paluku Mastaki (LPO No. 43, 2005).

26. The Legal Office has continued to expand FAOLEX (<http://faolex.fao.org/faolex/>), its online legislative database, which contains international treaties and national legislation, inter alia, on plant and animal genetic resources, seeds and plant variety protection.

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

27. The Commission may wish to express its views on the policies and activities provided in this document and make suggestions so that the relevant technical units can take these into consideration when carrying out their current task, and to assist when planning for the future.