African Regional Workshop on Sustainable Use Bulletin

A summary report of the African Regional Workshop on Sustainable Use of Biological Diversity

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SUMMARY OF THE AFRICAN REGIONAL WORKSHOP ON SUSTAINABLE USE OF BIOLOGICAL DIVERSITY: 12-15 DECEMBER 2006

The African Regional Workshop on Sustainable Use of Biological Diversity convened from 12-15 December 2006, in Nairobi, Kenya. Organized by the Convention on Biological Diversity (CBD) and the UN Food and Agriculture Organization (FAO), in partnership with the World Agroforestry Centre (ICRAF), the International Federation of Agricultural Producers (IFAP), Bioversity International, and the Tropical Soil Biology and Fertility Institute of the International Centre for Tropical Agriculture (CIAT), the workshop was attended by 33 participants, including 13 designated representatives of CBD parties from the African region as well as representatives of UN and specialized agencies, inter-governmental organizations, non-governmental organizations (NGOs), indigenous and local community organizations, research institutions and farmers federations.

The Workshop was organized in response to the request of the seventh meeting of the CBD Conference of the Parties (COP-7) to the Executive Secretary to convene a series of technical expert workshops on ecosystem services assessment, financial costs and benefits associated with conservation of biodiversity, and sustainable use of biological resources, in order to initiate a process for the implementation of the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity (Addis Ababa Principles). The Workshop was also requested to explore the applicability of the Addis Ababa Principles to agricultural biodiversity.

The Workshop addressed agenda items on issues including: a review of the Addis Ababa Principles and recommendations on their application to agricultural biodiversity; ecosystem services assessment; and financial costs and benefits associated with the conservation and sustainable use of biodiversity. On Tuesday, participants agreed on organizational matters, and heard presentations from the CBD Secretariat, partner organizations and others. In the afternoon, participants began discussing the application of the Addis Ababa Principles to agricultural biodiversity, heard presentations, and decided on a methodology for their work during the week, including convening in informal working group (WG) sessions. On Wednesday, participants heard a presentation on Decision V/5 (Agricultural biodiversity), and worked on establishing guidelines for the agricultural sector grounded in the Addis Ababa Principles in three parallel WGs, one consisting of the francophone representatives.

On Thursday morning, participants met in plenary to hear feedback from the WGs, and presentations on ecosystem services assessment, and financial costs and benefits associated with agricultural biodiversity. In the afternoon, they reconvened in WGs to continue reviewing the Addis Ababa Principles. On Friday morning, plenary heard a presentation on financial costs and benefits associated with the conservation and sustainable use of biodiversity, final reports from the WGs on the application of the Addis Ababa Principles to agricultural biodiversity, and statements from representatives of local and indigenous communities and international organizations; adopted the Nairobi Statement on Sustainable Use of Agricultural Diversity; and heard closing remarks.

A BRIEF HISTORY OF RELATED PROCESSES

CBD PROCESSES

The CBD, negotiated under the auspices of the UN Environment Programme (UNEP), was adopted on 22 May 1992, and entered into force on 29 December 1993. There are currently 190 parties to the Convention, which aims to promote the conservation of biodiversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising from the use of genetic resources.

IN THIS ISSUE

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Sustainable use of biodiversity, one of the three CBD objectives, is essential to achieving the broader goal of sustainable development and is a cross-cutting issue relevant to all biological and natural resources. Sustainable use entails the introduction and application of methods and processes for the utilization of biodiversity to prevent its long-term decline, thereby maintaining its potential to meet current and future human needs and aspirations. Article 10 of the Convention, which sets the sustainable use agenda for parties, addresses: integrating consideration of the conservation and sustainable use of biological resources into national decision-making processes; adopting measures relating to the use of biological resources to avoid or minimize adverse impacts on biodiversity; protecting and encouraging customary use of biological resources in accordance with traditional cultural practices; supporting local populations to develop and implement remedial action in degraded areas; and encouraging cooperation between governmental authorities and the private sector in developing methods for sustainable use of biological resources.

COP-3: At its third meeting (November 1996, Buenos Aires, Argentina), the CBD Conference of the Parties (COP) decided to establish a multi-year programme of work on agricultural biodiversity, and called for an intersessional workshop on Article 8(j) (traditional knowledge) and related provisions.

COP-4: At its fourth meeting (May 1998, Bratislava, Slovakia), the COP decided to establish the intersessional Working Group on Article 8(j) and the panel of experts on access and benefit-sharing (ABS), and adopted a work programme on marine and coastal biodiversity, as well as decisions on inland water, agricultural and forest biodiversity, and cooperation with other agreements.

COP-5: At its fifth meeting (May 2000, Nairobi, Kenya), the COP considered sustainable use as a priority issue, and adopted decisions on biodiversity and tourism, and sustainable use as a cross-cutting issue. The COP further established the intersessional Working Group on ABS and adopted a work programme on agricultural biodiversity comprising four programme elements: assessments; adaptive management; capacity building; and mainstreaming. It also adopted a decision on the ecosystem approach; established an International Initiative for the Conservation and Sustainable Use of Pollinators; and recommended that genetic use restriction technologies (GURTs) should not be approved for field testing until appropriate scientific data were available.

COP-6: At its sixth meeting (April 2002, The Hague, the Netherlands), the COP adopted: the Convention's Strategic Plan, including the target to reduce significantly the rate of biodiversity loss by 2010; an expanded work programme on forest biodiversity; the Bonn Guidelines on ABS; guiding principles for invasive alien species; and decisions on the Global Strategy for Plant Conservation, the Global Taxonomy Initiative (GTI), incentive measures and Article 8(j). On agricultural biodiversity, the COP adopted the steps for further implementation of the programme of work; adopted the plan of action on the International Pollinators Initiative; established the International Initiative on Soil Biodiversity; and established an *ad hoc* technical expert group on the impacts of GURTs on smallholder farmers, indigenous and local communities and farmers' rights. On sustainable use, the COP requested the Executive Secretary to organize a workshop to develop a final set of practical principles and operational guidelines.

ADDIS ABABA WORKSHOP ON SUSTAINABLE USE: Following three workshops on sustainable use (September 2001, Maputo, Mozambique; January 2002, Hanoi, Vietnam; February 2002, Salinas, Ecuador), the fourth open-ended workshop on sustainable use (May 2003, Addis Ababa, Ethiopia) developed a set of 14 practical principles and operational guidelines for the sustainable use of biodiversity.

COP-7: At its seventh meeting (February 2004, Kuala Lumpur, Malaysia), the COP adopted the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity, which consist of 14 interdependent practical principles, operational guidelines and a few instruments for their implementation. The Addis Ababa Principles provide a framework to assist governments, resource managers, indigenous and local communities, the private sector and other stakeholders on how to ensure that their use of biodiversity components will not lead to the long-term decline of biodiversity. COP-7 further mandated the Working Group on ABS to initiate negotiations on an international regime on ABS, and adopted: the Akwé: Kon Guidelines for the Conduct of Cultural, Environmental and Social Impact Assessments regarding developments impacting on sacred sites and lands and waters traditionally occupied or used by indigenous and local communities; and work programmes on mountain biodiversity, protected areas, and technology transfer and cooperation.

COP-8: At its eighth meeting (March 2006, Curitiba, Brazil), the COP adopted a new work programme on island biodiversity; and set 2010 as the timeline for completing negotiations on an international instrument on ABS. On agricultural biodiversity, the COP adopted a decision containing a framework for the initiative on biodiversity for food and nutrition, and a framework for action for the soil biodiversity initiative; and reaffirming the COP-5 ban on field testing of GURTs.

AFRICAN RELATED PROCESSES

Africa has a large heritage of biodiversity forming the region's natural wealth on which its social and economic systems are based. A significant proportion of these biodiversity resources are either endangered or under threat of extinction. African governments have created ministerial processes and programmes of action to ensure the sustainable development of Africa's natural resource base, of which the conservation and sustainable use of biodiversity form a significant component.

AFRICAN CONVENTION ON THE CONSERVATION OF NATURE AND NATURAL RESOURCES: The African Convention on the Conservation of Nature and Natural Resources (the Algiers Convention) was adopted by the Organization of African Unity (OAU) at its fifth ordinary session (September 1968, Algiers, Algeria). A revised Convention text was adopted at the second Ordinary Session of the African Union (AU) Assembly (July 2003, Maputo, Mozambique). The main features of the Convention include that: conservation imperatives must be considered in development plans; conservation areas must be established and maintained; endangered species must be given special protection; land resources and grasslands must be rationally utilized; and conservation education must be instituted at all levels.

NEPAD ENVIRONMENT ACTION PLAN: The African Ministerial Conference on the Environment, a permanent forum of African environment ministers, guided the development and subsequent adoption of the Environment Action Plan of the New Partnership for Africa's Development (NEPAD) at the second

Ordinary Session of the AU Assembly (July 2003, Maputo, Mozambique). The action plan is organized into clusters of programmatic and project activities to be implemented over an initial period of 10 years. It includes programmes on: biodiversity, biosafety and plant genetic resources; land degradation, drought and desertification; Africa's wetlands; invasive alien species; conservation and sustainable use of marine, coastal and freshwater resources; and cross-border conservation or management of natural resources.

NEPAD COMPREHENSIVE AFRICA AGRICULTURE DEVELOPMENT PROGRAMME: The NEPAD Comprehensive Africa Agriculture Development Programme (CAADP) was adopted at the second Ordinary Session of the AU Assembly (July 2003, Maputo, Mozambique), and has since been used as the prescription for revamping and boosting Africa's agricultural productivity. Under the CAADP, the NEPAD goal for the sector is agricultural development that eliminates hunger, reduces poverty and food insecurity, and puts the continent on a higher economic growth path within an overall strategy of sustainable development and preservation of the natural resource base. The CAADP's 2015 goals for agricultural development in Africa include the need to practice environmentally sound production methods and the creation of a culture of sustainable management of the natural resource base, including resources for food and agriculture.

AU SIRTE DECLARATION: The Sirte Declaration on the Challenges of Implementing Integrated and Sustainable Development of Agriculture and Water in Africa was adopted at the second Extraordinary Session of the AU Assembly (February 2004, Sirte, Libya). In the Declaration, Heads of State and Government agreed to identify and support the development and production of strategic agricultural commodities and other key economic and industrial activities, to fully exploit the continent's special potentialities and comparative advantages of member states in agricultural production and other economic activities, while reducing the expenditure and dependence on imports. They also agreed to promote Centres of Excellence and/or networks for the purpose of carrying out research in biotechnology, conservation of agricultural biodiversity, biosafety, food storage, and water harvesting and application.

AFRICA'S SCIENCE AND TECHNOLOGY CONSOLIDATED PLAN OF ACTION: Africa's Science and Technology Consolidated Plan of Action (CPA) was adopted at the second African Ministerial Conference on Science and Technology (September 2005, Dakar, Senegal). The CPA articulates Africa's common objectives and commitment to collective actions to develop and use science and technology for the continent's socioeconomic transformation and its integration into the world economy. The CPA has a platform addressing biodiversity, biotechnology and indigenous knowledge, of which a key area is the conservation and sustainable use of biodiversity. It aims to strengthen Africa's scientific and technological capacities for biodiversity conservation and sustainable use, and its specific objectives are to: build a new cadre or generation of conservation scientists and technicians; improve the quality of genebanks and promote the sharing of scientific facilities to conserve germplasm; add value to Africa's biodiversity and generate natural products through bioprospecting; and promote the development and diffusion of a range of sustainable use technologies.

WORKSHOP REPORT

OPENING OF THE MEETING

On Tuesday, Oliver Hillel, on behalf of the Convention on Biological Diversity (CBD) Executive Secretary Ahmed Djoghlaf, welcomed participants and explained that the African Regional Workshop on Sustainable Use emanates from a decision of the seventh Conference of the Parties (COP-7) to the CBD (February 2004, Kuala Lumpur, Malaysia). Recalling that COP-7 delegates adopted the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity (the Addis Ababa Principles), he underscored the importance of examining the applicability of the Addis Ababa Principles to agricultural biodiversity. Oliver Hillel observed that the African Regional Workshop is third in a series, the others being: the Eastern European Workshop (30 May - 2 June 2005, Moscow, the Russian Federation); and the Latin American and Caribbean Workshop (13 - 16 September 2005, Buenos Aires, Argentina).

Castro Camarada, UN Food an Agriculture Organization (FAO), Kenya, highlighted FAO's interest in sharing experiences with participants to explore the possibility of applying the Addis Ababa Principles to the agricultural sector. He noted FAO's leading role in promoting agriculture biodiversity, and underscored the importance of biodiversity for ensuring food security. He summarized FAO's efforts in integrating biodiversity conservation and sustainable use through promoting capacity-building initiatives for effective community planning, and strategies for ecosystem management. Regarding FAO's activities in Kenya, he said the organization, with other partners, aims to mainstream biodiversity in agricultural practices nationwide.

Toby Hodgkin, Bioversity International, formerly known as the International Plant Genetic Resources Institute (IPGRI), said that his organization has focused activities on crop conservation and hosts the genetic resources programme of the Consultative Group on International Agricultural Research (CGIAR). He outlined his organization's activities on conservation of genetic resources and mentioned the development of programmes related to the conservation of production systems. Highlighting the importance of applying the ecosystem approach and of exploring ways for using the Addis Ababa Principles in the agricultural field, he underscored the agricultural agenda focus on increasing productivity and realizing the needs of individuals towards achieving the Millennium Development Goals. He pointed out the importance of maintaining the sustainable use of agricultural biodiversity and incorporating farmers' choices in international policy.

Brent Swallow, Environmental Services, World Agroforestry Centre (ICRAF), emphasized the role of the multilateral environmental agreements in the sustainable use of biodiversity. He outlined ICRAF's work programme themes, Trees and Markets, Land and People, and Environmental Services, and highlighted the relationship between agroforestry and biodiversity, including the potential of tree planting to reduce the pressure on areas of high conservation value and provide habitats for other types of biodiversity. He also described other aspects of ICRAF's work, including research on: how policy can shape farmers' incentives; appropriate policies that foster the sustainable use of agroforestry; and development of hard and soft law instruments.

Highlighting the importance of sustainable management of biodiversity, Oliver Hillel, CBD Secretariat, noted the imminent signature of a Memorandum of Understanding between the CBD

and the International Federation of Agricultural Producers (IFAP) to facilitate collaboration with the producers and users towards sustainable use.

Leonard Nduati Kariuki, Kenyan branch of the International Federation of Agricultural Producers, expressed hope that the Memorandum between CBD and IFAP would encourage political commitment to involve farmers in policy relating to agricultural biodiversity through the development of incentive mechanisms for sustainable agricultural practices, and said CBD and IFAP would set up common methodologies and identify areas for intervention. He stressed the need for biodiversity conservation efforts to be implemented "hand in hand" with poverty alleviation strategies and incentives for sustainable agriculture. On biotechnology, he urged identification of appropriate technologies in partnership with government, scientists and technicians.

Oliver Hillel summarized Decision VII/12 (Sustainable Use), which invites the CBD Executive Secretary to organize technical workshops to apply the Addis Ababa Principles to agriculture, taking into consideration ecosystem services assessment, and financial costs and benefits associated with biodiversity. He then urged participants to use their experience and expertise to produce guidelines for applying the Addis Ababa Principles to agricultural biodiversity in Africa.

ORGANIZATIONAL MATTERS

On Tuesday morning, Oliver Hillel proposed, and participants agreed to, the election of Modibo Cissé, Ministry of Environment, Livestock and Fisheries of Mali, as Chair of Tuesday's plenary. On Friday, Saidi Seddik, National Institute for Agricultural Research of Morocco, was elected Chair of the closing plenary.

On Tuesday afternoon, Oliver Hillel outlined the proposed methodology for the workshop, proposing convening in informal working groups (WGs) on Wednesday to consider the Addis Ababa Principles in three principle clusters: policy related; support/service related; and management related. The WGs would report to plenary on Thursday. Participants discussed methodologies for carrying out their work, including how to address issues relevant to such clusters and, following a suggestion from Terefe Belehu Mokonnen, Institute of Biological Conservation of Ethiopia, supported by Toby Hodgkin, Bioversity International, agreed to mandate the WGs to consider drafting additional principles, as deliberations on the Addis Ababa Principles did not originally include consideration of agricultural biodiversity.

REVIEW OF THE ADDIS ABABA PRINCIPLES AND THEIR APPLICATION TO AGRICULTURAL BIODIVERSITY

PLENARY: On Tuesday afternoon, in plenary, Chair Modibo Cissé introduced a number of presentations.

Oliver Hillel outlined the results of the Latin American and Caribbean Workshop, which also focused on agricultural biodiversity, saying this Workshop urged consideration of: ways in which the Addis Ababa Principles could be incorporated in the CBD Programme of Work on Agricultural Biodiversity; development of a specific set of principles for agricultural biodiversity; the effects of expansion of the agricultural frontier; and means of internalizing costs and benefits to facilitate the implementation of programmes relating to the conservation and sustainable use of agricultural biodiversity. Welcoming the presence of an observer from the Global Environment Facility (GEF) in the Workshop, he said the Latin American and Caribbean Workshop had highlighted the need for guidance to facilitate the consideration of agricultural biodiversity by GEF and other donors. Oliver Hillel then introduced several key concepts for consideration over the course of the Workshop, noting these were based on the CBD definitions of "agricultural biodiversity," "sustainable use," "ecosystem services" and the "ecosystem approach," and outlined the 14 Addis Ababa Principles, highlighting, *inter alia*, Principle 4 (using adaptive management), and Principle 5 (minimizing adverse impacts on ecosystem services), suggesting participants base Workshop considerations on the spirit and not just the language of the Addis Ababa Principles.

Seth Shames and David Kuria, Ecoagriculture Partners, spoke about sustainable land management and agricultural biodiversity. Seth Shames emphasized links between agriculture and ecosystem services in promoting food security, and the need to minimize land degradation. Discussing the correlation between high concentration of human populations and IUCN biodiversity hotspots, he explained that farming also occurs in areas devoted to conservation. On ecoagriculture, he highlighted how agricultural landscapes can be managed to enhance rural livelihoods and sustainable agricultural production while conserving or restoring ecosystem services and biodiversity. He underscored the importance of putting food security at the heart of conservation. He observed that the ecoagriculture approach is community-based, participatory, and integrates the management of protected areas, watersheds, degraded forests, and farms and plantations to accommodate livelihood options, species and habitat conservation needs and ecological processes.

David Kuria outlined community activities carried out in the Kikuyu Escarpment Forest, and highlighted the importance of forests regarding: supplying medicinal and wild fruit for communities; research and tourism activities; protection of catchment sites; and contribution to national economies. He emphasized the need to: promote further networking activities; use and recognize the importance of community knowledge; establish community partnership committees; generate alternative income activities such as bee keeping, sale of seedlings and ecotourism; and carry out forest monitoring. He highlighted achievements and pointed to challenges still faced, including the area's inaccessibility, inadequate community knowledge of conservation and farming techniques, limited technical capacity, and cultural barriers. He concluded by highlighting the importance of balancing conservation and livelihood needs.

Toby Hodgkin, Bioversity International, presented on on-farm crop biodiversity conservation. He emphasized the need for biodiversity conservation to focus on agriculture as, in most parts of the world, biodiversity occurs on or near managed agricultural systems. He described Bioversity International's initiatives, noting it is funded by GEF and governments, including Switzerland and Germany. He described collaboration with over 100 national partner institutions on research concerning home gardens, date palm, and the use of diversity for pest and disease management, amongst others. He identified key issues to be addressed in considering agricultural biodiversity, including: the quantity and distribution of genetic diversity maintained by farmers over time and space; processes used to maintain on-farm genetic diversity; identifying the decision makers in relation to the maintenance of genetic diversity; and factors determining the maintenance of diversity by farmers.

Toby Hodgkin then described research related to on-farm crop biodiversity conservation, including: the relationship between production systems, the environment, and the

maintenance of diversity; the need for participatory approaches to adequately describe the diversity existing in a system; the relevance of distinguishing between rare and common varieties in assessing diversity and arriving at value statements; the role of home gardens as repositories of genetic diversity; and the highly dynamic nature of traditional production systems. He proposed using these research findings to provide options for mainstreaming and upscaling interventions and operationalizing the Addis Ababa Principles, emphasizing the importance of addressing demands for dramatic production increase in a sustainable way.

In ensuing discussions on these presentations, Toby Hodgkin highlighted: difficulties caused by donors directing activities away from the grass root level, and the lack of a systematic approach to internalizing costs; and developing mechanisms to ensure that farmers and society recognize and contribute to the ecosystem services and future option values of resources. Terefe Belehu Mekonnen, Institute of Biological Conservation and Research of Ethiopia, urged incorporating rehabilitation of ecosystems in the definition of sustainable use, and incentives for farmers to cultivate wild species. Seth Shames noted the potential for developing synergies within landscape planning.

Jaco Venter, Western Cape Nature Conservation, South Africa, then presented on a conservation partnership, the Greater Cederberg Biodiversity Corridor. He said this partnership uses industry-based practices and land stewardship, and noted the need to streamline the instructions given to farmers by agricultural officers and conservation regulators to avoid inconsistencies. On establishment of the corridor, he explained that a different framework was used for each sector, including wine, rooibos and potato. He explained that a draft corridor map was designed for integrated management of the area for both conservation and agriculture activities, and said next steps include: completing the respective planning phase with best practice guidelines; ensuring immediate and smooth transition from planning to implementation; addressing climate change and associated impacts; and using the retail industry and their process to inform consumer behavior.

Mermedah Moustache, Ministry of Agriculture and Marine Resources of the Seychelles, outlined the challenges of maintaining *ex-situ* field genebanks of orchard crops and root crops in the Seychelles. She elaborated on the status of genetic resources and food crops introduced over the last 200 years, and explained that the genebanks lie on the coastal plateau and are characterized by sandy soil. She noted with concern that intensive competition for land use in the Seychelles had led to many fields being replaced by houses, and described an initiative promoting conservation by motivating house owners to establish gardens and vegetable patches using the slogan "every home a garden."

Sally Bunning, FAO, highlighted a variety of reports and documents elaborated by FAO, including fact sheets on: managing mountain biodiversity for better lives; domestic animal diversity; FAO and aquatic biodiversity; inland aquatic biodiversity; marine and coastal aquatic biodiversity; and agriculture for biodiversity. She also outlined case studies included in the 2003 report "Biodiversity and the ecosystem approach in agriculture, forestry and fisheries," and mentioned the report "Beyond the gene horizon: Sustaining agricultural productivity and enhancing livelihoods through optimization of crop and crop-associated biodiversity with emphasis on semi-arid tropical agroecosystems." Sally Bunning said agricultural biodiversity includes all components of biodiversity relevant to food and agriculture, including the variety and variability of plants, animals and micro-organisms at genetic, species and ecosystem level, which are necessary to sustain key functions in the agro-ecosystem. She underscored that biodiversity has financial, social and aesthetic values for food production, conservation of the ecological foundation to sustain life, and maintenance of rural communities' livelihoods. She concluded by summarizing human management practices and decisions, and common agricultural definitions.

On Wednesday morning, participants heard a further presentation from Sally Bunning, who gave an overview of CBD Decision V/5 (Agricultural biodiversity), the review of phase one of the work programme and adoption of a multi-year work programme, which she explained should form the basis of guidelines for the sustainable use of agricultural biodiversity. She mentioned elements of the work programme referring to assessments, adaptive management, capacity building and mainstreaming.

Sally Bunning then discussed Kenya's Integrated Land Use Resource and Agro-biodiversity Assessment. Outlining how farmer field schools had been established to facilitate awareness raising and training, she emphasized the need to understand market dynamics and cultural dimensions. She explained how crop diversity is required in the semi-arid region of Mwingi to overcome the problem of crop failure due to frequent droughts.

WORKING GROUPS: Participants convened in three parallel WGs on Wednesday throughout the day and on Thursday afternoon to review the Addis Ababa Principles and their application to agricultural biodiversity.

Working Group I: WG-I was chaired by Francis Ogwal, National Environment Management Authority of Uganda. Evelyn Mathias, FAO, and Susan Odhuho, Indigenous Information Network, Kenya, acted as rapporteurs. WG-I included participants from Kenya, Uganda, Sudan and Ethiopia. Participants heard three presentations and carried out discussions on how to apply the Addis Ababa Principles to the agricultural sector, taking into account experts' experience in their own countries.

Sally Bunning asked participants to address several issues, including: the linkages between the perspectives of environmentally friendly and commercial agriculture in order to achieve a joint approach; the need for capacity building at the national and local level; linkages among partnerships; research and participatory management of biodiversity and its services; identification of biodiversity value, in particular for national economy; interdependency between countries and transboundary exchange of plants and crops; and market access for promoting biodiversity use.

WG-I Chair Francis Ogwal spoke about overexploitation of Garcinia buchanani in Uganda's reserves. He said that Garcinia buchanani has medicinal and food values, and stressed that its population is decreasing mainly due to unsustainable harvesting methods and encroachment of forest reserves where populations are still viable. He underscored Uganda's legal requirements on elaborating a forest reserve management plan, and suggested the following elements for a management plan: collection and preservation of germplasm; immediate establishment of seed or gene banks at regional and national levels; and environmental impact assessments (EIAs) to be carried out by national forestry authorities for establishing plantations. He summarized Uganda's implementation of the 14 Addis Ababa Principles and noted that his country is facing difficulties in implementing Principle 10 which provides that international and national development

policies should compare the real value of natural systems against any intended replacement uses before such development is undertaken.

Participants discussed the need to: build national capacity for evaluating natural resources; consider factors causing the depletion of Garcinia buchanani; assess the impacts of individuals' needs and vulnerability on biodiversity; and harmonize government institutions responsible for forestry and agriculture policies.

Terefe Belehu Mekonnen, Ethiopia, presented the Ethiopian case on sustainable use of agricultural biological resources. He stressed that a significant portion of material has been evaluated at agro-ecological sites and noted that the majority of bulk materials collected were cereals and pulses. He outlined a community-based *in situ* conservation initiative, utilizing a dynamic farmer-based approach designed to link varieties used by farming communities with existing formal genetic resources conservation efforts. He noted that the project took into account the contribution of farmers, women and community knowledge on crop maintenance, including selection methods, cultivation and use of different crops and cultivars.

Participants discussed the need to overcome the lack of biodiversity evaluation methodologies and identify a process to assist countries to value their biodiversity, and the difficulty of valuing medicinal plants used by traditional healers. One participant highlighted the importance of identifying methods of resource recovery and suggested incorporating rehabilitation and restoration of lost resources in the guidelines, and another participant stressed the need for capacity building on evaluation skills.

Evelyn Mathias, FAO, spoke about animal genetic resources and pastoralism, and summarized the global strategy for the management of farm animal genetic resources. She said pastoralism: facilitates the use of scarce resources; is adaptable to seasonal changes and climate variability; contributes to biodiversity conservation and sustainable land management; and promotes trading of breeding stocks. She summarized threats to pastoralism, such as reduced access to natural resources now being assigned to agriculture purposes, impacts of growing population, and education that disregards traditional values. Participants highlighted the need to add pastoralism to the sustainable use guidelines.

Participants then reviewed the Addis Ababa Principles and Decision V/5 (Agricultural biodiversity). On Principle 1 (Supportive policies, laws and institutions at all levels), participants discussed the link between conservation and sustainable use, the role of genebanks and traditional knowledge, identification of potential stakeholders, and identification of appropriate mechanisms for promoting stakeholder participation.

On Principle 2 (Governing framework consistent with international and national law, and empowerment of local biodiversity users), participants discussed the importance of: land tenure and empowerment of communities to manage biodiversity; permits for using biodiversity resources and livelihood issues; local community planning processes identifying responsibility at local and national levels; identification of stakeholders that require capacity building for managing resources; and incentive measures for stewardship.

On Principle 3 (Market distortions and perverse incentives), participants focused on national examples regarding incentives that have negative and positive impacts on biodiversity.

On Principle 4 (Adaptive management), participants identified the need for indicators for promoting monitoring, evaluation and assessment, and for prior informed consent (PIC) to protect community's property rights regarding the use of traditional knowledge.

On Principle 5 (Minimizing adverse impacts on ecosystem services), participants debated the need for policies to apply alternative technology in order to minimize the negative impacts of using fuelwood for cooking, and capacity building of local communities.

On Principle 6 (Interdisciplinary research), participants highlighted the need for: applied and participatory research that could encapsulate issues and indicators related to biodiversity, agriculture and livelihoods; combining research methodologies; identifying farming innovation on sustainable use of biodiversity; and developing partnerships between researcher and farmer organizations to share findings and information on agriculture production and ecosystem services.

On Principle 7 (Spatial and temporal scale of management), participants identified, *inter alia*, the importance of interactions between neighboring ecosystems.

On Principle 8 (Arrangements for international cooperation), participants discussed the importance of, *inter alia*: identifying pollinators and biological pest control; improving management of pollinators and other beneficial species that contribute to livelihoods; managing and controlling agricultural pest diseases; promoting cooperation between transboundary communities; increasing capacity through regional collaboration; elaborating an operational guideline on pollinators and biological pest control; and identifying traditional methods for agricultural biodiversity.

On Principle 9 (Interdisciplinary participatory approach), participants highlighted, amongst others, the need for multidisciplinary and sectoral processes for management and governance, involving pastoral groups, local communities and indigenous people.

On Principle 10 (Ecosystem valuation), participants focused on: examples of services provided by ecosystems and agricultural systems; the need to carry out economic evaluation of such systems; and promoting capacity building for identifying current and potential values derived from biodiversity use and market forces affecting such values.

On Principle 11 (Minimization of waste and adverse environmental impact), participants pointed out the importance of: promoting positive incentives for resource managers to use environmentally friendly techniques; using the polluter-pays principle; and managing the use of pesticides to prevent overuse and killing of beneficial insects.

Working Group II: Chaired by Rueben Oyoo Mosi, University of Nairobi, Kenya, WG-II included participants from Kenya, Egypt, Zimbabwe, South Africa and the Seychelles. Dagmar Mithöfer, African Insect Science for Food and Health of Kenya and Kudzai Kusena, National Gene Bank of Zimbabwe acted as rapporteurs.

Oliver Hillel asked participants to consider: how to build on successful sustainable agricultural practices; national and local level implications of agricultural biodiversity conservation; assessment of the ecosystem services facilitated through sustainable agriculture; the differences between agricultural ecosystems and other ecosystems, such as the importance of managed agricultural ecosystems for food security, and their vulnerability to market dynamics; which partnerships encourage sustainability; and the provision of "biodiversity friendly" incentives.

Participants discussed case studies in Kenya, the Seychelles, Egypt and South Africa, including a project on conservation of animal genetic resources focused on Boran cattle in Kenya, currently being bred in Australia, and examples of threats to Maasai pastoralism in Kenya. The group then discussed obstacles to sustainable agricultural biodiversity, including: cumbersome legislative processes; complex and overlapping national-level bureaucratic structures; and conflicts regarding biodiversity conservation outside protected areas. Some participants emphasized the need for a framework for cooperation between ministries involved in agricultural biodiversity, such as a national clearing-house mechanism (CHM) for agricultural biodiversity interventions, and proposed focusing on strengthening existing policy areas that can support agricultural biodiversity conservation. Participants agreed that such a framework should be informal, such as the one used in the ongoing review of national food and nutrition policy in Kenya. One participant noted that assessments of natural resources often focus on fostering conservation, suggesting considering macroeconomic factors such as population pressure, and trade-offs such as conversion of pristine forests into arable land. She emphasized the need to include such trade-offs, and consider the impact of policies in relation to alternatives to that resource, and interactions between different sectors, in biodiversity assessments.

Participants agreed on the need to involve different levels of stakeholders and establish incentives for local communities, noting the need to allow these incentives to be stakeholder-led so as not to discourage sustainable practices. Participants also noted the need for mechanisms to ensure transparency and establishment of monitoring targets. Discussing land stewardship, they emphasized land tenureship, and perceived security of user rights.

On Principle 1 (Supportive policies, laws and institutions at all levels), WG-II emphasized streamlining of national and international policies, institutional bureaucracy barriers, providing informal national frameworks to encourage stakeholders to interact, and encouraging soft law instruments rather than relying on cumbersome legislative processes.

On Principle 2 (Governing framework consistent with international and national law and empowerment of local biodiversity users), many participants suggested that part of the principle's rationale is biased towards protected areas. Participants called for land stewardship, land tenure security, and ensuring that benefits derived from the resources feed back to the community.

On Principle 3 (Market distortions and perverse incentives), participants highlighted key particularities of agrobiodiversity: soil degradation; indigenous crop and livestock germplasm; the negative effects of extensive expansion of agricultural land rather than intensification of use; the importance of indigenous wild resources/ecosystem services/relatives; and unsustainable intensification. Participants then discussed potential operational guidelines in applying the Addis Ababa Principles to agricultural biodiversity, including, assessing policies on agricultural input and development of product safety regulations appropriate to the circumstances.

On Principle 4 (Adaptive management), participants proposed encouraging decentralized adaptive management, based on science and traditional and local knowledge, and appropriate monitoring methods, and noted the need for appropriate incentives and interaction between the scientific and local knowledge.

On Principle 5 (Minimizing adverse impacts on ecosystem services), participants proposed operational guidelines, including: identifying critical resources; maintaining farmers' rights to access those resources; and integrating agricultural biodiversity management within the broader ecosystem landscape.

On Principle 11 (Minimizing waste and adverse environmental impacts), participants emphasized, *inter alia*: judicious application of genetically modified organisms; establishing policies and guidelines on introduction of invasive species in relation to agricultural biodiversity; and encouraging users of agricultural biodiversity to seek through best practices to minimize waste and adverse environmental impacts.

On Principle 12 (Equitable distribution of benefits), participants proposed rewording the principle to better reflect the rights of indigenous and local communities, complementing the work of the Working Group on Article 8(j) (traditional knowledge), and ensuring: long-term and secure access to agricultural biodiversity rights; the right to benefit from commercialization resulting from use of community resources; fair compensation for past investments into the conservation and sustainable use of biological resources; awareness raising and ensuring open and transparent community compensation processes; and linking benefit-sharing with certification and intellectual property rights to address the issue of elite capture.

Questioning the basis of Principle 13 (Internalization of management costs), one participant suggested it could be interpreted as preventing up-front subsidies, citing problems being experienced in the Campfire Project in Zimbabwe, and could lead to inequitable cost and benefit sharing. Participants emphasized the need for open and transparent processes to prevent the masking of subsidies, and the true reflection and equitable sharing of costs and benefits.

Participants agreed that implementation of Principle 14 (Education and public awareness) in relation to agricultural biodiversity should target: farmers; local community groups; multi-stakeholder groups; research organizations in partnership with other organizations; consumers and retailers; school children through school curricula; and the mainstream conservation community. Participants acknowledged the need to "train trainers" in educational and policy arenas to ensure clear communication of messages on sustainable use of agricultural biodiversity.

Working Group III: Chaired by Modibo Cissé, Ministry of the Environment of Mali, WG-III included participants from Togo, Niger, Morroco, Cameroon, Mali and Niger. Hadyatou Dantesy-Barry, Ministry of Agriculture, Livestock and Fisheries of Togo acted as rapporteur. Participants heard five presentations and carried out discussions on how to apply the Addis Ababa Principles to the agriculture sector, taking into account experience in their own countries.

Colette Edith Ekobo, Cameroon, presented on biodiversity and sustainable use of maize genetic resources, pointing to the significant diversity of maize cultivated in all five agro-ecological zones in the country and also used in international trails. Outlining maize variations based on color, maturity and growing rates before maturity, she highlighted the characteristics of some improved maize varieties. On conservation constraints, she noted the lack of funds and absence of cold storage facilities, underlining the need for better preservation efforts to prevent erosion of genetic resources.

Saidi Seddik, Morocco, discussed on-farm conservation of barley landraces in Morocco. He observed that approximately 30 kilogrammes of barley per inhabitant is consumed annually,

in addition to forming the basic food crop cultivated in marginal zones which suffer from low yields due to poor soils, erratic rainfall and unproductive traditional farming methods. Lamenting the limited market access due to subsistence cultivation, he pointed to the need to study factors influencing farmers' decisions to conserve varieties and cultivate local crops, highlighting the importance of a systematic national strategy for collection and improvement of productivity. He discussed factors affecting genetic diversity, such as transmission of disease by seeds, seed availability and traditional seed keeping methods and problems with storage.

Hassane Saley, National Council for the Environment and Sustainable Development of Niger, discussed a case study from Gaya on the sustainable use and traditional management of Palmyra palm by the local communities. Underlining the varied uses for palm by-products, he mentioned furniture, roofing materials, food stuffs and the use of roots for fishing gear. He explained that this resource had been traditionally controlled and managed by the local communities, but lamented that government interventions had resulted in marginalization of local communities, unsustainable exploitation and confrontation with government officials. He noted substantial improvement resulting from a decentralized management strategy and the use of participatory planning tools.

Hadyatou Dantsey-Barry highlighted the role of local genetic resources in agriculture. She noted how local genetic resources have been used to improve the profitability for maize, shorten the growing cycle for sorghum and produce a new variety of cotton with finer, whiter cotton with longer fibers. She underscored the necessity of collecting and prospecting for local varieties as well as the maintenance of gene or seed banks. Emphasizing the importance of local genetic varieties for food security and the development of the agricultural sector, she lamented the lack of finance, inadequate infrastructure and electricity outages, and called for synergies between national level conservation efforts.

Modibo Cissé spoke on solutions for conservation and sustainable use of agricultural biodiversity. Emphasizing the importance of categorizing varieties as well as the maintenance and dissemination of traditional knowledge, he noted the need to: set up a surveillance network of potential threats; improve research sector capacity; enhance the management and conservation of biological resources; integrate conservation and biodiversity at the policy level; and legislate to protect and preserve genetic resources.

Participants debated issues relating to the elaboration of specific guidelines on agricultural biological diversity concerning translation of laws into local languages, the role of subsidies, and linking forest biodiversity and agricultural biodiversity.

On Principle 3 (Market distortions and perverse subsidies), participants suggested expanding the text to refer to illegal fishing and agricultural practices detrimental to the environment. Participants also noted the necessity of integrated development taking traditional knowledge into consideration.

Regarding Principle 9 (Interdisciplinary participatory approach), they suggested improving national coordination and synergies between the Rio multilateral environment agreements, and coordinated local-level implementation.

On Principle 11 (Minimizing waste and adverse environmental impacts), participants discussed the complexity of addressing agricultural biodiversity within this principle and the issue of endemic species.

Principle 13 (Internalization of management costs) generated a lengthy discussion concerning: whether consumers are willing to pay higher prices for sustainably-produced agricultural products; the role of government subsidies and incentives in promoting sustainable production; negative impacts of export-oriented agricultural production; limitations of organic farming due to lack of capacity on traceability; and certification and the impact of World Trade Organization rules on sustainable use.

On Principle 14 (Education and public awareness), participants lamented that education is tailored towards agricultural production as opposed to conservation, stressing the need for relevant community-led educational campaigns.

WG REPORTS TO PLENARY: On Thursday, plenary heard reports from the WGs. WG-I rapporteur Susan Odhuho reported on the outcomes of WG-I discussions, suggesting elements for guidelines on agricultural biodiversity, including: food security; dependency on human management by local communities and indigenous people; interdependence between countries; influence of market forces; partnerships to link farmers, research and service providers; rehabilitation of degraded resources; strengthening linkages between conservation and sustainable use; and clarification of definitions and agricultural biodiversity terminology.

She observed that operational guidelines should be more specific, reviewing and harmonizing various policies to better address agriculture biodiversity, including:

- ensuring land tenure;
- identifying incentives that promote sustainable use and avoiding incentives that cause negative impact to agricultural biodiversity;
- establishing a mechanism for participatory research;
- developing strategies for changing from unsustainable to sustainable practices through training and capacity building;
- designing monitoring and evaluation systems;
- developing regulations for community participation in management;
- promoting interdisciplinary participatory research to encompass issues on production, conservation and livelihoods;
- considering impacts of agricultural practices on ecosystems;
- ensuring compatibility between management and scale of resource use; and
- managing plans for herders and pastoralists.

WG-II Rapporteur Dagmar Mithöfer reported on the group's review of the Addis Ababa Principles and summarized their output. On Principle 1 (Supportive policies, laws and institutions at all levels), she said WG-II highlighted the need to: streamline national and international policies; create a CHM to enable relevant institutions to interact; decentralize while avoiding encouraging rent-seeking behaviour, through transparency and monitoring; and develop soft law policies in the short term. On Principle 2 (Governing framework consistent with international and national law and empowerment of local biodiversity users), the group proposed: highlighting the links between land stewardship, land tenure and security of land use; deleting part of the principle's rationale given its bias towards protected areas; and ensuring benefits from resource sharing flow back to the resource managing community. On Principle 3 (Market distortions and perverse incentives), she highlighted factors causing market distortions, including: agricultural inputs favoring established crops; food and famine programmes often depending on imported seeds; subsidies for pest and disease management; and extension policies biased towards cash crops. On Principle 4 (Adaptive

management), she said WG-II proposed ensuring: decentralized adaptive co-management; development of monitoring methodologies and definition of targets; and enabling local communities to document resources. On Principle 5 (Minimizing adverse impacts on ecosystem services), she said WG-II noted the need to integrate agriculture in the ecosystem landscape using a co-management approach and maintaining farmers' access to critical areas.

WG-III rapporteur Hadyatou Dantsey-Barry gave an overview of the country presentations and noted that participants agreed to Principles 1 and 2. Regarding Principle 3, she explained that the group's proposed text emphasizes avoidance of detrimental agricultural practices. On Principle 4, participants proposed including EIAs, scientific information and consideration of socioeconomic issues in adaptive management practices.

In ensuing discussion, Oliver Hillel highlighted several of the WG conclusions, including: that agricultural biodiversity is influenced by several fields of policy, indicating a need for specific inter-programmatic, inter-agency coordination to achieve its sustainable use, and urging production of a specific management plan; the need to redefine Principle 7 (spatial and temporal scale of management) so that means, resources, mandates and policies are compatible with the scale of the resource use and its impacts; and that WG-II noted the "conservationist perspective" bias.

On Friday morning, in closing plenary, Susan Bunning presented the final results of WG-I discussion on Principles 8 (international cooperation), 9 (interdisciplinary participatory approach), 10 (ecosystem valuation) and 11 (Minimization of waste and adverse environmental impact), including the need for:

- diffusion and adaptation of tools and experiences for enhancing the sharing of genetic resources using PIC;
- management of plans for transboundary ecosystems;
- arrangements for local collaboration;
- improvement of capacity for inter-community management of cross-border resources, taking into account conflict resolution issues;
- management of transboundary pollinators and pests;
- addressing livestock and wildlife interaction, taking into account conflict issues between groups;
- drawing on experiences of indigenous networks;
- integrated management of agricultural ecosystems and biodiversity components;
- valuation of the economic, social and cultural aspects of environmental services in agricultural ecosystems;
- encouraging governments to take into account biodiversity values in national accounts and sub-national programmes;
- promoting decentralization of decision-making processes; and
- EIAs for agricultural land use and practices establishing mechanisms for minimizing negative impacts.

Brent Swallow presented the WG-II output on Addis Ababa Principles 11, 12 (Equitable distribution of benefits), 13 (Internalization of management costs) and 14 (Education and public awareness). On Principle 11, he said the group proposed that: EIA guidelines include indicators on agricultural biodiversity conservation; policies and programmes are established to prevent problems with alien invasive species; judicious application of genetically modified organisms is ensured. He noted that the group found Principle 12 to be weak in relation to agricultural biodiversity and recommended it be revised to better reflect the rights of local communities and indigenous people, including: ensuring indigenous groups and local communities maintain long-term access to agricultural biodiversity; working with the CBD Working Group on Article 8(j); and providing fair compensation to local and indigenous communities for past investments. On Principle 13, he reported that the group recommended transparent calculation of all management costs, and that revenues generated from agricultural biodiversity by a community or by another agency with management responsibility should be invested into management and maintenance of resources. On Principle 14, he listed a number of groups who should be made aware of the value and benefits of agricultural biodiversity, including, multi-stakeholder groups involved in landscape management, research organizations, educational establishments, consumers and retailers, and conservation organizations.

Collette Edith Ekobo presented the WG-III output. On Principle 9 (Synergies between the Rio Conventions), the group called for institutional synergies between the three Rio Conventions, decision makers and local communities regarding agricultural policies. On Principles 12 and 13, she said the group recommended minimizing the damaging effects of prioritizing high-value crops in spite of environmental impacts, and reducing pesticide use. She noted an idea discussed in the group that crop standards should be created by both developed and developing countries. She said the group also recommended implementing an ecosystem rather than a crop approach. The group noted the importance of Principle 14 and called for replication in other regions of the efforts by the Inter-State Committee on Drought Control in the Sahel. In ensuing discussions, Chair Saidi Seddik highlighted the need for governments to minimize the ecological impacts of cotton growing and also emphasized the need to foster awareness of environmental issues. Sally Bunning suggesting including broad language in relation to Principle 9 to encompass other relevant conventions. On pesticides, supported by Dagmar Mithöfer, she proposed requiring "optimal use" of pesticides, rather than their reduction, to quantify their effects holistically. Dagmar Mithöfer also highlighted the need for developing countries to develop an information dissemination network.

ECOSYSTEM SERVICES ASSESSMENT AND ADAPTIVE MANAGEMENT

On Thursday morning, participants heard three presentations on ecosystem services assessments.

Olivier Hillel outlined methodologies for carrying out ecosystem evaluation, including market price, productivity, hedonic pricing and travel cost methods. He noted the dangerous consequences of market failure and negative externalities, highlighting the need to internalize costs that assess the values of ecosystem services. He also summarized damage cost avoidance, contingent valuation, contingent choice, and benefit transfer methods. He cited existing reports on ecosystem evaluation, such as the IUCN Guidelines for Protected Area Managers on the Economic Values of Protected Areas and the Ramsar Convention's Guide for Policy Makers and Planners on the Economic Valuation.

Jeroen Huising, Tropical Soil and Fertility Institute, presented on a work programme on below-ground biodiversity and related ecosystem services, noting similarities between agricultural biodiversity and below-ground biodiversity. On assessing ecosystem services, he highlighted: taking into account complex and interlinked ecosystem processes; considering biota in functional groups, such as decomposers, and microregulators; and defining ecosystem services, noting that while there is no common definition, the one used in the Millennium Ecosystem

Assessment is gaining ground. He outlined several issues relevant to ecosystem services assessment, including the relationship between below-ground organisms and the processes they drive within the ecosystem services, and the vulnerability of ecosystem goods and services to processes of change, referring to research on the influence of climatic change, for example, on biotic and abiotic processes and the effects on food production. He also referred to the results of a case study on termites in Indonesia that confirms loss of below-ground biodiversity with increasing land use intensity.

On adaptive management, he highlighted issues including: identifying the entry points for intervention, tools and techniques; identifying indicators of performance across scales; developing mechanisms to address the specific geographical and socioeconomic context; enhancing food production in Africa through intensification utilizing appropriate pathways; using different scale levels and platforms for negotiating trade-offs; establishing guiding principles for adaptive management; and managing capacity building at the scientific, technical and political level.

Brent Swallow defined agroforestry as the deliberate management of trees on farms and agricultural landscapes, which, he explained, is vital for carbon sequestration, watershed functioning, increasing yields, reducing soil erosion and run-off, and enhancing infiltration. He elaborated on the benefits of nitrogen fixing trees used as part of agricultural forestry systems in Zambia, which help restore soil fertility and enhance low ground biodiversity. Brent Swallow outlined several attributes of agricultural biodiversity, mentioning: reduction of native land pressure and improved fallows; intrinsic value of agricultural forestry systems and the economic potential of the commercialization; and deliberate management of invasive tree species. He concluded by calling for the consideration of agricultural forestry under the CBD.

Responding to the presentations, Sally Bunning noted the need to consider "food web" issues by examining soil, integrated pest management, grazing and herbivore relationships. She suggested the use of the term "soil health" as opposed to soil biological diversity to enhance awareness concerning the implications of soil degradation.

FINANCIAL COSTS AND BENEFITS ASSOCIATED WITH THE CONSERVATION AND SUSTAINABLE USE OF BIOLOGICAL DIVERSITY

On Friday morning, in closing plenary, Dagmar Mithöfer presented on financial costs and benefits associated with agricultural biodiversity. She spoke about indigenous fruit use in Zimbabwe and Malawi, noting that in poor rural areas fruit is important for generating income and complementing nutritional values. She summarized national policies regarding fruit use and noted that it is often informally regulated, including the prohibition of shaking fruit from trees and harvesting green fruit. She explained that indigenous fruit resources are shifting from public open access towards ownership and use, and underscored that increased competition over such fruit results in non-sustainable harvesting techniques.

She said the market value of indigenous fruit has been increasing and consumers are willing to pay more than the current prices for obtaining such fruit. Summarizing a simulation model on fruit income distribution, she stressed that the lower the income, the greater is community dependence on indigenous fruit. She highlighted some conclusions, including that: vulnerability to poverty is seasonal; poverty reduction measures need to target critical periods rather than annual income; indigenous fruit can reduce poverty vulnerability during critical periods; conservation of indigenous fruit and trees is useful to ensure food security; and elaborating market-based incentives for fruit and tree conservation is crucial.

In ensuing discussion, Oliver Hillel highlighted the possibility of restoring the balance towards environmentally sustainable practices which have been lost by collapsing traditional systems, and urged the creation of markets for agricultural biodiversity. Several participants highlighted the value of comparative case study research, and Sally Bunning recommended that the Workshop request the CBD and FAO Secretariats to call for comparative case studies and a compilation of bibliography on the research on agricultural biodiversity for food security, and to make this information more readily available. Alfred Ilenre, Ethnic Minority and Indigenous Rights Organization of Africa, reflected on the communal nature of many trees and fruits in African communities, and Dagmar Mithöfer noted that, with the increasing commercialization of the fruit sector, people outside the community harvest these communal fruits. Chair Seddik and others noted that the presentation had highlighted the seasonal nature and preservation challenges of the fruit sector.

ADOPTION OF THE NAIROBI STATEMENT ON SUSTAINABLE USE OF AGRICULTURAL BIODIVERSITY

Susan Odhuho presented observations and recommendations on behalf of the Indigenous Information Network and lamented that the Addis Ababa Principles had not been adequately disseminated at the local level. She suggested that further development of guidance in application of the Addis Ababa Principles should involve indigenous people and local communities and all key stakeholders. She also said that often indigenous peoples do not have the skills and resources to follow the international processes and adequately implement the principles.

Jeroen Huising spoke on behalf of the Tropical Soil Biology and Fertility Institute, Bioversity International, ICRAF and IFAP, mentioning that the organizations welcomed the opportunity to be involved in implementation since they have a strong presence and experience in other regions and could particularly contribute to assessment activities and monitoring and evaluation. He called on FAO and CBD to clarify follow-up activities, establish processes and seek financial support for action plans and work programme activities.

Olivier Hillel and Sally Bunning then presented the proposed draft version of "The Nairobi Statement on Sustainable Use of Agriculture Biodiversity," a document compiled by the CBD and FAO, summarizing the workshop's discussions and recommendations. Participants debated the draft version of the Nairobi Statement, suggesting language on the need for: capacity building on monitoring and evaluating agricultural biodiversity; enhancing and supporting stewardship initiatives; transboundary collaboration for long-term drought management strategies; and enhancing indigenous and local community's participation. The proposed language was integrated into the text and participants agreed to the Statement.

NAIROBI STATEMENT ON SUSTAINABLE USE OF AGRICULTURAL DIVERSITY: On Friday, participants agreed to the Nairobi Statement, subject to a review by the francophone participants of the French version of the text. The Statement, *inter alia*:

- invites the FAO and the CBD Secretariat to formulate a draft report of the workshop results, and elaborate, in consultation with countries, regions and partners, a draft document summarizing the results from the three regional workshops for a Joint FAO/CBD Global Technical meeting, with the venue and date to be confirmed;
- invites participants to consider the wide range of ecosystem services when making decisions on their conservation and sustainability;
- highlights the need to promote partnerships linking farmers, pastoralists and livestock managers with research institutions and service providers, universities, government agencies, NGOs and the private sector;
- underscores the need to develop specific strategies to protect indigenous crop and livestock germplasm, and wild resources important for the rural poor;
- recognizes pastoralism as an important land-use strategy in the sustainable use of agricultural biodiversity, and the need for transboundary and regional collaboration for livestock grazing and movement strategies and long-term drought management strategies; and
- stresses the need to adequately include indigenous and local communities as active stakeholders in national and international negotiations.

In the Statement, participants also agreed to the definitions and scope for agricultural biodiversity as included in the background document "CBD/FAO proposal for definition and scope of agricultural biodiversity," which will be attached as an Annex to the Workshop report.

CLOSURE OF THE MEETING

On Friday afternoon, in closing plenary, Oliver Hillel and Sally Bunning thanked participants for their contribution to a successful meeting. Chair Saidi Seddik reminded participants to build on and utilize the agreed Workshop recommendations and closed the meeting at 2:18 pm.

UPCOMING MEETINGS

CSD-15: The fifteenth session of the UN Commission on Sustainable Development will be held from 30 April - 11 May 2007, in New York. For more information, contact: UN Division for Sustainable Development; tel: +1-212-963-8102; fax: +1-212-963-4260; e-mail: dsd@un.org; internet: http://www.un.org/esa/sustdev/csd/policy.htm

CGRFA-11: The eleventh regular session of the Commission on Genetic Resources for Food and Agriculture is scheduled to take place from 4-8 June 2007, in Rome, Italy. For more information contact: José Esquinas, CGRFA Secretary; tel: +39-06-570-54986; fax: +39-06-570-53057; e-mail: Jose.esquinas@fao.org; Internet: http://www.fao.org/ag/cgrfa

SBSTTA-12: The twelfth meeting of the CBD Subsidiary Body on Scientific, Technical and Technological Advice will be held from 2-6 July 2007, in Paris, France. For more information contact: CBD Secretariat; tel: +1-514-288-2220; fax: +1-514-288-6588; e-mail: secretariat@biodiv.org; Internet: http://www.biodiv.org/meetings/default.shtml

SECOND MEETING OF THE CBD WORKING GROUP ON REVIEW OF IMPLEMENTATION OF THE CONVENTION: The second meeting of the CBD Open-ended Working Group on Review of Implementation of the Convention will be held from 9-13 July 2007, in Paris, France. For more information contact: CBD Secretariat; tel: +1-514-288-2220; fax: +1-514-288-6588; e-mail: secretariat@biodiv.org; Internet: http://www.biodiv.org/meetings/default.shtml

FIRST INTERNATIONAL TECHNICAL CONFERENCE ON ANIMAL GENETIC RESOURCES: This Conference is scheduled to take place from 3-7 September 2007, in Interlaken, Switzerland. It aims to address priorities for the sustainable use, development and conservation of animal genetic resources. For more information contact: Irene Hoffmann, Chief, FAO Animal Production Service; tel: +39-06-570-52796; e-mail: irene.hoffmann@fao.org; Internet: http://www.fao.org/ag/againfo/programmes/en/genetics/angrvent2007.html

FIFTH MEETING OF THE CBD WORKING GROUP ON ACCESS AND BENEFIT-SHARING: This meeting will be held from 10-14 September 2007 in Montreal, Canada. For more information contact: CBD Secretariat; tel: +1-514-288-2220; fax: +1-514-288-6588; e-mail: secretariat@biodiv.org; Internet: http://www.biodiv.org/meetings/default.shtml

FIFTH MEETING OF THE CBD WORKING GROUP ON ARTICLE 8(J) AND RELATED PROVISIONS: This meeting will be held from 17- 21 September 2007 in Montreal, Canada. For more information contact: CBD Secretariat; tel: +1-514-288-2220; fax: +1-514-288-6588; e-mail: secretariat@biodiv.org; Internet: http://www.biodiv.org/meetings/default.shtml

FIFTH TRONDHEIM CONFERENCE ON BIODIVERSITY: This conference will be held from 29 October - 2 November 2007, in Trondheim, Norway. It is hosted by the Norwegian Government in cooperation with UNEP. The conference aims to provide input to the CBD and its preparations for COP-9. Focus will be on the critical role of biodiversity and ecosystems in providing goods and services that are necessary for human well-being and security and for economic development. For more information contact: Norway's Directorate for Nature Management; e-mail: postmottak@dirnat.no; Internet: http://english.dirnat.no/wbch3.exe?p=2392

SECOND SESSION OF THE ITPGR GOVERNING BODY: The second session of the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture is scheduled to take place from 28 October to 2 November 2007, in Rome, Italy. For more information contact: José Esquinas, CGRFA Secretary; tel: +39-06-570-54986; fax: +39-06-570-53057; e-mail: Jose.esquinas@fao.org; Internet: http://www.fao.org/ag/cgrfa

THIRD ORDINARY SESSION OF AMCOST: The third Ordinary Session of the African Ministerial Council on Science and Technology is scheduled to take place in 2007 in Kenya. For more information, contact: John Mugabe, NEPAD Office of Science and Technology; tel: +27-12-841-3653/3688; fax: +27-12-841-4414; e-mail: john@nrf.ac.za; internet: http://www.nepadst.org/

CBD COP-9: The ninth Conference of the Parties to the CBD will be held from 19-30 May 2008, in Bonn, Germany. For more information contact: CBD Secretariat; tel: +1-514-288-2220; fax: +1-514-288-6588; e-mail: secretariat@biodiv.org; Internet: http://www.biodiv.org/meetings/default.shtml