

INTERLAKEN CONFERENCE ON ANGR: MONDAY, 3 SEPTEMBER 2007

The first International Technical Conference on Animal Genetic Resources (AnGR) for Food and Agriculture began on Monday morning, 3 September, in Interlaken, Switzerland. After a brief opening to elect the Bureau and adopt the agenda, delegates spent the day in a Scientific Forum hearing presentations and engaging in discussions on various aspects of AnGR.

OPENING SESSION

Samuel Jutzi, Director, Animal Production and Health Division, FAO, opened the meeting and thanked the Swiss Government for hosting this event. He explained that there would be three components to the event: a Scientific Forum on AnGR during the first day; a presentation of *The State of the World's Animal Genetic Resources for Food Agriculture* on Tuesday morning; and discussions on the draft Global Plan of Action for AnGR during the remainder of the week.

Delegates elected Manfred Bötsch, Director of the Swiss Federal Office for Agriculture, as conference Chair. The Vice-Chairs elected were Hussein Ibrahim Abu Eissa (Sudan), Daniel Semambo (Uganda), Arthur da Silva Mariante (Brazil), David Hegwood (US), Paul Trushell (Australia), and Vanida Khumnirdpetch (Thailand).

Conference Chair Bötsch stressed the importance of AnGR and asked delegates to consider the agenda and annotated agenda (ITC-AnGR/07/1 & 2). He explained that the agenda item on the Global Plan of Action would cover the three annexes under the relevant document (ITC-AnGR/07/3), which include a draft Global Plan of Action (Annex I), text on implementation and financing the Global Plan (Annex II), and an Interlaken Declaration (Annex III). CANADA noted its understanding that Annex II was being proposed as an element of the Global Plan. Delegates adopted the agenda as proposed.

SCIENTIFIC FORUM

Fritz Schneider, Swiss College of Agriculture, chaired the Scientific Forum on AnGR. He explained that the Forum would provide an informal occasion to discuss specific AnGR issues. He also introduced the presenters and panelists who outlined and discussed reports on four specific topics (ITC-AnGR/07/Inf.2):

- the dynamics of animal production systems and AnGR—drivers of change and prospects for AnGR;
- inventory, characterization and monitoring;
- sustainable use and genetic improvement; and

- conservation of AnGR—approaches and technologies for *in situ* and *ex situ* conservation.

DYNAMICS OF ANIMAL PRODUCTION SYSTEMS AND ANGR—DRIVERS OF CHANGE AND PROSPECTS FOR ANGR:

Carlos Seré, International Livestock Research Institute (ILRI), Kenya, presented the paper on drivers of change and prospects for AnGR. He characterized the four global drivers as economics and globalization, poverty, environmental concerns, and science and technology. Seré described trends in livestock production in pastoral, crop livestock and industrial systems. He identified important next steps, including the need to: provide incentives for *in situ* conservation of local breeds; facilitate movement of breeds within and between countries; match breeds to environments; and establish gene banks. He stressed that the protection and conservation of AnGR required a collective international effort.

Several panelists reflected on the report. Ken Laughlin, European Forum of Farm Animal Breeders, suggested that the Forum attempt to identify the real drivers for both reducing and protecting biodiversity. Fernando Madaleña, Brazil, highlighted issues relating to the management of farm AnGR and reiterated the need to refocus on utilization and evaluation.

Ilse Köhler-Rollefson, League for Pastoral Peoples and Endogenous Livestock Development, explained that rapid changes to AnGR could be attributed to policies relating to the introduction of exotic breeds and subsidies. She highlighted how these policies impact negatively on pastoralists' livestock-conserving production systems, while favoring large-scale production systems that erode biodiversity and typically constitute a narrow genetic base.

During the ensuing discussion, Ed Rege, ILRI, welcomed a stronger focus on conservation, encompassing utilization. He pointed out that livestock genetic resources should "remain a dynamic process of use and improvement," noting the need for policies enabling smallholders to benefit from globalization. He cautioned against assuming that impacts upon plant genetic resources were necessarily applicable to AnGR, explaining that the greatest impact on AnGR in the South arises from the introduction of genetic resources from the North, while impacts on plant genetic resources centered on removal.

BURUNDI highlighted the need to reconcile the promotion of diversity with consumer-driven demand that favors intensification, and CHILE highlighted the significance of family-based agricultural systems.

INVENTORY, CHARACTERIZATION AND

MONITORING: Michèle Tixier-Boichard, National Agricultural Research Institute, France, presented the paper on inventory,

characterization, and monitoring. On conducting inventories, she outlined the main elements, including: a nationally-mandated institution to coordinate the work; national mechanisms to verify the breed or population; agreed methods of data collection; and a database framework (DAD-IS). She underscored the importance of characterization for providing baseline information on a breed or population's current use and identifying how to optimize its management. She also highlighted the use of performance testing and advanced phenotyping to identify "biodiversity hot spots," and discussed emerging molecular tools for characterization that offer accurate results. She noted that monitoring is also benefiting from advances in technology.

Responding to this presentation, panelist Richard Clarke, Rare Breeds Survival Trust, UK, highlighted the danger of focusing on livestock numbers as opposed to genetic diversity, and warned of the dangers of genetic modification. Milan Zjalic, International Committee for Animal Recording, Italy, underscored the importance of striking a balance between promoting standardized methods of characterization, inventorizing and monitoring, while also allowing for variances in countries' programmes. Jacob Wanyama, Vetaid, Mozambique, stressed the need to identify the uses of inventories before compiling them so as to best tailor their content to the broader aims of the management of AnGR.

In the ensuing discussion, participants raised issues of capacity. Michèle Tixier-Boichard stressed the need for increased sharing of experiences and information, and interdisciplinary work between social and biotechnical sciences, noting integrated studies underway in Francophone Africa.

On involvement of breeder associations in characterization databases, she noted intellectual property concerns and called for greater dialogue to explain the use of information to breeders and encourage their participation.

SUSTAINABLE USE AND GENETIC IMPROVEMENT: Chanda Nimbkar, Animal Husbandry Division, Nimbkar Agricultural Research Institute, India, presented the paper on sustainable use and genetic improvement of animal breeds. She highlighted the role of sustainable use in food security, poverty alleviation and maintenance of diversity, and the need for breed improvement within historic production environments as well as geographic distribution of breeds to promote continued biodiversity. She noted that some practices successfully implemented in developed countries are not successful in developing countries due to lack of infrastructure and less access to breeds. Nimbkar drew attention to the successful use of simple technologies in developing countries, including breed selection for resistance to disease, heat or harsh conditions.

Jan Philipsson, Department of Animal Breeding and Genetics, Swedish University of Agricultural Sciences, noted that the most effective strategy for genetic diversity is to focus on sustainable use. He stressed traditional knowledge, clear objectives, technology transfer, research, training and capacity building.

Raúl Perezgrovas Graza, Institute of Indigenous Studies, University of Chiapas, Mexico, called for a stronger focus on livestock keepers, small-scale farmers, local expertise and rural issues.

Xuan Li, South Centre, favored a binding treaty to stimulate use and conservation of AnGR. Suggesting that there had been "slow movement" on this topic in discussions under the World Intellectual Property Organization (WIPO), World Trade Organization (WTO) and World Health Organization (WHO), she supported development through FAO of a multilateral system on AnGR. She further suggested that, if properly managed, the Global Plan on AnGR should make a "good contribution" in this area.

In the ensuing discussion, ZAMBIA noted falling budgets for livestock research, BURUNDI noted lack of knowledge about many breeds and COTE D'IVOIRE urged strengthening human

and institutional capacity. Chanda Nimbkar noted the importance of South-South collaboration and Xuan Li said animal diversity should be viewed as a public good, with public-private partnerships playing an important role, but not being sufficient on their own.

CONSERVATION OF ANGR—APPROACHES AND TECHNOLOGIES FOR *IN SITU* AND *EX SITU*

CONSERVATION: John Woolliams, Roslin Institute, UK, outlined the scientific case for conservation. He noted the scientific community's agreement on climate change and underscored the need to prepare for rapid climate change in production systems. Woolliams described *in situ* and *ex situ* approaches to conservation and said *in situ* is the preferred option. He stressed the need to manage the expectations for various tools, including cryoconservation. Woolliams said the challenge of conserving over 7000 breeds of livestock was great and the risk of breeds "slipping through the cracks" was highest in rapidly-changing environments. He suggested linking conservation to development and said donors might require assessment of the impacts of development on AnGR. Woolliams concluded that drivers of change in livestock production often move in conflicting directions and that resources must be secured to meet these challenges.

Arthur da Silva Mariante, Brazilian Agricultural Research Corporation, Ministry of Agriculture, Livestock and Supply, presented an overview of AnGR in Brazil and highlighted *in situ* and *ex situ* conservation measures implemented since 1983. Nitya Ghotge, ANTHRA, India, drew attention to the need to consider the roles and responsibilities for conserving AnGR, calling for a focus on *in situ* conservation comprising on-farm and traditional farming practices.

Shakeel Bhatti, Secretary of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGR), highlighted lessons that could be drawn from experiences under the treaty and how ongoing work under the treaty could also take into account the Global Plan for AnGR. He cautioned against forcing plant and animal genetic resources into the same policy and legal frameworks, emphasizing the importance of forage and grasses for livestock production and food security.

In the ensuing discussion, SUDAN and TOGO highlighted practical challenges faced by *in situ* conservation efforts, KENYA called for more research into what causes breeds to become extinct and CHILE highlighted the impacts of environmental change on livestock keepers. John Woolliams underscored the need for equitable sharing of benefits from conservation and called for action where livestock is in its highest state of flux.

IN THE CORRIDORS

As the Scientific Forum took place on Monday, some negotiators were already looking towards the negotiations on the Global Plan of Action scheduled to start Tuesday afternoon. "The Scientific Forum has been useful, but I think the negotiations on outcomes should have started already," said one delegate. Several participants noted that much bracketed text remains in the draft Global Plan of Action, particularly in relation to financing, livestock keepers' rights and intellectual property issues. Several delegates were talking about the differing preferences of some developed countries and developing countries, with industrialized countries generally skeptical of separate text on implementation and financing, while G-77 countries favored it. "Financing talks could go down to the wire given the limited time for discussions," opined one veteran negotiator.

Nevertheless, many delegates seemed optimistic for a positive outcome despite the tacit acceptance that the process will be challenging. As one delegate summed up, "the issues are like Interlaken's surrounding mountains—significant but not insurmountable."