

Conserving local livestock breeds –

Political strategies and legal regulations

Issue paper



Herdsman of the Dinka ethnic group with herd of cattle in Kotobi, Southern Sudan (photo: G. Ulutungok)

The global debate on conservation and sustainable use of genetic resources has so far concentrated predominantly on plants, particularly on access to plant genetic resources and how the benefits derived from their use can be shared fairly. Plant genetic resources used for agriculture, industrial feedstocks, pharmaceuticals and cosmetics are at the focus of international debate and therefore drive the agenda.

Livestock Genetic Resources are in an equally precarious state, however. It is high time to acknowledge this and take appropriate action. Like crop plants, livestock make a vital contribution to food security and rural livelihoods. There is an urgent need to define regulations for conservation and sustainable use of animal genetic resources and the equitable sharing of the benefits derived from them.

Obviously plant and animal genetic resources give rise to different types of problems and issues. Apart from the technical distinctions, animal genetic resources are less directly affected by fears of 'biopiracy' and concerns about equitable benefit sharing. Although such issues are by no means negligible, more important concerns are:

- ◆ Uniform high-performance breeds are replacing populations with broad genetic diversity suitable for diverse use, particularly in ecologically 'difficult' environments (dry regions, highlands).
- ◆ Breed imports and cross-breeding can displace local breeds.
- ◆ Policy support mechanisms neglect pastoralists and low-input production systems.
- ◆ Smallholder and nomadic breeding practices and economies are increasingly coming under pressure. There is inadequate infrastructure, a lack of marketing ►

A Global Strategy

The Global Strategy for the Management of Farm Animal Genetic Resources provides a technical and operational framework for assisting countries with the conservation and sustainable use of their animal genetic resources. The strategy, which is undergoing further development by the FAO, contains the following elements:

- ◆ An intergovernmental mechanism for direct government involvement and strategic policy development.
- ◆ A country-based global infrastructure which helps countries with the cost-effective planning, introduction and practice of national strategies for the management of animal genetic resources.
- ◆ A technical programme to support effective action at the country level on sustainable intensification, on the conservation and characterization of animal genetic resources, and on regulation of access.
- ◆ A reporting and evaluation system to guide the Strategy's implementation, facilitate collaboration, coordination and policy development and maximize efficiency.



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Local livestock breeds



Paul herdsman with his herd in Northern Mali (photo: G. Ulutunçok)

- ▶ opportunities, and poor standards of veterinary care. Often land use rights are unresolved. In comparison with modern livestock production systems, they are not competitive.
- ◆ Unlike plant genetic resources, only a very small number of local livestock breeds have been genetically improved by means of systematic breeding programmes.
- ◆ Little or no material has been reserved in *ex situ* collections as a precaution.
- ◆ So far, efforts to use cryoconserved embryos have not been successful in all livestock species.

Policies and laws are needed

The purpose of these should be to conserve local breeds and support traditional livestock-based economic systems. Measures which promote modern intensive animal production systems to the exclusion of others must be reconsidered, since they are not usually adapted to local conditions and are therefore vulnerable. Regional and international regulations are called for – guidelines, model laws or treaties which will guide and support countries in establishing their own policy and legislation. This must be combined with technical and financial assistance to enable countries to develop their own skills and capacities in this area.

What progress has been made in the international arena?

Important steps have been taken by the United Nations Food and Agriculture Organization (FAO) and the Convention on Biological Diversity (CBD) to follow up on the issue of farm animal genetic resources and their sustainable conservation and use. The 183 Member Nations and the European Union have asked the FAO to develop a global management strategy. Furthermore the FAO shall also support the Member Nations in implementing this strategy in regional and national programmes and action plans.

The Conference of the Parties (COP) to the CBD has recognized the pertinent issues and included them in its work plan (inventory, appropriate management of genetic resources, further training and professional development, 'mainstreaming'). In addition, the *Bonn Guidelines* on access to genetic resources and benefit-sharing which were adopted by the Conference of the Parties to the CBD in 2002 also provide important guidance on animal genetic resources. The FAO is currently working on the preparation of the first State of the World Report on Animal Genetic Resources, which it will present as part of an International Technical Conference in 2007.

The contribution of farmers and livestock keepers

In Decision III/11, taken by the 3rd COP to the CBD in 1996, it was expressly recognized that traditional farming communities and their agricultural practices have made a significant contribution to the conservation and enhancement of biodiversity.

The Decision encourages Parties to develop national strategies, programmes and action plans. These should place a particular emphasis on empowering indigenous and local communities, promoting the sustainable use of agrobiodiversity based on indigenous knowledge, and producing inventories which take account of the status of farm animal genetic resources and measures for their conservation and sustainable use.

The Decision also acknowledges the importance of the country-based Global Strategy for the Management of Farm Animal Genetic Resources, led by the FAO, and supports its continuing development.

A full spectrum of strategies is needed

National policies and laws supported and guided by regional and international action should consider the following strategies:

- *A strategy to conserve the diversity of animal genetic resources developed by farmers, nomads and indigenous communities.*

Such a strategy developed in recognition of the particular value of local traditional livestock production should include, inter alia, the following aspects:

- Incentives for breeding and developing local breeds
- Promotion and support of the marketing of products from local breeds
- Provision of the necessary infrastructure to support local livestock production
- Better access to veterinary services for local livestock
- Awareness-raising among consumers about the value of national-level genetic resources
- Better description and documentation of particularly valuable characteristics of local breeds
- Security of land tenure and/or land use rights for farmers, pastoralists and indigenous communities
- Effective prohibition of and measures against encroachment on traditional pasture land
- Promotion and documentation of traditional knowledge

- *A strategy for the control of cross-breeding between local and exotic breeds. It should essentially be based on the dissemination of information and expertise about cross-breeding.*

Cross-breeding can threaten local breeds. Livestock farmers and breeders should be informed of the potential consequences.

- *A strategy for controlling imports of exotic breeds, including an impact assessment procedure and provision of information.*

Importing exotic breeds may also involve risks to local breeds and must therefore be controlled to a certain degree. A range of instruments are available, e.g. a written notification or authorization procedure which includes risk assessment.

- *A strategy for a regime on access to animal genetic resources, including mechanisms for benefit-sharing*

Such a strategy should be inspired by the lessons learned from access and benefit-sharing arrangements developed within the context of the CBD. These include the 'Prior Informed Consent' of countries which possess animal genetic resources and make them available, benefit-sharing involving local and indigenous communities, protection of the rights of the local population and local and indigenous breeders, and respect for their rights in any steps taken to protect intellectual property. Reference can also be made to the lessons learned in connection with the multilateral system under the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA).



Farmer's family with cattle and goats, Ndege Village, Rwanda
(photo: G. Ulutunçok)

- A strategy for capacity building among farmers and local communities, through education and training, awareness-raising, information-sharing and the dissemination of case studies.

The necessity for an International Treaty on Farm Animal Genetic Resources (as a counterpart to the International Treaty on Plant Genetic Resources) is still under discussion at the FAO, but so far without a conclusive result. It is the African partner countries who are most insistently calling for such an international treaty, in order to safeguard access to animal genetic resources and to guarantee long-term food security and sustainable livelihoods.

Further information:

Gündling, L. (2003): Management of animal genetic resources for conservation, sustainable use and sharing of benefits. GTZ, Eschborn, Germany.

<http://www.gtz.de/agrobiodiv/english/pub/pub.htm>

Hagmann, J. (2003): Legal and Regulatory Framework for Farm Animal Genetic Resources. Workshop Documentation, Mozambique 20-24 May, 2003

<http://www.gtz.de/agrobiodiv/english/pub/pub.htm>

Köhler-Rollefson, I (2004): Farm Animal Genetic Resources. Safeguarding National Assets for Food Security and Trade. GTZ, Eschborn, Germany.

Ecological Economics. The Transdisciplinary Journal of the International Society for Ecological Economics, Special Issue: Valuing Animal Genetic Resources, Vol. 45, No. 3, July 2003, <http://www.ilri.cgiar.org/>

CIP-UPWARD (2003): Conservation and Sustainable Use of Agricultural Biodiversity. A Sourcebook (Vol 1-3). International Potato Center - Users' Perspectives with Agricultural Research and Development. Los Banos, Laguna, Philippines. <http://www.eseap.cipotato.org/upward/Abstract/Agrobio-sourcebook.htm>

FAO Animal Genetic Resources

<http://www.fao.org/ag/cgrfa/AnGR.htm>

FAO Domestic Animal Diversity Information System

<http://www.fao.org/dad-is/>

CBD <http://www.biodiv.org>

Like the International Treaty on Plant Genetic Resources, this agreement would be an international legal instrument in its own right with a focus on conservation and use of animal genetic resources. Appropriate consideration must be given to local breeds developed within traditional communities and their special need for protection. A key task for technical cooperation in the coming years will be to assess the possible impacts of such a treaty on poverty and development, and then to launch in the international arena recommendations for regime design.



Caravan of camels on the way to Léré, Mali (photo: G. Ulutunçok)

The **People and Biodiversity** issue paper series aims to:

- arouse interest in the topic of conservation and sustainable use of biodiversity,
- present in a concise manner concrete approaches for action and experience,
- explain new terms and concepts in the thematic area of biodiversity,
- encourage and stimulate readers to mainstream biodiversity issues in development cooperation projects.

We would welcome your comments and experience. They will help us to improve this series step by step.

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