Indigenous Knowledge about Animal Breeding, Traditional Communities and the State of the World Report

The majority of breeds in developing countries are products of communities and their indigenous knowledge about animal breeding (IK-AB) and management. Livestock breeders influence the genetic composition of their herds through:
- Cultural concepts about how to use an animal (“breeding objective”)
- Local preferences for certain characteristics, such as colour, size, or behavioural patterns (“breeding goal”)
- Selection practices for certain qualities (castration, culling, offspring testing)
- Pedigree-keeping
- Social restrictions on selling animals and leading to reproductive isolation

Traditional communities play a key role in conserving breeds and animal diversity

Communities that still follow their traditional cultural and social practices often act as guardians of valuable indigenous breeds. These groups frequently live in remote areas and the role of their animals goes beyond subsistence and economic purposes; it includes important social, ritual and religious functions. The animal genetic resources stewarded by such communities may retain important and undiscovered genetic characters that no longer exist in breeds selected only for productivity. Since these communities are important stakeholders in animal genetic resources, intensive consultation with them is essential for arriving at a complete picture of the state of the world’s animal genetic resources.

Indigenous Knowledge about Animal Breeding is a valuable resource about the existence of breeds and their adaptive traits

Indigenous knowledge can be a source of information about scientifically yet undocumented breeds and of their specific adaptive traits. Scientists often face difficulties deciding whether animal populations represent single or separate breeds. Indigenous knowledge can elucidate whether there are reproductive barriers within populations, and thus help solve such questions. Furthermore, many unique behavioural and other adaptive traits (disease and drought resistance) are only manifested in the original environment and not under controlled conditions. Thus it is the communities that have developed breeds are an important source of information on their relative advantages.

The first Report on the State of the World’s Animal Genetic Resources (SOW-AnGR) has the objective of providing an overview of the current status and trends of AnGR and is likely to be instrumental in shaping international and national agendas with respect to the sustainable use of AnGR. Among the most significant stakeholder groups in domestic animal diversity are pastoralists and other indigenous groups with a long heritage of livestock breeding. The importance of such communities and their indigenous knowledge in the sustainable management of indigenous livestock breeds was highlighted in two workshops organised by NGOs. The participants of the Asian workshop recommended the integration of indigenous knowledge in the Domestic Animal Diversity-Information System (DAD-IS), whereas the contributors of the African workshop demanded the recognition of respective animal breeds as products of communities and their indigenous knowledge. In line with the recommendations of these workshops whose participants represented both GO and NGO sectors, the SOW-AnGR report must ensure that it adequately reflects the role of such traditional rural communities and their indigenous knowledge in the sustainable management of AnGR so that they can become active participants in the implementation of the Global Action Plan.

Contact addresses:
League for Pastoral Peoples: info@pastoralpeoples.org, ileekr@rediffmail.com
Intermediate Technology Development Group East Africa: jacob.wanyama@itd-g.or.ke
Lokhit Pashu-Palak Sansthan: lpps@sify.com
National breed inventories may be incomplete.

Because the SOW process and methods are insufficient to capture indigenous knowledge it is likely that some important Animal Genetic Resources have not yet been documented and national breed inventories remain incomplete. In India, examples for breeds that had long been overlooked by scientists and were discovered through consultation with communities include Nari cattle, Kanchi Mekham goat and Malvi camel.

The SOW training materials overlook pastoralists

Because of their long heritage of animal breeding and related social rules often resulting in reproductive isolation of their animal holdings, in many countries it is especially the pastoralists who have created a large number of breeds with excellent adaptive qualities. However, the SOW training materials constantly refer to farmers and classify them by the size of their farms. Pastoralists are completely missed out.

Pastoralists and indigenous livestock breeders have the right to recognition of their breeds as products of their communities

The AnGRFA that have been developed by pastoralists and other indigenous communities represent both cultural heritage and natural resources. Supporting pastoral and other traditional livestock breeding communities in the documentation of their respective breeds as products of their indigenous knowledge and cultural heritage could become an important strategy for their capacity-building, as well as make a crucial contribution to DAD-IS. This process can also form the foundation for breed associations and breeding programmes. Equally significant, in the context of current Intellectual Property Rights (IPR) regimes, such an endeavour would establish their breeds as „prior art“ and protect them from misappropriation by outsiders.

Recommendations to ITWG-AnGRFA

Based on the elaborations and discussions during the related workshops, we urge the members of the Intergovernmental Technical Working group on Animal Genetic Resources for Food and Agriculture (ITWG-AnGRFA) to consider the following additions and modifications to the SOW Process:

- Inclusion of a section or chapter on the role of traditional communities in the conservation of animal genetic resources for food and agriculture in the first State of the World Report, with selected case studies of community-managed indigenous breeds and the related IK-AB.

- Expansion of DAD-IS format to include information about the communities associated with particular breeds.

- Support to pastoral and other traditional livestock breeding communities to set up community registries of AnGRFA and document their respective breeds as products of their indigenous knowledge and cultural heritage. Besides raising the awareness and building the capacity among these primary stakeholders, this process can form the foundation for breed associations and breeding programmes.

- Linking and cross-referencing of DAD-IS with these community registries of animal genetic resources.

- Training of community representatives and AnGRFA experts and professionals in the LIFE approach to documenting indigenous breeds.

- Modification of the terminology in the FAO guidelines and training packs to include pastoralists, instead of just mentioning farmers. It is misleading to subsume pastoralists under the term "farmers". For the same reason the term “animal genetic resources for food and agriculture” (AnGRFA) should be adopted instead of referring to farm animal genetic resources.

We would like to thank EED, GTZ, FAO, and Misereor for their support to the research and workshops on which this document is based.
Recommendations of Asia Level Workshop hosted by Lokhit Pashu-Palak Sansthan in Sadri (Pali), Rajasthan, India, 12-16 October 2003

Animal Genetic Resources for Food and Agriculture From the Perspective of Rural Communities

1) **Documentation of Animal Genetic Resources (role of traditional communities)**
   - Ongoing documentation of IK on AnGRFA
   - Add IK- dimension to DAD-IS
   - Modify scientific techniques to level of understanding of traditional community with cooperation of extension services
   - Establish pilot technology demonstration units with participation of traditional communities
   - Incorporate traditional IK into education systems
   - Promotion of knowledge exchange between and within communities
   - Organisation of training in the LIFE-approach

2) **Strengthening the role of traditional communities in conserving and managing sustainable AnGR**
   - Promote traditional IK through folk songs and stories (cultural forms) representation
   - Promoting and organization of traditional communities
   - Support community initiatives to conserve their AnGRFA
   - Strengthen community awareness on sustainable management of Natural Resources
   - Enhance linkages horizontally and vertically between relevant institutions and communities
   - Promote traditional management practices through people participation
   - Support traditional community to develop market linkages and channels and credit / saving schemes

3) **Support for traditional communities to maintain their role, lobbying for cultural diversity**
   - Initiate setting up village level resource management committee to defend local common grazing rights (with NGOs and governments) and other issues
   - Raise awareness in other sectors (forest/agriculture/veterinary medicine) and other relevant departments to discuss access rights to grazing and water
   - Respond to pastoralists’ need for fodder in reforestation programmes
   - Promote and support village self help group for credit and marketing
   - Research for low cost feed supplements for draught and adverse conditions
   - Provide services for families and their livestock

4) **Treaty and legal requirements for the conservation and protection of Intellectual Property Rights (IPR)**
   - Ensure that work on IPR goes hand in hand with participation and benefit sharing
   - Canvass and consolidate national issues concerning conservation of AnGRFA - March 2004
   - Stimulate formation of national working groups on AnGRFA to study the lead-up process to ITPGRFA to determine what can be replicated to indicate obstacles and challenges
   - Disseminate findings of workshop on ITAnGRFA
   - Sensitize stakeholders in the region on the issue
   - Ensure the inclusion of grassland genetic resources in both plant and animal resource conservation programmes
Leaders of Traditional Livestock and Pastoral Communities, government representatives, Civil Society Organizations with a focus on livestock genetic resources, academics and livestock researchers met in Karen, Kenya from 27 to 30 October, 2003 in a workshop hosted by Intermediate Technology Development Group - East Africa (ITDG-EA)

They issued a statement as follows:

**Karen Commitment**

**Pastoralist/Indigenous Livestock Keepers’ Rights**

We call on governments and relevant international bodies to commit themselves to the formal recognition of the historical and current contribution of pastoralists and pastoralism to food and livelihood security, environmental services and domestic animal diversity.

We also demand that they recognise the contributions of pastoralists and other livestock keepers, over millennia, to the conservation and sustainable use of animal genetic resources for food and agriculture including associated species and the genes they contain (AnGRFA).

Furthermore, we insist that there is international legally-binding recognition of inalienable Livestock Keepers’ Rights and the Rights of their communities to:

- continue to use their knowledge concerning the conservation and sustainable use of AnGRFA, without fears of its appropriation
- participate democratically in making decisions on matters related to the conservation and sustainable use of AnGRFA
- access, save, use, exchange, sell their AnGRFA, unrestricted by Intellectual Property Rights (IPRs) and [modification through] genetic engineering technologies that we believe will disrupt the integrity of these genetic resources
- have their breeds recognised as products of their communities and Indigenous Knowledge and therefore remain in the public domain
- benefit equitably from the use of AnGRFA in their own communities and by others.

We call on the Food and Agriculture Organisation of the UN (FAO) to start negotiating such a legally-binding agreement, without delay, ensuring that it will be in harmony with the Convention on Biological Diversity.

We further call on the FAO to develop a Global Plan for the conservation and sustainable use of AnGRFA by pastoralists, other livestock keeping communities and relevant public institutions.

Finally, we insist that AnGRFA be excluded from Intellectual Property Rights claims and that there should be a moratorium on the release of genetically-modified livestock until biosafety is proven, in accordance with the Precautionary Principle. We call on relevant institutions concerned with food, agriculture, trade, intellectual property and animal research to provide assurances and such legal protection as is necessary to sustain the free flow and integrity of AnGRFA, vital to global food security and the environment.