Improving the Livelihoods of Poor Livestock-keepers through Community-Based Management of Indigenous Farm Animal Genetic Resources in Africa

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Conflict of Goals

Conservation of Biodiversity

Intensification of Animal Production

Photo: ILRI 2002
Why Conservation of Animal Genetic Resources?

- **Convention on Biological Diversity (CBD):** Duty to conserve genetic resources includes farm animal genetic resources.
- Genetic Diversity is prerequisite for development, sustainable use and risk reduction.
- 70% of the rural poor people depend on multifunctional roles of livestock.

Photo: Massai cattle in Kenya (Wollny 2000)
Learning from Past Failures

- Missing Breeding Goals
- Failure of Dissemination/Adoption
- Poor Involvement of Stakeholders
- Production Environment Degrading

Expected Benefits
Background to the Project

• Multifunctional roles of farm animals
• Livestock contributes 35% to 80% of agricultural GDP in SS-Africa
• Importance of animal genetic diversity and current threats
• Relatively less developed compared to plant genetic resources conservation
• Importance of in-situ conservation vs. ex-situ and hence CBM
Assumptions and Working Hypotheses

• Indigenous Farm Animal Genetic Resources (FAnGR) of Africa are a valuable asset
• Policy makers need to formulate enabling policies to utilise FAnGR
• Further erosion of FAnGR poses a threat to food security in SS-Africa
Assumptions and Working Hypotheses

• Indiscriminate use of exotic germplasm contributes to genetic erosion
• Genetic and phenotypic characterisation of farm animals provides valid information for CBM action plans
• Intensified use of *in-situ* FAnGR is a sustainable option
• Valuation of FAnGR will intensify discussion on IPR: Will Animal Genetic Resources be kept in the public domain?
Project Goal

Improve the livelihoods of poor livestock-keepers through the conservation and sustainable use of indigenous animal genetic resources
Purpose

Empowerment of local communities, through an improvement of their analytical, technical, managerial and organisational skills to sustainably manage AnGR, in order to reduce poverty.
Main Strategy: Action Oriented Research

- **Project planning:**
  - team building and deepening of the teams’ understanding of the project’s objectives and activities;
  - agreement on methodologies & standards;
  - establishment of organizational procedures.

- **Training:**
  - PRA tools
  - M & E framework
  - Farmer Field Schools
  - Livestock characterization
Best Practice Model: South-North-South Partnership

Universities Goettingen & Hohenheim Germany

‘North’

NARS in Benin, Ethiopia & Kenya

‘South’

Researchers and international and German student teams working jointly on projects in Benin, Ethiopia and Kenya

GTZ

ILRI Addis and Nairobi

‘South’
Main Project Elements

• Traditional knowledge systems to increase productivity of indigenous farm animals
• Community-based management strategies to conserve genetic resource taking into account socio-economic dynamics, e.g. caused by HIV/AIDS in Africa
• Valuation, economics and marketing of livestock and related products
• Policy development and implementation to conserve diversity of farm animal genetic resources
Time Frame

• 3 years project (2004 to 2007) started on September 15, 2004
• National preparatory meetings Benin and Ethiopia (May 2004)
• Training and planning workshop in Benin (October 2004)
• Next regional workshop September 2005 Ethiopia
Community Action Research

Phase 1: Identification of the communities

Phase 2: Participatory action planning

Phase 3: Implementation community plans

Phase 4: Participatory evaluation of outcomes
CBM Action Planning

1. Problem census with individual stakeholder groups

2. Problem ranking

3. Plenary to agree problems

4. Solution and impact analysis with individual stakeholder groups

5. Plenary: development detailed plan of implementation

Status: Completed or in progress at all sites
Progress to Date

- Clarification of project activities
- Organisational aspects (e.g. financial administration, linguistic issues, communication channels, etc.)
- Annual action plans
- Importance of national “ownership” of project
- Choice of research sites and species/breeds
- Application of survey/appraisal methodologies
- Training of team members
Expected Outputs

• A framework for community-based management (CBM) of AnGR developed and at least one program functional in each project country

• Market opportunities and institutional constraints for commercialisation of indigenous livestock identified

• Producer and consumer preferences for livestock genotypes, traits and products quantified
Expected Outputs (2)

- Policy constraints to conservation and sustainable use of indigenous livestock identified
- Policy-makers sensitised to community needs
- National capacities for conservation and sustainable use of indigenous AnGR strengthened
Conclusions

• International and regional multidisciplinary network of CG and NARS established and functioning
• Locally adapted farm animals are threatened resulting in genetic and cultural erosion
• Local breeds are of key importance for sustainable agriculture
Conclusions (2)

- Conservation of genetic diversity through sustainable utilisation in integrated farming systems
- Testing of CBM approach: Contribution to poverty reduction, food security and conservation of biodiversity by focusing on livestock keeping people and their knowledge
- Change of research paradigm towards a participatory and interdisciplinary approach