



**THE ROLE OF PASTORALISTS  
IN THE CONSERVATION  
AND SUSTAINABLE USE OF  
ANIMAL GENETIC RESOURCES**

**Prepared by**

**Tom LOQUANG**

**KI SUP ATEKER Peace and Endogenous  
Development Organization,**

**KARAMOJA, UGANDA**

**[aatomloquang@yahoo.com](mailto:aatomloquang@yahoo.com)**

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# INTRODUCTION

The livelihoods of pastoralists revolve around their indigenous uniquely adapted livestock. Pastoralists worldwide move from one place to another in search of pastures and water.



## Introduction Cont . . . .

Thus pastoralists not only maximize production from an environment that would otherwise not be productive under the conventional agricultural practices, but also allow reasonable intervals for the regeneration of pastures.

## Introduction Cont. . . . .

The pastoralists also regularly dispose some of their livestock and / or livestock products to the nearby markets during their mobility while retaining animals with desirable traits.

## Introduction Cont. . . . .

The challenges of the harsh environment are tolerated by their uniquely adapted livestock breeds. that they developed after many years of prudent genetic manipulation and management with their own indigenous knowledge, practices and innovations.

## Introduction Cont. . . . .

These animals meet the pastoralists' diverse social and economic requirements and as such are part and parcel of their livelihoods.

## Introduction Cont. . . .

It is thus explicit that pastoralists are custodians of their well adapted pure breeds.



# KARIMOJONG PASTORALISTS

- Karamoja covers an area of 27,900 sq km; located in North-East of Uganda. The people who inhabit the area are known as the Karimojong, whose population is about one million people (2002). The area is generally semi-arid, with pastoralism as the dominant farming system .

# ANIMAL GENETIC RESOURCES

## ➔ The Food and Agriculture

**Organisation of the UN** defines farm animal genetic resources as, “those animal species that are used, or may be used for the production of food and agriculture, and the populations within each of them.

## Animal Genetic Resources, Cont. .

⇒ These populations within each species can be classified as wild and feral populations, standardized breeds, selected lines and any conserved genetic material".

The Karimojong pastoralists, refer to all AnGR as "*ngibaren*"; this contrasts with wild animals that they call, "*ngityang*".

## Animal Genetic Resources Cont . . .

⇒ Though the word, "*ngibaren*" in most cases refers to only the Karimojong livestock, the word also encompasses all edible domestic breeds kept by other communities. However, the pastoralists' livestock breeding goals are indeed multifaceted to contain the many uses of livestock mentioned below.

## The AnGR of Karimojong Pastoralists

- ➔ The AnGR reared by Karimojong are:  
Zebu cattle, Persian blackhead sheep,  
East African small goat, grey donkey, and  
a few single humped dark brown camels.

## The AnGR of Karimojong Pastoralists

- ➔ We have survived on and managed our livestock over the years with own traditional knowledge and continually select our choice animals for economically and socially desirable traits in a compatible socio-economic-*cum*-ecological interaction.

# Animal Genetic Resources of Karimojong Pastoralists Cont . . .

**Livestock provides multiple uses to the Karimojong people, including:**

- ⇒ Food; wealth account and the currency on which other [commercial] items are rated or valued; payment of debts / fines; compensations, traction, multiple uses of

# The AnGR of Karimojong Pastoralists

## Cont.

Livestock skin. Livestock is also used for founding a family when it is offered as bride wealth and related matters; slaughtered on prescription to cure a known ailment; slaughtered at many rituals. The fresh cattle dung is cement used for diverse purposes; dry cattle dung is used for fuel and manure. etc., etc.

## AnGR AS PRODUCTS OF TRADITIONAL KNOWLEDGE

⇒ Many indigenous livestock keepers including the Karimojong, conserve livestock genetic diversity by highly evolved traditional knowledge on animal breeding that employs multi-pronged strategies to conserve and consolidate specific gene-pools [breeds], while ensuring a healthy degree of diversity within their herds.

## AnGR as Products of Traditional Knowledge Cont . . . .

Most scientists have failed to grasp this Traditional Knowledge about animal breeding, and erroneously assume the well adapted indigenous livestock to be products of merely chance.

# COMPONENTS OF TRADITIONAL KNOWLEDGE ABOUT ANIMAL BREEDING

Indigenous knowledge about animal breeding can be systematized into the following components:

- ⇒ Cultural concepts about how to use livestock;
- ⇒ Preferences for certain characteristics, or behavioural patterns;
- ⇒ Diversity in conserving practices;
- ⇒ Selection practices for certain qualities;

# Components of Traditional Knowledge About Animal Breeding Cont. . . . .

⇒ Sense of community ownership and stewardship.

These and other traditional means of influencing the gene-pool are practiced to differing extents among livestock-breeding groups; among these; pastoralists have the most refined knowledge.

# "SCIENTIFIC" ANIMAL BREEDING PRACTICES

⇒ As mentioned already, pastoralists criteria in making breeding decisions are multifaceted. This contrasts scientific / industrial profit oriented breeding that usually focuses on a limited number of traits; with reduced ability to cope with various stresses..

# "Scientific" Animal Breeding Practices Cont . . . .

- ⇒ Sometimes, these efforts were successful – in temperate climates – but ended in failure in challenging conditions . . .

# "Scientific" Animal Breeding Practices Cont . . . .

- ➔ Even when the indigenous livestock keepers' efforts are subsidized to produce exotic breeds from temperate countries, the end result is usually gross failure. . . . .  
.non-sustainability . .

# RENEWED INTEREST IN INDIGENOUS BREEDS

➔ The dogmatic belief in the inferiority of indigenous livestock breeds has changed; partially due to research demonstrating their productivity under low-input conditions.

# RENEWED INTEREST IN INDIGENOUS BREEDS

➤ These breeds often possess parasites and disease resistance traits that are important when pathogens become resistant to drugs, and also to minimise antibiotic residues in livestock products.

## Renewed Interest in Indigenous Breeds Cont . . . . .

- For example the indigenous Red Maasai sheep in Kenya, that is endowed with genetic resistance against internal parasites, a trait that is of great interest to scientists and commercial sheep farmers

## Renewed Interest in Indigenous Breeds; Cont.....

**Other examples of indigenous breeds with resistance to disease include:**

- ⇒ The Uda sheep from Northern Nigeria is much less susceptible to foot rot.
- ⇒ The Kuri cattle herded around Lake T Chad is very resistant to insect bites.

# Renewed Interest in Indigenous Breeds; Cont.....

- ⇒ For instance, the improved Kenya Boran which was selected for meat gains is much less trypano-tolerant.

## Renewed Interest in Indigenous Breeds; cont.....

⇒ Indigenous breeds of interest for their product quality.

The Tuli cattle, a breed that originated in Zimbabwe has excellent beef quality and was voted as having the juiciest meat at breed trials conducted at Clay Centre in Nebraska; USA.



## Renewed Interest in Indigenous Breeds; Cont.....

- **Even the adaptation to external low-input conditions can be of interest to commercial farmers.**
- The Damara sheep from Namibia and with a reputation as a no-care breed, has become the base for a new Australian sheep breed ("Meat Master").

## THE KAREN COMMITMENT ON LIVESTOCK KEEPERS' RIGHTS

→ The League for Pastoral Peoples and Intermediate Technology Development Group East Africa organised a conference in Karen (Kenya) in 2003, during which representatives of indigenous livestock keeping communities and NGOs working with them issued a comprehensive statement: the "**Karen Commitment**".

# The Karen Commitment on Livestock Keepers' Rights Cont. . . .

- This statement demands an international legally-binding recognition of inalienable Livestock Keepers' Rights and the Rights of their communities to:
- participate democratically in making decisions on the conservation and sustainable use of animal genetic resources

## The Karen Commitment; Cont. . .

- ⇒ access, save, use, exchange, sell their animal genetic resources for food and agriculture unrestricted by Intellectual Property Rights and [modification through] genetic engineering technologies that we believe will disrupt the integrity of these genetic resources.
- ⇒ benefit equitably from the use of animal genetic resources in their own communities and by others.

# DISCUSSION / CONCLUSION / ROCOMENDATIONS

- ⇒ There is explicit conflict between “traditional” and “scientific” breeding systems and the institutional set-ups in which they are embedded.
- ⇒ On one hand, there are traditional knowledge systems and community-owned animal genetic resources.

## Discussion / Conclusion / Recommendations

### Cont . . .

→ whose proponents plead for keeping animal genetic resources in the open domain, although they also assert that **THEIR BREEDS SHOULD BE RECOGNIZED AS PRODUCTS OF THEIR COMMUNITIES.**

Discussion / Conclusion /

Rocomendations Cont . . .

⇒ have their breeds recognized as products of their communities and Indigenous Knowledge and therefore remain in the public domain.

## Discussion / Conclusion cont ...

● On the other hand, there are scientists and commercial interests that strongly push for privatization and intellectual property rights.

For the sake of conserving genetic diversity, as well as of fairness, ethical considerations, and food sovereignty, the **rights of livestock keepers to their animal genetic resources must be protected.**

# Discussion / Conclusion / Rocomendations Cont . .

- ⇒ It would be in the interest of all stakeholders to find ways and means of **protecting Livestock Keepers' Rights** as outlined in the Karen Commitment.

# Discussion / Conclusion / Rocomendations Cont . .

- ➔ FURTHER SUPPORT PASTORALISTS  
NEED IN THEIR CONCERTED  
EFFORTS TO CONSERVE AND  
SUSTAINABLY USE THEIR  
UNIQUELY ADAPTED ANGR.

# Discussion / Conclusion / Rocomendations Cont . .

- ⇒ Pastoralists and other indigenous livestock keepers should be equipped with diverse skills and capacities to enable them improve production while conserving and sustainably using their breeds to maintain their livelihoods

# Discussion / Conclusion / Rocomendations Cont . .

- ⇒ The pastoralists' efforts to conserve and sustainably use their AnGR would be dependent on guaranteed pastures for their transhumant livelihoods.

# Discussion / Conclusion / Rocomendations Cont . .

- ⇒ National policy should ensure that pastoralist indigenous livestock and livestock products command fair prices; a privilege that has been tacitly reserved only for exotic livestock and their products.

# Discussion / Conclusion / Rocomendations Cont .

- Since Pastoralists compose a significant proportion of the world's poor livestock keepers, research and development interventions that claim to have the goal of poverty alleviation, should take the needs and aspirations of this diverse, but distinct group of livestock keepers into account.

# Discussion / Conclusion / Rocomendations Cont

- ➔ The FAO, CBD and the CSOs should urge the national governments in the countries where pastoralists and / or other livestock keepers leave, to implement the provisions of Article 8 (j) of the CBD in the context of their committed efforts to conserve and sustainably use their indigenous AnGR.



THANK YOU VERY MUCH

for supporting Traditional  
Livestock Keepers' Rights  
over their Breeds,  
Traditional Knowledge and  
Innovations.



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