The status and characteristics of two populations of small East African goats of Tanzania

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Resource base: what is available (goat breeds, population, performance....

- Tanzania has outstanding natural resources for livestock development including resilient livestock breeds
- Is the third largest livestock population on the African continent after Ethiopia and Sudan
- Has 25 million cattle, 8 million sheep, 16.7 million goats, 2.4 million pigs, and 36 million chickens
- Despite the resources, livestock sector is performing well below its potential contributing
 7.4% to the country's GDP
- The annualized growth rate of the sector is low at 2.2%.
- The growth for the large part reflects increase in livestock numbers rather than productivity gains

Resource base: what is available (goat breeds, population, performance....

- The sector is severely constrained by low livestock reproductive rates, high mortality and high disease prevalence
- Hence low production coefficients
- For small ruminants,
 - Offtake rate is 15 25% per annum
 - Lamb/kid mortality 20 40%
 - Adult mortality 8 15%
 - Average carcass weight 12 15 kg

Resource base: what is available (goat breeds, population, performance....Goats farming in Tanzania

- Goats farming is an important economic activity
- Practiced by about 30% of the agricultural households in Tz
- SR Contributes more than 22% to the national meat supplies with goat contributing more than goats
- Mainly composed of local breed sub types such as Ujiji, Sukuma, Maasai, Gogo, Pare, Sonjo and Newala goats and other different strains/ecotypes that are not characterized
- Characterization has been based mainly on phenotypic with few genomic approaches.
- About 97% of goats are indigenous belonging to SEA breed.
- However, various strains of the SEA goats which are adapted to existing climatic and environmental stresses in Tanzania are being lost through indiscriminate crossbreeding with exotic dairy and dual purpose breeds.

Resource base: what is available (goat breeds, population, performance....Goats farming in Tanzania

- Also, population admixture among the different strains of the SEA breed is diluting the uniqueness of formerly distinct populations.
- This situation calls for establishment of conservation and sustainable improvement programmes.

National Livestock Policy, 2006

- Aimed to:
 - Stimulate development in the livestock industry in order to increase rural and national income, improve food security and environmental conservation
 - Increase national well-being of all stakeholders involved in the livestock industry
- Formulation of the policy considered:
 - a) The Tanzania Development Vision (TDV) 2025
 - b) National Strategy for Growth and Reduction of Poverty (NSGRP) of 2004
 - c) Millennium Development Goals (MDGs)
 - d) The Rural Development Strategy (RDS) of 2001
 - e) Rural Development Policy of 2003

- f) National Trade Policy of 2003
- g) Livestock Stakeholders Resolutions of 2001
- h) The Agricultural Sector Development Strategy (ASDS) of 2001
- i) The Agricultural Sector Development Programme (ASDP) of 2003
- j) Presidential Circular No. 1 of 2002
- k) The National Empowerment Policy of 2004
- l) The Investment Policy
- m) The National Land Policy of 1995
- n) The Environment Management Policy of 1997
- o) The Agriculture and Livestock Policy of 1997

- p) International and Regional integration initiatives such as:
 - World Trade Organization's Agreement on SPS
 - WHO/FAO's Codex Alimentarius
 - NEPAD's Comprehensive Agricultural Development Programme
 - SADC's Regional Indicative Strategic Development Plan (RISDP)
 - East African Community (EAC) Agricultural and Rural Development Policy

Vision:

"By year 2025, there should be a livestock sector, which to a large extent shall be commercially run, modern and sustainable, using improved and highly productive livestock to ensure food security, improved income for the household and the nation while conserving the environment."

Mission:

"To ensure that livestock resource is developed and managed sustainably for economic growth and improved human livelihoods".

Overall objective – Develop a competitive and more efficient livestock industry that contributes to the improvement of the well being of the people whose principal occupation and livelihood is based on livestock.

Specific objectives:

- a) Contribute towards national food security through increased production, processing and marketing of livestock products
- b) Improve standards of living of people engaged in the livestock industry through increased income generation from livestock

- c) Increase the quantity and quality of livestock and livestock products as raw materials for local industry and export.
- d) Promote integrated and sustainable use and management of natural resources related to livestock production.
- e) Strengthen technical support services, develop and disseminate new technologies.
- f) Develop human resources including livestock farmers.
- g) Promote production of safe and quality foods of animal origin in order to safeguard consumers.
- h) Promote the use of draught animal power and biogas utilization.
- i) Mainstream cross-cutting and cross-sectoral issues such as gender, HIV/AIDS, land and environment.

Policy objective:

• To promote commercial and sustainable production of sheep and goats to meet domestic demand and export market; enhance food security and incomes.

Policy Statements:

- (i) The Gov. will support and strengthen technical support services in sheep and goats production.
- (ii) The Gov. will promote inventorization, characterization, evaluation and selection of the indigenous meat breeds of shoats.
- (iii) The Gov. in collaboration with other stakeholders will promote improvement of genetic potential in the traditional flock.
- (iv) Efforts will be undertaken to promote Public-Private Partnership to improve livestock management and marketing systems.
- (vii) The Gov. will sensitize, encourage and promote establishment of sheep and goats farmers' organizations.

Livestock Sector Development Strategy (LSDS), 2010

- Formulated by MLFD to operationalize the National Livestock Policy (NLP) of 2006
- It is a framework for further coordinated initiatives in the sector
- It seeks to deepen the gains, albeit insufficient, made so far under ASDP
- The issues to be addressed or targeted are grouped into six strategic intervention areas:
 - (i) Sustainable use of land, water, pastures and rangelands;
 - (ii) Public/Private sector investments and financing for improvement of livestock value chain productivity and efficiency (production, marketing and processing);
 - (iii) Control of livestock diseases and public health;
 - (iv) Livestock Development Services such as Research, training, extension services, capacity building, farmer empowerment and related infrastructure;
 - (v) Cross cutting and Cross-Sectoral Issues; and
 - (vi) Governance, regulatory and institutional arrangements.

The Tanzania Livestock Modenization Innitiative (TLMI), 2015

- Aims to implement the National Livestock Policy (NLP) of 2006 in the context of:
 - a) The National Five Year Development Plan,
 - b) Agricultural Sector Development Program (ASDP),
 - c) KILIMO KWANZA,
 - d) National Strategy for Growth and Poverty Reduction (NSGRP),
 - e) Rural Development Strategy (RDS),
 - f) Comprehensive Africa Agriculture Development Programme (CAADP),
 - g) Tanzania Development Vision 2025.

Goal – Increase food and nutrition security and food safety, create employment opportunities and contribute to the national economy, social stability and sustainable environment.

Purpose – improve the livelihoods of traditional and small holder livestock farmers and contribution of the sector to the national economy.

Objectives:

Transform the traditional livestock sub-sector into a modern, responsive, sustainable and environmentally friendly engine for rural development and improved national health and nutritional standards by:

- Guiding and supporting livestock farmers in technology transfer to equip them with appropriate knowledge and skills in livestock keeping;
- Delivery of livestock inputs and services;
- Improving market infrastructure and marketing systems for livestock and livestock products;
- Empowering livestock farming communities and the private sector;
- Strengthening national and local government institutions to modernise the livestock sector;
- Streamlining the policy and regulatory environment to provide a conducive environment for private and public sector investments.

What has been done in the area of production system description, characterization and genetic improvement of the two goat populations

- the strains of SEA goat breed are not well characterised.
- Strains are named after either geographic locations or ethnic groups keeping them.
- Only a few strains (Dodoma, Kigoma and Mtwara, Pare, Sonjo, Gogo, Sukuma) have been described phenotypically
- Full characterization involving phenotypic, molecular and description of production environment has been done for Pare, Sonjo, Gogo and Sukuma
- Goat population in Hai district have not been characterized

Brief results from production system description, characterization and genetic improvement of the two populations

- Pare goats are predominantly white colored
- They are relatively bigger than most of other SEA strains in Tanzania
- Weigh on average 29kg
- Have low twinning ability
- Have good fertility
- The two goats are raised extensively in two districts i.e Same and Mwanga for Pare white goats and Hai for the other population
- Farmers in the areas practice mixed farming (crop + livestock)
- Goats play very important role in the livelihood of the people in the areas
- They also have other socio cultural roles

On-going research and development initiatives on improvement of the two goat populations

- TALIRI West Kilimanjaro is responsible for conservation of AnGR mainly small ruminants
- Conservation and performance evaluation programs are on going at the station for Pare white goats among other strains
- There are initiatives involving farmers in conservation and improvement of Pare white goats in Same district
- Farmers have been trained on good breeding practices and marketing of goats
- There have been initiatives to form farmers' groups as a step towards establishment of Pare goat breed society
- Farmers groups can be a good entry point for this project
- In some areas of Same and Hai disticts, crossbreeding programs have been started
- Exotic dairy goats have been introduced for crossing with local
- However, most of these have not been successful due to lack of support and inadaptability of the exotic to local production environment

Future directions in the two goat populations improvement

- Future programs should focus on improvement of local than introduction of exotic
- Within population selection

Key actors in the two goat population improvement

- Research institutions
- Local Government authority
- Other organizations
- Individual farmers through their individual efforts
- Religious organizations

Thank you