

# Red Meat Production in the Tanzania Livestock Master Plan

A series of targeted interventions would increase the contribution of the red meat sector in Tanzania to gross national product by 26% over the 2017–2022 period, to more than USD 940 million annually. The required investment of just over USD 153 million—46% and 54% coming from the private and public sectors—in the areas of health, genetics, feed, value addition and complementary policy changes would result a 50% increase in red meat production by 2022 to 742,524 tonnes.

Goat and sheep meat production are expected to rise over the five-year period by 60% to 103,681 tonnes, while the cattle red meat production from the ranching and the feedlot fattening, and dairy subsector would grow from 73% to 3,029 tonnes and by 521% to 531,275 tonnes respectively. Even with the implementation of these proposed investments, livestock consumption is expected to grow from 2017–2022 by 71% (to 867,302 tonnes), leaving a 17% deficit (124,778 tonnes) in the red meat production consumption balance.

## Background

Almost everyone in Tanzania consumes red meat, a large number of Tanzanian families own cattle, goats or sheep and approximately one third of the population are engaged to some degree in the production, processing and sale of red meat. The red meat value chain can be found in one or more of the four major production typology zones of Tanzania: central; coastal and lake; highlands; and commercial specialized dairy. It comprises live animals as

well as meat—processed meat products and by-products from cattle, sheep and goats sold locally and internationally.

Primary processed meat and meat products, obtained post-slaughter, include: carcasses, red offal, hides, skins and other by-products, such as blood, bones, horns, hooves, hair, wool etc. The value chain actors include primary producers, live animal traders, meat and by-product processors, butchers and consumers. Red meat production in Tanzania comes from two major production systems: the traditional red meat—smallholder mixed crop–livestock, grazing and pastoral—production system and specialized cattle feedlots. In 2016/17, Tanzania produced about 493,000 metric tonnes of red meat, mostly beef (83%) with the remaining amount coming from sheep and goats. Most production (97%) comes from pastoral and agro-pastoral communities. Red meat marketing is predominantly done for domestic consumption, with little exports.

Tanzania is currently unable to meet domestic demand for red meat. With projected rises in population, urbanization rates, incomes and live animal and meat exports, unless action is taken this situation is expected to rapidly deteriorate. To reach red meat production levels of 742,000 tonnes by 2022, interventions are needed to improve the quality of grazing land resources, animal health and genetics, and facilitate the adoption of feed technologies. By 2022, approximately two million heads of animals are expected to pass through ranch, feedlot and traditional (culled dairy cattle) operations, reducing the contribution of the traditional sector from 97–89% of red meat production.



## Red meat challenges and strategies

**Feed:** The supply of animal feed, including concentrates and feed supplements, is erratic, both in terms of quality and quantity. Much of the feed in Tanzania is mineral deficient, in part due to a lack of quality control and standards, and enforcement mechanisms. These challenges are coupled with the limited access to good quality land to meet animal feed demand in the country, particularly demand by commercial feedlots. Moreover, smallholder farmers generally do not have a good understanding of the use of crop residues and by-products as animal feed. The strategies proposed to mitigate these challenges include the:

- introduction of policy to make land available for investors in forage seed and production;
- promotion and enforcement of land contracts to produce forage for commercial feedlots;
- promotion of the establishment of agro-industries designed to increase the supply of by-products for feed supplements and of flour mills making more concentrates available;
- improvement of the quality, and increased use, of agro-industrial by-products, from the processing of cereal/grains/oil seeds/sugar cane as concentrates for animal feed;
- strengthening of the feed quality control authority to expand its operations;
- rehabilitation of rangeland/grazing land;
- acquisition of substantial additional amounts of land for grazing, and pasture and fodder production;
- provision of training, and capacity and skills development support, to smallholder farmers, in the use of crop residues and by-products as animal feed; and
- encouragement of the appropriate storage and marketing of concentrates and feed supplements.

**Genetics:** Indigenous cattle in Tanzania are characterized by low genetic potential; this constraint is aggravated by the lack of an adequate national recording scheme. The strategies proposed to mitigate these challenges include the:

- improvement of selection within indigenous breeds;
- establishment of community-based breeding programs, including the development of a national recording scheme; and
- promotion of a national animal identification and traceability scheme.

**Animal health:** High levels of calf mortality and morbidity in Tanzania are aggravated by inefficient veterinary and animal health extension services, shortages of medicines, poor quality control of medicines and other supplies, and of biosafety in abattoirs, poor disease surveillance, and a lack of a national traceability and identification scheme. The strategies proposed to mitigate these challenges include the:

- Strengthening of the animal health regulatory capacity at national and local levels under the coordination of the Ministry of Agriculture, Livestock and Fisheries.

**Marketing and processing:** The red meat subsector in Tanzania is characterized by an absence of quality-based pricing systems, a lack of availability of market information and poor market infrastructure, hindering its development. Linkages between producers, processors and exporters are poor, and value chain actors, particularly processing technicians, lack the necessary technical knowledge to meet quality standards, for instance in the fields of meat-cutting and grading. In addition, there are severe shortages in the availability of holding areas and storage spaces. The strategies proposed to mitigate these challenges include the:

- development of the capacity of meat technology training staff, and the provision of training to meat processing staff;
- promotion of forward contracting by feedlots and abattoirs;
- investment in export infrastructure for animal holding and quarantine centres, as well as in programs for disease surveillance, monitoring of abattoirs, animal identification and traceability, etc.;
- development of strategic capacities spearheaded by staff working in Agricultural Sector Development Program II; and
- building of key infrastructure to support the marketing and processing of livestock and livestock products.

**Policy:** The red meat subsector is hampered by a lack of appropriate policies or implementation of policy, such as in the areas of breeding and land policies related to feed production and land acquisition for feedlot investment. There are shortages of appropriate land in the country and a lack of protectionism in trade policy. For instance, the establishment of feedlots requires access to appropriate locations conducive to feed production, linkages with export markets, and infrastructure—road access, power and water supply—whereas the domestic production of oil seed requires financial incentives and trade barriers. The strategies proposed to mitigate these challenges include the:

- development and implementation of standards on meat and feed quality control, and of grading and pricing policies;
- introduction of trade policy to reduce the importation of cooking oil and grain flour;
- development and implementation of policies protecting and enhancing animal welfare;
- development of clearly defined guidelines on the right to access and use land and the implementation of appropriate land policies; and
- refraining from uncritically gazetted grazing land, heretofore accessible for pastoral production, for conservation purposes.

## Value chain modernization interventions

The interventions—seeking to achieve reductions in livestock mortality and increases in parturition and dressing rates, and live weights, herd sizes, ranch numbers, the availability of grazing/ pasture land, and feedlot operations—are designed to increase red meat output and productivity. It is expected that most red meat production interventions will focus on improving traditional red meat production—in the central, coastal and lake, and highlands production zones—and specialized cattle feedlot operations. The number of cattle (local and those culled from dairy operations) to feedlots is expected to reach 1.2 million by 2022, a 268% increase. Sheep and goat are also key contributors to projected red meat production, showing increases of 19% to 6 million and 36% to 24 million respectively by 2022.

The priority technological interventions in the central, coastal and lake production zones seek to:

- improve feed practices through better rangeland management by oversowing with grass and legumes and controlling invasive species, shrub clearing, and the application of the thinning technique to stem shrub encroachment;
- reduce young and adult stock mortality by improving access to veterinary services, antiparasitic control/ treatment, and vaccinations;
- improve breeds through better selection and management of male animals; and
- introduce a better herd/flock recording scheme for breed improvement.

In highland zone, the following interventions seek to:

- improve breeds through the application of artificial insemination with semen of exotic breeds;
- improve breed management through the implementation of a herd/flock recording scheme;
- enhance the capacity of farmers in the selection and management of male breeding animals through the provision of training/extension support;

- reduce young and adult stock mortality through enhanced access to vaccines and antiparasitic drugs;
- introduce integrated fodder crops with food crops;
- harvest grass in a timely manner, and store and conserve hay from communal grazing lands.
- increase the efficiency of crop residue use (proper storage, supplementation, treatment including physical treatment-chopping, and urea); and
- introduce oversowing and rotational grazing practices.

## Complementary interventions

To facilitate the success of the interventions with improved traditional red meat producers, the authorities should:

- ensure producers are provided with the knowledge and skills to enable their access to land, water, finance, etc.;
- improve the policy environment, ensuring adequate forage is made available;
- ensure the production of vaccines meet demands; and
- ensure adequate feed supplements are made available.

To facilitate the success of the interventions with specialised cattle feedlot and culled dairy cattle fattening producers, the authorities should:

- develop an industry strategy;
- enable access to sufficient land, water and finance, etc.;
- introduce a conducive policy and investment environment required to attract and facilitate private sector investment in feedlots and slaughterhouse operations; and
- strategically use feed sources from new and existing sugar plantations and other types of large-scale crop production investments in Tanzania.

## Background to the LMP

The Tanzania livestock master plan was developed by a joint team from the Tanzanian Ministry of Agriculture, Livestock and Fisheries (MALF) and the International Livestock Research Institute (ILRI). Its development was overseen by a high-level technical advisory committee (TAC) convened under the auspices of the MALF Livestock Permanent Secretary, Maria Mashingo, and chaired by Catherine Dangat, the director for Policy and Planning. The TAC comprised the directors of key MALF livestock-related departments and other government agencies, and representatives from the private sector, civil society organizations and development partner agencies.

Data collection and quantitative diagnostics were supported by the ongoing involvement of key national livestock experts and consultation with a wide range of key stakeholders. The quantitative sector analysis was undertaken using the Livestock Sector Investment and Policy Toolkit developed by the World Bank, the Agricultural Research Centre for International Development (CIRAD) and the Food and Agriculture Organization of the United Nations working under the auspices of the African Union Interafrican Bureau for Animal Resources.

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