Beef

Key Messages

- *Promote commercial production of high quality beef in intensive and extensive systems (ranching, pastoral and agro pastoral).*
- *Promote inventorization, characterization, evaluation and selection of cattle breeds for beef production.*
- *Invest in animal health through disease surveillance, vaccination and treatment.*
- *Promote, support establishment and strengthen beef producer and trader associations.*
- *Invest in research and dissemination of technologies for quality beef production.*
- *Establish livestock identification, recording and traceability system for safe and quality meat production.*
- *Enhancing the performance of the beef sector offers significant opportunities to contribute to improved economic and nutritional outcomes in the country.*

1. INTRODUCTION

Cattle production is a major economic and cultural activity in Tanzania. In terms of total national herd size, Tanzania has the third largest cattle population in Africa with 25.8 million cattle (URT, 2017) after Sudan and Ethiopia. Yet, despite the prominence of cattle rearing in the country, beef markets remain thinly traded, choice beef markets are primarily supplied through imports, and per capita consumption of meat was 12 kg, which is very low, compared to the FAO's recommendation of 50 kg (URT, 2011a). Enhancing the performance of the beef sector, therefore, offers significant opportunities to contribute to improved economic and nutritional outcomes in the country. This brief summarizes the current status of the beef industry in Tanzania in order to identify policies and investment interventions to enhance the sector's competitiveness.

2. OVERVIEW OF THE BEEF VALUE CHAIN

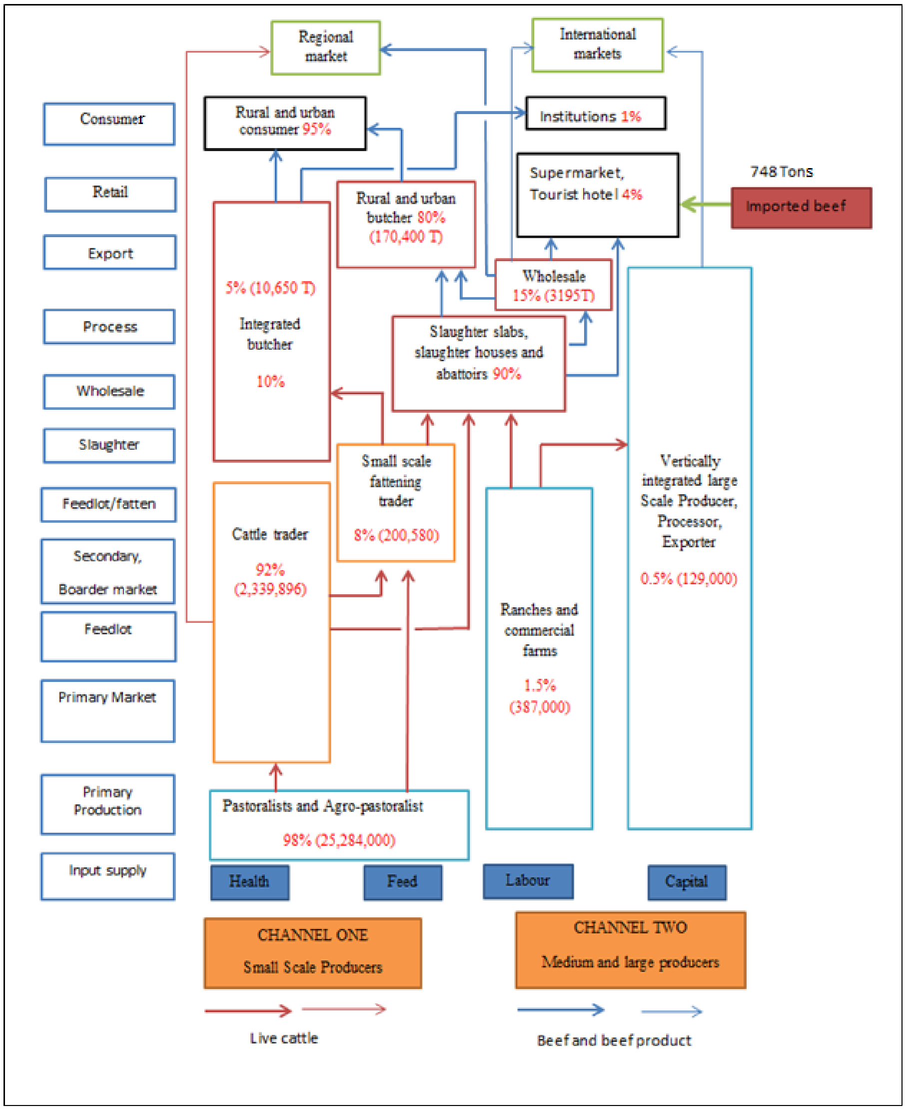
Figure 1 provides a visual depiction of the beef value chain in Tanzania. Beef production in the country comes from two primary sources: the large traditional production sector (pastoralist and agro pastoralist) and commercial producers (ranches and commercial farms). The traditional segment comprises about 98% of the total national herd and the commercial sector about 2%.

Despite a large national herd, Tanzania imports roughly 748 tons of beef per year. Imports are primarily destined for supermarkets and tourist hotels. A small proportion of live cattle is exported to regional markets.

How beef moves from producer to consumer in Tanzania is largely a function of the production system. Traditional cattle producers mainly sell their animals to small-scale traders (accounting for 92%). These animals are typically slaughtered in local butcheries or exported to regional markets but they rarely find their way into formal retail markets. The remainder (8%) are sent for fattening on small scale feedlots, and they are subsequently sold to local butcheries, wholesale markets, or hotels in some cases.

Commercial producers sell into formal market channels, including domestic supermarkets as well as the regional and international markets.

Figure 1. Beef Value Chain in Tanzania



Source: Trevor, 2015

The beef cattle value chain is constrained by various challenges (URT, 2006; URT, 2010; URT, 2011a; Mlote et al, 2012; Trevor, 2015). The major constraints include the following:

- **Production level**: Unpredictable amount of rainfall, hence limited availability of water and pasture during the dry season; the low genetic potential of indigenous livestock breeds coupled with limited supply of improved breeds; frequent occurrence of diseases and weak disease control capacity (livestock keepers incur very high costs in the control, prevention and cure of animal diseases); shortage of breeding stock; unavailability of credit services for the livestock keepers and traders; weak producer organizations; limited skills for animal fattening by the pastoral and agropastoralists; and high cost of animal feed and low input use by the livestock keepers in the traditional system.

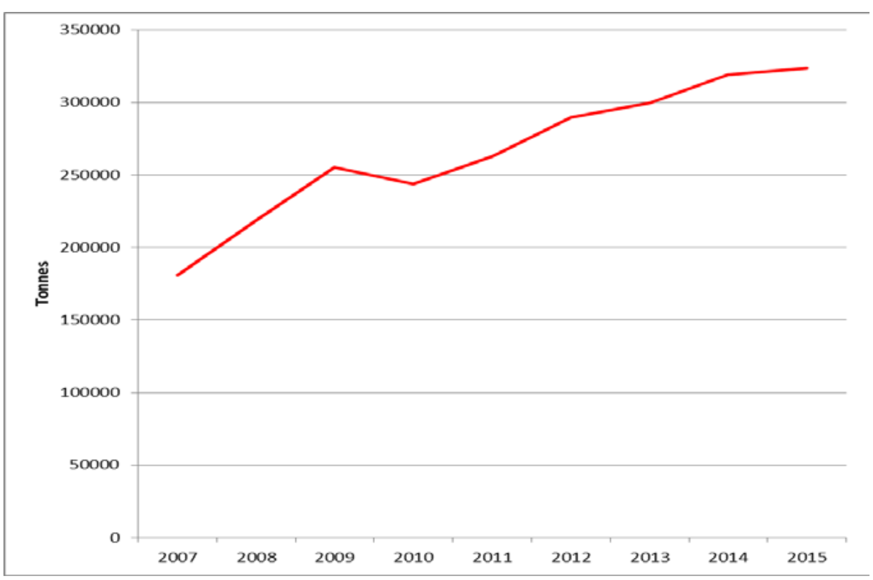
- **Marketing and trade**: Processing of beef is currently inadequate, with six abattoirs in the country operating at 50% capacity while seven more abattoirs are under construction. Only 2% of produced beef is processed, with remainder sold warm and undifferentiated (URT, 2015).
- **Underdeveloped market infrastructure for livestock** (such as roads, water points, holding grounds etc.); unfavourable cross-border trade environment; limited access to market information; inadequate availability of standard abattoirs, slaughterhouses and meat processing facilities; weak trader organisation; tariff and non-tariff barriers to beef trade; and inadequate entrepreneurship and business skills.
- **Cross cutting**: weak coordination among the actors in the livestock value chain and inadequate implementation of policies and strategies for creating an enabling environment for beef cattle trade

We examine each of these constraints in more detailed below.

3. PRODUCTION, PRODUCTIVITY AND PRODUCTION SYSTEM

Tanzania has experienced growth in beef production in recent years (Figure 2). Beef production in 2007 was 180,629 tons and in 2015/2016 the country produced 323,775 tons (NBS, 2013; URT, 2016). Despite the recent gains in production growth, the production level remains lower than the potential because beef production is dominated by the traditional system which has low productivity. Mature weight for a traditional cattle is about 200-300 kilograms while those in national commercial ranches (NARCO) are around 250-300 kilograms and the standard expected weight is 350-400 kilograms (URT, 2010). Such disparities show that there is a potential to increase cattle weight by having in place effectively implemented productivity enhancing interventions.

Figure 2. Trends in Beef Production in Tanzania (2007-2015)



Source: NBS, 2013; URT, 2016

The livestock industry in Tanzania is categorized in two major production systems, namely, extensive and intensive. The intensive system, though limited in size, has been receiving more emphasis in investment and improvement because of its contribution to the market oriented economy (URT, 2006). On the other hand, the extensive system, which is mostly agro-pastoralism and pastoralism, is a production system based on seasonal availability of forage and water thus resulting in uncontrolled mobility (URT, 2006).

Extensive beef production is concentrated in the Lake Zone (in Mara, Kagera, Shinyanga and Mwanza regions); this zone contributes to about 39% of the total beef cattle production in the country. Other major beef producing areas are: Central regions (Tabora, Singida and Dodoma) producing 23.1%; Northern regions (Arusha, Manyara and Kilimanjaro) producing 18.9 %; the Southern highlands regions (Mbeya, Iringa, Rukwa and Kigoma) contributing 11%; the Eastern regions (Morogoro, Tanga, Coast and Dar es Salaam) contributing 7.8 % and the Southern regions (Mtwara, Lindi and Ruvuma) that contribute to 0.8% (Mlote *et al*, 2012).

4. MARKETING, TRADE AND INVESTMENT OPPORTUNITIES

Tanzania's demand for meat is expected to increase almost exponentially in the medium term, and will significantly outgrow that of other African countries due to the rapid growth of human population (Kadigi, 2014). This offers good opportunities for livestock producers to increase production in order to serve a growing domestic market (Trevor, 2015). The growing local demand for meat is already evident. Kadigi, (2014), found a positive relationship between urban per capita consumption and the growing middle income population for nearly all livestock products.

Beef imports are estimated at 700 tons per year; this is equivalent to about 10,000 to 14,000 head of cattle. These are mostly exclusive 'choice' beef cuts from Kenya for the resident expatriate and tourist markets (Kadigi, 2014).

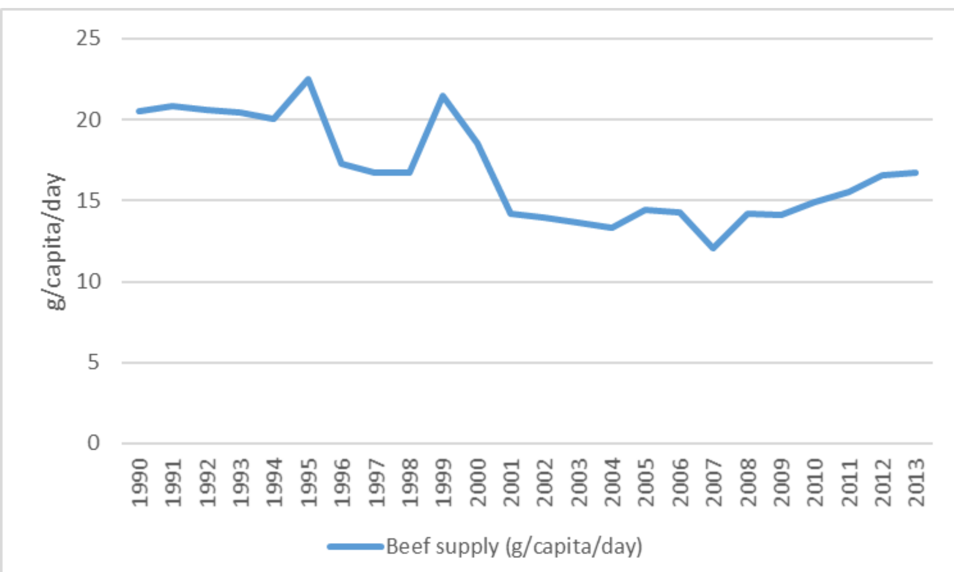
Beef cattle export in Tanzania is mostly in the form of live animals while the amount of beef exported is negligible compared to the potential. The country is exporting live animals and meat to foreign markets such as the Democratic Republic of Congo (DRC), Comoro and in the Middle East (Kuwait, United Arab Emirates and Oman) (URT, 2011b). The amount of beef exported is low because the export market requires high standards and quality which most local producers are not technically capable of fulfilling. Most of the cattle slaughtering is carried out by small and medium-sized slaughter houses that lack capacity to adhere to quality standards. The final outlet (to the largely undiscerning consumer) is mostly through small one-man butcheries.

There is an opportunity to increase commercially oriented production of quality beef to meet standards for the domestic and external markets. Feedlots or fattening pens have the potential for significant growth, and offer many opportunities for investment, especially for the high end markets. The size of this market can be equated to the amount of beef imports which is about 800 tons annually. The areas for investment in beef cattle industry include the following (URT, 2011b; TMB, 2014): i) Having joint ventures between the National Ranching Company (NARCO) and privately owned ranches to modernize the existing ranches; ii) Establishing new cattle ranches; iii) Investing in feed-lot programs; iv) Investing in feed fattening programs as well as in modern slaughtering facilities and processing plants.

5. CONSUMPTION

As shown in Figure 3, beef consumption in Tanzania declined through the 1990s and has only recently begun to improve. Despite this increase, current consumption levels remain much lower than the recommended amount of 50 kg per person per year. Per capita beef consumption in Tanzania is just over 15 kg. The low consumption levels could be attributed to the high poverty levels in the country and the high cost of beef. Many poor people cannot afford buying beef and other meat products as often as required. The situation is improving slowly as a result of urbanization and the growing middle income segment of the population. Based on Figure 3, it seems that beef supply per capita declined through the 1990s, probably due to deteriorating economic conditions. This trend began to reverse in 2007 as broader economic conditions improved, but levels remain below those achieved in the early 1990s. There are prospects that over time the current consumption levels will increase to reach recommended levels.

Figure 3. Per Capita Beef Consumption in Tanzania (1990-2013)



Source: FAO Database

6. PROFITABILITY

Production of beef cattle is a profitable enterprise; the gross margin for feedlot operations can be as high as 14.3% after 3 years of operations (Trevor, 2015). The livestock keepers trading on beef cattle generate considerable margins for a range of outputs. This is because the usual major input cost — the base feed supply that is free range grazing — is 'free' to the user (although it comes at a severe cost to the wider community and to the environment) (Trevor, 2015). Gross margins for a producer of 5-year old cattle can be as high as 75 percent and for 3-year old cattle in the region of 66 percent (see Table 1).

Nonetheless, cattle business profit margins are lower than potential due to various constraints discussed above. Trevor (2015) notes that the major factors reducing beef cattle profit are: high costs of control, prevention and cure of animal diseases; paying for private extension agents; and animal feed (for fattening programs).

Table 1. Gross Margin Analyses for Primary Livestock Production for 5-Year Old

Item/ Costs	**Cattle production (5 years, 300 Kg l.w.) (TSh)**
Labour	20,000
Drugs/vaccination	50,000
Dipping	6,000
Trekking	20,000
Other	5,000
Total variable cost	101,000
Revenue	400,000
Gross margin	**299,000**

Source: ERB, 2009 cited by Trevor, 2015

7. DEVELOPMENT PARTNERS SUPPORTING THE VALUE CHAIN

The Government of Tanzania has been collaborating with development partners and the private sector to support the meat value chain in the country. Some of the recent programmes are:

- The 2015 Tanzania Livestock Modernization Initiative (funded by the Bill and Melinda Gates Foundation).
- The Food and Agriculture Organization of the United Nations (FAO) supported the Agriculture Sector Development Program (ASDP), through which various livestock interventions were implemented.
- The United Nations Industrial Development Organization (UNIDO) and the International Fund for Agricultural Development (IFAD) supported various livestock interventions.
- The Bill and Melinda Gates Foundation and International Livestock Research Institute (ILRI) supported the preparation of the Tanzania Livestock Master Plan (2015-2016).
- The United States Agency for International Development (USAID) supported the Livestock Information Network Knowledge System (LINKS) which collected and disseminated livestock market information.

8. POLICY ISSUES

The following are important policy issues for consideration:

- Improving knowledge, skills and information throughout the value chain (e.g. agriculture in schools, producer training, business training).
- Capacity building for actors in the value chain in task specialization and strengthening group formation from producers to retailers to encourage vertical and horizontal linkages.
- Promoting use of improved bulls such as Boran, Mpwapwa and Sahiwal.
- Promoting fodder production and conservation.
- Promoting value addition in beef cattle through animal fattening.
- Increasing investment in disease surveillance and vaccination programmes to improve health and survival of beef cattle.
- Strengthening beef cattle identification and traceability to promote local and export markets.
- Reducing and, where possible, removing tariff and non-tariff barriers to promote beef cattle production and trade.
- Strengthening effectiveness in the implementation of livestock policy, strategy, programs and the Livestock Master Plan.

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Disclaimer: *This commodity value chain brief does not reflect the opinion of the sponsoring agencies, but of the author based on the literature review and analysis.*