#### LIVESTOCK AND DAIRY INDUSTRY DEVELOPMENT IN TANZANIA A. P. Njombe and Y. N. Msanga Department of Livestock production and Marketing Infrastructure Development Ministry of Livestock Development

#### 1 Introduction

#### 1.1 Available Resources

Tanzania is endowed with abundant natural resources, which include land, forage and a large livestock resource base. Out of the total 88.6 million hectares of land resource, 60 million hectares are rangelands suitable for livestock grazing, able to carry up to 20 million Livestock Units. However, due to tsetse infestation and other constraints, only 40% of the rangelands are utilised for grazing 18.5 million cattle; 13.1 million goats and 3.6 million sheep. Other major livestock species kept in the country include 1.2 million pigs and 53 million poultry. More than 90% of the livestock population in the country is of indigenous types, kept in the traditional sector, having a characteristically low productivity yet well adapted to the existing harsh environment including resistance to diseases.

#### 1.2 Importance of the Livestock Industry

Livestock is among the major agricultural sub-sectors in Tanzania. Out of the 4.9 million agricultural households, about 36% are keeping livestock (35% are engaged in both crop and livestock production while 1% are purely livestock keepers). The industry accounted for 5.9 percent to total GDP in 2006, of which beef, dairy and other stock provided 40%, 30% and 30% respectively. The contribution of livestock is not limited to its share in the total GDP but also play other important roles such as contribution to national food supply (meat, milk and eggs), and food security; acts as a source of cash income, employment and an inflation free store of value. It also provides manure and draught animal power thus contributing to sustainable agriculture. In addition, livestock play an import substitution role in the consumption of livestock products in the country.

Despite its importance, to date the industry's contribution to the national economy is still dismal compared to other sectors of the economy. In an effort to identify factors that had lead to this situation a Livestock sector stakeholders meeting which was held in Arusha from 2-4<sup>th</sup> April 2001, identified major constraints that cause poor performance of the sub sector and formulated a vision to guide future development of the sub sector. The vision states:

'By year 2025, there should be a participatory livestock sector, operating productive, commercially run, practicing sustainable livestock farming, with improved livestock, providing better employment, enhancing standards of living, supplying raw materials for industries, mainstreaming gender, increasing contribution to national income while protecting the environment.

Furthermore a livestock policy (2006) has been formulated to address and articulate the needs of revitalising the sub-sector by pursuing macro and microeconomic policy reforms which are taking place in the country. The policy aims at modernising the livestock industry.

It is the objective of this paper to give a general overview of developments that have taken place within the livestock industry in the past decade. The paper also provides information on the

production of major livestock commodities, it briefly states factors that constrain development of the commodities as well as stating measures that have been taken to address some of the issues, in an endeavour to modernise the industry.

#### 2 Performance of the Livestock Industry

The livestock industry has maintained a steady annual growth of over 2.7 percent during the last decade. This is lower than the rate of human population growth of 2.9 percent and the MKUKUTA targets for livestock industry growth. The target is for the sub-sector to grow at 9 percent by the 2010, in order for it to have a significant contribution on poverty reduction and food security. There is therefore a great need to scale up the current transformation in the sub sector in order to stimulate further growth.

# 2.1 Population Production and Consumption Statistics

With regard to livestock population, the last total livestock count which was conducted in 1984 revealed that there were 12,500,000 cattle, 3,100,000 sheep, 6,400,000 goats and 280,000 pigs. Over the years populations have gradually increased to the current levels of about 18.5 million cattle, 13.1 million goats, 3.6 million sheep, 1.2 million pigs and 53 million poultry. However it is important to note that the present figures are projections based on the 2002/2003 National Sample Census.

Similarly, commodity production figures indicate that, annual meat production over a ten year period (1995 – 2005) increased from 244,000 tons to 378,500 tons (55% increase), most of the meat having come from the traditional sector. However between 2005/06 and 2006/07 production of meat declined by 9.3 percent from 388,294 tonnes to 370,566 tons, due to outbreak of Rift Valley Fever. Milk production also increased from 555 million to 1.38 billion litres, between 1995 – 2005. Of this amount the traditional sector contributed about 70 percent. Between 2005/2006 and 2006/2007 there was only a modest increase in milk production from 1.41 billion litres to 1.42 billion litres, representing an increase of 0.7 percent. With regard to eggs, production increased from 380 million to 1.8 billion during 1995 – 2005 and further increased to 2.23 billion between 2005/2006 and 2006/2007 which is equivalent to 4 percent increase.

Furthermore, collection of hides and skins increased from about 1.3 million to 4.0 million pieces over the ten year period, out of which 86 percent were exported mostly in raw form.

With regard to consumption of livestock products, the per capita consumption of meat increased from 5 to 11 kg, milk from 20 to 39 litres and eggs from 14 to 53 between 1995 and 2007. However these averages generally conceal the great variations that exist in consumption levels between urban and rural areas with higher consumption levels being recorded mostly in urban areas.

# 3 Information on the existing situation

# 3.1 Meat production

Meat production is an important industry within the livestock sub sector and to date most of the meat consumed in the country is locally produced. Main livestock species that are used for meat production in this country are cattle, goats, sheep, poultry and pigs. More than 90% of these animals are indigenous types found in the traditional sector. Regions which have large numbers of

livestock include Shinyanga, Mwanza, Arusha, Tabora, Singida, Manyara, Mara, and Dodoma while regions which have relatively low populations include Lindi, Mtwara, Ruvuma and Coast. However currently these regions have become major recipients of the livestock that had been evicted from the Usangu wetlands (commonly known as Ihefu) in Mbarali district. **Annex 1** gives the population of livestock in Tanzania.

#### 3.2 Beef production

Of the meat producing animals, cattle are the most important as they produce most of the red meat and contribute 53% of total meat production. Indigenous cattle dominated by the Tanzania Short horn Zebu (TSZ) and Ankole breeds are the main source of beef in the country. About 80% of the indigenous animals are kept in the agro-pastoral system, while 14% are in the pastoral system. The remaining 6% constituting beef breeds and their crosses come from commercial ranches and the dairy herd. Over the years NARCO with its initial 15 ranches and a total land holding of 630, 000 ha, has remained to be the major commercial beef cattle producer in the country. Apart from these government owned ranches, presently there are also some private investors and smallholder farmers who are engaging in ranching and feedlotting business. These include Glienshils ranch and Mtibwa Feedlot (Morogoro), Sumbawanga Agricultural and Animal Feeds Industries (SAAFI -Rukwa), Manyara Ranch (Arusha), Kisolanza farm (Iringa) and small scale Livestock farmers in Arusha, Mwanza, Shinyanga na Mara regions.

In addition through a government initiative of promoting private ranching, NARCO has subdivided some of its ranches into 124 small and medium scale ranches (2000- 4000 hectares) capable of holding over 120,000 beef cattle and subleased to Tanzanian investors, while retaining 20,000 hectares in 8 ranches, in addition to Ruvu and Kongwa which have been left as disease free ranches under NARCO management. This initiative is a potential additional source of quality beef for the domestic and export market. Factors that constrain development of the beef industry include low genetic potential of the existing stock, inadequate infrastructure, inadequate marketing system, prevalence of animal diseases, inadequate technical support services and weak livestock farmers' organizations.

Strategies to address these issues have included research work on breeding (leading to development of the Mpwapwa breed), nutrition and general management, aimed improving productivity of the national herd; Privatisation of most of the Parastatal organizations which were charged with the responsibility of commercial beef production, processing and marketing, with the exception of NARCO ranches whose privatisation strategy has been changed from that of an outright sale to that of subdividing the ranches into medium sized farms to be owned by Tanzanians, as stated above.

Other interventions include improvement of the marketing system, involving marketing infrastructure, grading and marketing information system. A notable example in this regard is the Implementation of the Tanzania Livestock Marketing Project (TLMP) which was funded through an ADB loan and charged with the responsibility of improving livestock marketing infrastructure and services. In addition control of livestock diseases including transboundary animal diseases such as Rinderpest has been pursued. In recognition of its eradication, in 2006 Tanzania was granted an OIE certificate to declare the country free from Rinderpest. As for CBPP control Measures are ongoing, employing the roll back plan control strategy. The most recent and judicious disease control measure was that of Rift Valley Fever-RVF outbreak which for a short period of time

claimed livestock and human life resulting into a significant economic loss. Another development is the promotion of the fattening of cattle through a feedlot system whereby noteworthy examples include the Mtibwa Feedlot, Glienshils Ranch (Morogoro), Sumbawanga Agricultural and Animal Feeds Industries (SAAFI), Manyara & Mzeri ranches and small scale livestock keepers in Mara, Mwanza and Shinyanga regions.

Other areas include advocacy for land allocation for livestock use an activity being spearheaded by the Ministry of Lands and human settlement though the National Land use Commission; promotion of use of improved genetic materials for beef production by advocating for increased use of Artificial Insemination Services of which good quality semen and liquid nitrogen are available at the National Artificial Insemination Centre-NAIC, Arusha. Development of water sources for livestock use which is being facilitated through DADPS and other projects such as PADEP, DASIP, TASAF and the Ministry of Water Development is is also a good initiative. Another important initiative in developing the beef is the effort in establishing a National livestock Identification, Registration and traceability system through which livestock in the country would have known identity. This is expected to ease the task of identifying and tracing animals along the supply chain to the demand side which is limited at present, but very essential if the country is to penetrate into livestock commodity markets with stringent regulations on food safety requirements.

#### 3.3 Sheep and Goat Meat Production

Small ruminants (sheep and goats) contribute about 22% to the national meat supplies. The sheep and goat meat production activity is being practiced by about 30% of the agricultural households in Tanzania. As is for cattle the national sheep and goat flock is mainly composed of indigenous strains which are widely distributed and adapted to a range of agro-ecological zones. Their ability to multiply and grow faster than cattle, at a relatively low cost makes shoats more attractive to small-scale farmers. Despite these attributes, their production is constrained by poor nutrition, prevalence of diseases, low genetic potential and poor marketing infrastructure. The annual off-take rates are estimated at 29% and 28% and average carcass weight of 12 and 15 kilograms for sheep and goats respectively.

Strategies to increase sheep and goats for meat production have incorporated research including that which lead to the development of the Malya blended Goat, nutrition and general flock management. Development related interventions have included introduction and use of improved breeds such as Boer goat and Blackhead Persian sheep, that have fast growth rate and high prolificacy. In addition extension programmes with emphasis on management (nutrition, housing, disease control and controlled breeding) have been implemented. A notable example in this regard is the Newala goat extension project which later on came to be known as the Lindi Mtwara goat Extension project under the financial assistance of the Finish government which strived to increase both the number of goats and goat keeping households. The current objective is to promote commercial and sustainable production of sheep and goats to satisfy the domestic demand and penetrate the large and unexploited export markets.

#### *3.4 Poultry meat production*

With regard to the poultry industry, this is divided into traditional and commercial production systems. Indigenous chickens are the main types found in the traditional system and comprise

over 70% of the national flock, supplying most of the poultry meat and eggs consumed in rural areas and about 20% in urban areas. The traditional production system is performed by almost every rural household. On the other hand commercial poultry production is mostly practiced in urban and peri-urban areas and productivity levels are relatively higher. Majority of commercial poultry farms are found in Dar es Salaam, Coast, Arusha, Kilimanjaro, regions.

Productin of day old Chicks on the other hand is carried out in hatcheries most of which are located in Dar es Salaam and Coast regions. **Annex 2** shows existing hatcheries and their capacities in Tanzania). A total of 28.7 million Day Old Chicks were produced in 2006/07 compared to 26.8 million produced in FY 2005/2006. As production of day old chicks does not satisfy demand importation becomes inevitable. In this regard about 782,550 chicks were imported in FY 2006/07 compared to 2.1 million which were imported the previous year. Moreover, 3.1 million eggs for hatching were imported in 2006/2007 compared to 8.4 million of 2005/2006. The decline in number of imported chicks and eggs is attributed to the imposition of an import ban as a result the of the Bird flu threat.

Factors Constraining development of the poultry industry are prevalence of diseases, poor quality feeds, inadequate technical support services, low genetic potential of the local breed and weak farmer organizations. Strategies to improve the poultry industry have included use of improved breeds for crossbreeding purposes, operationalisation of programmes to control diseases such as Newcastle Disease, promotion for the establishment of breeding (parent and grand parent) farms and hatching facilities

The current objective is to increase quantity and improve quality of poultry and its products to meet domestic demand and export surplus to external markets.

# 3.5 Pig meat production

Pig production for meat is currently becoming popular in many parts of the country. They provide significant contribution to meat supplies. Most pigs are kept in Mbeya, Iringa, Ruvuma Kilimanjaro, Rukwa, Morogoro and Manyara regions. Majority of the pigs are kept in the traditional sector under a free-range system and only few which are more productive are kept under improved system of management. Small-scale subsistence farmers keep the majority of pigs as a backyard activity in mixed farming systems, mainly depending on forages and supplements. The performance of pigs in this system is generally low, as exemplified by the average slaughter weight of 50 – 70 kg at the age of one year Commercial pig production is limited to a few farmers with a regular income, mainly to meet the high cost of concentrate feeds among other requirements.

Inbreeding and lack of proper recording has caused problems within the existing pig population. Inadequate support services, poor slaughter and marketing infrastructure, diseases prevalence, cultural and religious taboo also affect the development of the pig industry.

Strategies implemented over the years have included promotion on the use of improved breeds, crossbreeding and selection through Extension Services. In addition much research has been done and has mainly concentrated on feeding of locally available feed resources.

The development objective is to promote pig production in order to contribute towards food security, improve nutritional requirements, and increase incomes while conserving the environment.

#### 4 Hides and Skins

Hides and Skins are important byproducts from cattle and sheep and goats and for many years they have been the only significant foreign exchange earner from the livestock sector. Hides and Skins are also important raw materials for the tanning industry and for the manufacture of finished leather and leather products/goods such as shoes, hand bags, belts etc.

With an off-take rate of 10-15% for cattle, 28% for goats and 29% for sheep the potential annual production of raw materials is estimated at 2.8 million hides 3.8 goat skins and 1.0 sheep skins. Despite this huge hides and skins production potential, in practice, only relatively low recovery rates are realized amounting to 58 – 60 percent. **Annex 3(a & b)** shows hides and skins collection and export in Tanzania. For instance in the year 2006/07 a total of 1.98 million hides, 1.52 million goat skins and 1.22 million sheep skins were collected. Of these about 1.7 million hides, 1.05 million goat skins and 0.928 million sheep skins worth US\$ 13.0 million were exported, 80% being in raw form and 20% in semi processed form.

The most important constraint that impedes development of the sub-sector is poor quality of the hides and skins. The problem of quality caused by defects extends to each of the subsequent stages of processing of the leather. This calls for intervention options or 'damage control' as early as possible in the value chain meaning at the pre-slaughter stage. A notable recent intervention to revitalise the industry is the preparation and operationalisation of a leather development strategy which includes an imposition of a 20% export levy (increased to 40% recently) as a measure to discourage export of raw hides and skins and encourage local processing. Proceeds of this levy will be utilized to address problems in the whole supply chain and facilitate improvement of the quality of raw materials among others.

#### 5 Processing, marketing and consumption

Production of Livestock and livestock products in the country has mainly been for the domestic market. In order to facilitate the marketing of livestock and livestock products Tanzania has developed strategically domestic and export trade facilitating infrastructure. These include primary secondary and border markets, holding grounds, veterinary checkpoints and slaughter facilities including abattoirs. In addition there is a well-structured Veterinary Service that facilitates compliance with OIE and WTO/SPS measures.

With regard to livestock markets, there are over 300 primary, 13 secondary and 6 border markets in the country. While primary markets are run by respective district councils, border and secondary markets are under the Ministry. Currently only a few primary markets are functioning while most of them are in poor condition. Under the Tanzania Livestock Marketing Project activities implemented included rehabilitation of marketing infrastructures north of the central railway line. The infrastructures include 56: Livestock Markets, 13 holding grounds, 15 Veterinary check points, 90 night camps 890 kms of stock routes, 60 railway wagons, construction of the Dodoma Modern Abattoir and a Meat Industry Training centre currently operating under VETA. In addition a marketing information system was developed in collaboration with the Local Indigenous Technical Knowledge system (LINKS) Programme which generates marketing information for use by stakeholders. This programmes opeates in 14 primary secondary livestock markets. **Annex 4** gives addresses for use in accessing the marketing information.

Processing of livestock products in Tanzania is generally limited. To date production of meat in the rural areas as well as urban centres is carried out in slaughter slabs using simple and basic

facilities during slaughtering (with basically no cold storage) or in the few existing abattoirs. currently there are only 6 small scale meat processing plants and 7 modern abattoirs in the country **Annex 5** shows existing modern abattoirs in Tanzania.

Average annual slaughters include 1,500,000 cattle; 2,500,000 goats; and 550,000 sheep and the current per capita consumption of meat is 11 kg per year which is very low, compared to FAO recommendation of 50 kg.

Trade in livestock and livestock products has restarted but is still at an infant stage. Official exports of live animals to Comoro and Burundi in 2006/07 totalled 2,542 cattle and 1,852 goats valued at TShs 1.03 billion compared to 1,706 cattle and 800 goats valued at TShs 675.9 million in 2005/2006. Furthermore, 92 tonnes of meat (goat, sheep and cattle) worth TShs.352 million were exported to Kuwait, Oman and United Arab Emirates (Dubai) countries in 2006/2007 compared to 6.8 tonnes in 2005/2006. Apart from this official trade there is also a cross border informal trade in livestock and livestock products whereby approximately 300,000 heads of cattle are reported to cross into neighbouring countries (Kenya) informally annually. There is therefore a great need to strengthen monitoring of this trade in order to facilitate its formalisation.

Processing, marketing and consumption of quality meat and meat products is limited by inconsistent supply of quality animals, inadequate market information, inadequate research and training in meat technology, low awareness of consumers on meat quality and lack of capital for investment in meat processing plants. Due to these deficiencies, some commercial companies import meat and meat products into the country to supply to niche markets in tourist hotels, supermarkets and mining centres. There is need to collaborate with other stakeholders in promoting processing, marketing and consumption of quality meat and meat products in order to meet nutritional requirements and increase exports.

#### 6 Milk Production

In Tanzania milk production is mainly from cattle. Of the 18.8 million cattle found in the country about 560,000 are dairy cattle which consist of Friesian, Jersey, Ayrshire breeds and their crosses to the East African Zebu. The rest are indigenous cattle raised as dual purpose animals that is for milk and meat production Dairy goats are also gaining popularity as a source of milk particularity to the poor and their milk is normally consumed at household level.

About 70% of the annually produced milk comes from traditional sector (indigenous cows), whereas the commercial sector (dairy cows) produce about 30%. As already stated total annual milk production has increased from 585 million litres in 1995/96 to 1.426 billion litres in 2006/07. The increase in milk production from both indigenous and improved dairy cattle is mainly due to increase in herd size rather than in productivity per head (milking cow).

Currently, only a small proportion (10%) of marketable surplus of milk produced annually is filtering through, into the urban markets and processing plants. Remoteness and poor infrastructure constitute the largest bottlenecks to collection and marketing of milk. Thus the milk produced is mostly consumed locally and quite often a significant amount is left for the calves. However, some producers who depend on milk for their cash income are willing to exploit the available opportunity in marketing their produce, for example, Maasai herders who transport milk by bicycles over long distances, for sale at collection centres located along the Dar es salaam – Chalinze – Segera and Dar es Salaam – Chalinze – Morogoro – Dodoma highways.

Development of the dairy industry is limited by inadequate nutrition, support services and insufficient supply of dairy stocks. Other factors include inadequate financial credit and processing facilities, poorly organized marketing system, low consumption of milk and animal diseases. Specific shortcomings to dairy goats' development are their unavailability and inadequate knowledge on their husbandry.

The policy direction is to exploit available resources for market oriented dairying and further raise per capita consumption of milk from the present 40 litres to at least 80 litres. Potential for increased milk supply from rural areas still exists. To exploit it requires improved infrastructures such as milk collection centres, power supply, roads network and transport facilities.

Endeavours to increase milk production in the country have included research work in breeding including selection and crossbreeding leading to development of the Mpwapwa breed and animal nutrition. Development interventions have included direct importation of *exotic* dairy breeds for stocking large scale farms, Crossbreeding of Zebu cattle with *Bos taurus* European dairy breeds by Using both natural service and Artificial Insemination, necessitating establishment of the National Artificial Insemination Centre at Usa River Arusha.

In order to increase the supply of F<sub>1</sub> dairy heifers, heifer breeding units (HBUs) or Livestock Multiplication Units (LMUs) were established. Currently five LMUs (Kitulo, Ngerengere, Sao Hill, Nangaramo and Mabuki) have remained under the government for production of heifers. Furthermore introduction of the popular Heifer- in-trust (HIT) schemes pioneered by Heifer Project International and also promoted through programmes such as Tanga Dairy Development Project, Kagera livestock Development Project which later changed to regional Trusts (TADAT and KADADET respectively), Southern Highlands Dairy Development Project. After closure of these projects the HIT schemes are now managed by the farmers themselves through their Associations and Networks.

#### 7 Processing

Milk processing has undergone fundamental changes in recent years. From 1995, the seven dairy processing plants owned by Tanzania Dairies Ltd (TDL) were privatised in line with the market liberalisation policy. They had a total capacity to process about 370,000 litres per day. Following privatisation of the TDL milk processing plants, new plants have been constructed. They are mostly located in Tanga, Iringa, Dar es salaam, and Mara regions, bringing the total milk processing plants in Tanzania.

Presently most of the processing plants are working at less than 12% of the installed capacity, resulting in only 60,000 litres being processed per day. The low performance in milk processing makes the dairy industry uncompetitive in the region as shown by the rise in milk imports from 3,459 MT in 1997 to 7,111 MT in 2004 worth about US\$ 10 million. This level of imports shows that the demand for processed milk is grossly undersupplied. Reasons for this low performance include inadequate raw milk production (due to seasonality, milk being produced in small quantities and small scale milk producers being widely spread in remote areas) which increases milk collection and transportation costs , high cost of milk processing due to high cost of equipment, machinery, packaging materials and utilities. In addition to the poor infrastructure, high cost of doing business and low milk consumption levels also constrain milk processing.

#### Marketing and consumption

Official figures indicate that milk consumption in Tanzania has been increasing from 20.4 litres in 1995 to 39 litres to date. However, the levels are still low compared to other countries and the 200 litres recommended by FAO.

The cause for such a low consumption rate in Tanzania, among others, is attributed to low production, cultural beliefs and traditional taboos making people refrain from consuming milk. This has greatly limited expansion of the domestic milk market and development of the dairy industry in general. Since consumption of milk has a catalytic effect in improving levels of milk production and processing, it calls for concerted efforts in cultivating a habit of taking milk as food/ drink to people especially children hence the continued efforts in promoting milk consumption through annual milk consumption events such as annual milk week and school milk feeding programmes. **Annex 7** Shows Current School Milk Feeding Programmes in Tanzania.

#### 8 Investment Opportunities

The Livestock industry is among the lead sectors in the country with a lot of investment opportunities. This is supported by the existing conditions that favour investment within the industry. Some of the investment opportunities and the related and specific investment areas are as follows:

A large herd and diverse livestock resources and requirement of livestock and Animal health products give an opportunity for investment in:

Vaccine and other inputs manufacturing and distribution

Livestock products (Hides and skins, meat and milk)

Livestock services delivery (input supply, extension, research, publications)

Commercial pasture production and pasture seed multiplication and distribution

Artificial Insemination (AI) and embryo transfer (beef, dairy animals)

The available large land resource base, diverse and favorable climate and agro-ecological zones, which can support a wide range of livestock species and activities and geographical location of the country makes it accessible to potential markets and gives opportunity for investment in:

Ranching (Feedlots, beef and game ranching)

Livestock multiplication Units

Development of Marketing Infrastructure

Large scale livestock Farms (piggery, Poultry, Dairy, beef and aquaculture)

Furthermore, sustainability of the investments is made possible by availability of

Trained manpower and cheap labour in most fields of livestock production

A wide range of valuable Indigenous technical Knowledge (ITK) related to livestock production and Existing political and social stability.

#### 9 Conclusion

From the paper it is evident that the livestock industry is essential for the livelihood of the people. Potential for increasing production of livestock and livestock products exists. Increased investment in the sub sector will have a profound effect in the development of the industry and the economy as whole. Despite increase in production trends of livestock and livestock products in the country, performance of sub sector has continued to remain low, as the industry continues to be faced with challenges. As indicated in the livestock development vision the best option is modernization of the industry leading into its commercialization. Addressing important issues along the livestock commodities value chain will help to stimulate increased growth. The government has been taking positive measure to create an enabling environment to attract investment. It is high time that the other stakeholders particularly the private sector took up the challenge and a leading role in commercializing the industry for increased development of sub sector and the economy as a whole.

| Region      |            | Goats     | Sheep     | Pigs*     | Indigenous |
|-------------|------------|-----------|-----------|-----------|------------|
|             | Cattle     |           |           |           | chicken*   |
| Dodoma      | 807,711    | 696,349   | 121,371   | 43835     | 1,634,079  |
| Arusha**    | 1,523,238  | 1,795,227 | 717,620   | 58657     | 1,593,466  |
| Kilimanjaro | 603,401    | 609,975   | 267,612   | 155,070   | 1,356,781  |
| Tanga       | 309,262    | 320,156   | 81,798    | 6281      | 1,751,278  |
| Morogoro    | 114,172    | 305,734   | 57,661    | 44986     | 2,018,227  |
| Pwani       | 129,255    | 68,514    | 7,900     | 3673      | 1,254,145  |
| DSM         | 20,504     | 73,789    | 7,484     | 12993     | 182,449    |
| Lindi       | 6,630      | 102,325   | 8,075     | 4956      | 1,075,122  |
| Mtwara      | 22,811     | 262,959   | 22,986    | 6293      | 704,619    |
| Ruvuma      | 94,090     | 981,935   | 60,834    | 134951    | 1,536,330  |
| Iringa      | 1,201,434  | 361,320   | 98,672    | 180904    | 2,045,274  |
| Mbeya       | 845,652    | 371289    | 71,251    | 229,465   | 2,493,796  |
| Singida     | 1,810,098  | 1236046   | 454,995   | 6,375     | 1643973    |
| Tabora      | 1,817,236  | 910469    | 247,448   | 6,286     | 2498191    |
| Rukwa       | 411,467    | 252501    | 13,111    | 58,754    | 1,114,556  |
| Kigoma      | 129,713    | 477610    | 43,068    | 23,698    | 785308     |
| Shinyanga   | 3,818,106  | 2083659   | 833,743   | 3,266     | 2935380    |
| Kagera      | 840,978    | 862221    | 64,354    | 145,761   | 905549     |
| Mwanza      | 2,186,821  | 875890    | 167,031   | 610       | 2580891    |
| Mara        | 1,285,959  | 658268    | 195,397   | 2,409     | 1505422    |
| Total       | 18,755,254 | 13330238  | 3,556,423 | 1,129,223 | 32,559,208 |
|             |            |           |           |           |            |

Annex 1: Livestock population in Tanzania by species and region

Source : MLD 2006/2007

\* National Sample Census of Agriculture 2002/2003

\*\*Includes Arusha and Manyara

| S/No | Regions       | Name                 | Capacity (No. of    |
|------|---------------|----------------------|---------------------|
|      |               |                      | chicks for 3 weeks) |
| 1    | DAR ES SALAAM | Amadori/Pollo-Italia | 160,000             |
|      |               | Interchick           | 240,000             |
|      |               | Twiga Hatcheies      | 120,000             |
|      |               | Ideal Chiks          | 274,050             |
| 2    | COAST         | Kibaha E. C          | 180,000             |
|      |               | Ruvu KJT             | 30,000              |
|      |               | Kiluvya Poultry      | 153,000             |
|      |               | Products             |                     |
|      |               | Mkuza Chicks         | 150,000             |
|      |               | Tomato               | 9,000               |
| 3    | ARUSHA        | Tanzania Poultry     | 180,000             |
|      |               | Farms                |                     |
| 4    | KILIMANJARO   | Kilacha              | 30,000              |
|      |               | Kibo Hatcheries      | 60,000              |
| 5.   | IRINGA        | CEFA/Matembwe -      | 30,000              |
|      |               | Njombe               |                     |

#### Annex 2: Shows the hatching capacity of existing hatcheries in Tanzania

#### Annex 3: HIDES AND SKINS COLLECTION AND EXPORTS 2001/02-2006/07

| (a)  | CC  | DLLECTIONS   |  |  |
|--|---|--|--|--|
| Year   | Hides   | Goat skins   | Sheep skins  | Tshs.'000  |
| 2001/2002<br>2002/2003<br>2003/2004<br>2004/2005<br>2005/2006<br>2006/2007 | 1,400,000<br>1,400,000<br>1,600,000<br>1,600,000<br>1,660,000<br>1,979710 | 700,000<br>800,000<br>1,200,000<br>1,500,000<br>1,400,000<br>1,517,364 | 350,000<br>460,000<br>650,000<br>750,160<br>950,000<br>1,216,920 | 4,500,000<br>5,500,000<br>6,500,000<br>5,500,000<br>6,800,000<br>8,700,000 |
| 20007/08*  | 2,300,000   | 1,700,000  | 1,400,000  | 10,500,000   |

| (b)  |   | EXPORTS  |  |   |
|--|---|--|--|---|
| 2001/2002<br>2002/2003<br>2003/2004<br>2004/2005<br>2005/2006<br>2006/2007 | 1,200,000<br>1,300,000<br>1,774,000<br>1,400,000<br>1,363,721<br>1,705720 | 511,700<br>600,000<br>1,431,000<br>1,200,000<br>1,216,740<br>1,055,364 | 165,000<br>300,000<br>488,000<br>597,155<br>861,770<br>925,530 | 4,000,000<br>4,600,000<br>5,712,000<br>4,025,400<br>7, 500,000<br>16, 183,210 |
| 2007/2008*   | 2, 000,000  | 1, 500,000   | 1,2000,000   | 18,000,000  |

\*Projections 2007/08

Source : MLD 2007/08

# Annex. 4: Livestock Markets involved in the marketing information network and their codes

| No. | Markets      | Location    |            | Code | Address  | Phone No.  |
|-----|--------------|-------------|------------|------|----------|------------|
|     |              | Region      | District   | NO.  |          |            |
| 1   | Pugu         | Dar es      | Ilala      | dar  | mk r dar |            |
|     |              | Salaam      |            |      |          |            |
| 2   | Kizota       | Dodoma      | Dodoma     | dom  | mk r dom |            |
|     |              |             | Manispaa   |      |          |            |
| 3   | Korogwe      | Tanga       | Korogwe    | tan  | mk r tan |            |
| 4   | Weruweru     | Kilimanjaro | Hai        | msh  | mk r msh |            |
| 5   | Meserani     | Arusha      | Monduli    | aru  | mk r aru |            |
| 6   | Nasa         | Mwanza      | Magu       | mza  | mk r mza |            |
| 7   | Lugodalutali | Iringa      | Mufindi    | iri  | mk r iri | 0787441555 |
| 8   | Ulemo        | Singida     | Kiomboi    | sgd  | mk r sgd |            |
| 9   | Kiliamatundu | Rukwa       | Sumbawanga | sda  | mk r sda |            |
| 10  | Mkongeni     | Morogoro    | Mvomero    | mor  | mk r mor |            |
| 11  | Igunga       | Tabora      | Igunga     | igu  | mk r igu |            |
| 12  | Kiabakari    | Mara        | Bunda      | msm  | mk r     |            |
|     |              |             |            |      | msm      |            |
| 13  | Mhunze       | Shinyanga   | Kishapu    | shy  | mk r shy |            |
| 14  | Mbuyuni      | Mbeya       | Chunya     | mby  | mk r mby |            |

Source: MLD 2007/08

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| Name                | Region        | Cattle | Shoats | Chickens |
|---------------------|---------------|--------|--------|----------|
| Dodoma Abattoirs    | Dodoma        | 220    | 200    |          |
| Sakina Arusha       | Arusha        | 500    |        |          |
| Tanzania Pride Meat | Morogoro      | 200    |        |          |
| SAAFI               | Sumbwawanga   | 150    |        |          |
| Mkuza Abattoir      | Coast         |        |        | V        |
| Interchick          | Dar es Salaam |        |        | V        |
| *Triple S           | Shinyanga     |        |        |          |

Annex 5: Modern Abattoirs in Tanzania and their daily capacities

\*Recently Privatizad Source .. MLD 2007/08

# ANNEXES

# Annex 6: Status of Milk Processing Plants in Tanzania

| No. | Location      | Plant name                   | Current status  | Installed          | Current    | Capacity    |
|-----|---------------|------------------------------|-----------------|--------------------|------------|-------------|
|     |               |                              |                 | capacity (lts/day) | production | Utilisation |
|     |               |                              |                 |                    | (lts/day)  | (Its/day)   |
| 1   | Dar es Salaam | Royal Dairy Products Ltd     | Prod. suspended | 90,000             | 0          | 0           |
| 3   |               | Azam Dairy                   | Operating       | 3000               |            |             |
| 4   |               | Tommy Dairy                  | Prod. suspended | 15000              | 0          | 0           |
| 5   |               | Tan Dairies                  | Operating       | 15000              | 4000       | 27          |
| 6   | Tanga         | Azania Dairies Ltd (Ex TDL)  | Operating       | 12,000             | 6000       | 50          |
| 7   |               | Tanga Fresh                  | Operating       | 15000              | 14000      | 80          |
| 8   |               | Morani                       | Operating       | 5000               | 1000       | 30          |
| 9   | Arusha        | Ex TDL New Northern          | Operating       | 45000              | 2500       | 16          |
|     |               | Creameries                   |                 |                    |            |             |
| 10  |               | International Dairy Products | Operating       | 5000               | 1200       | 24          |
| 11  |               | Arusha Dairy Company         | Operating       | 5000               | 2000       | 40          |
| 12  | Kilimanjaro   | Nronga Women                 | Operating       | 5000               | 2000       | 40          |
| 13  |               | West Kilimamnjaro            | Operating       | 1000               | 300        | 30          |
| 14  |               | Mboreni Women                | Operating       | 1000               | 200        | 20          |
| 15  |               | Marukeni                     | Operating       | 1000               | 200        | 20          |
| 16  |               | Ng'uni Women                 | Operating       | 1000               | 200        | 20          |
| 17  |               | Kalali Women                 | Operating       | 1000               | 280        | 28          |
| 18  | Mara          | Ex TDL Musoma Dairy          | Closed          | 45000              |            | 0           |
| 19  |               | Ex TDL Utegi Plant           | Closed          | 45000              |            | 0           |
| 20  |               | Baraki Sisters               | Operating       | 3000               | 2500       | 80          |

| 21 |                  | New Mara Milk             | Operating          | 8000    | 4500   | 33 |
|----|------------------|---------------------------|--------------------|---------|--------|----|
| 22 | Mwanza           | Victoria Dairy (Kishimba) | Closed             | 45000   |        | 0  |
| 23 |                  | Lake Side                 | Closed             | 5000    |        | 0  |
| 24 | Kagera           | Kagera Milk (KADEFA)      | Operating          | 3000    | 350    | 12 |
| 25 |                  | Kyaka Milk Plant          | Operating          | 1000    | 450    | 45 |
| 26 |                  | Del Foods                 | Operating          | 1000    | 250    | 25 |
| 27 |                  | Mini Dairies (several)    | Operating          | 1800    | 1500   | 83 |
| 28 | Morogoro         | SUA                       | Closed             | 3000    |        | 0  |
| 29 |                  | Shambani Graduates        | Operating          | 700     | 250    | 36 |
| 30 | Tabora           | Ex TDL plant              | Closed             | 5000    |        | 0  |
| 31 | Coast            | Mojata                    | Closed             | 6000    |        | 0  |
| 32 | Iringa           | ASAS Dairy                | Operating          | 12000   | 5500   | 70 |
| 33 |                  | CEFA Njombe Milk Factory  | Operating          | 2,000   | 650    | 33 |
| 34 | Mbeya            | Ex TDL plant              | Closed/dismantl ed | 16000   |        | 0  |
| 35 |                  | Mbeya Maziwa              | Operating          | 1000    | 500    | 50 |
|    | Several micro-da | airies in the country     | Operating          | 83,500  | 8350   | 11 |
|    | TOTAL            |                           |                    | 407,500 | 59,515 | 27 |

Source: MLD 2007, Rapid survey

| Annex 6: Current School Milk Feeding Programmes in Tanzania |
|---|
|---|

| SN.   | Region/District                        | Schools                           | Number<br>of pupils | Executor                                      | Funding  |
|-------|--|-----------------------------------|---------------------|---|--|
| 1     | Kilimanjaro:<br>- Hai<br>- Moshi Rural | 7 primary<br>3 Kindergarten       | 7,030               | Fukeni Mini Dairy Plant                       | Processors, Parents, and<br>Peach Software Ltd Co<br>(Australia) |
| 2     |  | 3 primary                         |                     | Nronga Women Dairy Cooperative<br>Society Ltd | Processors, Parents, and<br>Peach Software Ltd Co<br>(Australia) |
| 3     |  | 10 primary                        |                     | Kalali Women Dairy Cooperative<br>Society Ltd | Processors, and Panges<br>Omnus (Italy)                          |
| 4     | Tanga:<br>Tanga                        | 6 primary<br>3 Secondary<br>1 TTC | 2,490               | Tanga Fresh Ltd                               | Processors and Parents   |
| 5     | Iringa:<br>Njombe                      | 6 primary                         | 1,960               | CEFA Milk Factory                             | CEFA (Italia) and parents  |
| 6     | Arusha:<br>Arusha Urban                | 3 primary                         | 1,405               | Nronga Women Dairy Cooperative<br>Society Ltd | Processors and Parents   |
| Total |  | 39                                | 12,985              |   | 1  |

Source: MLD 2007, Rapid survey