Structure of the dairy industry in the Comesa and EAC regions
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According to FAO data (FAOSTAT 2004), production of fresh cow milk in Comesa (Common Market for Eastern and Southern Africa) and East Africa Community (EAC) countries stood at 12 million metric tons in 2003 (see Table 1 for a complete list of Comesa and EAC countries’ production of fresh milk for the period 1997-2003). There was an increase of 20% from 10 million metric tons in 1997. As evidenced in Figure 1 below, there was a steady growth over the entire period.

FIGURE 1: Total milk production (Comesa and EAC)

The key producing countries are Sudan, Kenya, Egypt, Ethiopia, Tanzania, Uganda, Madagascar and Zimbabwe. These countries account for 97% of the region’s total milk production.

The following country briefs illustrate the processes behind milk production and the development of the sector in each of the sample countries. One of the major findings is that, on average, over 80% of milk in the region is produced by smallholder farmers, and that an effort has been made, through the reforming of the sector, to adapt to new farming systems. This trend is also a reflection of the dairy sector development initiatives or programmes aimed at promoting milk production and consumption, as well as policy reforms being undertaken in various countries to meet the ever-increasing milk demand.

For example, the dairy sector in Zambia has seen an increase in milk production from smallholders due to projects sponsored by Zambia Agricultural Technical Assistance Centre (ZATAAC), FAO, Plan Zambia, Land O’Lakes and GTZ. In Ethiopia, the growth of the sector has partly been attributed to improved policy environment and a shift from command to market economy. The latter has created opportunities for private sector investment in the sector. The growth in milk production is also a reflection of the milk production potential that exists in these countries, if they focus on a strong dairy development push and improved marketing efficiency.

Ethiopia
In Ethiopia, milk production from cows is estimated at 1.5 million tons per year. It is produced from the indigenous cattle kept in smallholdings for traction. Essentially, they are located in villages or single farms spread out in the rural areas with very poor communication infrastructure. Utilisation may be for home consumption or processing to obtain butter and other products for sales at primary markets for the family’s cash needs. The bulk of the milk is processed into butter, as this is the most popular dairy product in Ethiopia. 95% of the national milk production is marketed through informal channels and is unprocessed.

Tanzania
The Tanzanian dairy industry is still in its infancy. The bulk of the milk produced in the country originates from the traditional cattle herds, and is consumed at household level with very little reaching the commercial market. The traditional and commercial...
### ARTICLE

**TABLE 1: Principal milk producing countries in Comesa and EAC (including countries sampled for the current study despite their low milk production level) in tons (1 000 l)**

<table>
<thead>
<tr>
<th>Country</th>
<th>2003</th>
<th>1997-2003 total</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angola</td>
<td>195 000</td>
<td>1 336 000</td>
<td>1,72</td>
</tr>
<tr>
<td>Egypt</td>
<td>1 900 000</td>
<td>11 581 536</td>
<td>14,94</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>1 450 000</td>
<td>8 492 820</td>
<td>10,96</td>
</tr>
<tr>
<td>Kenya</td>
<td>2 700 000</td>
<td>16 909 500</td>
<td>21,81</td>
</tr>
<tr>
<td>Madagascar</td>
<td>535 000</td>
<td>3 715 000</td>
<td>4,79</td>
</tr>
<tr>
<td>Malawi</td>
<td>35 000</td>
<td>240 000</td>
<td>0,31</td>
</tr>
<tr>
<td>Mauritius</td>
<td>4 000</td>
<td>33 200</td>
<td>0,04</td>
</tr>
<tr>
<td>Sudan</td>
<td>3 264 000</td>
<td>21 768 000</td>
<td>28,08</td>
</tr>
<tr>
<td>Rwanda</td>
<td>97 981</td>
<td>437 971</td>
<td>0,56</td>
</tr>
<tr>
<td>Tanzania</td>
<td>835 000</td>
<td>5 151 000</td>
<td>6,64</td>
</tr>
<tr>
<td>Uganda</td>
<td>700 000</td>
<td>3 893 400</td>
<td>5,02</td>
</tr>
<tr>
<td>Zambia</td>
<td>64 200</td>
<td>433 800</td>
<td>0,56</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>280 000</td>
<td>2 050 000</td>
<td>2,64</td>
</tr>
<tr>
<td>Others</td>
<td>218 910</td>
<td>1 480 140</td>
<td>1,91</td>
</tr>
<tr>
<td>Grand total</td>
<td>12 279 091</td>
<td>77 522 367</td>
<td>100,00</td>
</tr>
</tbody>
</table>


Dairy sector respectively has approximately 17,5 million and 435 000 dairy cattle, producing 600 million and 400 million litres of milk per year. Over the last two decades, total milk production has increased at the rate of about 2,8% per year, largely due to increases in cattle population rather than increases in productivity.

The supply of milk and milk products is inadequate to meet demand, particularly in urban areas. In an attempt to meet the demand for milk, the country imports considerable quantities of dairy products, notably dry skimmed milk powder and butter oil to partially bridge the gap. Most of these have been donations from the World Food Programme (WFP) and the European Economic Community (EEC).

**Kenya**

Dairy production in Kenya lies predominantly in smallholdings. Market-oriented dairy farming based on exotic cattle, dates back to the first decade of the 20th century, when European settlers introduced dairy cattle breeds and other exotic forms of agriculture.

Improved dairy cattle production by indigenous Kenyans only began after the Swynnerton Plan of 1954, which allowed them to engage in commercial agriculture. By 1963, when Kenya attained independence, the dairy herd had increased to about 400 000 exotic cattle, largely in the hands of the settlers.

The development of Kenya’s dairy sector has been steered by a number of legislations, complete with the implementing agencies and regulatory bodies, which together constitute the regulatory framework, other than the direct policy pronouncements.

Several factors, including the presence of significant dairy cattle populations, the historical importance of milk in the diets of most Kenyan communities, a suitable climate for dairy cattle and a conducive, policy and institutional environment, have contributed to the success of dairy production by smallholders in Kenya.

Small-scale producers dominate dairy production, owning over 80% of the 3,3 million dairy cattle, producing 56% of the total milk production...
and contributing 80% of the marketed milk.

The major types of cattle reared for milk production are the improved exotic breeds and their crosses (collectively called ‘dairy cattle’) and the indigenous (Zebu) cattle, which provide milk for communities in the drier parts of the country.

On-farm consumption (non-marketed milk) accounts for about 45% of total milk production, while the remaining 55% is marketed through various channels. About 15% of marketed milk flows through milk processors, which include Brookside, Spin Knit, Premier, KCC and other smaller private processors.

“In Ethiopia, milk production from cows is estimated at 1,5 million tons per year. It is produced from the indigenous cattle kept in smallholdings for traction”

Zambia

Zambia’s dairy sector is characterised by three categories of milk producers, namely commercial farmers, traditional/smallholder dairy farmers and emergent dairy farmers, with a cattle population of 2.5 million in 2003.

Smallholder dairy farmers’ contribution is about 40% of all the marketed milk, 70% is supplied by large-scale commercial and emergent farmers. In total, all these farmers produce approximately 190 million litres of milk per year, compared to the country’s total milk requirement of 253 million litres of milk per year. This yields a milk deficit, which renders Zambia to import about 25% of its milk requirement.

Malawi

The total cattle herd of Malawi is estimated at around 800 000, mostly Malawi Zebu for beef production. The dairy herd only comprises of an estimated 12 000 head. Currently, there are an estimated 4 000 smallholder dairy farmers in the formal sector and around five medium or large-scale producers. Total formal milk production is estimated at 6 500 metric tons, based on information from the processors and the Milk Bulking Groups (MBGs). Around 80% of this is produced in the Blantyre milk shed area (MSA) in the southern region.

Intensive smallholder dairy production in Malawi commenced in 1969. Processing plants were installed in Blantyre (1969), Lilongwe (1973) and Mzuzu (1974) to collect and process milk and meet growing urban demand. This activity was organised by government under Malawi Milk Marketing (MMM). Farmers were organised into milk producer groups (MPGs) to operate collection and checking centres.

In 1985, under a structural adjustment programme, the MMM was reorganised and a statutory body, Malawi Dairy Industries (MDI), took over the three MMM dairy plants and three dairy farms, and were given the mandate to operate on commercial lines.

The MDI served as a treasury fund with the overall purpose of improving and multiplying livestock for the production of milk and the manufacturing, processing and distributing of milk products. In 1997 the three MDI factories and farms were privatised, representing a significant change from government to private sector control of the dairy industry. Since that time two new private investors started up in the dairy industry. In the meantime, various other small dairy plants have commenced operation as well.

Mauritius

As of September 2003, the cattle population was 6 963. Dairy farming is predominantly smallholder, where it is done as a part-time activity, to augment income from cane farming or other economic activities. Annual milk production is estimated at 4 000 metric tons per year.

Milk production has been on the decline in the past three decades, leading to the present situation where the country’s milk production is only 5% of its requirement. Among the factors behind the decline is competition from reconstituted milk from imported milk powder. As a result, imported dairy products ended up being much cheaper than domestic products.

The liberalisation of dairy products and removal of customs tariffs on almost all dairy products caused an additional upsurge in the importation
of these products. Australia and New Zealand are the main suppliers of dairy products to Mauritius. Australia holds over 60% of the country’s market share. Other countries such as South Africa, the United Kingdom and France are also significant suppliers of dairy products to Mauritius.

**Uganda**

Milk production in Uganda is estimated at about one million metric tons per year. About 90% of production is accounted for by smallholder farmers, with animals ranging from 1 to 40 in number. The national herd, which is estimated to be 6.3 million cattle, is predominantly indigenous cattle with some cross and exotic breeds forming 5% of the total herd population.

Dairy production takes place under any of the following four categories of farming systems:
- Communal grazing (pastoral grazing on communal land owned by the clan)
- Free range grazing (grazing of cattle by moving them all over the farm)
- Fenced grazing (grazing of cattle in paddocks or/and feeding them with concentrates)
- Zero grazing (the cow is fed exclusively on concentrates, no grazing).

**Rwanda**

Livestock production is one of the major agricultural activities and livestock plays a very important role in the socio-economic activities of the country. It contributed 5.3% of country’s GDP in 1997. It also serves as a source of animal protein in the form of milk and other dairy products, meat for humans, manure, income, savings and has other non-monetary, but important social functions, especially for cattle, including prestige and payment of bride price.

Smallholder milk producers – mainly keeping traditional and crossbred cattle – collectively own 95% of the cattle in Rwanda. The rest comprises of exotic breeds on commercial dairy farms in and around Kigali City. Most traditional cattle are found in the Umutara province, while the Gitarama province has the highest concentration of crossbred cattle.

According to the available information, Rwanda produces about 56,000 tons of milk, which satisfies only 17% of the population’s needs. On the other hand, the estimated total milk requirements for the country are 500,000 tons per year. There is therefore a deficit of 444,000 tons per year. Until 1999, this shortfall was covered by importation of raw and processed milk from Uganda. In addition, substantial amounts of milk powder are also imported into the country.

In more recent years the government took measures to prohibit the importation of raw milk, at the same time encouraging importation of improved breeds of cattle from Europe and recently South Africa.

Although statistics are not available, these measures have led to an increase in milk volume on the market. However, the volume of imported powder milk and other milk products is still high and may hinder the development of the nascent dairy industry in Rwanda if appropriate measures are not taken to control its wide importation.

**Conclusion**

The future of the region’s trade development heavily relies on the production of milk. The constraints faced by this level value chain have a direct bearing on future prospects for export development. While this paper does not go deep into issues on production constraints and strategies that would help mitigate these constraints, it merely presents a summary of the constraints for purposes of appreciating the challenges of milk production in the region.

This is an extract from Regional Dairy Policy Study Conducted by RATES (Regional Agricultural Trade Expansion Support) Project in 2004.

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