

Corporate Leadership in Dairy Industry (Case of Kenya Dairy Board)

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A Conceptual Research on the Dairy Industry in Kenya

Abstract

The corporate leadership in Kenya Dairy Board is dormant in ensuring linkages between the Government and Public Private Partnership benefits the farmer, small scale milk processors instead leaving big timers in dairy industry to dominate. The recent trend has been towards big processors embarking in buying-out small milk processors. Brookside is on record to have bought-out Ilara Dairy, Spin Knit Dairy, Buzeki Dairy and its tactical disposal of 40% shareholding in favour of Banone Company of France. The dairy industry is headed for a monopoly in milk processing if the current trend is anything to go by. This is taking root despite Kippra clearly stating that the sector is un-exploited hence the Government should take this advantage of the poverty-reducing potential of livestock sub-sector. Recommendations over years on ways to revitalize the dairy industry with a view to empower the producer have never been implemented fully including the lukewarm participation of the market regulator KDB and the Government. The Government has been keen to privatise KCC, which will give private milk processors a leverage to continue dictating the terms of trade in the industry. There is a lot of emphasis on marketing activities of milk products where the farmer has no say or input. This is due to the fact that farmers are not directly involved in what happens after they struggle to deliver milk to the buyer. Kenya Cooperative Creameries (KCC) role in conjunction with KDB is not clear. The researcher will investigate corporate leadership in Kenya Dairy Board towards growth of dairy industry. KDB should demonstrate leadership in ensuring a level playing field for the farmer, small and big processor, in cost of inputs and services offered by professional in livestock sub-sector. The general objective of the study is to investigate corporate leadership in dairy industry (case of Kenya Dairy Board). Specific objectives are cost of production, quality of milk, infrastructure in dairy farming areas, informal milk trade and competition among milk processors. The target population are small, medium, large dairy farmers in central Kenya region. The milk processors in central Kenya composing of all sizes. The role of the Government, KDB and KCC, should be investigated with a view to bring the farmer into the picture concerning the returns on the efforts they make in the dairy industry. Concerning cost of production, volatility in milk and feed prices is a challenge to dairy farmers, cost to produce milk differ significantly- the range is from 4 to 128 USD per 100 kg milk, annual benchmarking a part of strategic dairy development is extremely important to benchmark the competitiveness of the current dairy farming system annually. Quality of milk is affected by post harvest losses, public health risk, lack of cooling system (cold chain). Tui, (2010), found that farmers are not aware of regulations governing the dairy sector. Strengthening farmer and stakeholder groups will empower them to lobby for services such as credit, education, milk cooling facilities, roads or piped water all of which will improve the quality and quantity of milk. Infrastructure in milk producing areas, (SDCP) appraisal report recognizes that poor rural infrastructure is a main constraint to economic development of rural areas in Kenya. Informal milk trade resulted from problems in the formal milk trade. According to RDCoE, this compromises quality while offering direct competition to dairy processing industry. Competition in milk processing has indications that the dairy industry is headed to a monopolistic tendencies. Brookside already owns 60% of dairy industry. It is projected that in the next 5 years, barriers to entry will emerge and coming in of international brands into the sector through a buy-out of existing dairies to tap into the Eastern Africa market. The Government, KDB, KCC, informal traders, hawkers, transporters, cooperatives and processors are all involved directly in dairy industry. The KDB should play its role rightfully to regulate the sector and the farmer be considered as central to all who eke a living out of dairy farming. The researchers have continued to dwell on almost similar challenges in the dairy sector and the buck stops with the regulator for want of implementation. KDB is hence expected to exhibit leadership in handling of the sector. The Government on recommendations of the KDB should address issues of legislation; infrastructure (road rehabilitation and upgrade) and the regulator take up the rest of infrastructural development. All other stakeholders are recommended to exert necessary pressure with the producers (dairy farmer) interest at the centre. The Government is urged to actualize the School milk program as contained in its manifesto to reduce wastage estimated as worth ksh. 9 billion each year.

Keywords: Corporate leadership, Dairy industry, Kenya

Acronyms

CDF	Constituency Development Fund
DCA	Dairy Commercialization Area
FAO	Food and Agricultural Organization
GDFP	Good Dairy Farming Practices
GDP	Gross Domestic Product
IFCN	International Farm Comparison Network
ILRI	International Livestock Research Institute
KCC	Kenya Cooperative Creameries
KDB	Kenya Dairy Board
LATF	Local Authority Transfer Fund
MOLD	Ministry of Livestock Development
NGO	Non Governmental Organization
ODI	Overseas Development Institute
SDCP	Smallholder Dairy Commercialization Programme
SDP	Smallholder Dairy Project
SSMVs	Small-scale Milk Vendors
RDCoE	Regional Centre of Excellence
UNCTAD	United Nations Commission on Trade and Development
USD	United States Dollar
USAID	United States Agency for International Development

1.0 INTRODUCTION

1.1 Background

The activities of dairy industry began long time ago. Our forefathers before colonization were roaming freely in the land grazing their cattle, sheep and goats for meat, milk, hides and skin. When the colonialist came to partition Africa continent they choose fertile and climatically favorable sections of the countries for rearing grade cattle for milk and meat. After Kenya attained independence in 1963, few Africans acquired farms left by the returning white settlers. The Government also incorporated Kenya Dairy Board and KCC to cater for all producers in the sector. According to Karanja (2003), in 1992 the dairy industry was liberalized opening doors for private investors.

In a report by (KDB, 2004), they listed the following as the functions of Kenya Dairy Board:

1. Organize, regulate and develop the efficient production, distribution and supply, marketing of dairy produce, having regard to the various types of dairy produce required by different class of consumers.
2. In collaboration with the relevant institutions, make regulations governing appropriate quality standards for milk and dairy products.
3. Promote, undertake and coordinate research, extension and training in dairy and related industry.
4. Advise the government on aspects deemed to be in need of policy and legislative attention and other measures for improved management of the Dairy Industry
5. Permit and promote private enterprise and efficiency in the dairy industry.

A report by (FAO, 2013), projected World milk production to grow by 1.9 percent to 780 million tones – a similar rate to that in previous years. Asia and Latin America and the Caribbean were expected to account for most of the increase, with only limited growth elsewhere. World trade in dairy products was projected to decrease by 0.9 percent in 2013 to 53.0 million tonnes of milk equivalent amid supply limitations. This compares with an annual average increase of 7 percent in the previous four years. Asia has remained the main market for dairy products, accounting for some 55 percent of world imports, followed by Africa, with 15 percent.

FAO went ahead and showed that in Latin America and the Caribbean, a number of significant milk powder importing countries, including Venezuela, Cuba, Colombia, Brazil and Peru, may also see purchases constrained by high prices. By contrast, imports by the Russian Federation are anticipated to increase, stimulated by strong demand for butter and skimmed milk powder according to FAO.

Research by (IFCN, 2013) which has been analysing dairy farm economics since the year 2000 found out that;

Very volatile milk and feed prices – a challenge for dairy farming .

Via standardised world milk and feed prices, IFCN tracks the overall farm economic situation for dairy farming. The IFCN developed an indicator “margin over compound feed costs” which is a significant improvement compared to the often used milk : feed price ratio. By using this margin, it becomes visible how much of a threat dairy farmers face in a situation like in summer 2012, when milk prices fell and feed prices increased. Within 8

months, this situation changed considerably and dairy farm economics improved significantly, especially in countries where the high world market prices of milk were transmitted by local dairies to farmer milk prices.

a) Costs to produce milk differs significantly

The range is from 4 to 128 USD per 100 kg milk Based on the IFCN, cost comparison, 178 typical farms in 51 countries were analyzed. The simple average cost over all countries analyzed was 46 USD/100 kg milk. From 2000 – 2012, cost of milk production increased in all countries analyzed. As the IFCN had analyzed typical dairy farms since the year 2000, a time series analysis was possible. The results show that costs in a specific country can double or triple within 3-6 years. This is especially the case for countries like Poland, China, New Zealand where the value of the currency has significantly strengthened to the USD and farm input price like land, feed, and labour have increased significantly.

Cost of milk production in China is estimated at 50% above the level in US and Germany. An extreme case was observed in China where dairy farming highly depends on purchased feed according to IFCN. In addition, China had the strongest increase in salaries and an appreciation of the currency of 24%. The combined effect of these factors drove the costs in China to about 50% above the level in US and Germany.

b) Annual benchmarking a part of strategic dairy development and milk sourcing .

In times of significant change in dairy related output prices, farm input prices and exchange rates it is extremely important to benchmark the competitiveness of the current dairy farming system annually. Competitiveness means in this sense costs competitive on the market for dairy products and also competitive on the local market for production factors especially land and labour. Such benchmarking exercises enable all dairy stakeholders to see and react faster to threats, but even more to anticipate opportunities which will arise.

FAO, (2013) report indicates prices of dairy products remained at elevated levels, substantially above a year earlier due to limited availability of produce for export. The international market for milk products is exposed to sudden changes in milk production and availability of milk products, in particular, as public financed inventories are at minimal levels in the EU and the United States, and almost non-existent elsewhere.

According to (Nishide, 2012 cited in IFCN, 2013) analysis, milk yield globally ranges from 650 – 11 000 kg / cow per year: Milk yield on the typical average sized farms studied varied between low milk yields on the Cameroonian farm of 650 kg/cow per year, up to more than 11 000 kg/cow per year on the US farm (Sample average = 5900 kg/cow per year).

The IFCN developed a milk price indicator which converts the dairy commodity prices of the world markets into a hypothetical price per kg milk. Before 2007 we had a level on the world market US\$20 now this has moved to a level of ca. US\$40. The volatile is huge +/- 20 around mean. In July, 2012 prices were on a level of US\$50 or 38 euro/100 kg milk. IFCN observe that with a delay of 1-6 months the world market prices very rapidly affects the national milk prices in almost every country. Actually this world price is much more important than the supply and demand balance within the country.

According to (FAO, 2013), in Africa, a moderate increase in milk output is anticipated for 2013, assisted by generally favourable weather conditions. Expansion in output is anticipated for Algeria, Morocco and Uganda, where government policies in support of dairy development and an expansion of processing capacity have contributed to the increase. In Africa, elevated international prices are projected to reduce imports as a whole. The principal importers that may be affected are Nigeria, Libya and South Africa. For East Africa overall, adequate rainfall has promoted pasture growth. In Kenya, outbreaks of foot- and-mouth disease in central and northern parts of the country have had a negative impact on production.

According to USAID-supported Kenya Dairy Sector Competitiveness Program, (2013) the dairy sector in Kenya contributes 14 percent of agricultural GDP and four percent of overall GDP, and is growing by five percent or more each year. USAID-supported Kenya Dairy Sector Competitiveness Program has been collaborating with the Government of Kenya to help produce a National Dairy Master Plan with the objective of achieving a seven percent annual rate of growth in the sector.

Of the total milk produced, about 60% is marketed through traders, cooperatives, hotels and kiosks. An estimated 84% of the milk produced is sold in raw form to consumers ranging from rural to urban dwellers, according to the Regional Dairy Centre of Excellence (RDCoE). Kenya’s total milk production is estimated to be about 5 billion litres annually.

Table 1: Milk sold through the formal channels in Kenya

Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Quantities, mln ltrs	197.3	274.1	339.5	360.2	423.1	398.5	406.5	515.7	549.0	495.2

Kenya’s volume of milk processed per year through the formal channels has grown more than 150% in the decade to 2013. Source: KDB

Kenya exports substantial quantities of milk products to the region and internationally into Asia and North Africa. These products include long life milk, milk powder and ghee. The quantity of milk and milk products exported rose from 100,000kg in 2001 to 10.9 million kilogrammes in 2008, according to KDB. KDB, avers that dairy imports, specifically from New Zealand and the European Union have gone down over time as Kenya becomes increasingly more self-sufficient in milk and milk products. Imported products include butter, cheese, milk powder, ice cream and cream. Challenges in the dairy industry are expected to enable the government, development partners and stakeholders to prioritize initiatives aimed at revitalizing the dairy industry in line with Government's policy to speed up the revival of the ailing economy, poverty alleviation and pledge to provide jobs according to KDB.

1.2 Statement of the Problem

The corporate leadership in Kenya Dairy Board lucustre in ensuring linkages between the Government and Public Private Partnership benefits the farmer, small scale milk processors instead leaving big timers in dairy industry to dominate. A dairy farmer and a small milk processor today is highly exploited through sources of milk, pricing of raw and processed milk ,marketing , and inputs to dairy farming. The farmer is highly vulnerable to fixation of prices of inputs by manufacturers. Cost of services from professionals in livestock sub-sector is unfavorable to most farmers. Payment for milk deliveries take more than a month and at times farmers loose it all together. There is also an unavailability of cooling equipment to cater for overproduction during some periods of the year. Instead what is happening is a situation where the milk processors with big muscle, enjoying economies of scale are locking out the rest through zoning of milk collection areas, and buying milk cheaply for storage in coolers. The recent trend has been towards big processors embarking in buying off small milk processors. Brookside is on record to have bought-out Ilara Dairy, Spin Knit Dairy, Buzeki Dairy and its tactical disposal of 40% shareholding in favour of Banone Company of France. The dairy industry is headed for a monopoly in milk processing if the current trend is anything to go by. This is taking root despite Kippra clearly stating that the sector is un- exploited. The Government should take this advantage of the poverty- reducing potential of livestock sub-sector. Recommendations over years on ways to revitalize the dairy industry with a view to empower the producer have never been implemented fully including the lukewarm participation of the market regulator KDB and the Government. The Government has been keen to privatise KCC, which will give private milk processors a leverage to continue dictating the terms of trade in the industry. There is a lot of emphasis on marketing activities of milk products where the farmer has no say or input. This is due to the fact the farmers are not directly involved in what happens after they struggle to deliver milk to the buyer due to poor infrastructure in producing areas. Kenya Cooperative Creameries (KCC) role in conjunction with KDB is not clear.

The researcher would be keen to investigate corporate leadership in Kenya Dairy Board towards growth of dairy industry, and corporate leadership practices exhibited . KDB should demonstrate leadership in ensuring a level playing field for the farmer, and small and big processor, in cost of inputs and services offered by professional in livestock sub- sector.

1.3 Objectives of the Study

The general objective of the study is to analyze corporate leadership in dairy industry (case of Kenya Dairy Board).

Specific objectives

- a. To establish impact cost of production has on growth of dairy industry.
- b. To find out how quality of milk has affected the growth of dairy industry.
- c. To establish how infrastructure impact the growth of dairy industry.
- d. To find out impact of informal milk trade in growth of dairy industry.
- e. To find out how competition among milk processors impact growth of dairy industry.

1.4 Research Questions

1. Does the cost of production impact the growth of dairy industry?
2. Does quality of milk affects growth of dairy industry?
3. Does the state of infrastructure impact growth of dairy industry?
4. Does informal milk trade affect growth of dairy industry?
5. Does competition among milk processors impact dairy industry?

1.5 Justification

We begin by outlining the functions of Kenya Dairy Board:

1. Organise, regulate and develop the efficient production, distribution and supply, marketing of dairy produce, having regard to the various types of dairy produce required by different class of consumers.

2. In collaboration with the relevant institutions, make regulations governing appropriate quality standards for milk and dairy products.
3. Promote, undertake and coordinate research, extension and training in dairy and related industry.
4. Advise the government on aspects deemed to be in need of policy and legislative attention and other measures for improved management of the Dairy Industry
5. Permit and promote private enterprise and efficiency in the dairy industry.

A close look at the functions shows that the role of Kenya Dairy Board is not having the desired impact on the ground. Indeed the continued exploitation of dairy farmers openly by brokers, hawkers, cooperatives and processors while the KDB mandate is to check these excesses reinforces the urgency of analyzing corporate leadership in KDB. In the final analysis farmers will reap the benefits, and other stakeholders will play their respective roles effectively. All other government agencies will learn in being proactive in their respective areas.

1.6 Scope

The study will involve farmers in Central region, and KDB, KCC, MOLD and KCC roles in dairy industry in the region. The study on corporate leadership (independent variable) as effects on dairy industry (dependent variable). The leadership style exhibited by KDB will be scrutinized through collection of data, analyzing and get results on cost of production, quality of milk, infrastructure in milk producing areas, informal milk trade and competition in milk processing .

2.0 LITERATURE REVIEW

2.1 INTRODUCTION

The researcher will review literature with a view to demonstrate the theoretical review and empirical review relating to corporate leadership in dairy industry. A conceptual framework involving the variables explaining the phenomenon under study will drawn. Dairy industry began long time ago. In the story of creation in Genesis we read of the promises given to Abraham by God that the land God will give him will be flowing with milk and honey. Our forefathers before colonization were roaming freely in the land grazing their cattle ,sheep and goats for meat, milk , hides and skin. When the colonialist came to partition Africa continent they choose fertile and climatically favourable sections of the countries for rearing grade cattle for milk and meat. After independence in Kenya 1963, few Africans acquired farms left by the returning white settlers. The Government also incorporated Kenya Dairy Board and KCC to cater for small holder dairy farmers.

2.2 Theoretical Review/Conceptual Framework

Production Theory

According to this theory explains the relationship between inputs and output. It also explains under what conditions costs increase or decrease; how total output behaves when units of one factor (input) are increased keeping other factors constant, or when all factors are simultaneously increased ; how can output be maximized from a given quantity of resources ; and how can the optimum size of output be determined?

Economic Theory

Although Economic Theory requests that quality rather than value be used, we use this in value terms in order to determine earnings from milk production.

The purchasing power parity (PPP) Theory of exchange rate.

The relative value of different currencies correspond to the relation between the real purchasing power of each currency in its own country.

Ricardian Theory of Comparative Advantage.

So long as the countries have comparative advantage in the production of commodities, specialization and trade between them would always be possible and advantageous to all of them

Empirical Review.

2.21 Cost of production

According to research work of (IFCN, 2013) which has been analysing dairy farm economics since the year 2000, they found out the following:

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Costs to produce milk differ significantly – the range is from 4 to 128 USD per 100 kg milk. Based on the IFCN cost comparison, 178 typical farms in 51 countries were analyzed. The simple average cost over all countries analyzed was 46 USD/100 kg milk. From 2000 – 2012, cost of milk production increased in all countries analysed. As the IFCN has analysed typical dairy farms since the year 2000, a time series analysis was possible. The results show that costs in a specific country can double or triple within 3-6 years. This is especially the case for countries like Poland, China, New Zealand where the value of the currency has significantly strengthened to the USD and farm input price like land, feed, and labour have increased significantly. Cost of milk production in China is estimated 50% above the level in US and Germany. An extreme case was observed in China where dairy farming highly depends on purchased feed. In addition, China had the strongest increase in salaries and an appreciation of the currency of 24%. The combined effect of these factors drove the costs in China to about 50% above the level in US and Germany.

Annual benchmarking a part of strategic dairy development and milk sourcing.

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According to a report (USAID, 2010), Kenya Dairy Sector Competitiveness Program released in 2010; High costs of production – The very nature of the dairy industry in Kenya, which is 70% in the hands of small-scale producers, and a highly fragmented processing side, makes the cost of production at the farm and at the dairy plants to be higher than that in more formal markets. The cost of production is affected by high prices for animal feeds, inputs and electricity and due to poor infrastructure, poor animal husbandry practices, lack of formal milk markets in some areas and lack of credit to farmers and processors.

KDB, (2012), found out that despite the seemingly rosy scenario in the market participation, numerous problems and challenges continue to bedevil the dairy industry among then cost of inputs. The KDB would consult with Agricultural Finance Corporation and Kenya Farmers Association on ways and means to easily and cheaply extend to producers and milk traders credit facilities.

**2.22 Quality of Milk
Post Harvest Losses.**

A (FAO, 2011), study on post-harvest milk losses (food losses) in Kenya noted that they are highest at the farm level (Muriuki, 2003). Losses at the farm level are a result of spillage, lack of market and rejection at market. Rejection at market is a result of poor handling and the time taken to reach markets (long distances and bad roads). Rejections are higher during the wet season, when production is high and roads are impassable. In some areas, it is possible to market only the morning milk, which creates a major constraint to increasing production as producer households are forced to consume the afternoon/evening milk themselves, and in some periods part of it is wasted. Increasing competition may be reducing the forced consumption and throwing away of milk. Losses at the farm level can be more than 6 percent of total production, which means that at current production levels, national annual losses may reach 60 million kg (or about US\$19 million at US\$0.31/kg).

Public Health Risk.

Owing to the large amount of milk that is marketed unprocessed, and to weak monitoring of the market, public health risks are a concern. The main public health concern is the potential risk of diseases such as brucellosis and tuberculosis (TB). Drug residues are also of concern, even in the processed milk channel. An SDP study found the bacteriological quality of informally traded milk to be low, with variable prevalence levels of brucellosis and zoonosis TB. However, the study also noted that virtually all consumers boil the milk before consumption, so the risks of infection from bacterial health hazards are determined to be low.

Lack of Cooling System (cold chain).

FAO, (2011) further pointed out that another major concern is the lack of a cooling system (cold chain), particularly in the informal market (but also in the formal sector to some degree). It is usually the extra costs incurred by cooling that discourage the use of coolers. In the past, coolers were provided to societies/groups, but their utilization was very low. Cooling is attractive where a premium price is paid for cooled milk. Another milk safety issue that is receiving increasing attention is traceability, particularly for the export market. According to KDB, “The Kenya dairy industry does its utmost to supply products that meet all its customers’ expectations, high quality, healthy and safe”. This is the ideal situation, however, and only applies to the formal milk value chain, especially the processed milk channel. Milk safety is enforced through food safety standards and regulations, the main ones of which are the Dairy Industry Act (CAP 336) and the Public Health Act (CAP 242). However there are many other laws that affect dairy activities and the milk trade. FAO, (2011), pointed out there are more than 20 standards for milk and dairy products in Kenya and efforts are being made to harmonize standards across the East Africa region. The whole milk standard has been replaced by the raw cows’ milk

standard.

The small size of many dairy enterprises/farms prevents economies of scale, and is best overcome by building farmers' collective capacity according to (FAO, 2011). There is a general shortage of well-trained and updated personnel in the whole value chain. This can be addressed by establishing new or strengthening existing dairy institutions, such as Naivasha Dairy Training Institute (NDTI), to focus on capacity building in the dairy industry. At the farm level, longstanding issues include the poor quality and high cost of inputs and services, poor terms of trade and hence low prices for milk, and poor access to information and markets. At the market level, challenges include the quality and safety of milk, owing to the high proportion of raw milk channelled through the market; the cost of milk collection, transportation and distribution, due to poor infrastructure; and under-utilization of processors' capacity, owing to the higher demand for liquid milk than for high-value products.

USAID (2010) pointed out that the quality of milk delivered to the dairies is a big challenge for the dairy processors. Poor milking practices, a fragmented small-scale dairy farming system and lack of cooling and storage facilities at the farm provide huge challenges to the farmers' ability to meet the specifications of the dairies, resulting in poor quality milk to the dairies.

USAID further points out that the poor quality milk reduces the acceptability, shelf life of the processed milk and has affected the ability of the dairies to export to some export markets. Tied to this is the problem of adulteration of milk by unscrupulous farmers and traders who add various chemicals and water to increase quantities delivered to dairies. The cost of testing and associated quality control infrastructure is a costly undertaking taken by dairies to ensure they can receive milk they can process.

According to KDB, it is in line with that desire that it convened a forum to organize milk traders in groups and train them on hygienic procedures of milk handling. In order to revitalize the sector, KDB and other stake holders were to strengthen the role of quality assurance in the development of the sector.

Tuei (2010) explains that regulation in the dairy industry targets the small scale producers and milk traders with the aim of ensuring that they meet requirements for milk quality control. Tuei assessed the challenges and the benefits accrued to on farm clean milk production and the level to which farmers were aware of regulations governing the dairy sector. The farmers were producers of milk only and possessed no milk bar licenses, public health licenses, business producer licenses nor single business licenses. They had little knowledge of laws regulating dairying with 40% identifying Kenya Dairy Board (KDB) as law enforcers, 20% as law enforcers and educators while 40% had no knowledge of their mandate. Farmers adopt hygienic milk production and handling if the practices are cost effective and simple to understand. Those who carried out milk production, disease control and facility hygiene were 55% while 21.1% tested for mastitis and another 22.9% able to keep the zero grazing units clean. Information on milk quality control was acquired from extension workers from the Ministry of Livestock development by 52% of the producers, 36% from the veterinary department of the same ministry and 12% through seminars. In order to improve milk quality from smallholder farms there is need to avail new designs of tanks for small amounts of milk, affordable, stable and well suited for public mode of transport. Strengthening farmer and stakeholder groups will empower them to lobby for services such as credit, education, milk cooling facilities, roads or piped water all of which will improve the quantity and quality of product milk.

Good Dairy Farming Practices (GDFP, 2010) is a practical tool box used world-wide to enhance smallholder competitiveness in producing and marketing of safe, quality milk and milk products. A cross-sectional study was carried out to determine the status of GDFP on zero-grazing small scale farms in Limuru District in Central Highlands of Kenya between July and September 2009. Forty farms in two clusters of twenty farms marketing milk through the formal and informal market respectively were randomly selected and an observational checklist used to compare five parameters: animal health and use of veterinary medicines; animal housing conditions; animal feeding and watering; milking hygiene; and manure management. The results of formal vs. informal market were: 60%:70% of farms reported mastitis as a common disease; 5%:0% kept records of medicines used; 45%:30% cattle housing had concrete floor; 85%:45% use tap water; 20%:15% use good quality feeds; 30%:20% have undergone training on hygienic milk production; 60%:50% had good manure management; while 25%:20% kept records on farm enterprise. There were no statistically significant differences ($p > 0.05$) in management practices between farmers in the two clusters except for the source of water ($p < 0.05$) and quality of feeds ($p < 0.05$). However, there was a positive correlation ($p < 0.05$) between the farmer's level of education and quality of feeds fed to dairy cattle. Overall, the status of Good Dairy Farming Practices was found to be unsatisfactory. The prevailing situation could have far-reaching implications on the dairy value chain with regard to trade in regional and international markets. It is recommended that a special focus on building the capacity of small-scale farmers on use of GDFP is required to enhance the quality of milk and dairy products along the chain.

2.23 Infrastructure in milk producing areas.

SDCP/Publix Africa, (March, 2010), observed that the Smallholder Dairy Commercialization Programme (SDCP) appraisal report recognises the fact that poor rural infrastructure is one of the main constraints to economic development of rural areas in Kenya. This study addresses improvement of rural infrastructure within the programme area. The approach employed to conduct the study was that of a baseline, taking an inventory of the rural infrastructure status quo for each DCA separately.

SDCP/Publix Africa avers that rural roads are an important sector in rural development, which deals in all aspects of development including agriculture, health, education, forestry, fisheries, small-scale industries, trade, commerce that depends on good communication. A rural transportation network will give shape to the living environment of villagers; rather roads of rural transportation are the connectivity elements in our society. Rural road connectivity is not only the key component of Rural Development in Africa, it is also recognized as an effective poverty reduction measure. Improved accessibility to all quarters of a village and the external markets is an indispensable prerequisite for the provision of adequate living conditions in rural areas. The absence of roads in rural areas leads to stagnation of socio-economic conditions of the villagers.

Findings and Conclusions

In its findings SDCP/Publix Africa found out that the majority of the DCAs are not on trunk roads and the minor roads feeding the dairy production areas are in a pitiable state. The road surfaces are muddy and impassable during the wet season, the drainage systems are broken down or never been constructed and small access roads are overgrown with bush. A few DCAs have prepared proposals to the Community Development Fund but the majority have so far not been able to access funding from the CDF the LATF or any other funding agency for their minor roads, village tracks, paths and footbridges. The SDCP effort should be directed at facilitating the DCA committees to access the funds and the CDF, LATF and other funding agencies to appreciate the urgency of the need of these areas.

According to SDCP/Publix Africa, besides roads, rural life must be supported by a reliable water supply and sanitation for good hygiene and healthy living – free of disease. Availability of water for domestic, livestock and irrigation uses propels the industry forwards, making it possible for the industry to command good profits and ensure a sustained favoured position among competing farm enterprises. Water is supplied from rivers/streams, springs, wells, boreholes and piped network systems (PNS). Rivers are drying up because of deforestation of the catchment, planting of eucalyptus trees and encroachment of agriculture and human built-up settlement on their banks. Most springs are unimproved and their flows are also dwindling. Shallow wells need slabs for protection and pumps for raising water. They are the single most important source of domestic and livestock water but its quality is not guaranteed and the water table is fast declining. There are very few boreholes and in most areas they are not a practical option because of lack of electricity. Other than for DCAs that extend into urbanised areas, PNS are non-existent or have long broken down and stopped working. The overall situation is dire and requires quick targeted action.

According to SDCP/Publix Africa also found that rural energy plays a key role in rural development and in dairy production and marketing in particular. The study established the sources of energy used in the DCAs and the prospects for the future. The farming community in Kenya is hungry for information and in particular real time information such as price; availability of markets, inputs and services; and extension data that may guide it in using optimal methods of production. With the drive towards e- government, the country now enjoys widespread use of modern communication facilities including the cellular telephone. This data is captured for all the DCAs. In many areas, internet service is unavailable.

According to SDCP/Publix Africa, Kenya's smallholder rural business depends also to a great extent on good governance of people institutions that can ensure organised and efficient marketing of agricultural produce and the exploitation of economies of scale in purchase of farm inputs. These include dairy and other produce marketing groups as well as cooperative societies and unions. Governance has been treated in this report as a key structure in the improvement of dairy related rural livelihoods. Institutions are weak, opaque and inefficient meaning that they have to be overhauled for them to benefit the farmer.

To complete the physical infrastructure picture, a section deals with accessibility of financial services in the DCAs according to SDCP/Publix Africa. These are vital stimulants to rural business helping farmers to access investment (cows, farm infrastructure etc.) and inputs. Though not normally given its rightful weight, consumptive credit is always an integral need of poor rural communities wherever they may be. Many banks and financial institutions operate in the DCAs rendering savings and credit services of diverse real value.

The dairy marketing and processing infrastructure that covers dairy producing areas eases the drudgery and reduces the expense of having to travel long distances to the processing facilities. This too was considered as an important part of rural infrastructure.

SDCP/Publix Africa, report finally characterises the dairy production systems and comments on the milk value chain particularly with respect to the milk losses due to inaccessibility of the market and the constraints to production due to inadequacy of business development services. In many instances, the milk losses

due to inaccessibility of the market as a result of poor infrastructure are below 10 of the marketable volume which is about 50% of the daily production that averages about 4 litres per household. This loss is only experienced in a very short period of the year and is not alarming. However, there are other losses and unnecessary costs that are caused by poor road infrastructure that make it a priority to be addressed. These are inaccessibility of farm inputs and time spent and costs incurred to obtain household supplies from far away market centres.

Analysis of the losses due to poor infrastructure has three aspects to it: first, the actual loss of milk which cannot be delivered due to poor roads; second the loss of milk due to poor hygiene and rejection once it is delivered to the collection centre; and finally the loss of the farmer's productive time while searching for water, firewood, feeds, veterinary services and other essentials that are required for production and home use but are not readily available. Losses were assessed from the standpoint of milk not reaching the market as a result of poor road infrastructure and it was shown that a total of 2,686,847 litres of milk worth KShs 53,736,940 are lost per year in all the 27 DCAs in the nine programme districts. With improved infrastructure, it is possible to substantially reduce this loss.

The study by SDCP/Publix (Africa) Ltd, (March, 2010. P.3) has shown that most of the rural infrastructure in the programme districts is in a poor condition. As a result there are heavy losses of milk and productive farmers' time. It is therefore recommended that a study be conducted to assess the condition of the infrastructure with a view to prioritising it for rehabilitation.

An FAO,(2011), study on post-harvest milk losses (food losses) in Kenya noted that they are highest at the farm level (Muriuki, 2003). Rejections are higher during the wet season, when production is high and roads are impassable. Poor infrastructure – Generally, milk producing areas tend to have poor infrastructure in terms of roads, electricity especially during the rainy season. The infrastructure challenge extends to the lack of milk handling and storage facilities at the farm level, leading to milk spoilage and loss at the farm. On the processing side, despite recent investments by the major dairies and co-operatives, infrastructural challenges remain, with limited capacities of dairies to convert excess milk into long life products and limited storage at the dairies.

According to KDB, Poor infrastructure – poor roads, high cost of electricity and lack of telephone facility have impacted of milk producers hence escalating cost of production and delay in delivery to the market. The small size of many dairy enterprises/farms prevents economies of scale, and is best overcome by building farm-ers' collective capacity. At the market level, challenges include the quality and safety of milk, owing to the high proportion of raw milk channelled through the market; the cost of milk collection, transportation and distribution, due to poor infrastructure; and under-utilization of processors' capacity, owing to the higher demand for liquid milk than for high-value products.

2.24 Informal milk trade

The problems in the formal milk market caused growth of the informal market, which penetrated the urban centres previously dominated by the formal trade. Informal milk trade – According to RDCoE, 60% of the milk is marketed through traders, cooperatives, hotels and kiosks. An estimated 84% of the milk produced is sold in raw form to consumers, providing instant cash or higher prices to the farmer. This compromises product quality while offering direct competition to the dairy processing industry. Despite the Government actively discouraging selling of 'hawked' milk, the sector continues to grow with grave consequences to the processing sector.

In Kenya, traditional milk markets from small-scale farmers through small-scale milk vendors (SSMVs) supply over 85% of the market, selling cheaper milk for poor consumers and giving better prices for farmers. Yet previous policies did not reflect the needs of the majority of farmers, traders and consumers. This was reflected in harassment and rent-seeking as the larger powerful players, linked to those in authority, sought to increase their small market share. The Kenya Dairy Board (KDB) relied on a western model of processing and packaging of milk, actively discouraging SSMVs and acting as 'policemen', trying to stamp them out.

According to RDCoE (2004), there has been a major change in policy and practice towards the informal milk market. A newly drafted Dairy Policy clearly acknowledges the role of SSMVs, with specific measures including development of low-cost appropriate technologies, training on safe milk handling, provision of incentives for improved milk handling and establishment of a supportive certification system. Whilst written policy change is still in progress, the changed attitude and behaviour of policy implementers has been noticeable for some time now, reflected in changes in the market. There is proactive engagement by the KDB in training and certification of SSMVs, in order to safeguard public health and assure quality, rather than by trying to stamp it out.

ILRI and ODA (2006), conducted extensive participatory socio-economic, policy and technical research to understand the constraints affecting Kenya's milk market, before implementing a strategy to influence policy reform towards a more conducive system for small-scale farmers and traders. A range of stakeholders came together, facilitated by the project, representing public, private and civil society organisations. ILRI and ODA, drew on its comprehensive research outputs to demonstrate novel institutional approaches and appropriate

technology for quality assurance to safeguard both public health and the livelihoods of the poor who depend on the market.

ILRI and ODA case study highlighted a ‘tipping point’ in changes in attitudes leading to the behaviour change and ultimately the policy change. This occurred in early 2004, following a campaign for ‘Safe Milk’ led by large scale processors and the KDB. Reaction to this campaign by a coalition of advocacy NGOs using SDP evidence, in support of the SSMVs and livelihoods of farmers and consumers, led to the ‘Milk Wars’, largely conducted in the media. This opened the way for the key evidence to be taken on board by policy makers, under pressure from grass roots organizations arguing for the same changes. However this change was enabled by several years of communication of relevant evidence by SDP, challenging attitudes with evidence that had previously been absent.

It was widely acknowledged that SDP’s activities had been the major influence on the policy change, and the reasons for included:

- a. Highly effective long-term collaboration, producing robust, relevant evidence to make a credible story.
- b. Consistent communication of this evidence to a wide range of stakeholders using a range of different materials and means.
- c. A political environment providing opportunities for change –government strategies and freedom for civil society organisations.
- d. Awareness of the political context and effective links with advocacy-focused NGOs.
- e. Wide ranging linkages so that evidence could feed into the policy process via several routes – direct to policy makers in meetings, to public through media, through NGOs.

Key lessons

- 1) Effective collaboration can be a combination of long-term relationships and tactical use of new linkages. But this involves significant time investment.
- 2) Robust, credible evidence is hugely important in controversial environments. SDP evidence stood up to concerted efforts to discredit it.
- 3) Flexibility of projects to change activities to new, relevant areas helps to respond to policy priorities and opportunities.
- 4) External pressure and support from donors to focus on policy and livelihoods can help turn research outputs into policy outcomes.
- 5) Multiple approaches to communicate evidence and influence key people are more effective than just a few.
- 6) Approaches and messages that appeal to the personal incentives of key policy makers also increase likelihood of influence. The evidence is only one pressure on such people.

2.25 Competition in milk processing

According to (Wokabi, 2014), a major shift is expected after Danone buy-in at market leader Brookside. The entry of French firm Danone into Kenya through the acquisition of a 40 per cent stake in Brookside, the country’s biggest milk processor, is likely to cause a significant change in the local dairy sector landscape.

The firm, which deals in fresh dairy products, early life nutrition, water, and medical nutrition, it has entered into a deal to acquire shareholding in Brookside as it seeks to expand its operations in Africa according to Wokabi (2014). The manner of its entry gives Danone control a major share of the growing local and regional market for dairy products without having to start from scratch. The Paris-listed company has been actively exploring opportunities to extend its footprint on the continent, and the partnership with Brookside will be beneficial as it targets a share of the East African market.

Wokabi (2014) further notes that Brookside already has a presence in Tanzania, Uganda and Ethiopia, and there has been talk of the company launching operations in Rwanda and Nigeria. Last year, Danone bought a 49 per cent stake in Fan Milk International, a frozen dairy products and juice maker in West Africa, as well as a controlling interest in Morocco’s top dairy firm, Centrale Laitiere. The Kenyatta family, which previously held a 90 per cent stake in the milk processor, will now control 50 per cent, with the Dubai equity firm Abraaj Group retaining 10 per cent. Abraaj’s Africa Fund bought the stake in 2009 for Sh1.6 billion.

In dairy industry locally, the deal will be a big boost to Brookside Dairy’s ongoing expansion and will help it tighten its grip on the Kenyan market according to (Wokabi, 2014). Experts expect that the processor will ride on the financial muscle and the extensive experience of Danone to increase production and execute growth strategies. Brookside has been on an expansion drive over the past year that has seen it buy out rival processors, making it as the dominant player in the dairy products market. Last year, Brookside acquired Buzeki Dairy, the producers of Molo Milk, in a deal estimated to be worth at Sh1.2 billion. It had previously acquired other local dairy brands including Ilara, Tuzo and Delamare. The acquisition of Buzeki automatically gave Brookside a presence in South Sudan, thereby enlarging its regional reach. The processor currently controls over 44 per cent

share of the dairy products in the Kenyan market.

As part of its growth plan, Brookside has put up a Sh3 billion milk powder plant, expected to double the capacity of milk processed at the plant to 2.4 million litres daily. In uniting Danone’s international expertise in fresh dairy products with Brookside’s regional expertise and robust supply chain, the partnership will enable Brookside’s growth acceleration by expanding its product portfolio and strengthening its geographical presence in key markets in the East African region, including Uganda and Tanzania (Wokabi, 2014).

The dairy sector in Kenya is increasingly moving towards consolidation, with Brookside Dairy leading the way with several buy-outs in the last few years. The push towards consolidation is led by the increasing need for processors to own the process of milk sourcing from the farm to the factory and the challenge of procuring, distributing and accessing retail space in the major outlets. It should also be mentioned that the dairy sector is progressively becoming a heavy investment industry, with the smaller players getting crowded out by the bigger players who have access to internal and external sources of funds.

Wokabi (2014), wrote that it is projected that in the next 5 years, processors will erect barriers to entry that new entrants will find hard to crack, and which will lead to more of the medium players being bought out as the sector consolidates further. There is also the lurking possibility of one or two international brands coming into the sector through a buy-out of the existing dairies to tap into the Eastern African market. This has already taken place the acquisition of 40% stake in Brookside by Danone Company of France.

According to (Wokabi, 2014), there are concerns about the impact on the local dairy industry and Kenyan dairy farmers if Brookside entrenches its market dominance. By buying out its competitors, Brookside has limited farmers’ choice of where to sell their milk. Brookside’s biggest competitor is state-owned New KCC which lacks the financial muscle to battle it out in the market in terms of prices. This could leave Brookside with the prerogative of setting milk prices, for both farmers and end consumers.

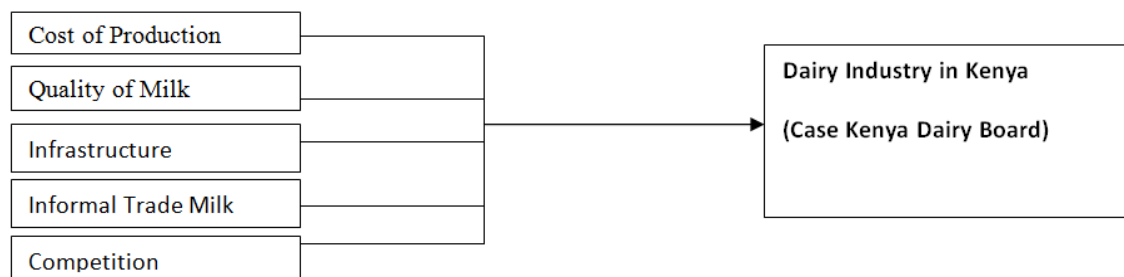


Fig. 1: Conceptual Framework

2.3 Critique of the existing literature relevant to the Study

The dairy industry is headed for a monopoly in milk processing if the current trend is anything to go by. In the entire literature reviewed most of it has recommendation over years which have never been implemented including from the market regulator, Kenya Dairy Board (KDB). There is a lot of emphasis on marketing activities of milk products where the farmer has no say or input. This is due to the fact the farmers are not directly involved in what happens after they deliver milk to the buyer. Kenya Cooperative Creameries (KCC) role in conjunction with KDB is lukewarm.

All the literature reviewed showed disparities in the population of dairy cattle in Kenya. They relied on estimate including KDB and the MOLD. The contribution of dairy industry to GDP is also not confirmed with FAO, KDB, MOLD, and USAID quoting different percentages such as 30%, 30%, 14% and 60% respectively hindering necessary intervention in the sector.

FAO relies on information and data from KDB, instead of the latter using it to better the dairy sector. In shows how our reliance and trust in anything foreign is entrenched possibly with donor funding in mind.

2.4 Summary

The role of the Government, KDB and KCC should be investigated with a view to bring the farmer into the picture concerning the returns on the efforts they make in the dairy industry.

2.5 Research Gaps

The role and leadership of KDB and KCC has not been shown clearly. Consolidation at higher level of national, regional, continental and global should be viewed from the point of view of participation and benefits of the producer. Value addition as opposed to consumption of raw milk should be emphasized. The studies seems to be comfortable with 85% of consumption being raw milk. The farmer’s interest have not been well articulated and addressed.

3.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

3.1 Introduction

The functions of the KDB as enumerated below are very noble but most instances exist only in paper. The Government year in year out has programmes and activities meant to sustain and grow the dairy sector to great height. There is a mismatch between policy(ies) and reality on the ground. The farmer is not getting due treatment and care from the Government, KDB, Processors, Distributors, Hawkers, NGO's. The researchers both local and foreign do a good work with valuable recommendations but all these gather dust on the selves of various stakeholders expected to implement them. Year in year out, more resources are directed towards research and development but we are not witnessing tangible and real value additions neither are we seeing farmers reaping the sweat of their labour.

3.2 Summary.

The role of the Government, KDB and KCC, should be investigated with a view to bring the farmer into the picture concerning the returns on the efforts they make in the dairy industry. FAO, (2013) had projected world milk production to grow by 1.9 per cent 780 tonnes a similar rate to that in previous years. Asia and Latin America and Caribbean were expected to account for most of the increase with only limited growth elsewhere. In Africa FAO, (2013), A moderate increase is anticipated for 2013. Expansion in output is anticipated in Algeria, Morocco and Uganda where government policies in support of dairy development and expansion of processing capacity have contributed to increase. In Kenya, occasional outbreaks of livestock diseases like foot-and-mouth have had a negative effect on production.

3.21 Cost of production

Volatility in milk and feed prices is a challenge to dairy farmers. IFCN, (2012) using an indicator "margin over compound feed costs" found out the threat dairy farmers face in situations when milk prices fall and food prices increase. In a short time the prices shoot once again benefitting countries where high world market prices are transmitted to local dairies to farmer milk prices.

Cost to produce milk differ significantly- the range is from 4 to 128 USD per 100 kg milk. Based on IFCN, cost in a specific country can double or triple within 3-6 years. This is the case for countries where currency has significantly strengthened against the USD and farm input price like land, feed, and labour have increased significantly.

Annual benchmarking a part of strategic dairy development and milk sourcing

According to IFCN, due to changes in dairy related output, farm input prices and exchange rates it is extremely important to benchmark the competitiveness of the current dairy farming system annually. Here we have competitiveness for production factors especially land and labour.

According to (USAID, 2010), high cost of production is synonymous with dairy industry in Kenya which is 70% in the hands of small-scale producers, and a highly fragmented processing side. The cost of production is affected by high prices for animal feeds, inputs and electricity and due to poor infrastructure, poor animal husbandry practices, lack of formal milk markets in some areas and lack of credit to farmers and processors. KDB, (2012) agreed with finding of most researchers and on the part of credit to dairy farmers indicated they will consult AFC and KFA.

3.22 Quality of milk

Post harvest losses.

FAO, (2010), study on post harvest losses in Kenya noted that they are the highest at farm level, (Muriuki, 2003). Rejection at market is one of the losses resulting due to poor handling and time taken to reach the market (long distances and bad roads). Losses at farm level can be 6% of total production, which means that at the current production levels, national annual losses may reach 60 million kg (or about US\$19 million at US\$0.31/kg).

Public health risk

FAO noted also that due to large amount of milk marketed unprocessed, to weak monitoring of the market, public health risks are a concern.

Lack of cooling system (cold chain)

FAO, (2012), there is generally lack of cooling system particularly in the informal market and formal sector to some degree. Extra cost of cooling discourages many but where there is a premium price cooling is attractive. KDB ensure the formal milk handlers meet the customer expectations.

According to (USAID, 2010), poor milking practices, fragmented small-scale dairy farming system and lack of cooling and store range facilities at the farm provide huge challenges to farmers' ability to meet specifications of the dairies, resulting in poor quality milk to dairies. In order to revitalize the sector, KDB and other stakeholders will strengthen the role of quality assurance in the development of the sector.

Tuei, (2010), found that farmers are not aware of regulations governing the dairy sector. Tuei noted that there is need to avail new designs of tanks for small amount of milk, affordable, stable and well suited for public mode of transport. Strengthening farmer and stakeholder groups will empower them to lobby for services such as credit, education, milk cooling facilities, roads or piped water all of which will improve the quality and quantity of milk.

A cross-sectional study of GDFP found out that overall the status of Good Dairy Farming Practices was found to be unsatisfactory. It was recommended that a special focus on building the capacity of small-scale farmers on use of GDFP is required to enhance quality of milk and dairy products along the chain.

3.23 Infrastructure in milk producing areas.

Publix Africa, (2010), observed that Smaller Dairy Commercialization Programme (SDCP) appraisal report recognizes that poor rural infrastructure is a main constraints to economic development of rural areas in Kenya. The results found that majority of the DCAs are not on trunk roads and the minor roads feeding the dairy production areas are in a pitiable state. There is no reliable rural water supply, no real time information, dairy and cooperatives and other rural institutions are weak, opaque, and inefficient requiring total overhaul. Public Africa therefore recommends a study be conducted to assess the condition of the infrastructure with a view to prioritizing it for rehabilitation.

3.24 Informal milk trade.

Problems in the formal milk trade caused the growth of informal market which penetrated the urban centres which was previously dominated by the formal market. According to RDCoE, this compromises quality while offering direct completion to dairy processing industry. In Kenya SSMVs supply over 85% of the market, selling cheaper milk to poor consumers and giving better prices to farmers.

A research and development project, (2004) highlighted the changes in attitude leading to the behaviour change and ultimately the policy. The campaign for “Safe Milk” led by KDB and large processors on one hand and the NGOs using the SDP evidence led to “milk wars”. This opened the way for the key evidence to be taken on board by policy makers, under pressure from the grass roots organizations of relevant evidence by SDP, challenging attitudes with evidence that had previously been absent.

3.25 Competition in milk processing

All indications are that the dairy industry is headed to a monopolistic tendencies. Brookside recently sold 40% stake to a French company, (Wokabi, 2014), This will continue to with Brookside consolidating its foot hood by buying off other processors. It is projected that in the next 5 years, barriers to entry will emerge and coming in of international brands into the sector through a buy-out of existing dairies to tap into the Eastern Africa market.

3.3 Conclusions

The empirical review the writer has done shows that cost of production, quality of milk, infrastructure in milk producing areas, informal milk trade and competition in milk processing are real challenges key to well being of the dairy sector. When adequately addressed the benefits will trickle down to farmers who buoyed by high returns will enhance production capacity.

All of these issues should be addressed through a combination of training, information dissemination and policy that creates an enabling environment for honest trade and robust regulations. The quality and availability of dairy information continue to be challenges. The need for clearer policy and legal instruments is also unsatisfied, despite the many years and capital invested in developing and formulating these instruments and the government’s declared commitment to reforming the regulatory environment. Most of the challenges in the dairy industry need to be addressed – first and foremost – through a clear and enabling policy and legal environment developed through an effective consultative process. Industry stakeholders should be properly consulted and own the resulting consultative outputs.

It is worthwhile to take cognizance the reality, small scale farmers and the informal milk traders are too entrenched in the dairy industry to be ignored. The work of NGOs and SDCP should awaken the policy makers going forward in coming up with practical, real solutions to challenges bedeviling the dairy industry.

3.4 Recommendations

The Government, KDB, KCC, informal traders, hawkers, transporters, cooperatives and processors are also involved directly in dairy industry. The KDB should play its role rightfully to regulate the sector and the farmer be considered as central to all who eke a living out of dairy farming. The researchers have continued to dwell on almost similar challenges in the dairy sector and the buck stops with the regulator. KDB is hence expected to exhibit leadership in handling of the sector.

The Government on recommendations of the KDB should address issues of legislation; infrastructure

(road rehabilitation and upgrade) and the regulator take up the rest of infrastructural development. All other stakeholders are recommended to exert necessary pressure with the producers (dairy farmer) interest at the centre. The Government is urged to actualize the School milk program as contained in its manifesto.

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