

APPENDICIES

Appendix 1

SERENGETI DAIRY CO-OPERATIVE SOCIETY PROFILE

Serengeti Dairy Co-operative Society is a Community Based Organization (CBO), which deals with milk marketing activities. The members of the organization come from 6 Villages, which surround Bunda ward. These villages include Guta and Tairo, which are in Guta ward, Bitaraguru and Nyasana, which are in Kabasa ward, Tamau, and Kunzugu, which are in Kunzugu ward and 4 peripheral Hamlets of Bunda townships, namely Mingungani, Balili, Bunda Stoo and Manyamanyama.

Formation and Establishment of the CBO

The idea for the formation of the organization started in October, 1965 where, three livestock keepers namely, the late Jackson Makumbati, Mr. Nyamuhanga Mairi and Mr. Chacha Gikaro mobilized and sensitized their fellow livestock keepers to establish the co-operative organization that could take care of milk marketing which was a problem to them, specifically in rain season where a big quantity of milk was spoiled and be thrown away due to the lack of market. The course of action was fruitful in November 30th, 1965 where the first general meeting (formation meeting) convened to establish the co-operative society. The commitment of the actors and other members of the Co-operative organization enabled the cooperative society to get a full registration in February 26th 1966, with a registration number 1630. The initial members were 52, out of them 16 were female and 36 were male. Apparently the co-operative organization has 154 members, where, 52 are female and 102 are male. All of them are livestock keepers. Initially the co-operative members were paying an entrance fee of Tshs 5 and pay Tshs 20 per share. Each member was supposed to hold 10 shares, with a total value of Tshs 200. According to the co-

operative law of 1932, the number of shares to all members were supposed to be uniform, so the cooperative members had equal share with total value of Tshs 200.

At the moment, the entrance fee is Tshs 1,500 while the value of one share is Tshs 2,000 per member. Each member has to pay 10 shares with a total value of Tshs 20,000. The late Jackson Makumbati and Mr. Raphael Maswi became the first Chairman and Vice Chairman while Mr. Chacha Gikaro and Mr. Nyamuhanga Mairi became the first Secretary and Assistant secretary of the Co-operative organization respectively. This was in 1966.

Formation of the co-operative society was supported by WAFUGAJI WA MARA CO-OPERATIVE UNION. The domain interest for the union was to enable them to get easy and cheap milk and ghee from livestock keepers in peripheral areas Bunda district. WAFUGAJI WA MARA CO-OPERATIVE UNION was located in Musoma (Now is the headquarter of Mara Region) and it was operating at the whole area of South Mara district (now Musoma Rural, Bunda and Serengeti districts). The union was collecting Milk and Ghee from affiliated cooperative organizations and at individual livestock keepers and processes them. The union failed due to poor management and leadership. However, during its' life time the union supported the Serengeti Dairy Co-operative Society by providing Milk Jerry can, Lactometer and Milk separator machine. The jerry cans were used for milk collection and storage. Storage capacity for each Jerry can was 50 liters. Lactometer was for the purpose of detecting foreign materials (water) mixed with milk stuff. And, Milk separator was used to separate ghee from milk. The initial capital for milk and ghee production to the co-operative organization was raised from members (coming from entrance fee and shares) whom contributed Tshs 1,000 and loan capital of Tshs 2,000 from WAFUGAJI WA MARA UNION.

Initially, (1966) milk was collected from farmers at cents 15 per paint (about half a litre) and be soled to customers for cents 30 per pint. The nearby farmers 0-10 kilometers brought milk direct to the co-operative society, where by the longer distant farmers milk were collected through collection points within the area. Bunda Township was a principal market for milk products. The union was collecting ghee from the cooperative society at a price of cents 45 per paint (about half of the litre). The co-operative organization was collecting the staff under contract bases with the union, where, the union paid agency fee to the society. Ghee was exported in Kenya.

During business operation, the co-operative organization started with 27 jerry can. The canes were raised to 32 by the year 1985. On milk collection, the co-operative society was using Lactometer to detect (identify) foreign materials such as water and other liquids mixed with milk.

The co-operative organization was used to supply and sell milk at the market in three forms:

- Fresh unsterilised milk;
- Fresh pasteurized milk; and
- Coagulated milk.

However, the Co-operative organization was selling those products at the same price. By that time, milk price was controlled by the district price commission committee, which had five members, the district administrative secretary being a chairperson of the committee. Since market price were controlled by the committee, any interested party who were affected with milk price, were supposed to forward request/proposal of a new price before the district price commission, which scrutinize and make judgment upon them. The co-operative organization, however, was managed to stay within the same track ever since due to the nature of the business, they were operating it in monopoly bases. But now there are competitors who are already at the market.

However all members of the co-operative organization were livestock keepers whom were keeping indigenous cattle of Zebu type. The livestock keepers were accumulating a number of heads of cattle as a simble of wealth. Men hold cattle in order to maintain status quo. However, the women maintain milk business in order to get daily needs of family.

THE GOAL OF THE CBO is to enhance socio-economic welfare of the CBO members through improved milk and milk products marketing by 2015.

THE MISSION STATEMENT OF THE CBO is to build capacity of the CBO through training and mobilization of resource in such a way that it becomes strong and builds resources, which enable to conduct effective and efficient business to the extent of withstanding competition from other players in the market.

THE OVER - ALL OBJECTIVES OF THE CBO

Objectives of the co-operative organization are clearly stipulated by the bylaws of the co-operative society as referred here below;

- i. To establish and develop livestock and livestock products business to the co-operative society;
- ii. To increase income of co-operative members through livestock and livestock products business; and
- iii. Capacity building on co-operative education and business operations to members.

THE CBO ORGANIZATION CONTEXT

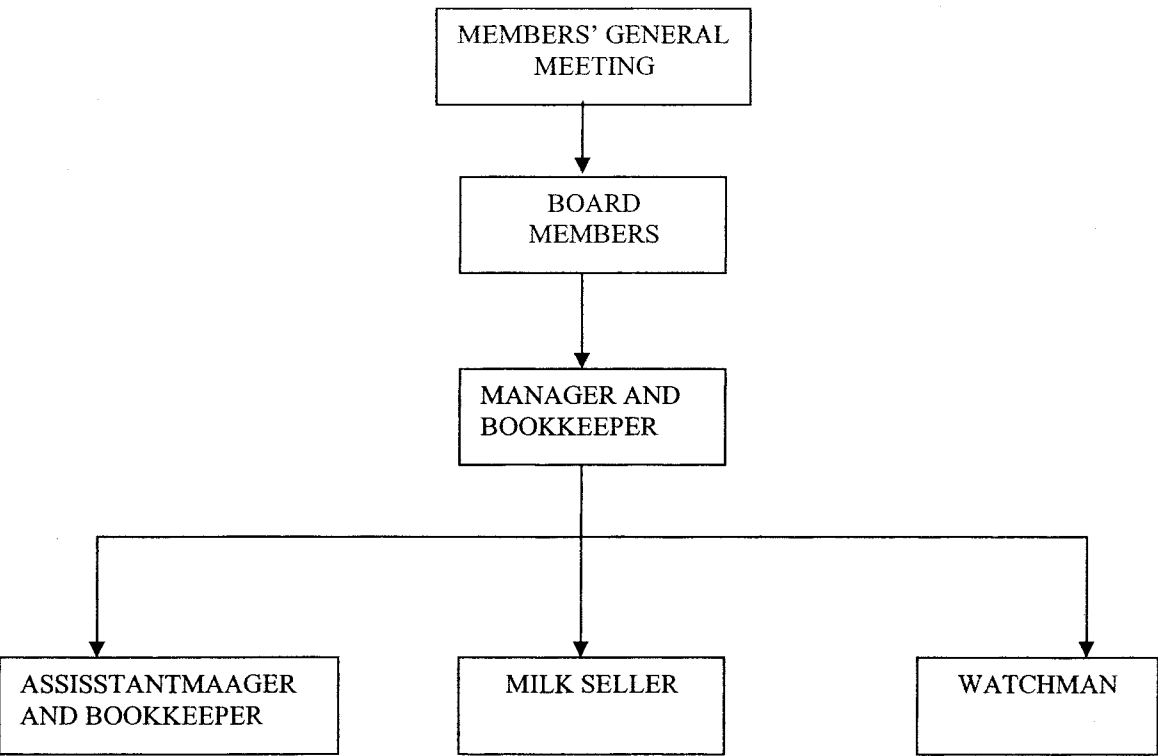
Serengeti Dairy Co-operative Society is a community-based organization, which is located in Bunda Township, Bunda ward, Serengeti division, Bunda district. The major business for the co-operative organization is milk marketing. Milk is collected from cooperative members, milk vendors and livestock keepers who are not members of the cooperative. Funding source for

the project is based on member’s own equity through accumulated retained earnings. However, now the Co-operative organization intends to improve milk-marketing business for the sake of delivering quality services to the customers and eventually be sustainable.

Organizational Leadership and Management of the Co-operative organization

The byelaws of the co-operative organization stipulate that, the overall decision of co-operative affairs is vested to the members of the general meeting. Under the general meeting, there is a board of co-operative society, which comprises 9 members. Out of them, 8 are male and only one member is a female. The board supervises implementation of policy and resolutions of the general meeting. The general meeting convenes twice a year while the board meets four times a year. The diagram below represents the organizational structure of the

CBO. The Organizational Structure of the Co-operative Society



Source: Serengeti Dairy Co-operative Society Office, 2006

THE MANAGER

The manager is a standard seven (vii) leaver and he is on this position since 1999. He hasn't yet attended any training on management and bookkeeping. Also he has not yet attended training on marketing and entrepreneurship skills. He runs the CBO business through experience and best judgment. On the other hand the manager is the overall in-charge of the CBO employees. He is answerable to the board of the CBO and he is a secretary of the board and general meeting of the society respectively. He is also:

- A central authority of all management decisions;
- Responsible for preparing and presenting management report to the board of the CBO and General meeting of members;
- Responsible for keeping the books of accounts;
- Responsible for preparing the CBO financial report and present it to the board of the CBO and General meeting of members;
- Responsible for all receipts and payment of the CBO; and
- Responsible for making work plan and budget of the CBO.

The manager in collaboration with other employs and the board of the CBO discharges these obligations daily under the supervision of the board of the CBO. Not withstanding that, the manager also makes sure that milk handling and quality control at the CBO is well maintained.

However, the question of milk handling and quality control involves various activities, which keeps milk to maintain its value. These activities involve supervision of:

- Receiving milk, which has no impurities and adulterated;
- Using clean and authenticated tools and equipment for milk collection, handling and storage;

- Cleaning thoroughly tools and equipments used for milk storage;
- Make sure that the milk collector examines milk before collection; and
- Ensure that genuine milk is sold to customers.

Together with having these roles the manager has not well acquainted with knowledge and skills of marketing and entrepreneurship they use experiences and best judgments in performing the CBO business. For better performance, the manager is required to get training on marketing and entrepreneurship.

ASSISTANT MANAGER AND BOOKKEEPER

This person assists the manager, particularly on managing business affairs of the CBO. Like the manager, this employee is a standard seven (vii) leaver who has no milk marketing and entrepreneurship skills. Like the manager, the assistant manager as well runs milk-marketing business by using experience and best judgments. He has no management and bookkeeping skills. He needs therefore to get knowledge and skills of management and bookkeeping.

STAFF RECRUITMENT AND EMPLOYMENT

Usually the board of the co-operative society recruits and employs staff of the CBO. The board has given mandate to employ staff by section 62 (2) of co-operative act number 20 of 2003 and section 33 (2) (o & p) of the by-law of the society. Also the board has got mandate of putting in place discipline of employees as well as firing them when becomes necessary. However, the employee has a right to appeal to the general meeting especially when they feel that, an action taken against them is not proper.

THE BOARD OF THE CO-OPERATIVE SOCIETY

The board of the co-operative society comprises 6 members who were elected at the general meeting of CBO members. Among of 6 members, four were men and two were women. However,

the question of knowledge on milk marketing and entrepreneurship skills to the board of members of the society was indicated by the following table

Table 1 Board members education and skills

Board members	Education level	Skills and knowledge on marketing and entrepreneurship.
Five members	Standard vii	Non
One member	Standard iv	Non

Source: Serengeti Dairy Co-operative Society Office, 2006.

This situation is not good as it makes the CBO to operate in difficult conditions at a competitive market. Under this condition the CBO will fail to compete and ultimately sustain at a free market economy since, the touch and the key actors of the CBO (leaders and staff) are lacking commanding knowledge and skills for the entire business.

MILK COLLECTION AND PURCHASING PROCESS AT THE CBO

Milk producers and milk vendors who collect milk from milk producers send milk to the CBO by using bicycles, others on foot by caring milk on heads. Containers of milk, which are accepted, to be taken by the CBO are inspected if they are clean and have no crack. After acceptance, the milk seller put the milk into the jerry can, which at the top is covered with a piece of white cloth for separation of impurities from milk. When a jelly cane becomes full, it is covered by a cape ready for storage. Milk collection is done by milk collector at one center only, under the supervision of a board member of the CBO who is on duty. However, the milk collector writes receipt(s), which acknowledge the quantity of milk delivered, and the amount of money to be paid to each customer. After having a number of milk sellers, the milk collector pays them the due amounts in cash on

behalf of the manager on the same day. The units of measure used to collect milk from milk sellers at the CBO are:

- **One-litre unit.** This is a smallest unit of measure used to purchase milk from milk sellers.
- **Four litres unit.** This is a four-litre plastic container, which is also used to collect milk.
- **Twenty litres unit.** This is a twenty litres plastic container used to collect milk from milk sellers.

The plastics of four and twenty litres that are used to collect milk at the CBO may either belong to the CBO or milk sellers. They use the CBO containers' when the seller brings milk with containers that has more than four but less than twenty litres or at the one, which has capacity of more than twenty liters. But if a milk seller brings milk in a container(s) of four or twenty litres each, then the CBO takes direct that milk in trust. Now here is the area where the question of quality rises, as it is difficult to maintain hygiene and overall quality of milk and milk containers of each individual milk seller as they are being maintained at different environment.

Milk Collection Centers

However, apparently the CBO has only one milk collection center, which is at the headquarters of the CBO in Bunda Town ship. This has done deliberately since existing tools and equipments at the CBO do not favour a distant market. Also;

- The CBO has no fund to build and accommodate milk operations of new centers. Opening up a new center means creating new fixed and variable costs to the CBO. Also other costs like semi fixed and overhead cost has to be extended to the CBO.
- The CBO has no enough jerry can for collecting, handling and storage of milk at more than one center at a time.

This situation makes the CBO to operate at the same area since 1965 up to date. This case shows that the CBO is not improving in terms of area of operations and quantity of milk discharged at the market. Implication of this situation is that, the CBO is not growing, and upward mobility does not exist within the operations of the CBO. Now the question remains that; **can the CBO achieve its objectives under this environment?** This question remains a challenge to the CBO and other researchers.

Required hygiene for milk handling

“Whether milking by hand or machine, good hygiene is essential” (FAO/TCP/KEN/6611 Project).

This requires that:

- a. The milkers' hands and clothes should be clean and he or she is in good health.
- b. The milking machine and milk storage equipment such as milk churns are kept clean and are in good condition (i.e. without cracks or dents, which are difficult to clean and can easily harbour bacteria.
- c. Immediately after milking, the milk must be cooled preferably to 4 °C. This requires mechanical refrigeration or milk cooling tanks. These are expensive and can usually be afforded by large-scale commercial farms (FAO/TCP/KEN/6611 Project).

Considering on above circumstances, milking in farm is being done by hands, normally by women. Since milking is done with different people and scattered, then it is difficult to control conditions and environment of hygiene for the product. Beside that, milking was carried out in tools and equipments, which were available and convenient to milkers, not all milkers were having and using good tools and equipments for milking, some of them were not good and reputable for

milking purposes. This situation made milk staff to loose its' quality and perfection of hygiene. So far, at farm level and at the CBO there is no cooling system. Now it is difficult to maintain the gold standard of milk under such situation.

On the other hand, milk must be free from residual substances as veterinary drugs or detergents. Roberto Giangiacomo (2000). Milkers' milk cows at home of the domicile of each livestock keeper. Normally milking was being done early in the morning before cows were discharged in pasturing. The average number of cows for each milker ranged from 5 to 30 per day. This number of cattle was big to be managed by one person who milk by hands. So under this pressure, it becomes difficult to maintain milk hygiene. And, that is why it is common for milk, which is delivered to customers in Bunda Township poses impurities and sometimes-animal drugs. Even though consumers in streets take it and filter available impurities by filters, the delivered message to competitive market was not good. This kind of product (milk of this kind) won't stay and perform at a competitive market. Hygiene for milk stuff is very important to be in place. Again, during transportation tool and equipments used in transporting milk were not insulated, sun heat temperatures affect milk direct throughout. This situation makes milk to perish in a shortest time at market delivery.

Milk quality testing and west separation

H.A. Roberts Dairy (1993) indicates that consumers judge the quality of milk largely by taste and appearance. Before taking milk from milk sellers, the CBO as a consumer tests the quality of milk by using apparatus and milk appearance. Here the milk collector tests quality of milk by;

- Lactometer. This tool tests if water or any other liquid of the kind were mixed with milk. The milk collector puts lactometer into milk to test the quality of milk, if the density of milk is between 1.028 – 1.035 S.H. Milk is accepted. Beyond that range it is rejected.
- Also the CBO use physical test in examination of milk. They see milk appearance, colour and taste smelling of milk staff. Milk with bad odour (smelling) is not accepted.
- Chemical testing. A little quantity of milk is taken in a separate tool and put one drop of chemical to the milk. If the milk has foreign materials, then they clot instantly, if they are okay, they remain as they are. However, this test today is no longer used.

After making milk tests, then the CBO takes milk, where the white piece of cloth is used to filter other foreign materials from milk. The purpose of this process is to separate west from milk, which enables to maintain pure hygienic milk and hence get milk of a desirable quality.

So far according to Teuvo V.A. Siirtola (2000), Lactometer test (Lactodensimeter test, Specific gravity) is used to determine whether the milk is likely adulterated, such as;

- A. Contains added water,
- B. Sub-standards in total solids content,
- C. Fat removed from original milk, and
- D. Contains added skim milk or skim milk powder, dissolved in water or as pow.

Contrary to these facts, “lactometer of the CBO is too old and not effective, it is not perfect and rarely reflects positive result. This situation makes difficult to control the quality of milk at the CBO through this test. Sometimes the CBO takes adulterated milk in the cost of poor performance of the lactometer.” the manager of the CBO said.

This situation sometimes makes the CBO to take adulterated milk, which brings a negative implication to customers of the CBO. Customers need to get milk of good quality at a CBO and not otherwise. If they purchase adulterated milk, for sure they believe that, it was a deliberate and intentional action. Under this circumstance, the CBO loose credibility to her esteem customers and eventually it drives away them from the CBO of which it is difficult to get them back.

The second effect of this fault is direct inserted to the milk staff itself. Milk with water tends to perish in a shortest time compared with pure genuine milk. When the CBO purchase watery milk, it gets a hard time, since; a big quantity of milk can spoil and make total loss to the CBO.

Milk storage

According to the 2005 figures, the CBO had 32 jerry can, which had capacity of 1,600 liters for milk collection, handling and storage at a time. These equipments were not enough to accommodate milk particularly in rain season where an average of milk at the market is more than 1,200,000 liters per year. However this problem was extended by internal operationalization of the CBO that, some of the jerry can store milk for 24 hours to allow milk fermentation, which was one of the market product line of the CBO. In this case, the following day definitely the CBO starts a business with few canes. Availability of jerry can to use depends on customers' turnover and fast moving of the fermented milk at that day. Sometimes the CBO was addressing this problem by using milk sellers' containers especially the 20 liters containers, which were left to the CBO with milk. Considering the nature of the product, milk handling and storage techniques, which are used by the CBO, are old and out of date to sustain a CBO within the present turbulence milk business environment. The turbulence environment of milk business was generated by trade liberalization

and free market economy. However, milk handling and storage facilities were a serious problem to the CBO since;

- The CBO has no effective strategies for internal and external fund mobilization. The CBO members lack appropriate knowledge and techniques for internal and external fund mobilization. However, if the CBO gets fund they will purchase adequate and modern tools and equipments for milk collection, handling and storage.
- Existing conditions within the present commercial financial institutions do not favour financing of micro enterprises. Collaterals and complicated loan procedures makes loans to micro enterprises (including the CBO) to be difficult to get.
- There is no collaborative institution, which has a will to support the CBO. This makes a CBO to depend on own equity in running milk-marketing business.

Milk availability

Bunda district experiences two periods of milk production. The rain season which is a peak season and the dry season, which is a slack period. In rain season there is plenty of milk at the market and all the time the market tends to be flooding with the product stuff (milk). At this moment the CBO and market as a whole in Bunda Township do not absorb the whole quantity of milk product stuff, which is discharged at the market. However, a big quantity of milk supply makes quality control of the milk stuff at production point to the final consumer to be poor. In production point for example, the milk producers have a big number of cattle for milking, so they don't have time of controlling and maintaining hygiene of milk stuff. Like wise milk vendors are interested on getting much income through carrying and delivering much quantity of milk to customers. They don't mind on maintaining and controlling quality the product stuff. This makes milk delivered to the market to be of low quality. On the other hand, in dry season there is a shortfall supply of milk.

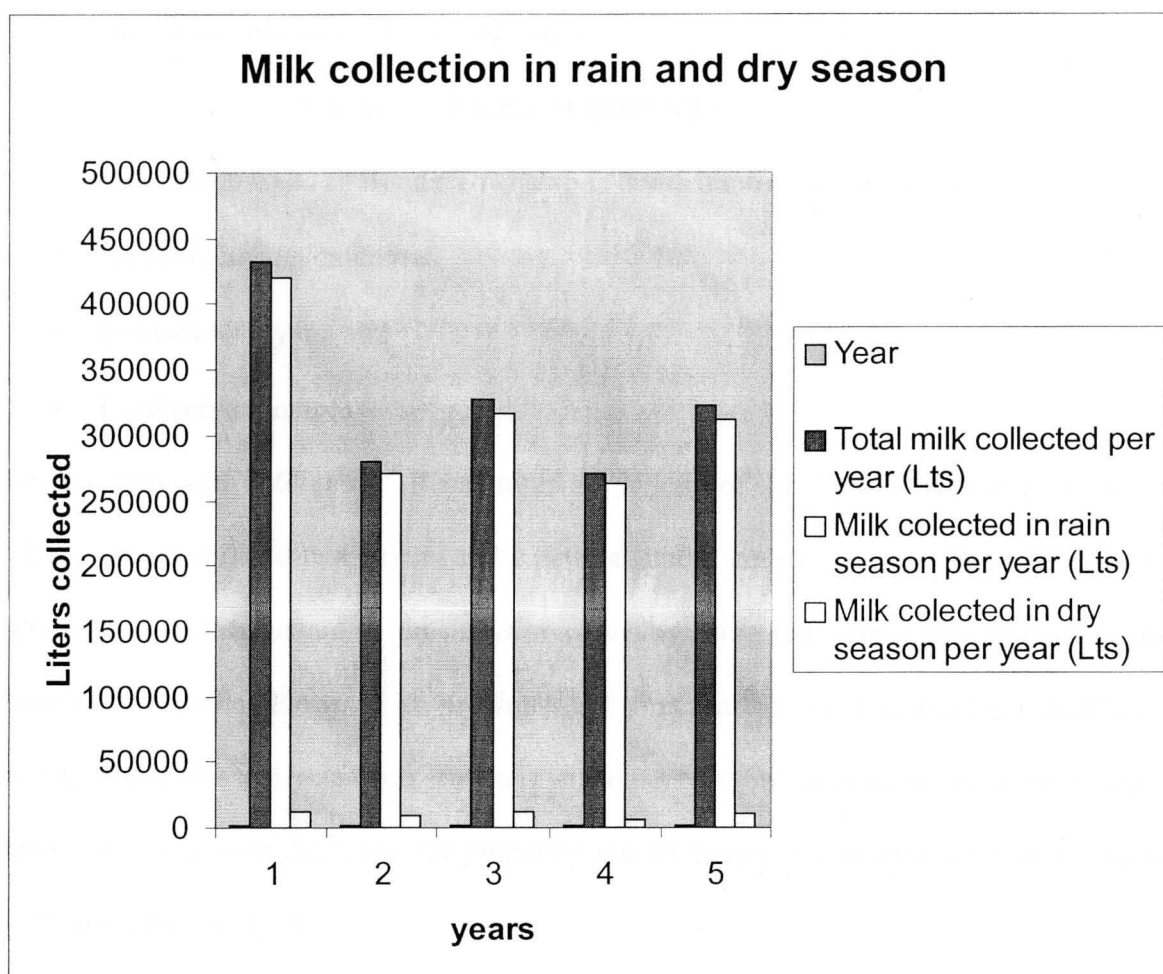
The CBO and market in general get hard time of getting milk, which leads milk customers to remain in dilemma. The table below shows the trend of milk collection by the CBO for the past five years.

Milk collection in rain and dry season at Serengeti Dairy

Year	Total milk collection per year (litres)	Milk collection in rain season per year (litres)	Milk collection in dry season per year (litres)
2000	433,294	421,202	12,092
2001	279,688	271,058	8,630
2002	327,646	315,855	11,751
2003	270,364	263,684	6,684
2004	322,467	312,509	9,958

Source: Serengeti Dairy Co-operative Society Office, 2006

Milk collection in rain and dry season



KEY: Year 1 = 2000, Year 2 = 2001, Year 3 = 2002, Year 4 = 2003, and Year 5 = 2004.

Together with the fact that, in the rain season the CBO collect big quantities of milk, still the CBO gets a problem of milk quality. The CBO members said that, “always the quality and hygiene of milk at this moment is low as the big quantity of milk produced makes milk producers and sellers to fail to maintain effective milk handling and quality control”. However, this situation remains as problem over a time since;

- The knowledge of milk handling and quality control from production point to the end consumer was not in place. Milk dealers use experiences in running milk business industry.

- Lack of modern storage facilities makes milk to be easily contaminated with foreign materials, like animal dung and others.

MILK MARKET SEGMENTS

The market of the CBO in Bunda Township is divided into three segments:

- Restaurants and cafeterias,
- Individual buyers, and
- Civil servant employees.

Restaurants and cafeterias: Restaurants are among of the famous customers of the CBO. The CBO supplies milk to restaurants and cafeterias under contract bases. The CBO use bicycles to deliver milk to the customers' business premises by using jelly canes. The term of payment is on daily cash delivery. However in previous day some customers were paying monthly in contract bases. The CBO delivers milk to their customers before noontime, as some restaurants and cafeterias use part of that milk for preparing tea for business and some of it is fermented and be sold on the following day.

Individual buyers: These are individual milk buyers who buy direct milk from the CBO. Normally the customers go to the CBO to buy milk through out the day. Some of customers consume (drinks) milk on the spot, while others take the milk at home for tea or other uses. Here milk buyers pay milk in cash on the spot.

Civil servant employees: This group comprises government civil servants and other employees of non-governmental organizations. Usually the CBO deliver milk at homes of the customers' by bicycle with jerry can. In previous days before milk market liberalization, faithful employee had a contract with a CBO, where milk payment were being done monthly by cash or check. Today all

customers pay cash on delivery. However, Milk delivery at this segment is usually sensitive at morning hours, since consumers need it (use milk stuff) for tea purposes.

Milk product lines

By that time, the CBO had three product lines, which were discharging services at the market, these include;

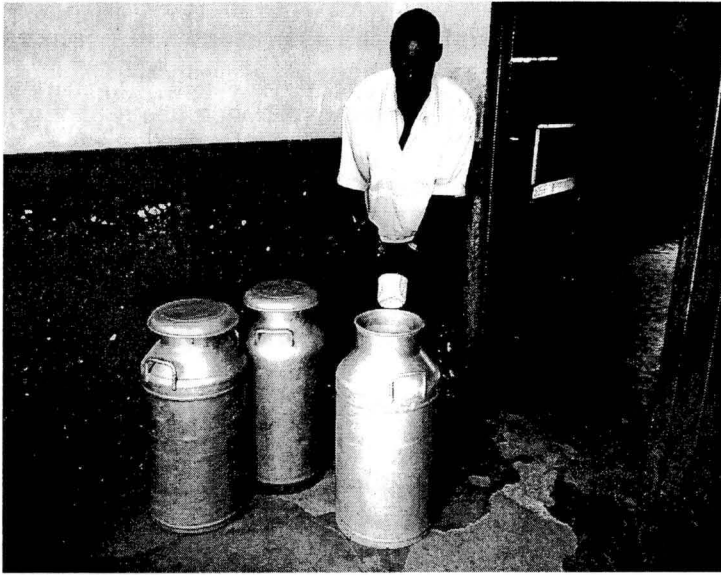
- Fresh milk product line,
- Fresh sterilized (pasteurized) milk product line, and
- Fermented/Coagulated milk product line.

Fresh milk product line

Fresh milk product provides fresh milk product stuff at the market. Fresh milk is a milk staff, which was collected from milk sellers and be sold direct the customers without any further (treatment) transformation at the CBO. Normally consumers were using it for tea preparations. Fresh milk was bought much before noon, thereafter, purchases of the fresh goes down slowly up the time of closure. The price of fresh milk was the same with the price of other milk products, which was Tshs 200 per liter in pick season and Tshs 240 per liter in dry season.

However, Milk selling methods, which were used, were not much accepted today. That practice is out of date, it needs to be revised and introduce the new ones, which are appropriate to their environment. Here below is an empirical case, which indicates how the milk seller of the CBO delivers services (sell milk) to customers.

A milk seller selling milk -Serengeti Dairy Co-operative Society



Source: Serengeti Dairy Co-operative Society Ltd, 2006

As seen above, the milk seller get milk from a jerry can by using a tin of a half litre and delivers it to customers. The same process is repeated throughout the day. Funny enough the milk seller uses the same tin for selling milk to all customers throughout the day. All in all, this practice is not ideal since, in time-to-time milk from customer's containers fall apart / drop back to the jerry can. This situation makes difficult to control quality and hygiene of milk to the CBO as customer's containers come from different background.

So far, this case happens because the CBO and even some customers are not aware on the side effects of this practice. In general, this method is not ideal because of several reasons;

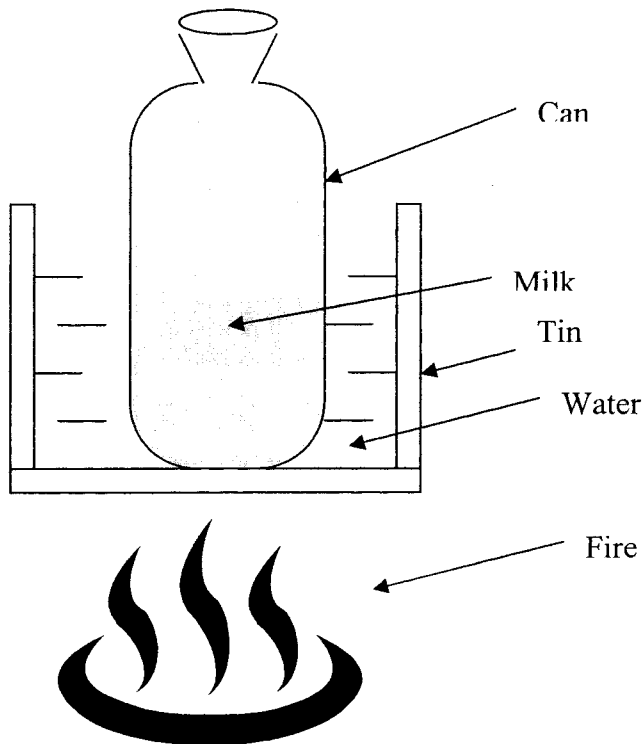
- It may cause milk contamination. Customers' containers might be contaminated. So any backing drop contaminate milk stuff in a jerry can.
- It may bring outbreak diseases, such as, diarrhoea, cholera and other epidemic diseases.
- It pollutes other milk stuff in jerry can.

Fresh sterilized (pasteurized) milk product line

According to Matt Jorgensen and Pat Hoffman (1989), pasteurization is; the heating of every particle of milk to a specific temperature for a specific time to reduce undesirable enzymes and bacteria to negligible levels. It is important to understand that, pasteurization is not total sterilization of the milk. It is also important to note that pasteurization is function of time and temperature not just temperature. Further, Linda Bren (2004) says that, “Pasteurization, since its adoption in the early 1900s, has been credited with dramatically reducing illness and death caused by contaminated milk. The pasteurization process uses heat to destroy harmful bacteria without significantly changing milk's nutritional value or flavor”. These quotations draw the attention of the leader and CBO it self on the essence and essentiality of milk pasteurization. Bearing in mind and moving along side those quotations, we go back to the CBO and see how this process is being done.

Pasteurized milk is another product line, which was at the market. The CBO discharge this product to the market in line with other two products. The process of pasteurization involves physical process and it is done on manual bases. That is; after collecting milk from milk sellers, the CBO makes pasteurization of the milk stuff through indirect heating process. Here a jerry can of milk is placed in a container of water, which is placed on fire. A container of water with a jerry can of milk inside is boiled with firewood up to 85 °C – 90 °C. At this point, the milk stuff becomes ready for customers' use, as now it is bacterial free. Pasteurized milk was usually sold to individual customers at the CBO. The price and method of selling this commodity was the same with the former product. The diagram below demonstrates how the CBO makes milk pasteurization.

Milk Pasteurization at a CBO



Even though the CBO members had no formal knowledge on the essence of pasteurization, right from the beginning the CBO realized that, the practice of pasteurization is good and Pasteurized milk is attractive to customers. Also they realized that by so doing they kill infectious organisms before selling their products to customers. The little knowledge, which they have, motivated them to maintain this product line all over the time.

Fermented/coagulated milk product line

This was the last product line, which was discharging fermented milk at the market. Collected milk was stored and be reserved in jerry can until the next day when they ferment and became ready for consumption. In average it takes 15 to 18 hours for milk to ferment. Like boiled milk, also this staff was sold to individual customers at the CBO premises. The price and method of selling this commodity was the same with other milk commodities.

Eventually the CBO has decided to make product differentiation in order to capture customer's interest and partially respond on competition. There were a good number of individual businessmen who were dealing with milk marketing. So product differentiation was one of the strategies, which is used by the CBO to survive at a market.

Milk consumption

The average of milk consumption in Bunda Township is 700 litres to 800 litres per day, and 21,000 litres to 24,000 litres per month. This demand is met during the peak season (rain season) where milk supply is abundance. At that moment (peak season) milk is not a problem at the market and even milk price to customers is fair. On the other hand, during slack season (dry season) milk supplies do not meet demand. At this moment the industry manage to supply only 2.5% to 2.8% of total market demand, which leads scramble of getting the product at the market. Being so, at this time milk shortage influences unfaithful milk sellers (vendors) to get temptations, which lead to mix water with milk. Milk adulteration, which is being done by milk vendors, results into reduction of milk quality and hygiene, and ultimately supplying low quality and poor nutritious milk to customers.

MILK QUALITY, SANITARY AND HEALTH CARE

Sanitary and health care

The CBO had license of running this business. Among other conditions of the business license is to maintain sanitary and hygiene of milk product. To obey this rule, the CBO workers especially the manager, milk collectors and milk sellers have uniforms and use it all the time when they were on work. Also, they were being examined at the district hospital at every three months. Beside workers conditions, the premises of the CBO, which was used for milk collection and selling was

cleaned dairy before and after attending the customers. Tools and equipments such jerry can, cups and others that were used on milk collection and delivering services to customers were cleaned by hot water daily after been used. The positive reactions of the CBO towards adherence to conditions of the business license, build good business reputation to the customers and business licensing authority helped the CBO to continue to be in business.

However together with taking all these actions, they need to get more steps as mentioned here below by FAO/TCP/KEN/6611 Project document. In proper sanitation of milk canes and other tools FAO/TCP/KEN/6611 Project says that, when immediately can are emptied of milk they should be cleaned as follows:

- Cold water rinse;
- Scrubbing with brush and warm detergent (any unperfumed liquid soap will do);
- Cold water rinse;
- Sterilization (sanitisation) with boiling water or steam if available or use dairy sanitising solution such hypochlorite or commercial brand preparations in accordance with manufacturer's instructions; and
- Dry cans on a drying rack. Exposure to sunlight will enhance killing off bacteria during drip-drying of can.

Milk quality and customer care

Jerry can lids protect milk containers against foreign intrusions in milk staff. Milk in containers remains intact and be protected up to the time when need to be consumed by customers. Always the CBO solicit to win milk business by maintaining customers interests. However it is difficult for

the CBO to take care wholly customers' interests, but some measures have to be laid down to address this situation, these include;

- The CBO open the office at 6.30 a.m. and start to provide services to her esteem customers on the spot. The office services and milk selling to customers goes up to 6.00 p.m. and the CBO close the office officially at 6.30 p.m. The CBO works almost throughout the day in order to keep intact and maintain satisfaction of customers needs.
- The CBO sales milk at a reasonable price in comparison with competitors. ie The CBO buys milk with Tshs 180 per liter and sell it to customers at Tshs 200 per liter in rain season but competitors (private individual sellers) buy the same liter with Tshs 180 and sell it at Tshs 210 in the same season.
- The CBO sells genuine product to the customers. The question of mixing water with milk, which is a common phenomenon at the milk market in Bunda Township, is not there. Eventually the CBO takes the action of fighting adulterated milk in order to maintain the quality milk and sell a genuine staff to the customers.
- Usually the CBO listens comments and works upon opinions of customers, especially for the CBO products, which are at the market.

Milk taste and customer satisfaction

Customer satisfaction in Bunda is determined by the real income of the people (customers) at a given price of a commodity, i.e. when the income of the people increases, the capacity of purchasing commodity at a given price also increases, then test and preference rise as well. So when we plan on customers' satisfaction by considering test and preferences, we need to consider the position and level of income to the concerned market (people). The taste and preference of the people, let us say in Arusha City is not in the same line with that of Bunda district. The Arusha

City market taste and preference is higher and complex compared with Bunda district market. Diversity of taste and preferences comes from the level of income of these two areas, Arusha city market is dominated by higher income customers while Bunda district market the majority of customers are lower income earners.

So far, it is not easy to say that, the CBO takes care taste and preference of customers' needs. This is because; the CBO has only three products, which are available at the market, namely fresh milk, pasteurized milk and fermented milk. According the CBO's data, pasteurized milk is the product, which has a big number of customers, followed by fermented milk and fresh milk is last product of customers' preference.

The idea of the CBO to have these products at the market was good. But, are they really addressing taste and preference of customers in the time moment? The answer is not simple since, when customers go to the market every one has his/her own preference, but at the CBO customers' preferences were tied into three products only. This makes market choice to be limited, and hence customers buy what is present at the market. Now what is the real sense of this situation? Actually the CBO should know that, the market has already invaded by inside and outside milk business (traders) competitors. To remain at this direction, the CBO will end up with closing the business. In this regard, now it is a time for a CBO to think on introducing additional and new products at the market. This task is not easy, the CBO needs to have external assistance in terms of capital, skills and technology. Again the survey managed to examine if the CBO was losing, or maintaining or gaining more milk customers of milk business. The survey results revealed that, the CBO was losing customers drastically. Within the period of four years, for example, the average of annual customers decreased from 2,692 in 2001 to 1,354 in 2004. This is a signal that, the CBO

is moving at a crater of vacuum. Eventually there is no way the CBO should change. Changes should come from inside and outside of the CBO.

Milk business premises

According to FAO/TCP/KEN/6611 Project the General guidelines of the milk business premises should comply the following conditions:

- i. Floors of dairy buildings must be made of hard washable surface. Walls should be smooth and washable to about 2 meters from floor level and painted with light colour.
- ii. Doors should be self-shutting while windows should be rendered insect proof by mosquito netting to keep flies out.
- iii. Rooms should be kept clean and in good repair.
- iv. All product-contact surfaces should be kept cleaned immediately before use or as often as necessary, by cleaning techniques appropriate to the equipment and process.
- v. Equipment and utensils should be disinfected immediately. Before use, and whenever there has been possibility of accidental contamination.
- vi. Equipment repairs and maintenance should preferably be carried out after processing. Whenever machines have to be fixed during production runs, adequate precautions should be taken to prevent contamination of dairy products.

When we go back, the CBO was using a hired premise for milk marketing business. The CBO had hired 4 rooms within the building, which was used with other business traders. The first room was used as office of the CBO, the second one was used for milk collection, the third one was for services delivery (selling milk) to customers and the last one was used as a CBO store. Although

the floors of the hired rooms in the building were always kept clean, the rooms of that building did not consist smooth floor in such a way that it was hard to clean. This makes that building to be not ideal in terms of hygiene and milk handling. Windows had no insect protectors like wire gauze; they were free for insect entrances. That situation disqualified that building to be used by the CBO for milk marketing business. The ideal building for milk marketing business should and has to resemble and consist at least a big number of the above mentioned qualities in FAO/TCP/KEN/6611 quotation.

Water for sanitation and hygiene

The CBO buy water for sanitation and hygiene from individual water vendors. They buy one plastic of water of 20 liters for Tshs 200. In average the CBO uses about 100 litres per day. This water is used for washing building floor, which is washed daily. The room which is used for milk service delivering (milk selling) gets priority and it is washed before and after being used. So far if the floor becomes dirty e.g. milk spill over, the floor is washed immediately. Also that water is used to clean other equipments and utensils, which are used for milk business. Jerry can are washed before and after being used. Cups that are used to deliver services to customers are cleaned before and after use as well. Other tools like lactometer, milk collection and selling units are also cleaned after being used. However, since the CBO has no reliable source of water, sometimes general cleaning and sanitation becomes unsatisfactory. Tools and equipments are cleaned partially. This case tends to be a killing factor to the CBO, since, apart from affecting the quality of milk stuff; it also affects the health of consumers. Bad enough this situation affects direct milk staff in various ways;

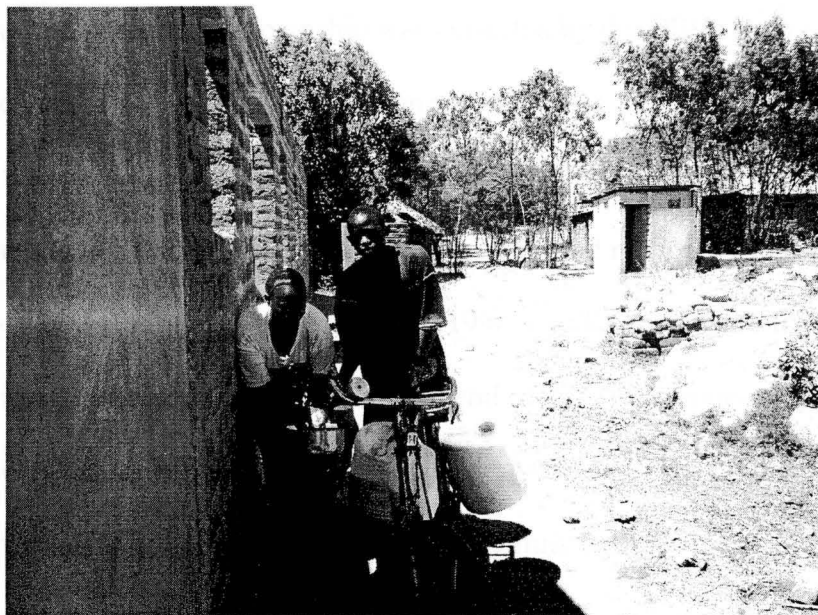
- It may lead milk stuff to spoil and perish at a shortest time. This however, leads the CBO to spill away the damaged (spoiled) product. But that is CBO's money, whatever go away erode the profit margin of the CBO business.
- It may create changes on milk taste and flavour. Diversity of milk taste and flavour alert customers to go away or to take the alternative product at the market. If this situation happens, the CBO goes out of the market.
- The milk product may loose it colour. The genuine (origin) milk color is one of attractive element to the customers. If the milk loses its original colour, the customers may go away from the CBO product.
- Also it may create a bad milk smell/odour. If the milk product has bad smell, customers will never buy it. In this case the CBO will through away the whole lot, which has been affected. What happens to the CBO is loss and ultimately closing the business.

Milk vendors and milk delivery

Milk was delivered to the CBO by milk vendors and milk producers. Most of the milk vendors were not members of the CBO, but about 65% were livestock keepers. Milk producers who deliver milk to the CBO were also divided into two categories; some of them were CBO members while others were not members of the CBO. Both men and women milk producers bring milk to the CBO, and they bring it by bicycles or on head by foot. Milk sellers (milk vendors and milk producers), however, extend milk-delivering services to individual customers in Bunda Town streets. They deliver services in the streets by moving from door - to - door of one area to another. Some of the customers were permanent one meaning that, they were taking milk from the same person (milk seller) but others were just on spot customers. Normally for new customers, first they

bargain price, when they agree on the price, then the milk seller delivers milk to the customer. Here below is one of the milk vendor delivering services to the customer within one of Bunda Town Streets.

A milk vendor selling milk to a customer in Bunda Town streets



Source: Project Report, 2006

Beside of better services, which were provided by milk sellers, specifically in door milk delivery services, that milk was not good. Milk was usually mixed with water and milk buyers do buy them since they had no milk tasters. This situation was even worse in dry season where the quantity of water mixed with milk was even much bigger than the milk stuff itself. In this time milk buyers buy milk because of the scarcity of the product at the market. Adulterated milk affects health of customers, especially when customers drink them without boiling.

WOMEN PARTICIPATION AT THE CBO:

Women comprise 34% of CBO members. Prior free market economy, the CBO had by-laws, which was forcing all milk sellers in Bunda Township to sell milk at the CBO. By so doing during that era all milk stuff in Bunda Township was collected by the CBO. Both women and men were equally participating fully in CBO milk business operations. However few cases of people who contravened the rule were taken to court of law for disciplinary action. So far, before 1990's there was a trade restriction where the CBO was given rights and monopoly to supply milk in Bunda Township. Following on trade liberalization in 1990's milk sellers were free to sell milk to customers without restrictions. That became an end of milk trade monopoly of the CBO. Now at the new era, every milk seller sells milk to his/her customers in Bunda town streets. Here under is an example of women milk sellers who were selling milk stuff in one of Bunda town

Women selling milk in one of Bunda Town streets.



Source: Project Report, 2006

Together with this situation, women are still participating accordingly and they dominate a big number of people who are selling milk to the CBO. The reasons behind their participation, women urge that;

- The CBO is the only organization, which could take care of their welfare;
- Through the CBO they can unite and be vocal before the public as well as to the government;
- The CBO could lead them to get capital, which is important for survival at the existing business competition. And added that;
- They could become more effective by using their CBO in milk marketing rather than dealing with individual businessman.

The above women's arguments are valid since unity is strength. They have to unite under the CBO to get strong capital base. There is no easy task; the present business environment is based on free market economy. Without having sound capital, being effective and efficient none can survive in market economy. So it is important for the CBO members, including women to participate effectively in all areas of business operation, as it is the only way, which can enable them to survive in a free market economy.

Marketing information

One of the major problems, which affect Small Scale and Medium Enterprise (SME) in Tanzania, is the difficulty of getting and dissemination of marketing information at the right time and at the write place. Like other areas in the country, SME sector including the CBO in Bunda district faces the same problem. Farmers and livestock keepers, think that whatever is produced, customers will

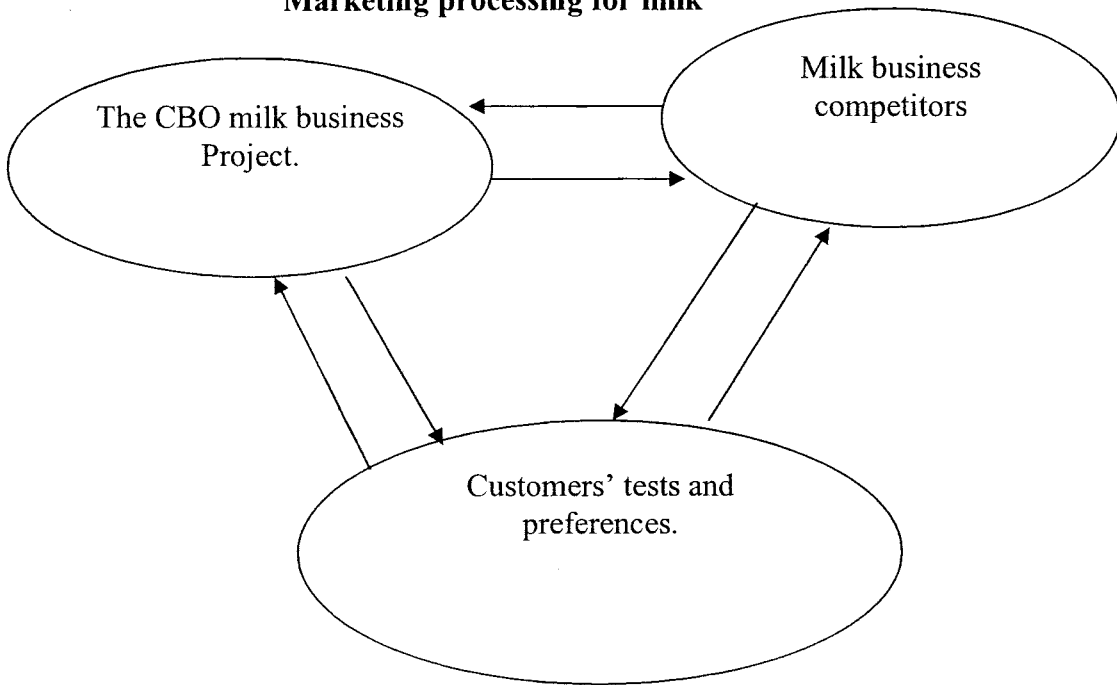
purchase it automatically. Milk vendors are sure that, what they send to the market, customers consume it automatically. The CBO members for sure know that, if they purchase milk from milk sellers, automatically they are going to sell it to customers. No one knows that, it is important to have thorough knowledge on customers' taste and preferences. This is a big weakness and it justifies hypothesis number one of this survey.

However to be safe and sustainable, this sector the CBO in particular should have marketing information in respect with;

- What should be produced and to whom it should be produced?
- What is the right time to produce a particular product?
- Where and at what particular place the particular product is needed?
- How the product has to be produced and handled to the customers?
- Which are the opinion and preference of customers?

Also they have to know their competitors who are they, what do they produce, what are the market of their products, how and when do they deliver their product(s) to the market. In brief the following diagram puts these ideas together.

Marketing processing for milk



Key : —————> Flow of marketing information to and back to respective entity.

The CBO competitors are well organized on the milk market situation and they always deliver what is required to the market. This becomes possible because they have capacity, knowledge and skills of marketing milk products.

Planning system

The CBO is a business-oriented organization, which focuses on profit making. This arena makes the CBO to become one of the business entities, which are at the field of business competition under free market economy. Within the field of free market economy, survival and development of any business entity depends on its efficiency and effectiveness. This market is open to anyone to enter or to leave away. If we look at the CBO as a business organization entity, it is within and operates under this system. The CBO therefore is required to cope with this situation /

environment. The CBO will never be granted for excuse or defense when things become horrible or when fail to perform.

Referring at this situation the survey came out with interest of observing on the mechanisms, which were used by the CBO in order to cope with that environment. The survey was interested to see and learn on planning system of the CBO. The members of the CBO explained that, normally the CBO makes one general meeting in each year. This meeting receives, discusses and approves the annual estimate of the CBO. The process of making annual estimate involves:

- The manager of the CBO prepares the initial draft of the estimate and present to the board of the CBO.
- The board of the CBO receives that draft and goes through it. They see each item and discuss on the validity and effectiveness of the budget to the CBO. After making necessary adjustments, finally they pass it and forward to the general meeting
- The general meeting gets this budget, discusses it and makes necessary adjustments (remove or add whatever they think is valuable) finally they approve it.
- Thereafter the budget is sent to the registrar of co-operatives for final approval.

Apart from annual estimate, the general meeting also;

- Elects the leaders of the CBO (the board of members of the CBO).
- Receive and approve new members of the CBO.
- Gets and discusses annual implementation report of the CBO. Here the members get implementation report, which consists annual income and expenditure and other reflections of the CBO business performance. The members discuss this report and take action in favour or against it.

However, This scenario led the survey to realize that, the planning process has no specific forums within the CBO. Again the CBO had no long-term strategic plan and there was no action plan. What was in place at the CBO was the annual CBO estimate (budget) only. The annual estimate/budget is just a part of action plan; other parts of the action plan are not included here. So the action plan perse was not in place. The CBO should correct this weakness, since operating without having strategic work plan document (guidelines) and implementational plan (annual work/action plan) within environment of free market economy will lead it to collapse.

Again this is a major weakness and a core area that led the CBO to get various problems of milk business operations. Inadequate knowledge of milk marketing and entrepreneurship skills, the use of poor tools and equipments in milk marketing, lack of capital for modernizing milk business operations and other operational problems are in place since, the CBO has no long term plan (strategic work plan) and short term plan (implementational work plan) for business operations.

Monitoring and evaluation of the CBO

In this section we are going to see and analyze critically this area in respect with CBO business operations. The board of the CBO is a responsible organ for making internal monitoring and evaluation. The role of the board members in respect to this function is stipulated by the bylaw of the CBO. Under normal routine practice of the CBO, the board of members has a duty roster, which display the name of the board member, date and day, month and the year a respective board member is to be on duty. Each board member attends on duty according to the schedule, and the outgoing member makes oral handle over to the succeeding member. All board members including the chairperson rotate on duty through out the year. In this respect, full time of the year there is at least one member who is for monitoring daily business activities at a CBO. Board members are paid on duty allowances daily when they are on work. Then the board members meet every month

to discuss business implementation performance of the CBO. The board members of the CBO report to the annual general meeting, which convene once a year.

The monitoring and evaluation system of the CBO as seen above is weak and it is not suffice to enable things to move accordingly at a CBO. What is present at the CBO is just a schedule of work, and not a monitoring and evaluation schedule. A monitoring and evaluation schedule is a tool, which guide/monitor implementation of activities and shows the methods that are to be used in progress. Missing of this tool makes the CBO to run without direction, and it is difficult to achieve its objectives. Therefore, the CBO is supposed to reorganize and establish/create monitoring and evaluation tool, which comprise all elements such as; objectives, verifiable indicators, and shows methods to be used in monitoring, criteria to be used and methods of evaluations.

However the challenges, which are in head of most professionals, is the question of how possible the organization of this level can manage to design reputable strategic plan, business plan, and monitoring and evaluation schedule. So far this challenge has never ever to stay. We better understand that, always all things are under the hand of the user. Again that, every one makes what leads him/her at the right destination. So whether plan of action of any kind has been designed by professionals or none professionals, what matters the plan should be implementable and achievable within a specific time. And that, what designed enable to achieve the desired objectives. Through this argument we conclude that, planning can be at all levels of business operations, they just differ in details and level of operations.

Marketing functions

In symmetrical representation we can justify that, if $1 = 2$ and $2 = 3$, then $1 = 2 = 3$. i.e. If one resemble two and two resemble three in all characteristics, functions, appearance and legality then

there is no further question and doubt that, those elements are not equal. Also by using simple and applicable logic this equation is true.

When we use above example at our discussion, we see that, business oriented organizations are having the same objective, which is profit making. A business organization won't survive if don't manage to operate with profit. These facts bring up that, all business oriented organizations regardless of its level and size of operations are equal. They focus on profit making and this is the principle of surviving and sustaining in business. This means that, regardless of the size and level of operation, the CBO (Serengeti Dairy Cooperative Society) should focus on profit making. This is a common principle for profit-oriented organizations. These expressions therefore prove the first equation, which says that $1 = 2 = 3$.

But, when we go in detail, 1 is not equal to 2 and 2 is not equal to 3. It is obvious and true that, these three numbers are not equal. This is true by the sense that, three has more value than one and two, and two has more value than one.

This means that, big and complex organization have complex system of business operations. They are automated and operations run with sophisticated machines and they are very efficient. They cannot be compared with small organization, which are running in manual bases. This case therefore proves the second expression, which says that one is not equal to two and two is not equal to three.

However, the intention of providing those empirical examples is to put forward a valid argument that, all business oriented organization regardless of the size and level of operations, they should operate and run by using improved marketing functions. Contrary to that the respective organizations won't survive and sustain.

Now, when we look at our CBO, things were not good. The CBO was regarding itself that; it is small in size and it operates at small area. Apart from this notion, the level of education and skill of marketing they had, led them to be ignorant on the essence of marketing functions. In general this knowledge was not in place at the CBO. So the CBO were operating according to what they best know.

However, this situation was contributed much on low performance of the CBO. In the previous discussion, we see that performance of the CBO was not much attractive. Together with a combination of various reasons, this area was also contributing for this situation to happen. So far, by moving in this way, the CBO will never go far, it will collapse without notice. In this regard therefore, the CBO is advised to get knowledge and skills of milk marketing and entrepreneurship skills. This should be provided to the members, leaders and staff of the CBO.

The CBO operation policies and regulations

The CBO has been governed by various policies on operating it's business. In the file of the CBO, which consists policies, the survey got the following documents;

- i. **Staff incentive policy.** The CBO staff incentive policy describes and puts clear incentives that the employ is deserved to get. These include;
 - Workers have to be paid when they work in weekends and holidays
 - Workers have to get lunch during working hours.
 - When workers get sick, the CBO is to care that case.
 - If the CBO gets profit, the workers and board of the CBO get bonus.
 - Employees are allowed to get salary in advance when they like to do so.

When the survey needed to know whether workers are getting those incentives, the employees said “yes, we are getting them when we qualify to get it”.

- ii. **Working hours policy.** This policy expresses that;
 - The CBO working hours is from 6.30 a.m. to 6.30 p.m. dairy.
 - Workers are not allowed to move out of working place without notification and permission respectively.
 - Absence in work must be communicated; otherwise the worker must be punished.
- iii. Customers' milk containers have to be in queue when waiting to be sold.
- iv. Apart from policies and regulation, the CBO has by-laws, which govern the mode of "operandum".

However, together with having the mentioned operational guiding instruments, we were notified that, there are various resolutions, which have not yet implemented or they are in progress. These include;

- Constructing a building, which accommodate office and milk business operations of the CBO. This work has already started and the building has been elected, but not yet finished due to the lack of funds.
- Establishing milk-processing industry. This idea has not yet implemented, as the CBO has no fund to commence and implement the project. Also they are missing technology for implementing this project.
- Establishing of milk collecting centers with cooling system within the areas where they collect milk. The same thing is applied here, the CBO has not yet implemented this project since, and it has no funds.
- Purchasing of milk tanked van, which will be used to collect distant milk. The project also is in problem since; there is no fund to implement it.

Eventually, we appreciate the CBO to possess operational policies and guidelines. These tools put in place working discipline of workers. Also they motivate the workers to work hard. We therefore, encourage other CBOs to replicate this idea all over the district.

Appendix 2

BUNDA DISTRICT COUNCIL

COOPERATIVE DEPARTMENT
BOX 121
BUNDA.
October 4, 2006

Ref. No. HB/SDC/82

THE CHAIRMAN AND BOARD OF MEMBERS
SERENGETI DIARY COOPERATIVE SOCIETY LTD
BUNDA.

RE: INTENTION OF VISITING SERENGETI DIARY COOPERATIVE SOCIETY LTD

Please may you refer the above heading.

I'm a cooperative officer who is studying Master of Science in Community Economic Development at the Southern New Hampshire University. I'm interested to work with you by conducting a survey on milk marketing at your project. Through this intervention I will learn much from your experience. Also I will use this opportunity to deliver trainings and other reputable advise to the CBO.

With this regard, I request you to allow me to visit you and conduct this survey. Please if you agree let me know the exactly day of meeting you.

Yours sincerely

Majige, Kululetela Nyamutondo.

Appendix 3

THE CHAIRMAN AND BOARD OF MEMBERS
SERENGETI DIARY COOPERATIVE SOCIETY LTD
BUNDA.

October 10, 2006

MAJIGE, KULULETELA NYAMUTONDO
COOPERATIVE DEPARTMENT
BOX 121
BUNDA.

**Ref: REQUEST OF VISITING OUR CBO AND MAKE A SURVEY ON MILK
MARKETING**

We acknowledge for getting your letter of October 4, 2006.

After receiving this letter the board of members of the cooperative society accepted your request and diligently invite you to visit us on the day you feel is convenient to you.

We anticipate to give you maximum assistance wherever needed.

Yours

Mwita Gweso

**The manager of CBO
Bunda.**

NB: this is a translation of the letter of the CBO.

Appendix 4

THE CHECK LIST OF QUESTIONS USED IN SEMI-STRUCTURED INTERVIEW

1. When did the CBO started?
2. What were the forces and aims behind for establishing the CBO?
3. What are the major problems your CBO is experiencing?
4. What are thought to be the solutions of the above-mentioned problems?
5. How do you address those problems according to priorities?
6. How are the projects could address those problems?
7. What kind of extension services do you need?
8. To what extent do you think you can benefit from that extension services?
9. What resources are needed in implementing the project?
10. What physical resources are available (e.g. housing, land, materials, tools and equipments)?
11. Could you mention other needs, which are important for project implementation?
12. Who are people with special skills in your CBO?
13. Do you need external support? Explain to what extent this support could contribute to the success of you project implementation?
14. How the CBO could contribute to the project implementation.

Appendix 5

Frequencies

problem of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid P 1	6	24.0	24.0	24.0
P 2	2	8.0	8.0	32.0
P 3	4	16.0	16.0	48.0
P 4	3	12.0	12.0	60.0
P 5	10	40.0	40.0	100.0
Total	25	100.0	100.0	

age of respondents

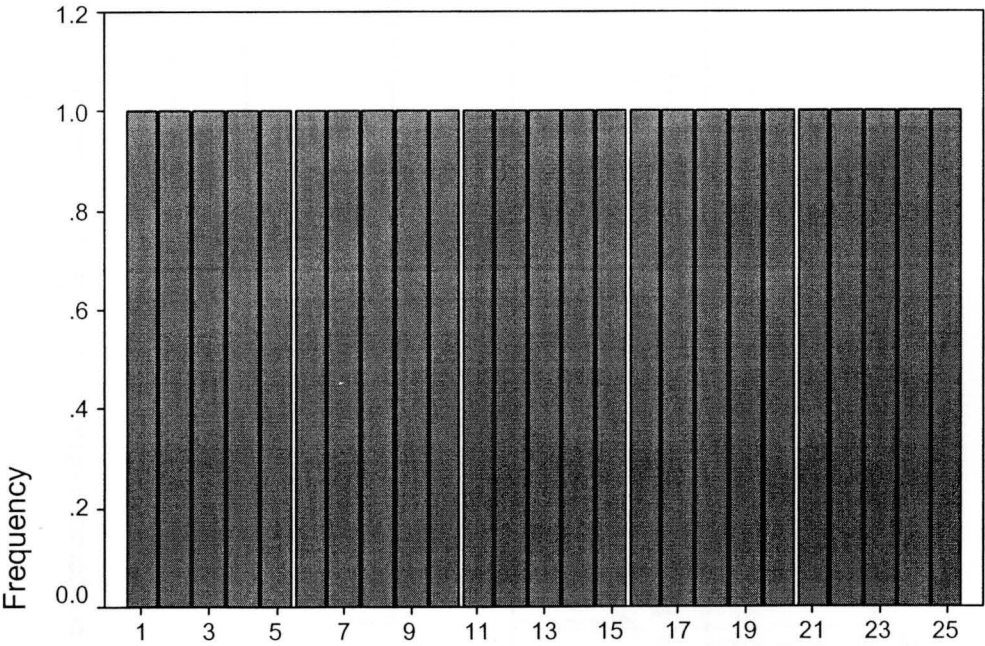
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 21-30	8	32.0	32.0	32.0
31-40	7	28.0	28.0	60.0
41-50	7	28.0	28.0	88.0
51-60	2	8.0	8.0	96.0
61 and above	1	4.0	4.0	100.0
Total	25	100.0	100.0	

sex of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	female	9	36.0	36.0	36.0
	male	16	64.0	64.0	100.0
	Total	25	100.0	100.0	

Bar Chart

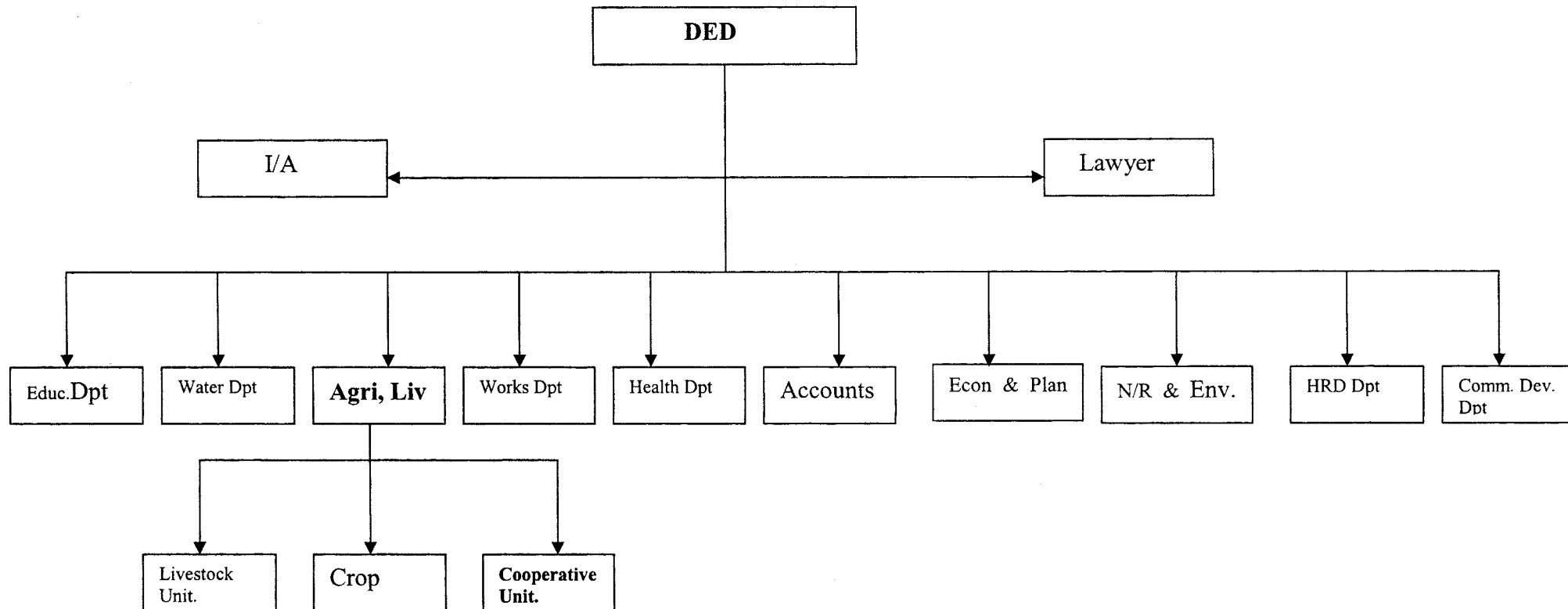
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case of resp[ondents

Appendix 6

The position of the district cooperative officer (the author) at organizational structure of Bunda District council



Plan of work for the project – CED student scope of work to the project

The CED student was planned to implement and accomplish tasks as indicated by the table here below

Plan of work for 18 months

<i>NO</i>	<i>ACTIVITIES</i>	<i>RESPONIBLE</i>	<i>RESOURCE</i>	<i>DELIVERY TIME</i>
1	Identification of training needs.	Facilitator, target group.	-	7 th to 14 th Jan 2006
2	Preparation of training materials/manual	Facilitator.	Fund	14 th to 30 th Jan 2006
3	Identification of resources (Human and material resources) required for training	Facilitator	-	1 st to 5 th Feb. 2006
4	Identifying training venues.	Facilitator	-	6 th to 8 th Feb 2006
5	Identifying the target group and number of participants in training.	Facilitator	Funds	6 th to 8 th Feb 2006
6	Acquiring required training resources.	Facilitator	Funds	9 th to 15 th Feb. 2006
7	Target group leaders meeting preparation in order to inform them, compromise and confirm training schedule	Facilitator	Skilled Personnel	20 th to 22 nd Feb.2006
8	Conducting meetings with CBO members on awareness creation and making training on effective milk marketing and entrepreneurship skills.	Facilitator and target group.	Skilled Personnel	1 st March to 30 th April 2006
9	Conducting meetings with community, milk vendors and customers on awareness creation and	Facilitator and	Skilled	1 st May to 31 st July

	training on effective milk marketing and entrepreneurship skills.	target group.	Personnel	2006
10	Training the target groups on the concept of 4 Ps (Product, Price, Promotion and Place) in relation to milk marketing	Facilitator, CBO members	Skilled Personnel	1 st Aug – 31 st Nov, 2006
11	Training the CBO members on being customer and business oriented. Since this is a gradual process, in future we anticipate the CBO to discharge quality and customer oriented products which are competitive to the market.	Facilitator and target group.	Funds and Skilled Personnel	1 st Dec 2006 to 15 th Jan 2007
12	Training the CBO on business planning and plan of operation. The CBO learn to prepare strategic plan and prepare annual implementation plan. Through regular training, which is to be conducted, the members of the CBO will prepare strategic plan and business operation plan themselves in future.	Facilitator and target group.	Funds and Skilled Personnel	15 th Jun to 15 th Aug 2006
13	Monitoring, follow up and evaluation.	Facilitator and target group.	Funds & Skilled Personnel	7 th Jan 2006 to 15 th Jan 2007

Appendix 8

JOB DESCRIPTION

THE MANAGER – JOB DESCRIPTION

- Top executive of the CBO.
- Overall supervisor of the CBO activities.
- Preparation of CBO plans of operation - strategic plan, business operation plan and action plan and present to the CBO board members and at a general meeting.
- Preparation of implementation plans and presents it to the CBO board members and at a general meeting.
- To supervise milk collection and selling to customers.
- To supervise milk handling and quality control at the CBO.
- To make inside and outside contacts and correspondence on behalf of the CBO.
- To supervise milk business to run by using best practices.

THE BOOKKEEPER - JOB DESCRIPTION

- To keep the books of accounts of the CBO.
- To keep records of the CBO.
- To write the books of accounts of the CBO.
- Prepare final accounts of the CBO.
- To prepare financial report of the CBO and present to the manager.
- To advise the manager on financial matters of the CBO.
- Paying milk sellers.

MILK COLLECTOR - JOB DESCRIPTION

- Collect milk from milk sellers.

- Preserving milk.
- Cleaning milk selling and collection tools and equipments.

MILK SELLER - JOB DESCRIPTION

- Selling milk to customers.
- Preserving milk.
- Cleaning milk selling and collection tools and equipments.

Appendix 9

Projected cash flow January 2006 to January 2007. Tshs “000”

Description	J	F	M	A	M	J	J	A	S	0	N	D	J
<u>Cash in flows</u>													
Milk sells	3,082	3,597	3,643	4,163	4,083	3,054	241	101	62	63	117	3,513	3,083
Other income	-	20	40	30	-	-	100	65	100	80	70	-	-
Total cash in flows.	3,082	3,617	3,683	4,193	4,083	3,054	341	166	162	143	187	3,513	3,083
<u>Cash out flows.</u>													
Milk purchases	2,311	2,698	2,732	3,122	3,062	2,291	200	83	51	52	97	2,635	2,311
Salaries and wages	240	240	240	240	240	240	50	50	50	50	50	240	240
Rent	30	30	30	30	30	30	30	30	30	30	30	30	30
Fire woods	12	12	12	12	12	9	2	1	1	1	1	9	12
Tools and equipments	-	30	-	-	-	-	-	-	-	-	-	-	-
Transport costs	24	-	-	-	-	24	-	-	-	-	-	24	-
Board members allowance	-	-	9	-	-	-	-	-	9	-	-	9	-
Training costs	-	-	287	-	-	-	-	-	-	-	-	-	-

Other costs	220												
Total cash out flow.	2,777	3,010	3,310	3,404	3,344	2,114	332	164	141	133	178	2,947	2,593
Net cash flow	305	607	373	789	739	940	9	2	21	10	9	566	490
Cumulative cash flow.	305	912	1,285	2,074	2,813	3,753	3,762	3,762	3,785	3,795	3,804	4,370	4,860

Appendix 10

QUESTIONNAIRES FOR MONITORING

QUESTIONNAIRES`ADIMINISTERED TO CBO MEMBERS

- i. What are the major problems, which the CBO had been facing for milk business marketing before project intervention?
- ii. What are the possible solutions of these problems?
- iii. Does established project address those problems?
- iv. How many litres of milk are spoiled daily? How Provided knowledge and skills address this problem?
- v. What about the milk vendors in relation to those problems?
- vi. Is milk perishability decreasing? Why ?
- vii. Does established project provide relief on this problem? and how?
- viii. Which measures are to be taken to solve this problem?
- ix. What are the necessary pre requisites for addressing this problem?
- x. How should be done?
- xi. Could these solutions be applicable to the CBO and milk producers?
- xii. If Yes or No explain and propose the how and what should be done?

QUESTIONNAIRES`ADIMINISTERED TO MILK SELLERS

- i. For sure you are providing services to the community, do you think your services are acceptable by the community?
- ii. If Yes or No explain how and why?
- iii. Who are your customers?

- iv. You were complaining on milk perishability, what do you think is the cause of this problem?
- v. How the project address this problem?
- vi. How do you manage to attain your planed objective?
- vii. If there is a problem, what could be the possible solution of this problem?
- viii. What are the necessary pre requisites for addressing this problem?
- ix. How should be done?
- x. Are the milk sellers aware the negative effects of the persistence of these problems?
- xi. Do you need external support for approaching the problem?
- xii. Explain to what extent this support could contribute to the success of approaching this problem?

QUESTIONNAIRES' ADMINISTERED TO MILK CUSTOMERS

- i. Where do you get milk products?
- ii. What kind of products do you get?
- iii. Are you satisfied with delivered product? And the way of delivering that staff?
- iv. If yes or No, explain.
- v. What do you think are the causes of the problem you raised?
- vi. How do you think these services could be improved?
- vii. Is there any knowledge, which is necessary to be provided to milk sellers?
- viii. If Yes what are the kind of specific knowledge is needed?
- ix. We know Serengeti Dairy is one of the major suppliers of milk staff to the public. Can you tell us the strength and weaknesses of this organization on performing this business?
- x. How do those weaknesses affect the organization?
- xi. Are there any possibilities for remedies?

- xii. If yes what are they?
- xiii.** In general what should be done by the organization in order to provide best services to the community

Appendix 11

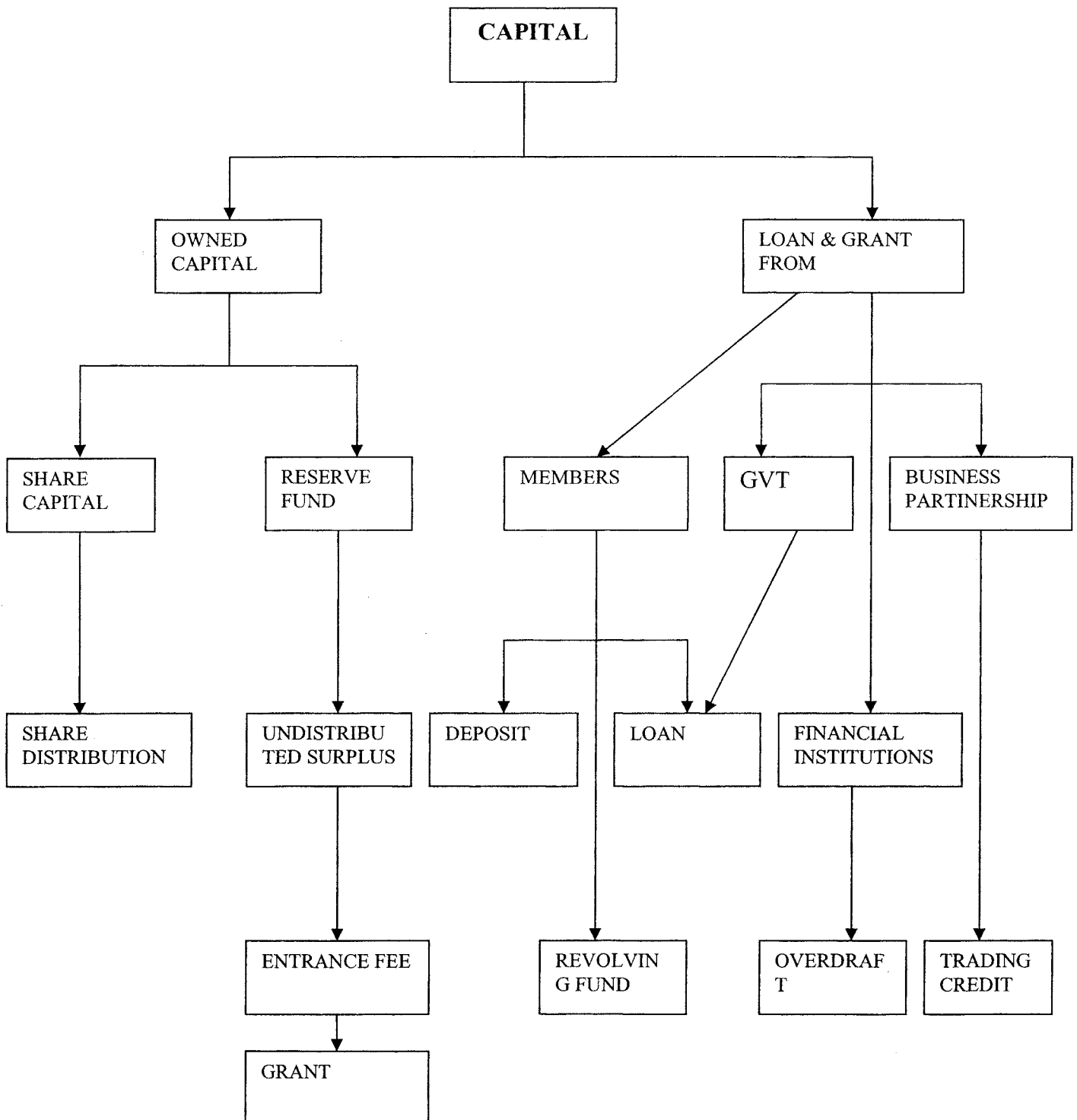
QUESTIONS USED IN INTERVIEW TO MEASURE PROJECT PERFORMANCE

OUTPUT AND IMPACT OUTCOME

1. How many liters of milk did you plan to sell from January 2006 to January 2007?
2. How many liters did you sell from January 2006 to January 2007?
3. Did you manage to achieve the planed objective within this period? YES / NO.
4. If YES / NO explain.
5. Explain the general performance of planed objectives of purchases and selling within this period.
6. How many customers did you attend from January 2006 to January 2007?
7. Were they increasing or decreasing? If YES / NO explain.
8. How liters of milk were spoiled monthly within this period?
9. How many complaints did the CBO got on milk hygiene?
10. Does milk hygiene conform agreed standard?
11. What about milk adulteration, is it increasing or decreasing and why?
12. Does the CBO managed to competing with other milk sellers? If YES / NO explain.

Appendix 12

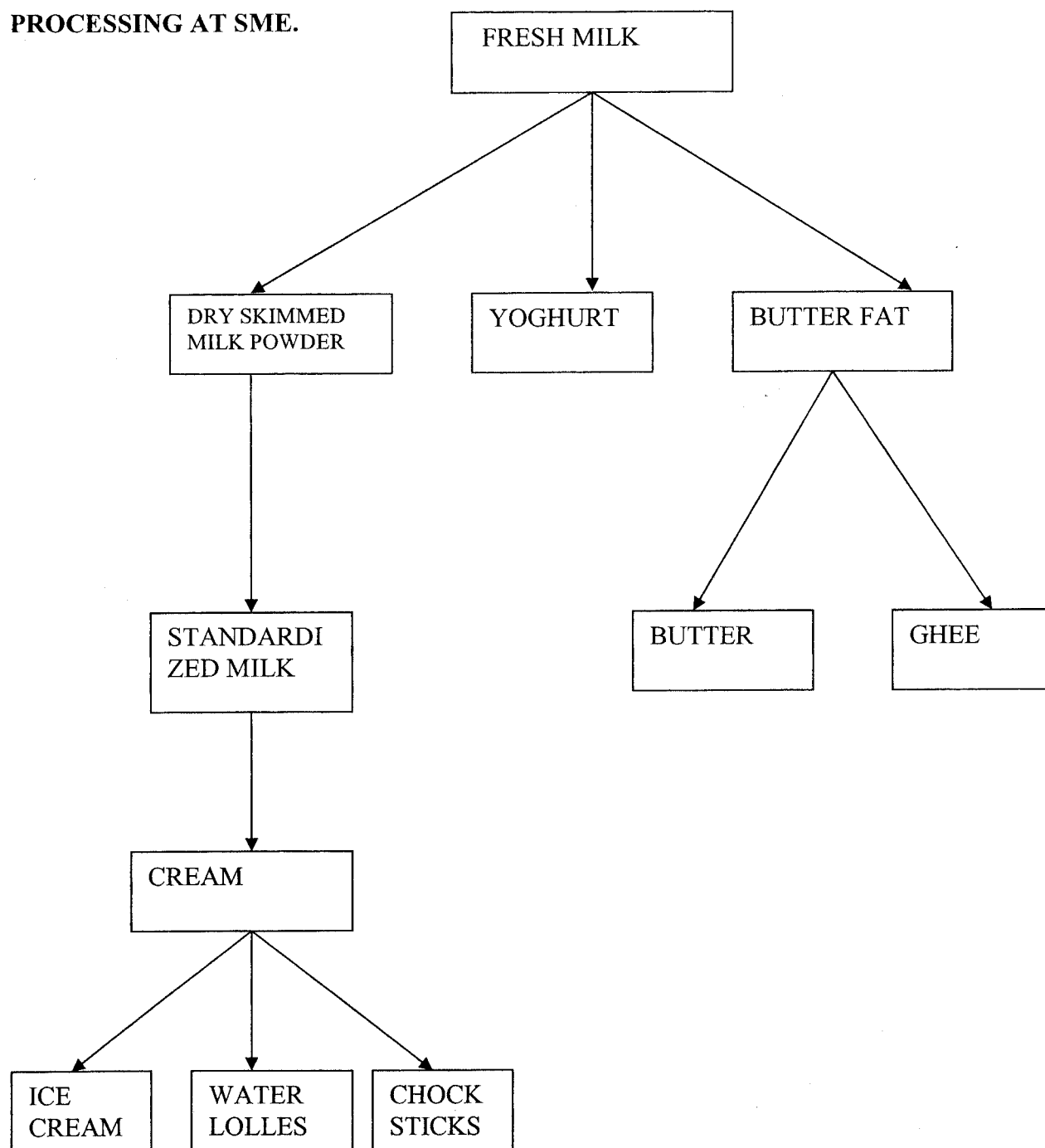
POSSIBLE SOURCE OF FUNDS FOR THE CBO



Source; H.C. Helm, the Economics of Cooperative Enterprise

Appendix 13

SOME OF MILK BY PRODUCTS, WHICH CAN BE GENERATED THROUGH MILK PROCESSING AT SME.



Source: Appropriate management system for agricultural cooperative in Tanzania

MILK HANDLING AND QUALITY CONTROL - A WAY FORWARD FOR INCREASE INCOME TO THE COMMUNITY.

**The case of Serengeti Diary Cooperative
Society Ltd in Bunda District (Tanzania)**

**PRESENTED BY: MAJIGE, KULULETELA
NYAMUTONDO**

CBO PROFILE

Serengeti diary cooperative society is a community based organization, which is located in Bunda Township, Bunda ward, Serengeti division, Bunda district. The major business for the cooperative organization is milk marketing.

CBO PROFILE CONT.

The cooperative organization was used to supply and sell milk at the market in three forms:

- Fresh unsterilised milk
- Fresh pasteurized milk
- Coagulated milk

Eventually the Cooperative organization was selling those products at the same price.

PROJECT BROAD OBJECTIVE.

The main objective of this survey project is to improve milk handling and quality control in such a way that the CBO milk business becomes sustainable. As well it is to provide knowledge and skills of milk handling and quality control to milk sellers, producers and consumers in Bunda Township and six villages, which supply milk in Bunda Township.

SPECIFIC PROJECT OBJECTIVES

- To conduct and create awareness creation campaign to the CBO members, milk producers and milk vendors on proper milk handling and hygienic control.
- To build capacity of the target group (the CBO, milk producers and milk vendors) through training on best practice of milk handling and quality control.

PROBLEM STATEMENT.

The CBO faces a problem of high perishability and spoilage of milk staff.

Factors which were leading to be in place include:

- Poor milk handling and quality control
- Low knowledge of milk management and milk economics.
- Lack of technology and capacity of milk processing.

SURVEY METHODS AND SAMPLING:

SURVEY METHODS.

This survey is characterized by a combination of both participatory and non-participatory methods. Participatory methods by the sense that the members of the CBO participated in data collection at all stages, and non-participatory by the sense that the survey made analyses according to data collected in hand.

Each method was used at the most suited area and sometimes more than one method was used at a time (combined) to collect data.⁷

SURVEY METHODS CONT.

The type of survey instruments/methods used in data collections:

- Self-administered questionnaire and guided questionnaire.
- Inter personal interview.
- Review of documents and
- Observations.

SAMPLING:

Both Probability and non-probability sampling were used in sample selection. Where, simple random sampling and stratified random sampling were used in probability sampling, purposive sampling was used in non-probability sampling.

In non-probability sampling the survey decided to use purposive sampling in favour of other methods. This is because this method enables to get direct the intended respondent(s). Also it was easy to do it.

LITERATURE REVIEW.

Theoretical, Imperial and Policy review literatures was visited. This was important in order to get information, knowledge, experiences and how was the problem addressed from other areas

PROJECT IMPLEMENTATION.

Activities implemented include:

(i) Training the target groups on the concept of 4 Ps (Product, Price, Promotion and Place) in relation to milk marketing

(ii) Training the CBO members on being customer and business oriented. Since this is a gradual process, in future we anticipate the CBO to discharge quality and customer oriented products which are competitive to the market.

PROJECT IMPLEMENTATION CONT.

Activities implemented cont:

(iii) Also the target groups were trained on effective ways of milk business operation with emphases of milk marketing and entrepreneurship skills. The question of proper milk handling and quality control was part of this training.

MONITORING, EVALUATION AND SUSTAINABILITY.

MONITORING

Monitoring was conducted through out of project implementation. The process involved some the members of the target group. The area of interest and parameters involved in monitoring include:

- People involving in training.
- Training area / knowledge and skills provided.
- Relevance of delivered materials.
- Changes taking place in respect with provided trainings.

EVALUATION

Internal and external evaluation is planned be done to the Project. Evaluation was agreed to be done at the following areas; Implementation of planned activities, Achievement of objectives, Project output and outcome, Efficiency / cost effectiveness of the project. The first evaluation (formative evaluation) has been done in January , 2007 and second evaluation (summative evaluation) was proposed to be done in December 2007

SUSTAINABILITY

The project is expected to be sustainable because:

- The CBO were empowered and trained on better practice of milk marketing and entrepreneurship.
- The CBO Members' were involved and participated to identify training program.
- The market of milk is there and the CBO has opportunity of getting it.
- After being trained, the CBO decided to establish SACCOS for self financing.

CONCLUSIONS

The knowledge milk handling and quality control to the community had been minimizing the problem of milk adulteration. The rate of adulterated milk at the CBO was decreasing gradually and we hope in the long run this problem will be finished.

CONCLUSIONS

Also the study recognized that, low capital to the CBO was one of the factors, which led to adverse milk operation conditions to the CBO. The CBO was operating milk business by using own equity, it had no other source of fund. That fund was inadequate to finance milk business at efficiency.

RECOMMENDATIONS

The survey recommends that, training to the target group should be done in continuous bases specifically focusing at: Knowledge and skills on milk marketing and entrepreneurship.

Also the project should prepare strategic plan and action plan.

The entire community has to get their own funding sources by establishing savings and credit project as well as soliciting external funding.