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# USAID KENYA DAIRY SECTOR COMPETITIVENESS PROGRAM

QUARTERLY PROGRESS REPORT

APRIL 2010 - JUNE 2010

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## List of Acronyms

BDS	Business Development Services
CAIS	Center for Artificial Insemination Services
DTF	Dairy Task Force
DVO	District Veterinary Officer
ESADA	Eastern and Southern Africa Dairy Association
GMP	Good Management Practices
HACCP	Hazard Analysis and Critical Control Points
HPI	Heifer Project International
ICT	Information Communication and Technology
IPM	Integrated Pest Management
NKCC	New Kenya Cooperative Creameries
KDB	Kenya Dairy Board
KDSC Program	Kenya Dairy Sector Competitiveness Program
KENDAPO	Kenya National Dairy Producers Organization
KLBO	Kenya Livestock Breeders Organization
LOL	Land O'Lakes, Inc.
MBC	Milk Bulking Center
MOLFD	Ministry of Livestock Development
MOLD (DVS)	Ministry of Livestock, Department of Veterinary Services
NEMA	National Environment Management Authority
NGO	Non Governmental Organization
PCPB	Pesticide Control Products Board
PERSUAP	Pesticide Evaluation Report Safer Use Action Plan
PEV	Post Election Violence
PMO	Pasteurized Milk Ordinance
PMP	Performance Management Plan
RMC	Resource Mobilization Centre
SBO	Smallholder Business Organizations
SoW	Scope of Work
SITE	Strengthening Informal Sector Training and Enterprise
SNV	Netherlands Development Organization
USAID	United States Agency for International Development
WRUA	Water Resource Users Association
WWS	World Wide Sires Consortium

## Executive Summary

The report summarizes the key activities implemented and the associated accomplishments for the USAID Kenya Dairy Sector Competitiveness (KDSC) program in the third quarter of the 2009/10 Fiscal Year. KDSC activities contribute to the achievement of intermediate results under USAID/Kenya Mission's SO7 on "Increasing Rural Households Income."

## Key Highlights

The key highlights for the reporting period include:

### Sub sector level impacts

- Program impacts at farm level, especially interventions targeting increasing productivity, have realized immense benefits for the industry. According to the Kenya Dairy Board (KDB) Managing Director, "What we have seen in this country as a result of your contribution is very interesting. Last year was a disaster because of the drought and people feared the industry would collapse. Your work has turned this around. A lot of work has been done at farm level and the milk glut/excess milk supply is a result of increased farm level production and not imports as people are saying."
- Observed a reduction in milk volumes traded through Smallholder Business Organizations (SBOs) working with the program. This was mainly due to participating farmers resorting to selling milk to alternative markets because of low prices and delayed payments from processors. Milk sold declined from 59,497 MT reported in the last quarter to 44,027.78 MT in the current quarter.
- **Program activities targeting increased provision of Business Development Services (BDS) in the milk sheds led to the creation of 34 new jobs.** These are new jobs created in SBOs who now provide additional services other than milk cooling, and new service providers—artificial insemination and demonstration farmers.

### Component One: Enhance Capacity for Milk and Production Input Quality Certification and Market Promotion

- In collaboration with key industry stakeholders, a Milk Quality Improvement Program was launched aimed at ensuring consumer safety and expanding the export market in the reporting period. The milk quality improvement program is led by the KDB and will mainly be driven by the outcomes of KDSC's quality interventions, especially the reviewed Good Manufacturing Practices (GMP) and the revised version of the Hygienic Code of Practice standards whose review have been facilitated by KDSC.
- The Dairy Task Force (DTF), through the Kenya KDB, commenced mopping up excess milk in the quarter. The KDB has been purchasing excess processed milk in the reporting period and distributing to schools—both long-life and powder—in a move expected to capitalize formal processors and ease congestion in their stores and ultimately increase volumes and farm gate prices of raw milk that they buy and process from farmers. This is an outcome of the DTF negotiated and KDSC-facilitated provision to create a national strategic reserve for milk and milk products (like in the grain industry), and thus have an institution acting as a buyer of last resort to stabilize prices and to mop up excess milk.
- Finalized the development of an industry-wide Web-based application that will serve as a complete dairy and livestock management information system for the livestock industry.
- Leveraged an estimated \$200,000 in non-program resources in the reporting period. Program interventions targeting cold chain development, especially investment in cooling units at milk bulking level realized two cooling units in the reporting period in two SBOs. Together with

housing, installation costs and other accessories, the two SBOs are investing a total of 15 million shillings (US\$ 200,000) with a total cooling capacity of 15,000 litres. This now takes the total non program resources leveraged to US\$ 25.17M, which surpasses the program overall target of US\$ 25M.

#### Component 2: Develop Dairy Smallholder Business Organizations

- **Facilitated the training of over 8040 farmers in this quarter.** Program interventions focused on training dairy farmers to equip them with the necessary technical skills to increase herd productivity and incomes. The training forums, organized in collaboration with key stakeholders such as private service providers, Ministry of Livestock extension personnel, and the KDB covered diverse topics such as feed/fodder production, appropriate feeding regimes, feed conservation and formulation, modern breeding techniques and milk handling hygiene. **The cumulative number of farmers trained in the two years of implementation is now 47,776.**
- Continued linking SBOs to BDS providers to enable the organizations to grow their businesses. Program interventions in this component have cumulatively benefitted 91 farmer organizations and 149,217 households compared to the target of 75 farmer groups and 180,000 households respectively by end of Year 3 of program implementation. An additional **3,024 rural households benefited from program interventions** in the quarter. We have surpassed the targeted number of farmer groups strengthened.
- Linked three SBOs to input suppliers and facilitated the provision of embedded services other than milk bulking and cooling by the SBOs in the quarter. These organizations now supply artificial insemination services, milk cooling services, milk transportation services, and also supply feeds to members on a check-off basis.
- Continued providing market information, facilitating market linkages, and engaging in market research for producer groups working with program in the reporting period. The program facilitated a market research to identify alternative markets for SBOs in Trans Nzoia Milk Shed to enable them diversify their milk markets. In Gatanga Milk Shed, farmers selling through Kikama Milk Marketing Federation now receive Kshs. 2.20 above what NKCC, their main market, offers after being linked to East African Dairy.
- Facilitated business planning for 13 additional SBOs in the quarter. This is designed to create a business orientation in operations within farmer groups. The plans are expected to help develop business-oriented smallholder dairy cooperatives. One SBO, Umoja Sotik Dairy in Kericho Milk shed, has used their business plan to acquire a loan of Ksh. 10 million (about US\$ 133,000) from a local financial institution, The Kenya Cooperative Bank. They will use the money to buy and install a 10,000-litre milk cooling tank and to build an office block. Ruskebei Dairy Cooperative Society in Kericho Milk shed has also implemented an artificial insemination investment plan whose development was facilitated by the program in the reporting period. The SBO is using own funds from farmer share contributions in implementing the plan.
- Facilitated strategic planning for seven producer groups to enable them to comply with government regulations in the quarter.

#### Component 3: Increase Availability of Dairy Business Development Services

- Recruited and trained **84** new business service providers in the quarter. **This now takes the total number of service providers working with the program to 711.** These experts work with and deliver productivity enhancing technologies to specific farmer groups. **278 service providers now supply additional services** (feeds and feeding, extension, cow registration, feed conservation especially silage making, among others) to their clientele after attending program facilitated capacity building workshops and seminars. **The program has**

**surpassed the target of 250 service providers providing additional services to farmers by end of Year Three of program implementation.**

- **Over 2886 farmers acquired loans due to linkages with financial service providers that were facilitated by the program in the quarter.** One BDS provider who needed to expand his business/increase efficiency of service rendered to farmers also benefitted.
- Provided technical assistance to Lari Alliance, a milk processing company in Kinangop Milk Shed, towards preparation of a business plan which was subsequently submitted to BID Network Foundation. The organization seeks to promote entrepreneurship in growing economies including Africa, Asia and Latin America and facilitate platforms/interactions between micro and small enterprises and nontraditional financial service providers such as fund managers, investments banks and other development programmes. The business plan was reviewed and found to present great potential. The company representatives were then invited to a match making conference to meet potential investors in the Netherlands between the 28<sup>th</sup> of May and 5<sup>th</sup> of June 2010.

## **I.0 Introduction**

Land O'Lakes is implementing the USAID Kenya Dairy Sector Competitiveness (KDSC) program with the financial and technical support of the United States Agency for International Development (USAID). KDSC is a five-year program that aims to improve Kenya's dairy industry competitiveness. Under this program, Land O'Lakes, Inc. employs a market-driven value chain approach, utilizing a Business Development Services (BDS) methodology. KDSC will help transform the Kenyan dairy industry into a globally competitive, regional market leader, with the overall goal of increasing smallholder household income from the sale of quality milk. Land O'Lakes is facilitating this transformation, while the industry stakeholders are leading it.

The program objectives are three-fold:

- Increase competitiveness of the Kenyan dairy sector through collaboration among sector stakeholders and increased capacity of public sector agencies to serve the needs of the sector;
- Increase marketing of milk meeting quality standards by producer-owned milk bulking/cooling businesses; and
- Enhance access to market-linked business development services and technologies by male and female dairy farmers and processors producing dairy-related inputs.

In its implementation, the program pays particular attention to environmental and gender concerns and effects corrective action as appropriate. KDSC takes into account the varying roles, assets, knowledge and skills that men, women and youth bring to dairy farming. The program therefore facilitates the implementation of opportunities for integrating youth and family members into dairy value-chain economic activities.

### **Towards Strategic Objective 7**

KDSC contributes to the USAID Strategic Objective 7.0 on "Increased Rural Household Incomes." The program is implemented through a range of activities grouped into three broad components. The components and the associated deliverables are:

Component I: Enhanced Capacity for Milk and Production Input Quality Certification and Market Promotion

Deliverables include:

- Increased smallholder household income.
- Increased use of technology.
- Improve and enact industry policies and acts that enhance competitiveness.
- Develop and implement/enforce quality certification frameworks and work towards a graded payment system.
- Dairy enterprises achieve national/international certifications and enforce quality regulations on suppliers.
- Increase feed marketed under new quality standards.

## Component 2: Dairy Smallholder Business Organization (SBO) Development

The key deliverables are:

- Producer organizations strengthened.
- Increased number of milk bulking centres (MBC) with Hazard Analysis and Critical Control Points (HACCP) and /or SBOs with national certifications.
- Increased raw milk sales by SBOs under agreements that pay a premium for quality.
- Increased gross revenue of milk bulking/cooling businesses from sale of inputs and services other than milk.
- Increased number of SBOs transformed into sustainable businesses entities.
- Increased number of cooling units installed/rehabilitated by SBOs.

## Component 3: Availability of Dairy Business Development Services

Key outcomes/impacts will include:

- Enhanced range of business services to producers.
- Increased value of services/inputs provided by business service providers.
- Increased number of smallholders purchasing private sector services at full commercial rates.
- New technologies or management practices made available for transfer.
- Increased number of dairy farmers receiving loans from financial service providers.
- Increased number of smallholders engaged in new, diversified dairy-related enterprises.
- Increased number of dairy farmers receiving short-term training.

## Implementation Strategy and Key Activities

KDSC is implemented using innovative, international best practice approaches and methodologies that ensure achievement of expected results and sustainability of impacts long after the end of the program. Using this methodology, Land O'Lakes, Inc., the implementing agency, through local service providers and facilitators, supports market-based services/solutions and action-oriented policy research to overcome both industry-level and enterprise-level constraints to competitiveness at key points along the dairy value chain. Industry stakeholders have since been engaged to identify competitiveness constraints, and propose solutions to these constraints.

## 2.0 Program Implementation

In the reporting period, the program continued to address sector challenges, constraints and stakeholder concerns and realized significant achievements. Program efforts especially focused on putting in place sustainable solutions to the challenge posed by increased milk production observed in the previous quarter and in the reporting period. As reported in the Quarter Two report, the country has been experiencing increased supply of milk over and above the retailing capacity of the formal sector. This has led to the stockpiling of processed milk products, especially long-life milk and powder milk. Formal milk traders have responded by reducing farm gate prices—in some cases by close to 47% compared to farm gate price last year. This has led to a number of farmers who were previously selling to the formal milk market through SBOs working with the program opting to sell to informal milk traders. This has implications especially on sustaining the realized farm level productivity gains and household incomes given the fluctuating/volatile manner of prices offered and reduced farmer bargaining power and on consumer safety due to the unhygienic manner in which some informal sector traders handle this milk. To help solve this problem, the program focused on identifying and operationalizing sustainable solutions to expand both the domestic and export markets.

To help expand the domestic processed milk market, the Dairy Task Force (DTF), through the Kenya Dairy Board (KDB), has been purchasing the excess processed milk in the reporting period and distributing to schools—both long-life and powder—in a move expected to capitalize formal processors and ease congestion in their stores and ultimately increase volumes and farm gate prices of raw milk that they buy and process from farmers. This is an outcome of the DTF-negotiated and KDSC-facilitated provision to create a national strategic reserve for milk and milk products (like in the grain industry), and thus have an institution acting as a buyer of last resort to stabilize prices and to mop up excess milk. If sustainably established, the school milk program will be a major outlet of processed milk products in the country and will help solve the retailing/formal market capacity problem, stabilize farm gate prices for raw milk, increase raw milk sold through formal markets and ensure consumer safety.

KDSC is also looking into alternative domestic markets—both institutional and informal—for the SBOs working with the program in a bid to stabilize milk price across seasons. The program has held formal discussions with the Dairy Traders Association (DTA) in some milk sheds towards this end, especially in milk sheds close to nonmilk-producing areas (Kabete and Trans Nzoia) where the DTA accounts for a significant proportion of milk traded. To safeguard consumer safety, the program is looking into ways of working with the DTA to capacity build members on milk handling and hygiene. Program staffs are currently reviewing a proposal from the DTA. Once finalized, these SBOs will be able to diversify their markets and realize their members stable returns across seasons. This will enable these SBOs to not only retain but grow their membership and increase their bargaining power through increased traded volumes.

Program efforts aimed at expanding the export market received a significant boost in the reporting period with the official launch of a milk quality improvement program, that will be driven by the Good Manufacturing Practices (GMP) and the revised version of the Hygienic Code of Practice standards whose review was facilitated by the program. The launch marks the beginning of a 'Milk Quality Improvement Program' that will be managed by the KDB. This presents a key milestone for the local industry and will realize immense returns for the industry long after the program ends.

Detailed activities and achievements in the reporting period are summarized below and are organized by program component. As previously mentioned, the interventions under KDSC are grouped into three broad areas/components, namely activities for enhancing quality of inputs and products, including policy

and standards review and advocacy activities; dairy smallholder business organization development and farm-level productivity activities; and activities that aim to increase dairy business development services.

## **2.1 Component One: Enhance Capacity for Milk and Production Input Quality Certification and Market Promotion**

Program interventions in this component aimed at reviewing local milk and milk products standards to align them to regional and international standards received a boost in the reporting period. The industry regulator, the KDB launched a Milk Quality Improvement Program in the quarter that will mainly be guided by the revised GMP and Code of Hygienic Practices standards. The revision of these two standards was facilitated by the program. To ensure market stability and guaranteed farmer incomes, KDSC, through the DTF, operationalized the milk and milk products strategic reserve—an institution to act as a buyer of last resort to mop up excess milk and stabilize prices, especially in periods of glut.

In addition, during the reporting period, the program entered the final stages of finalizing the development of an industry-wide Web-based application that will serve as a complete dairy and livestock management information system for the livestock industry. The application will provide an easy interface for initial and subsequent data collection and analysis. Once finalized, this will enable sharing information among stakeholders in the sector. Details of a sample of Component One activities and outputs realized in the reporting period include:

### **2.1.1 Towards competitiveness: Launch of the Milk Quality Improvement Program**

Industry stakeholders, led by the KDB launched a Milk Quality Improvement Program aimed at ensuring consumer safety and expanding the export market in the reporting period. The program will be led by the KDB and driven by the KDSC program's quality interventions, especially the GMP, and the revised version of the Hygienic Code of Practice standards, whose review has been facilitated by the KDSC program. This presents a key milestone for the local industry and will realize immense returns for the industry long after the program ends. At farm level, the quality interventions will improve milk handling hygiene and the quality of milk reaching consumers, while lowering the volumes of milk rejected due to noncompliance with set quality standards at the farm gate, thus increasing farm incomes.

The launch has been lauded as a high point in the industry's quest to be competitive, with the Managing Director of the KDB, Mr. Machira Gichohi, saying it will "make the local industry a giant in Africa and beyond." According to Gichohi, "The KDSC contribution in the sector, especially on milk quality improvement and at farm level has helped turn the industry around." KDSC interventions targeting milk quality improvement have included provision of technical assistance in the review of dairy standards and facilitating training of KDB regulatory inspectors on Pasteurized Milk Ordinance and Regulatory Inspection. The program has also helped expose the inspectors to the United States of America's regulatory inspection systems, practices and techniques—especially the U.S. Pasteurized Milk Ordinance, which is critical in ensuring milk quality through the value chain. Program efforts have also targeted the development and enhancing access to reader friendly industry standards/manuals in collaboration with the KDB and other stakeholders.

The gains realized, in association with the DTF, especially the KDB and Kenya Bureau of Standards (KEBS), comprise review of 21 industry standards, including Good Manufacturing Practice. KDSC has also facilitated the development of a user friendly Code of Hygienic Practice, and the draft Dairy Regulations. These efforts are geared towards harmonizing local industry standards to the regional (EAC and COMESA) and international standards to ensure consumer safety and also to enable local processors to expand their market base by accessing external markets. KDSC program is in addition

supporting initiatives aimed at fostering an enabling environment for the dairy industry in the country. The program is currently facilitating the review of the Dairy Master Plan, now in draft form, in collaboration with the DTF. The revised master plan will give the strategic direction for the industry and put in place measures and incentives to make the dairy industry competitive in the region and internationally. Additional information on the launch is provided in Appendix 2.

## **Key highlights of the quality improvement programme components**

### Good Manufacturing Practice

Fundamental to the success of public health interventions and the strengthening of consumer confidence in our products is a requirement that all dairy operations are conducted in a safe, sanitary and hygienic way, in premises and buildings that meet public health safety requirements.

In 2009, the Kenya Bureau of Standards National Dairy Technical Committee produced a new Standard entitled “Good Manufacturing Practice Guideline for the Dairy Industry in Kenya.” This was considered necessary to provide the backbone for a nationwide GMP training effort. Three dairy business categories have been targeted for training on Good Manufacturing Practice. These are Milk Bulking Centres, Milk Bars and Shops, and Dairy Processing Plants. Naivasha Dairy Training Institute has been contracted to provide the training throughout the country. Approximately 1800 persons will be trained.

### User Friendly Code of Hygienic Practice

The Kenya Bureau of Standards, in collaboration with the Dairy Industry Technical Committee, developed a Kenya Standard Code of hygienic practice for production, handling and distribution of milk and milk products in 2004. Compliance with the Code of Hygiene Standard is fundamental to ensuring the safety of our dairy products. The stakeholders recognized that being a technical document, the content of this Standard may be difficult to digest for the average reader. To make the requirements of this important Standard more understandable and accessible to all our stakeholders, Kenya Dairy Board, supported by KDSC program commissioned the illustrated and simplified version, which is also being launched now.

### Draft Kenya Dairy Regulations

The Kenya Dairy Regulations lay the foundation for all the other components in our quality programme. The regulations describe the requirements for production, storage, transportation and processing of milk and milk products along the chain. The regulations also give technical specifications for processing equipment and quality surveillance. Individual sections of the regulations deal with each link as the milk progresses from the cow to the consumer. The new Dairy Regulations have been reviewed and approved by stakeholders. Adoption of these detailed technical requirements represents a leap in technology and competence for our industry. The Dairy Regulations will be legislated under the existing Kenya Dairy Act later this year.

### Harmonization of East African Community (EAC) Dairy Standards

Kenya’s Dairy Products are expected to comply with the newly harmonised EAC Dairy Standards if they are to access the regional market. These standards, which comprise product specifications and analytical laboratory methods, were developed by the EAC Dairy Technical committees and guided by the bureaus of standards in the partner states. The EAC Standards have since been adopted as draft standards at the Common Market for East and Central Africa (COMESA) region. Kenya Dairy Board and other industry stakeholders participated in the regional standards harmonization processes committing the industry to high-quality standards and requirements. The total quality effort is aimed at bringing Kenya’s dairy industry to the quality levels required by the standards and the international community.

### Differential Payments for Raw Milk Quality

In order to produce high-quality milk meeting the EAC Dairy standards and other technical requirements as stipulated in the proposed dairy regulations particularly at the farm level, farmers will incur additional costs in acquiring the appropriate milk handling containers, enhancing hygiene and organizing for quick milk delivery to the milk collection centres. However, the benefits of improved milk quality are substantial and cannot be over-emphasized. Kenya Dairy Board, in collaboration with stakeholders, is therefore developing a framework plan of differential payments for quality, to enable a pilot trial to be run out in the coming months. The details will be publicised to our stakeholders as the design of the trial progresses.

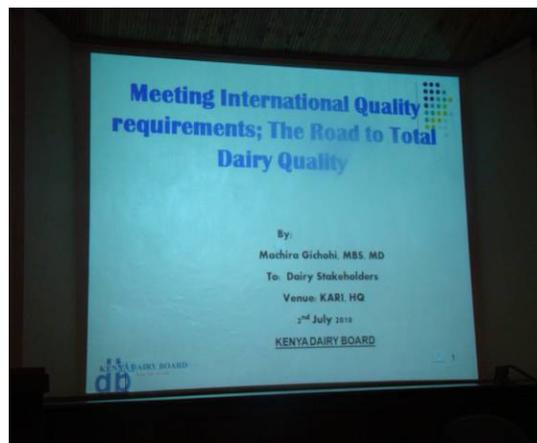
### Training Program for Industry Stakeholders

KDSC realizes that quality is key for the Kenyan dairy industry to be competitive internationally, especially now that milk supply is outstripping demand in the domestic market as witnessed in the recent past. The local industry therefore has to target the export market if these gains at farm level are to be adequately rewarded and sustained. This can only be realized if measures to ensure milk is of good quality are observed from farm to shelf. The milk quality programme also includes a training programme to build the capacity and skill and knowledge of milk handlers on the new dairy standards and technical requirements. The training will cover dairy inspectors, processors, small-scale milk traders, milk collection centres and farmers.



“The KDSC program’s contribution in the sub sector, especially on milk quality improvement and at farm level has helped turn the industry around.”

-- Mr. Gichohi, KDB



“This is a key milestone which will make the industry a giant in Africa and beyond.”

Mr. Gichohi, MD, KDB, at the launch of the milk quality improvement program in Nairobi.



Chair of Board of Directors Ms. Martha Mulwa launches the two standards at KARI Headquarters in Nairobi. “We are positioning ourselves with today’s launch to be the milk and milk products market leader in the region. We are now in sync with CODEC, WHO and other international organizations quality requirements.”

Looking on are Mr. Gichohi of KDB and Mr. John Abbongs – Director, Quality Assurance, Kenya Bureau of Standards.

The launch of the milk quality improvement program presents a foundation for milk quality improvement in Kenya. It will go a long way in

aiding sector players to implement the basic requirements necessary for hygiene to ensure consumer safety and boost regional and international trade, especially now that the EAC has adopted a free trade area. This is expected to contribute to Kenya’s vision for 2030 of halving poverty and/or improving income to the middle income level. Impacts of this important achievement will be reported in future reports.

### **2.1.2 Operationalization of milk and milk products strategic reserve among other industry development activities**

The DTF, through the Kenya Dairy Board, also started mopping up excess milk in the quarter. The KDB has been purchasing the excess processed milk in the reporting period and distributing to schools—both long-life and powder—in a move expected to capitalize formal processors and ease congestion in their stores and ultimately increase volumes and farm gate prices of raw milk that they buy and process from farmers. This is an outcome of the DTF-negotiated and KDSC-facilitated provision to create a national strategic reserve for milk and milk products (like in the grain industry), and thus have an institution acting as a buyer of last resort to stabilize prices and to mop up excess milk. If sustainably established, the school milk program will be a major outlet of processed milk products in the country and will help solve the retailing/formal market capacity problem, stabilize farm gate prices for raw milk, increase raw milk sold through formal markets and ensure consumer safety.

As previously mentioned, the country has been experiencing excess supply of milk over and above the retailing capacity of the formal sector from January 2010. This can be attributed in part to the efforts of a number of players—including KDSC according to sector stakeholders. This has led to the stockpiling of processed milk products, especially of long-life milk and powder milk. Formal milk traders have responded by reducing farm gate prices—in some cases by up to 47% compared to farm gate price last year, which has led to a number of farmers who were previously selling to the formal milk market through SBOs working with the program opting to sell to informal milk traders. This has implications especially on sustaining the realized farm-level productivity gains and household incomes—given the fluctuating/volatile manner of prices offered and reduced farmer bargaining power and on consumer safety due to the unhygienic manner in which some informal sector traders handle this milk.

“What we have seen in this country as a result of your contribution is very interesting. Last year was a disaster because of the drought and people feared the industry would collapse. Your work has turned this around. A lot of work has been done at farm level and the milk glut/excess milk supply was a result of increased farm level production and not imports as people are saying.”

-- Machira Gichohi, MD, KDB.

To help expand the domestic processed milk market, the DTF, through the KDB, has been purchasing the excess processed milk and distributing to schools in the reporting period—both long-life and powder—in a move expected to capitalize formal processors and ease congestion in their stores and ultimately increase volumes and farm gate prices of raw milk that they buy and process from farmers. Processors have also been given money by the government to expand their operating capacity and to install new processing lines for new milk products, especially milk powder. This is an outcome of the DTF-negotiated and KDSC-facilitated provision to create a national strategic reserve for milk and milk products (like in the grain industry), and thus have an institution acting as a buyer of last resort to stabilize prices and to mop up excess milk. If sustainably established, the school milk program will be a major outlet of processed milk products in the country and will help solve the retailing/formal market capacity problem, stabilize farm gate prices for raw milk, increase raw milk sold through formal markets and ensure consumer safety. The total cost of the exercise is KES 300 Million (US\$ 4M). Private processors are in addition investing own resources in expanding their operational capacities and in diversifying their product lines.

The KDSC program is as well looking into alternative domestic markets—both institutional and informal—for the SBOs working with the program in a bid to stabilize milk price across seasons. The program has held formal discussions with the Dairy Traders Association (DTA) in some milk sheds towards this end, especially in milk sheds close to nonmilk-producing areas (Kabete and Trans Nzoia) where the DTA account for a significant proportion of milk traded. To safeguard consumer safety, the program is looking into ways of working with the DTA to capacity build members on milk handling and hygiene. Program staff are currently reviewing a proposal from the DTA. If finalized, these SBOs will be able to diversify their markets and realize their members stable returns across seasons. This will enable these SBOs to not only retain but grow their membership and increase their bargaining power through increased traded volumes.

### **2.1.3 Finalized the development of an industry-wide Web-based application that will serve as a complete dairy and livestock management information system for the livestock industry**

The program finalized the development of the industry-wide Web-based application that will serve as a complete dairy and livestock management information system for the livestock industry. The application provides an easy interface for initial and subsequent data collection and analysis. This will enable sharing information among stakeholders in the sector once finalized. The system, proposed to be managed by the KDB, has modules for all the actors in the value chain—farmers, farmer groups, processors, insurance and financial institutions, semen distributors, and animal health providers, among others.

All industry stakeholders have been sensitized on its benefits, resulting in more players requesting modules. Private breeders were the latest category of industry players to request for their own module. This will especially help link the breeders to prospective customers in the country. There is no exhaustive list of livestock breeders in the country at the moment. Program staff are currently working with farmers working with the program to register their details in the portal in readiness for the next

phase of the project. As detailed in the last quarterly report, some of the anticipated benefits of this system will include:

- Link farmers with various service providers and thus enhance their access to productivity enhancing services and inputs—including credit, animal health providers, and breeders, among others. This will increase the number of farmers using these services.
- Increase number of farmers accessing dairy animals registration services, insurance, among other herd worth/value increasing services and management practices.
- Increase number of dairy animals registered by the KLBO.
- Ease the certification process for the various value chain actors—milk bar operators, processors, bulking groups. Certificates will be issued online by the regulator.
- E-Learning: more farmers and other value chain actors will access training materials online.
- At the industry level, the system will enable all players and researchers to access information faster and reliably.

Progress realized will be reported in future reports.

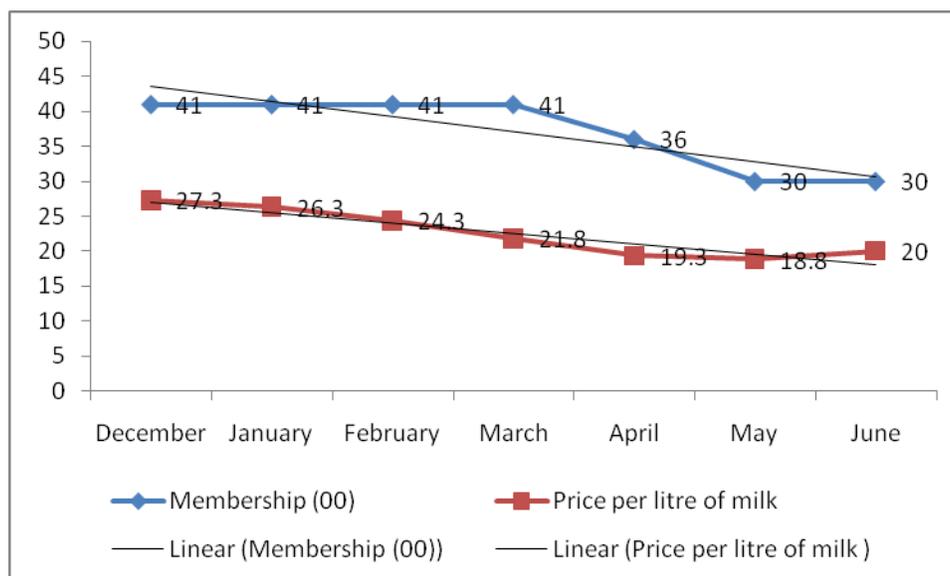
#### **2.1.4 Surpassed program target of nonprogram resources leveraged in the quarter**

Program interventions targeting cold chain development, especially investment in cooling units at the milk bulking level realized two cooling units in the reporting period in two SBOs. Together with housing, installation costs and other accessories, the two SBOs are investing a total of KES 15 million (US\$ 200,000) with a total cooling capacity of 15,000 litres. This now takes the total non-program resources leveraged to US\$ 25.17M. We have surpassed the target of US\$ 25M in program life. In addition, the total number of cooling installed/rehabilitated has now increased to 9 against a target of 25 in Year Three.

## 2.2 Component 2: Develop Dairy Smallholder Business Organizations

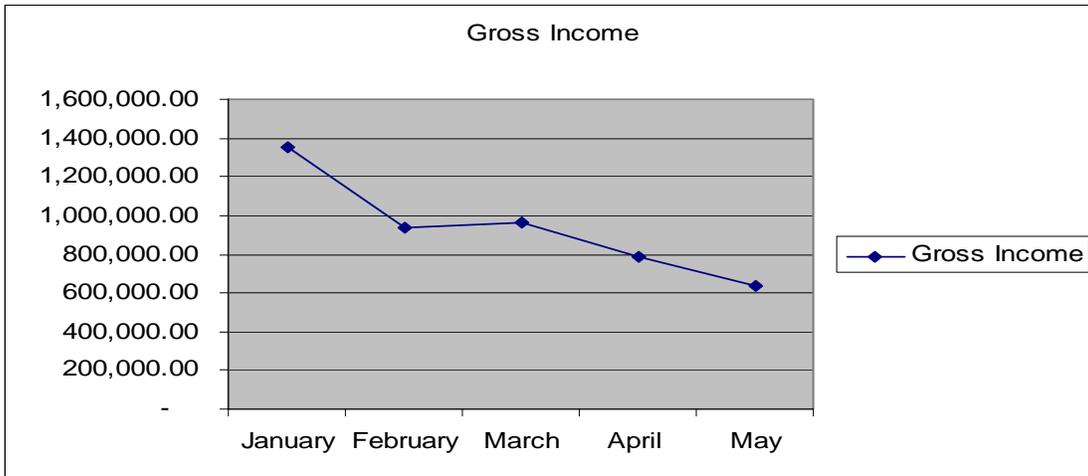
KDSC continued linking SBOs to inputs and services to enable these organizations to grow their businesses. Program interventions in this component have cumulatively benefitted 91 farmer organizations and 152,241 households compared to the target of 75 farmer groups and 180,000 households respectively by end of Year Three of program implementation. While we have surpassed the targeted number of farmer groups strengthened in the current implementation period, the total number of households benefitting from program activities is still below target, mainly because of the current milk marketing status in the country. As previously stated, the low farm gate prices offered and delayed payments have discouraged farmers, with a considerable number resorting to selling through the informal milk marketing channels—up to 42% in Lari Dairy Farmers Cooperative Society in Kinangop milk shed. In Kikama Milk Marketing Federation in Gatanga Milk shed, active members have declined by 26.8% (from 4100 members in December 2009 to 3000 members in June 2010) as shown in the figure below.

**Kikama Milk Marketing Federation active membership versus price paid per litre of milk**



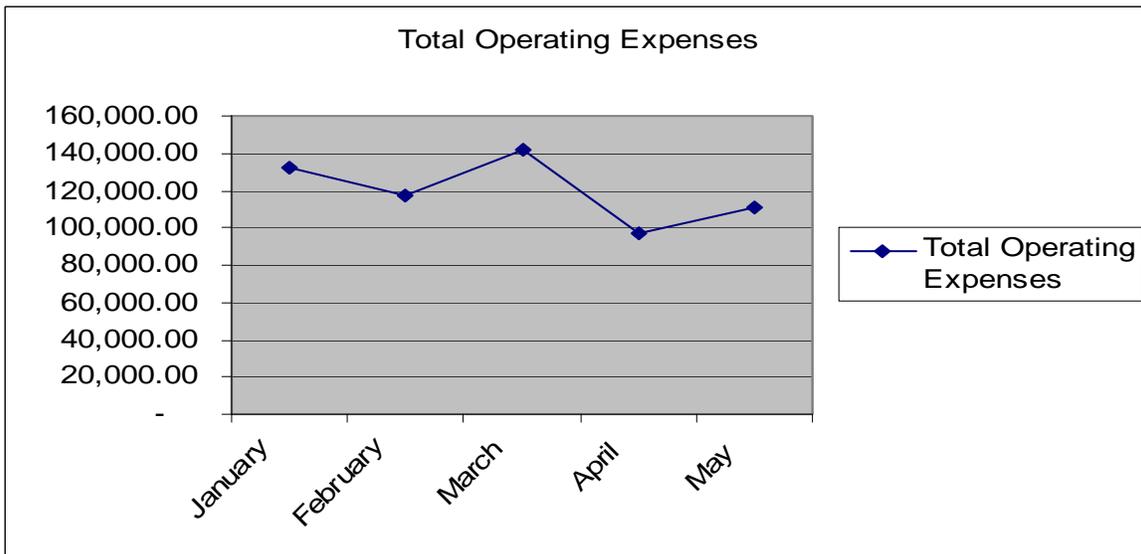
This has seriously impacted gross income, both at the bulking centre and at farm levels. In Lari DFCS, for example, gross income has been on a declining trend from January when the milk glut/excess milk supply started. Income has reduced by 53% - from KES 1,350,345 in January to KES 633,877 in May 2010. The main reason given by management is that active members have resorted to selling milk to other markets (fewer active members - from 185 in January to about 107 in May) as a result of delayed payment by processors, and that informal milk traders/hawkers offer better prices, with some hawkers paying as high as KES 30 per litre, while the cooperative has been offering an average of KES 17 per litre of milk, after deducting KES 5 as operating costs.

**Gross income trend for Lari Farmers Cooperative Society: January – May, 2010**



While gross income has declined by 53%, total operating expense has declined by only about 12% in the same period. This cost is passed on to farmers—the final pay to farmers in the period is Kshs 17 per litre of milk from the gross of Kshs 22 per litre paid by processors.

**Trend of total operating cost for Lari Farmers Cooperative Society: January – May, 2010**



This has significantly slowed down program activities—especially interventions targeting farmers like training. Some of the activities implemented and accomplishments in the quarter include:

**2.2.1 Facilitated working linkages between farmers and BDS suppliers through the SBOs working with the KDSC program**

The program continued providing information on input supply sources, linking producers with the suppliers, linked businesses/enterprises to financial service providers and helping the SBOs and service providers meet conditions to access credit, provided market information and access services, and also

provided training and technical assistance to the producer groups. Some of the specific activities and outcomes include:

#### Input Supply Services

Program activities focused on linking SBOs to input suppliers and facilitating the establishment of provision of other services other than milk bulking and cooling by the SBOs working with the program. Achievements in the reporting period include:

- Linked Kiplombe Dairy Farmers Cooperative Society (DFCS) with Menengai Agrovets, who has provided an Artificial Insemination kit to the SBO on credit in Nakuru Milk shed.
- Suka DFCS has of now finalized an arrangement with Lens feed company to provide feeds to their farmers on a check-off basis in Nakuru Milk Shed.
- Tarakwa DFCS have acquired a 5000-litre cooling tank from the New Kenya Cooperative Creameries in the reporting period after being linked by the program. The KDSC program facilitated market negotiations between the two parties in the last fiscal year.
- Linked members of Tarakwa DFCS to Ultravetis, an animal health products supplier. The company currently deworms all animals (dairy, beef and even vaccinates poultry) of member farmers with the cooperative recovering the money on a check-off basis.

#### Market Access Services

The program continued providing market information, facilitating market linkages, and engaged in market research for the producer groups working with program in the reporting period. Key achievements include:

- Market research was carried out in Trans Nzoia Milk Shed to assess the viability of marketing through DTA to counter the impact of low prices offered by processors to bulking groups in periods of excess milk supply, given the group's reliance on single processors when marketing their milk. Discussions are still ongoing with the DTA to establish the necessary structures.
- Linked Kikama Milk Marketing Federation to East Africa dairy, who buys milk at 21/= per litre compared to New Kenya Cooperative Creameries (NKCC), which buys milk at 18.80/= per litre.

#### Training and Technical Assistance

Program activities in addition focused on developing business plans for the SBOs working with the program. Activities and the accomplishments in the reporting include:

- Facilitated business planning for 13 SBOs in the quarter. This is designed to create a business orientation in operations within farmer groups. The plans are expected to help develop business-oriented smallholder dairy cooperatives.
- Facilitated strategic planning for seven producer groups to enable them to comply with government regulations in the quarter.
- One SBO, Umoja Sotik Dairy in Kericho Milk Shed, has used their business plan to acquire a loan of KES 10 million (about US\$ 133,000) from a local financial institution, the Kenya Cooperative Bank. They will use the money to buy and install a milk cooling tank and to build an office block.

- Ruskebei Dairy Cooperative Society in Kericho Milk Shed has also implemented an Artificial Insemination business plan whose development was facilitated by the program in the reporting period. The SBO is using own funds from farmer share contributions.

**Box 1: The Program’s Journey with Sotik Umoja Dairy: A success story using the BDS approach in a region where other development partners offer direct financial assistance to other producer groups**

Sotik Umoja is a farmer-owned dairy company situated in Sotik District in Kericho Milk Shed. It has a total registered membership of 1900 farmers with daily milk intake of about 7,000 litres. The organization markets the milk on behalf of its members and constituent farmer groups. Our journey with the SBO started with an understanding of the business operations, taking stock of the resources already mobilized and also getting to know the progress with the implementation of work plans. The first meeting almost turned chaotic and program staff were forced to adjourn the meeting after several futile attempts to explain the program objectives and operations. Given its unique BDS approach, it was not easy for the SBO members to understand how benefits would accrue from the program.

During the first meeting, we identified one member, Alice Ruto, the SBO coordinator, who was keen and could pick some of the KDCSP program benefits from our short interaction. We utilized the welcome gesture and quickly organized another meeting with the SBO, this time with Alice Ruto and Chairman Mr. John Rono. We discussed at length and explained the program activities and its implementation model. This time round, the facilitator was able to get the business information for the SBO. The two officials were later to convene a meeting to brief the other SBO officials of the outcome of the visit. We later received a call informing KDCSP of the acceptance of the SBO members to work with the program and, again, we quickly arranged for action planning with them. The management committee and members’ representatives were then engaged on an action planning process facilitated by the Team Leader, the Coordinator and the Production Specialist. From the action plan, development of a business plan emerged as a key priority, among other issues. This action plan would form the basis of a memorandum of understanding signed between the SBO and program detailing activities to be undertaken and the responsibilities of both parties.

On 3<sup>rd</sup> May 2010, the milk shed rolled out the business planning process beginning with the business assessment facilitated by the milk shed’s Business Advisor. This session was meant to understand the profitability of the current business operations and also undertake a SWOT analysis of the SBO. On 4<sup>th</sup> of May 4, 2010, actual business planning was done. During the process, the issue of a milk cooler project was suggested by the SBO officials as their preferred activity to expand their business and harness evening milk. This was followed by a complete business analysis, which revealed the milk cooler project to be a viable project.

After being taken through the business planning process, Alice Ruto had this to say, ***“When we first approached the Cooperative Bank for a loan, our priority was to buy a vehicle. The Bank requested us to prepare a business plan. We had no idea what this meant until we were taken through the business planning process by KDSC. Now we understand the process and why it is necessary and that a vehicle is not our priority, thanks to KDSC program. With this program, our society can go very far.”***

On 14<sup>th</sup> May, 2010, the business plan was ready for presentation to the SBO officials and member representatives for approval and minor adjustments made. On 9<sup>th</sup> June 2010, the final business plan was

handed over to the SBO and an action plan developed for its implementation. On 10<sup>th</sup> June, 2010, Alice Ruto handed over the plan to the Cooperative Bank for loan advancement to purchase a cooler. The bank accepted their request and has agreed to grant a loan worth KES 10 million towards the project, pending the outcome of the cooler site selection approval by NEMA.

The SBO officials together with the facilitator have since embarked on site selection assessment, NEMA and Public health assessment, land acquisition and finally construction. Currently, the process is at the NEMA and Public health assessment stage, after which land acquisition will start. Already quotations from the different cooler suppliers have been received, facilitated by the milk shed team and are set to be analyzed once through with site and land acquisition issues.



Umoja Sotik officials and milk shed team during the business planning session at the SBO premises.

### 2.2.3 Facilitated capacity building of over 8040 dairy farmers in the quarter

Program interventions focused on training dairy farmers in the milk sheds to equip them with necessary technical skills to increase herd productivity and incomes. The training forums, organized in collaboration with key stakeholders such as private service providers, Ministry of Livestock extension personnel, and the Kenya Dairy Board covered diverse topics such as feed/fodder production, appropriate feeding regimes, feed conservation and formulation, modern breeding techniques and milk handling hygiene. To stabilize milk yield and farmer incomes, a key emphasis area is on-farm demonstration on feed conservation techniques to enable smallholders to conserve feed during the wet season (when feed is abundant) for use in the drier parts of the year.

The program facilitated the training of over 8040 farmers in the quarter. **This now brings the total number of farmers trained by end of Year Two of program operation to 47,776 against a target of 90,000 farmers by end of Year Three of program implementation.** We aim to surpass the target by close of Year Three.

Key approaches that have increased number of farmers trained in the reporting period include:

- The establishment of 41 Livestock Farmer Field Schools (LFFS) with an average membership of 25 farmers;
- The setting up of 37 demonstration farms;
- Use of field days;
- Use of Agricultural Society of Kenya shows.

Going forward, we aim to set up at least 2 LFFSs in each of the SBOs working with the program. This is because of the observed high likelihood of farmers to adopt technologies and/or management practices that they are exposed to in the LFFS. Data we have collected over the years indicate that all farmers adopt at least one technology/management practice that they are exposed to in the LFFS.

Two key challenges that have contributed to the lag in meeting the targeted number of farmers trained are the program design that requires private service providers to be the ones who train farmers. Majority of service providers still do not see value in training farmers and want to be paid by the program. The service providers who appreciate extension provision have, however, taken this up and are training farmers as part of business promotion.

The second challenge has been the low milk prices that have been prevailing locally since January of this year. Farmers have been complaining of the low prices or even noncollection of milk by processors in some instances, and ask why we want them to increase production when their milk will not be collected. Very few farmers attend program-organized training events. This is, however, changing with the slight increase in milk price and the program efforts in identifying alternative markets.

## **Box 2: A family finds a stable income stream in dairy farming and uses this to take son through University education**

Some of the key benefits that program beneficiaries want from the program as revealed by our qualitative indicator identification exercise are to be able to pay school fees for their children and to have more time to attend to other chores. This is what Mr. and Mrs. Kimno, father and mother of two currently credit the KDSC program for. The Kimnos own a five-acre piece of land in Kipsombe location and are members of Tarakwa dairy cooperative society. As a small-scale dairy farmer, Mr. Kimno and his wife practise mixed farming—food crops and dairy farming. He has been in the dairy farming business for the last seven years and is one of the breeders in Tarakwa farmers' group. In addition, he is the secretary of Kipsombe dairy group. He says he has achieved so much in the last two years due to his association with the program.

Mr. Kimno's dairy enterprise has undergone extensive improvements since 2009 when he started engaging with the program. Initially he was practicing a free range system of management but has since upgraded to a semi-intensive system of management. He now ensiles maize (started last year), has planted various fodder crops and grasses—including bhoma rhodes, lucerne, desmodium, napier grass, fodder maize, sesbania, and sweet potato vines and no longer discards crop residues from his farm (maize stovers, beans straws, and millet stovers, among others), which he preserves. ***"I do not waste anything from my farm,"*** he says. Mr. Kimno also benefits from the linkage facilitated by the program between Tarakwa DFCS and Ultravetis, an arrangement where the company deworms his dairy animals on a regular basis with the cooperative recovering the money on a check-off basis. ***I currently use imported semen to inseminate my cows,*** he proudly says as he points at Mrembo (Beautiful), his favourite dairy cow, who produces 19 litres per day. In his own words, *"Vile mnatufunza ndio tunafanya* (*"We implement what we learn from the program).*"

Nathan's dairy herd comprises four cows. Two are currently lactating and produce about 29.5 litres per day, one cow is dry and one is a heifer. This earns him about KES 10,000 per month. His devotion to dairy farming has been given impetus by the capacity building efforts facilitated by the program in the following areas: pasture and fodder establishment, breeding management, calf rearing and group management. In addition, he has also participated in the milk shed working group meetings representing Tarakwa and Kipsombe groups. He was facilitated by KDSC to attend Brooke side breeders' show and a farmers' tour to Kabiyet dairy, which inspired him to ensure Kipsombe dairy federation succeeded in marketing its farmers' milk. Through the KDSC capacity building activities, he has taken up service provision. The program is working closely with him to have his farm upgraded and used as a demonstration farm in the milk shed. After seeing the improvements, the Ministry of Agriculture has also approached him to use his farm as a demonstration farm.

This positive change, both in income and animal husbandry practices means different things to Mr. and Mrs. Kimno. To Mr. Kimno, the benefit is on being able to pay his son's college fees: ***"I use the dairy income to pay my son's college fees. This is money I never touch. Before it used to be higher, up to KES 12,000 a month, when we were being paid quantity bonuses by NKCC, but it still enables my son to go to college without being sent home for fees."***

To Mrs. Kimno, who manages the enterprise, including feeding the cows, time saved attending to their cows, including feeding is very important: ***"Now I do not have to walk after the cows along the roads. I just put feeds in the trough and continue with the other chores! My workload has greatly reduced and I now get time to rest. I used to get so tired when using the free range system. Even the cows were never satisfied! It is more tiring than tending the farm."***

They now plan to build a zero grazing unit.



Mr. Kimno standing next to his crop of fodder maize. Out of the five acres, the dairy enterprise accounts for three acres—fodder maize, caliandra, sweet potato vines, boma rhdes, napier, Lucerne, desmodium are the other fodder crops he has established in the farm.

Mrs. Kimno feeding the dairy animals. She says she now gets time to rest and attend to other chores after moving from free range to a semi-intensive feeding system.



The couple standing on top of underground silage they made last year.

### 2.3 Component 3: Increase Availability of Dairy Business Development Services (BDS)

The KDSC implementation method focuses on building capacity of BDS providers, i.e., switching from assisting micro enterprises directly to ensuring sustainable access to services through functioning markets. To achieve this objective, and for effectiveness, outreach, and impact, the program uses a portfolio approach in provision of BDS. This entails working with multiple partners as BDS providers rather than work with one or just a few and also the capacity building of the providers to provide a range of services (with some embedded), rather than just one for increased effectiveness.

In the reporting period, the program recruited and trained **84** new business service providers. **This now takes the total number of service providers working with the program to 711.** These experts work with and deliver productivity enhancing technologies to specific farmer groups. **278 service providers now supply additional services** (feeds and feeding, extension, cow registration, feed conservation especially silage making, among others) to their clientele after attending program facilitated capacity building workshops and seminars. **The program has since surpassed the target of 250 service providers providing additional services to farmers by end of Year Three of program implementation.**

Program interventions on enterprise development have focused on:

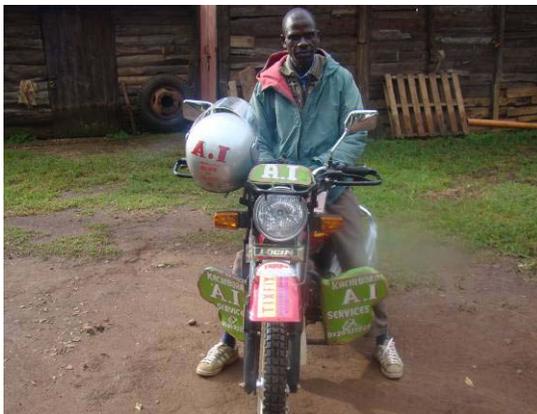
- Training on business and enterprise management; feed conservation; and refresher courses on areas of expertise, among others. The service providers have also been provided with manuals and training modules, and exposed to new business opportunities in dairy farming.
- Linkage with financial service providers for loans for BDS providers who need to expand their businesses or increase efficiency of service. A number of artificial insemination providers have benefitted from loans, especially from Faulu Kenya, a micro finance agency and bought motorcycles to expand their areas of coverage and to reduce time lapse between when they are called and when they serve farmers. This has an impact on conception rates.
- Facilitating platforms/interactions between micro and small enterprises and nontraditional financial service providers such as fund managers, investments banks and other development programmes to enable them access innovative financial services and products that are tailored to meet the their needs, among others.

Program efforts have ensured that all active members of farmer groups working with the program have access to BDS services, technologies, inputs, and management practices. Selected accomplishments in the reporting period include

- In the quarter, the program provided technical assistance to Lari Alliance, a milk processing company in Kinangop Milk Shed, towards preparation of a business plan which was subsequently submitted to BID Network Foundation, an organization that seeks to promote entrepreneurship in the growing economies of Africa, Asia and Latin America. The business plan was reviewed and found to present great potential. The company representatives were then invited to a match making conference to meet potential investors in the Netherlands between the 28<sup>th</sup> of May and 5<sup>th</sup> June 2010. KDSC is still working with the company to realize funding for the plan. Details are presented in Appendix 3.

### Linking SBOs and Service Providers to Financial Service Providers

- Tarakwa DFCS, with a total active membership of 702 acquired KES 1.5 million to acquire a lorry that they will use to transport their milk to NKCC through program linkage with the Kenya Commercial Bank (KCB). The lorry was purchased in the quarter. This will save farmers an average of KES. 3 and up to KES 4 in some cases per litre of milk.
- Umoja Sotik Dairy acquired KES. 10 million using the business plan done in collaboration with the program in the reporting period. The SBO has a total membership of 1900.
- Gatundu Dairy Farmers Company in Kabete Milk Shed purchased a lorry in the quarter, using a KES 1.5 million loan. The company has a total membership of 283 as of end of June 2010.
- Linked Mr. Joshua Boyi, an Artificial Insemination provider in Trans Nzoia Milk shed with Faulu Kenya. The 41-year-old father of four acquired a loan of KES 80,000, which he has used to buy a motorcycle to start his AI business. Previously, Mr. Boyi was employed by Seum farmers cooperative and was earning a salary of KES 3,500 per month. After attending program training sessions on new business opportunities, and being a trained AI provider (trained in 1991) he resigned and started his AI business in the June. So far, he has managed 45 inseminations, earning a gross income of KES 31,500, minus fuel he charges customers who are far away. ***“My firstborn is in class eight and I had to start thinking of how to educate her, he says. The program has opened my eyes. With the training and the marketing of my services that the program does, I am now sure I will manage.”*** Mr. Boyi provides AI service in an entire division (Cherangany Division) and is currently actively engaged in farmer training/extension.



Mr. Boyi displaying his new mobile office. “My firstborn is in class eight, and I had to start thinking of how to educate her, he says. The program has opened my eyes. With the training and the marketing of my services that the program does, I am now sure I will manage.”

**This now takes the total number of farmers receiving loans from financial service providers to 23,044 against a target of 27,000 by end of Year Three of program implementation.** We have instituted adequate sensitization and trainings on dairy farming as a business to help us achieve and surpass the target before the year ends.

### Training of Service Providers

- Facilitated training of 26 Livestock Farmer Field school facilitators in the quarter. These service providers will coordinate activities in 26 LFFS in Kericho Milk Shed and thus ensure that the quality of this extension approach is guaranteed. Our records and experience indicate that all

farmers attending LFFS adopt at least one technology that they are exposed to. We aim to train LFFS facilitators in all milk sheds before the fiscal year ends.

- Trained 17 service providers in cow inspection.
- Trained 24 service providers on silage making in Gatanga Milk Shed. This is expected to increase the number of service providers who can ensile to ensure that farmers make quality silage now so that there is enough forage to ensile.

**We have surpassed the targeted number of service providers providing new BDS services (278 against a target of 250 by end of Year Three of program implementation).**

## 2.4 Environmental Degradation Mitigation Measures

Activities to mitigate management practices—farm, service providers and at bulking centre level—that may result in environmental degradation were also emphasized in the quarter. The KDSC program encouraged program beneficiaries to work towards sustainable management practices that reduce soil erosion, soil and water pollution, and emissions, among others, to safeguard the sectors’ future contribution to national economic growth. This is in recognition of the fact that agriculture is and will be (in the short to medium term) the mainstay of Kenya’s economy. Activities focused on three key areas that could result in environmental degradation:

Two achievements in the quarter include:

1. Encouraging agro-forestry in benefiting farmers’ farms: Helped set up a tree nursery in Tarakwa DFCS. The tree nursery will enable member farmers to access affordable fodder trees to plant in their farms.



Tree nursery at Tarakwa DFCS

2. Ensuring that SBOs working with program who want to install cooling plants or to construct housing structures to pursue National Environmental Management Authority’s (NEMA) approval. As previously stated, we are working with Umoja Sotik Dairy, which is planning to set up a cooling plant to ensure they get NEMA’s approval before going ahead.

## 2.5 Challenges

**Volatile milk market:** The main challenge in the quarter has been the inability by the dairy milk processors to absorb milk produced by farmers in the quarter, leading to noncollection of milk in some cases, low milk prices and delayed farmer payments.

Formal milk traders have responded to the excess milk supply by reducing prices – in some cases by up to 47% compared to price last year. This has led to a number of farmers who were previously selling through the formal milk market via SBOs working with the program opting to sell to informal milk traders. This has implications, especially on sustaining the realized farm-level productivity gains, household incomes—given the fluctuating/volatile manner of prices offered and reduced farmer bargaining power and on consumer safety due to the unhygienic manner in which some informal sector traders handle this milk.

**Other persistent challenges from previous periods include:**

**BDS concept:** The farmers are used to donors who give money and not information and linkages. While some farmers and enterprises working with the program have come to embrace the concept, there are some who are still resistant.

**Market distortion:** Some development programs being implemented in the program area continue to perpetuate dependency attitudes by paying farmers and funding purchases or giving away inputs and dairy equipments. Some stakeholders still expect payments from the project for attending capacity building sessions, while some service providers demand payment to train farmers, for example.

## 2.6 Lessons Learnt

- Interventions targeting expanding the processed milk market and diversifying raw milk markets are imperative to ensure consumer safety and if the productivity increases that have been realized at farm level are to be adequately rewarded and sustained in the longer term. The current raw milk market is not favorable to small-scale farmers and the farmer groups, due to the low prices paid by processors, which is also paid late, with farmers responding by stopping supplementation feeding and selling to hawkers to reduce production costs and increase the gross margins. This negatively impacts household income.
- Cooperative unions/federations that unite small farmer groups/milk bulking centers into bigger groupings greatly improves farmers' terms of trade, bargaining power and eases resource mobilization for investment in embedded services. Even with the milk glut/excess milk supply, groups with more members, and therefore bulking higher milk volumes, still get paid a quantity bonus by NKCC. These groups are also able to raise capital much faster, e.g., Umoja Sotik Dairy has acquired a loan of KES 10 million in the reporting period. We are currently investing a lot of resources in member mobilization and also in merging smaller farmer groups into single entities to realize these gains.

### 3.0 Performance Data Table

Impacts					
Performance Indicator	Baseline Value	Year 3		Cumulative Actual	Comments
		Cumulative Annual Target	Actual – Q3 (FY 2009/10)		
<b>Household level impacts</b>					
Number of rural households benefiting	0	180,000	3024	152,241	A considerable number of farmers have resorted to selling to hawkers due to low prices offered by cooperatives and delayed payments. The 3024 new farmers benefitting are from new groups incorporated in Trans Nzoia Milk Shed.
<b>Sub-Sector Level Impacts</b>					
Number of jobs created in the value chain	0	21,000	34	5811	There are jobs resulting from investment in embed service provision by SBOs and from new business development providers – including new AI providers.
Total volume of milk purchased from smallholder dairy farmers (MT)	93,170.35	115,170	44,027.78	263310.78	The reduction in volume traded through SBOs working with the program observed in quarter. This was mainly due to participating farmers resorting to selling milk to alternative markets because of low prices and delayed payments from processors.
Number of producers accessing/ receiving/ utilizing BDS services, inputs, technologies, and management practices	0	130,000	3024	122,241	Program has linked all farmer groups with service providers in the 8 milk sheds, surpassing the target by a significant margin.
<b>Component I - Enhance Capacity for Milk and Production Input Quality Certification and Market Promotion</b>					
Number of industry policies improved/enacted	0	1	2	21	Good Manufacturing Practice manual and code of hygienic practices officially launched as Kenyan standards in quarter.  The program has also facilitated the development of draft dairy regulations which will be gazetted soon as an official regulation.
Number of quality certification frameworks (milk product, animal feeds) developed, implemented/enforced	0	1	1	3	

Impacts					
Performance Indicator	Baseline Value	Year 3		Cumulative Actual	Comments
		Cumulative Annual Target	Actual – Q3 (FY 2009/10)		
Total Value of non-project resources leveraged (US\$)	\$0	\$15M	\$200,000	\$25.17 M	Tarakwa and Umoja Sotik Dairy invested about KES 15 million in cooling tanks in the quarter.
<b>Component 2 - Dairy Smallholder Business Organization (SBO) Development</b>					
Number of producer organizations strengthened	0	75	13	91	The program is working with 78 SBOs in the eight milk sheds and three sector wide organizations and 10 milk marketing federations. All the SBOs were capacity built in the reporting period. We have therefore surpassed the program Year Three targets.
Number of SBOs/MBCs with HACCP and/or national certification	0	32	0	0	GMP training is planned for the next quarter that targets to train 2000 actors along the value chain. Once this is finalized, we will surpass the program target on this indicator. This is scheduled in the next quarter.
Number of SBO/MBCs transformed into sustainable business entities	0	40	78	78	All SBOs working with the program operate profitably, according to the official audit reports and the profit and loss accounts that are done on a monthly basis.
Number of cooling units installed/rehabilitated in SBO/MBCs (Number)	0	20	2	9	2 coolers were operationalized in the quarter. 1 cooler was donated by NKCC for Tarakwa Dairy Group (5,000 litres) and a 10,000-litre cooler purchased by Umoja Sotik Dairies.
<b>Component 3 - Availability of Dairy Business Development Services</b>					
Number of firms providing new business services to producers (Number)	0	250	84	278	Program activities have focused on embedded service provision to increase the sales volume and revenues for the providers. All providers are trained on feeds & feeding and feed conservation.
Dairy farmers receiving loans from financial service providers	0	27,000	2886	23,044	Other than SBOs investing in coolers and AI equipments, Private AI service providers have benefitted from program linkages with financial service providers.
Number of producers receiving short-term training	0	90,000	8040	47,776	Service providers have taken a longer time than expected to embrace farmer training as an embedded service. This will be sorted out in the next quarter.

## 4.0 Appendix 1a: Milk quality improvement program launched



Hon. Dr. Muhamed Abdi Kuti, MP, EGH

# Enterprise with great potential to boost the economy

**Message from**  
Hon. Dr. MUHAMED ABDI KUTI, MP, EGH, the  
**Minister for Livestock Development**

**T**he government's ultimate goal is to have a vibrant and self-sustaining livestock sub-sector that is competitive regionally as well as in the global market. Achieving this objective will not be easy in view of the many challenges facing the sector today.

The dairy industry forms a significant part of the rural economy in the country, accounting for 14% of agricultural GDP and over to 4.0% for the total GDP. It is a profitable enterprise which has the potential to contribute greatly to the national economic growth, there are more than one million smallholder dairy households generating an estimated 500,000 waged jobs throughout the handling chain and over 750,000 in support services.

The livestock industry is faced with numerous challenges that have hampered

effective livestock production and marketing of livestock products. These include ensuring quality standards and quality assurance at all levels of production and marketing chain for increased competitiveness of the livestock industry.

To address these challenges, the Ministry of Livestock Development is in the process of establishing disease free zones (DFZs) which will enable the country to effectively control animal diseases, have access to external markets for livestock products and improve earnings of livestock producers and other players in the value chain.

The ministry has been working closely with other ministries, government agencies, stakeholders and development partners to develop the necessary infrastructure suitable for the production of quality animal and animal products that meet national and international standards. This will ensure that the livestock sector which includes the dairy sub-sector sector exploits the high potential international

market for our livestock and livestock products. The launch of the Good manufacturing (GMP) standard will go along way in enhancing the attainment of the requisite standards for improved quality of Kenyan Dairy Products. Stakeholders are requested to familiarize themselves with the Good Manufacturing Practice (GMP) standard, the Code of Hygienic Practice and any other regulation that will be done by my ministry so as to realize maximum output from their dairy investments.

Stakeholders in the livestock industry can seek information on quality standards and quality assurance from my staff or any other relevant extension agents in my ministry or the Kenya Dairy Board.

I take this opportunity to congratulate Kenya Dairy Board, Kenya Bureau of standards and stakeholders who have made invaluable contributions to the generation of the new standards which will steer the dairy industry to a world-class level.

## Quality move wins KDB Permanent Secretary's Praise

**Message from Mr.**  
**KEN LUSAKA, EBS, the**  
**Permanent Secretary in**  
**the Ministry of Livestock**  
**Development**

Kenyan livestock production contributes significantly to food security, employment and income generation. The livestock sector also provides raw materials for the local dairy, meat, hides and skins, wool and hair processing industries. Recently, the Ministry of Livestock Development launched its strategic plan to direct its activities up to the year 2012.

Key in the agenda is to develop appropriate policies

and legal framework in order to achieve the expectations of vision 2030.

These include increased livestock productivity, enhancing investments in the livestock sector, increasing market access of livestock and livestock products both locally and internationally and enhance the ministry's institutional efficiency and effectiveness.

The ministry will provide the necessary support



Mr. Ken Lusaka, EBS

for the upgrading of veterinary laboratories across the country and support international accreditation of the same to enhance access to quality testing facilities and international recognition of the test results. Through Kenya Dairy Board, the ministry will enforce laws that govern the handling and the sale of dairy products, and will only license those traders who comply with the set standards and regulations.

To ensure compliance, stakeholders will be educated on Good Manufacturing Practice in a nationwide capacity building exercise targeting various players along the chain including small scale milk traders.

The above programmes

will contribute towards the improvement of milk and milk products quality assurance. These efforts have been made possible with support from Land O lakes through the USAID funded programme on Kenya Dairy Sector Competitiveness.

I therefore take this opportunity to thank USAID for their financial assistance. I also congratulate the Kenya Dairy Board and Kenya Bureau of standards for spearheading this programme

## New opportunities for the industry

**Message from Mrs. MARTHA MULWA,**  
**the Chair, Board of Directors, Kenya**  
**Dairy Board**

Kenya Dairy Board was established in 1958. The Board is mandated to regulate, develop and promote the dairy industry in Kenya. During its 50 years of existence, its strategies have continued to change in line with changing dairy industry environment, government policies and priorities.

The board has witnessed a rapid growth in the dairy industry in recent years. This favourable situation has been brought about by various policy and regulatory reviews and increased government commitment in supporting the growth of the industry. The number of players, volume of trade and incomes has tremendously increased.

The challenge facing KDB and dairy stakeholders is to improve compliance to dairy standards and increase the amount of milk that is processed and marketed. It is in this context that the board has come up with a comprehensive programme to improve the quality of Kenyan dairy produce.

The on going milk quality improvement programmes have been developed to align the industry with the agenda of Vision 2030 aimed at making Kenya a newly industrialized middle income country providing high quality life for all its citizens. The board aims to achieve this through facilitating access of Kenyan dairy



Mrs. Martha Mulwa

products to both local and international markets particularly EAC and COMESA trading block where the country has preferential market access.

KDB views the increasing regionalization of trade within Africa and the world at large, as opportunities to the Kenyan dairy industry. The board will proactively be engaged in programmes and activities that ensure increased marketing of Kenyan products and participation of Kenyan enterprises in the global arena. With the implementation of the outlined strategies, and commitment from all stakeholders, we see a bright future for a competitive Kenya Dairy industry, come 2030.

## Appendix 1b: Milk quality improvement program launched



# The key to facilitate compliance to world class dairy standards

**Message from**  
Mr. MACHIRA GICHOHI, MBS,  
**Managing Director and Chairman of DTF**

**K**enya Dairy Board has been in the forefront of developing comprehensive standards and regulations in order to upgrade the quality of Kenya's dairy produce. This is designed to enable the industry to address the challenges and meet the ever changing demands of the 21st century.

These innovative milk quality improvement initiatives we are celebrating today have been implemented in collaboration with stakeholders, including relevant government ministries, Kenya Bureau of Standards, universities, colleges, farmers groups and processors amongst others, with the technical and financial support from the United States Agency for International Development (USAID)/funded Kenya Dairy Sector Competitiveness Program (KDSCP) that is implemented by Land O'Lakes Inc., under the umbrella of the Dairy Task Force (DTF).

This collaboration has resulted in the development of a Good Manufacturing Practice Standard, a user friendly version of Code of Hygienic Practice, Dairy Regulations and a training programme for industry stakeholders and dairy inspectors.

These achievements present a key milestone for the industry and will facilitate compliance to dairy standards and other technical requirements.

The standards and regulations are essential building blocks for revolutionising the dairy industry and to enhance access to new markets with international recognition of the quality of Kenya's dairy products.

Today's launch of the Good Manufacturing Practice (GMP) and the User friendly version of the Code of Hygienic Practice for the Dairy Industry, initiates the roll out of our comprehensive quality programme.



**Mr. Machira Gichohi, MBS**

conducted in a safe, sanitary and hygienic way, in premises and buildings that meet public health safety requirements.

In 2009, the Kenya Bureau of Standards National Dairy Technical Committee produced a new Standard entitled, Good Manufacturing Practice (GMP) guideline for the Dairy Industry in Kenya. This was considered necessary to provide the backbone for a nationwide GMP training effort. Three dairy business categories have been targeted for training on Good Manufacturing Practice. These are milk bulking centres, milk bars and shops and dairy processing plants.

This will be followed by a training programme on the requirements of the GMP standard. I therefore urge all industry players to ensure participation in the upcoming training programme.

**Highlights of the quality improvement programme components**

**Good Manufacturing Practice:**

Fundamental to the success of public health interventions and the strengthening of consumer confidence in our products is a requirement that all dairy operations are

Naivasha Dairy Training Institute has been contracted to provide the training throughout the country. Approximately 1800 persons will be trained.

**User Friendly Code of Hygienic Practice:** The Kenya Bureau of Standards in collaboration with the Dairy Industry Technical Committee developed a Kenya Standard Code of hygienic practice for production, handling and distribution of milk and milk products in 2004. Compliance with the Code of Hygiene Standard is fundamental to ensuring the safety of our dairy products. The stakeholders recognized that being a technical document, the content of this Standard may be difficult to digest for the average reader. To make the requirements of this important Standard more understandable and accessible to all our stakeholders, Kenya Dairy Board supported by Land O' Lakes through the USAID funded Kenya Dairy Sector Competitiveness Program (KDSCP) commissioned the illustrated and simplified version which is also being launched today.

**Kenya Dairy Regulations**

The dairy regulations will lay the foundation for all other components of our quality programme. The regulations describe the requirements for production, storage, transportation and processing of milk and milk products along the chain. The regulations also give technical specifications for processing equipment and quality surveillance. Individual sections of the regulations deal with each link as the milk progresses from the cow to the consumer. The new regulations have been reviewed and approved by stakeholders. Adoption of these detailed technical requirements represents a leap in technology and competence for our industry.

The regulations will be legislated under the existing Kenya Dairy Act later this year.

**Harmonization of East African Community (EAC) Dairy Standards**

Kenya's dairy products are expected to comply with the newly harmonised EAC Dairy Standards if they are to access the regional market. These standards which comprise product specifications and analytical laboratory methods Standards were developed by the EAC Dairy Technical committees guided by the Bureau of standards in the partner states. The EAC Standards have since been adopted as draft standards at the Common Market for East and Central Africa (COMESA) region. Kenya Dairy Board and other industry stakeholders participated in the regional standards harmonization processes committing the industry to high quality standards and requirements. Our total quality effort is aimed at bringing Kenya's dairy industry to the quality levels required by the Standards and the international community.

**Differential Payments for Raw Milk Quality**

In order to produce high quality milk meeting the EAC Dairy standards and other technical requirements as stipulated in the proposed dairy regulations particularly at the farm level, farmers will incur additional costs in acquiring the appropriate milk handling containers, enhancing hygiene and organizing for quick milk delivery to the milk collection centres. However, the benefits of improved milk quality are substantial and cannot be over emphasized.

Kenya Dairy Board in collaboration with stakeholders is therefore developing a framework plan of differential payments for quality, to enable a pilot trial to be run out in the coming months. The details will be publicised to our stakeholders as the design of the trial progresses.

**Training Programme for industry stakeholders**

The milk quality programme also includes a training programme to build the capacity and skill and knowledge of milk handlers on the new dairy standards and technical requirements. The training will cover dairy inspectors, processors, small scale milk traders, milk collection centres and farmers. I take this opportunity to congratulate and appreciate all those who have contributed to this noble process.

## Commitment to quality improvement praised

**Message from Mr. JOEL KIOKO, Ag. Managing Director, Kenya Bureau of Standards (KEBS) on the launch of the GMP Standard for the Dairy Industry.**

I take this opportunity to congratulate the management of Kenya Dairy Board and the entire Dairy Industry for the commitment shown in quality improvement as demonstrated in the launch of this GMP Standard. This is a noble achievement for the dairy industry.

The New Good Manufacturing Practice guidelines for the dairy industry (KS 2194:2010) was prepared by the Milk and Milk Products Technical Committee under the guidance of the standards Projects Committee and it is in accordance with the procedures



**Mr. Joel Kioko**

of the Kenya Standards. The members of the milk and milk products technical committee includes representatives from both the public and the private sector, Consumer Information Network and Kenya Bureau of Standards as the secretariat.

This guideline seeks to provide a simplified methodology to aid managers and operators of milk collection centres, milk bars, milk processing plants, distributors and retailers to implement the basic requirements and quality manual documentation necessary to bring the sanitation and hygienic practice practices followed in their businesses under managerial control and supervision.

Compliance to the GMP guideline lays the necessary foundation required for other internationally recognised quality assurance systems such as HACCP and ISO 22000 for the Kenyan Dairy Industry.

The production and consumption of safe food,

including dairy products is central to any society, and has economic, social and environmental implications.

Effective Standardization promotes competitive advantage and profitability. Standardization brings internal control and co-ordination improving efficiency and risk management. It promotes harmonized products and services and streamlining regulatory conformity, providing a competitive edge in an environment of full competition. Involvement in standards development allows a business to lead the way with standards that link products to the requirements of the market, increasing sales and market size.

KEBS will continue to support the industry by providing standards, metrology and calibration, testing and quality assurance services, technical advice and consultancy in Standardization and Conformity assessment.

## Appendix 2: Report on the outcome of the Netherlands visit by the chairman and finance manager of Lari Alliance

The visit, which took place between the 28<sup>th</sup> of May and 5<sup>th</sup> of June 2010, was courtesy of the BID Network Foundation, an organization that seeks to promote entrepreneurship in the growing economies of Africa, Asia and Latin America. The foundation had organized a business plan competition where the most promising business plans would get a chance to meet potential investors from the Netherlands. It was due to the great potential found in the business plan for Lari Dairies that the above-mentioned company representatives travelled to The Netherlands to meet investors interested in the business.

Discussions were held with the following people from the indicated organizations:

NAME	ORGANIZATION	NATURE OF BUSINESS	COMMENTS
1. Christine Phillpotts	Grass Root Business Fund	Financial Institution	Requested additional Information. Hope to pursue the matter.
2. Tom Keleher	Oiko Credit	Financial Institution	He has sent a mail introducing Lari organization to their local office and we hope to open talks locally.
3. Anton Jansen	EVD International	Government-backed match making organization which also funds projects	There is a requirement that the project to be undertaken to have a Dutch partner and be unique. This would be an important contact for the future.
4. Otto Steven	Inreturn Capital	Financial Institution	The firm indicated that they would not be able to finance the company in the short term due to the poor financial position of the company. They however would like to explore the possibilities in future should the situation change.
5. Cees Van Rij	Agritterra	Agricultural-based company organization owned by cooperatives and whose aim is to help farmer-based organizations in developing countries meet their objectives.	They are discussing the matter of Lari and also planning to contact the Rabo Bank to see whether they can offer any financial assistance. We are waiting to hear from them.
6. Dr. Wim Simon	Friesland Campina	Dairy Processing company	No immediate plans though it can be explored as an avenue for staff development through staff exchange programs.

NAME	ORGANIZATION	NATURE OF BUSINESS	COMMENTS
7. Karel Fentsahm	CRV	Breeding Centre	The organization would be of great assistance especially in our societies on matters relating to breeding.
8. Mr. Willem	PTC Plus	A dairy training centre.	Deals with all aspects of dairy farming up to dairy processing. Would be a good contact for both the societies and the company for staff development.
9. Geraldine Crosset	Belgium Investment company for developing countries (Bio)	Belgium government-backed financial organization	They withdrew from further talks because they do not refinance and at the same time could not add any more debt on top of the current debt portfolio.
10. Abdelitif Stitou	Silk Invest	UK-based investment company	Hope to continue with talks.

The business plan presented received a lot of attention from farmer-based organizations and was very appreciated in terms of what it seeks to achieve as relates to improving farmer welfare and the social impact it could have. However, despite there being companies that would be willing to work with Lari Dairies by advancing loans at very low rates, the potential partners are shying away, mainly because of the following:

1. Poor performance in the past financial years
2. High gearing ratios
3. Risk posed by the current loan which is already in default

### Conclusion

The company has great potential and there are many opportunities to get partners who would be willing to boost the operations of the company. However, due to the issues raised above, the potential may not be realized in the near future. For now the company needs to look internally rather than externally to first streamline operations to a point of convincing the potential partners that the project is viable. To be able to do so, the company will need about two years of persistent good performance. In addition I would recommend that the board considers initiating a share drive in the current year to top up on the unsubscribed shares which amount to Ksh 13.8 million out of the authorized capital of Ksh 40,000,000. Besides this, there is need to reduce the loan balance so as to improve on the gearing ratios. However, all this can only be achieved if the company consistently makes a reasonable profit each month.

Compiled by,

R. Maina  
Finance Manager

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