



USAID Kenya Dairy Sector Competitiveness Program

Impact Report



April 2013

About the USAID Kenya Dairy Sector Competitiveness Program

The U.S. Agency for International Development's (USAID) Kenya Dairy Sector Competitiveness Program (KDSCP) has helped to transform the Kenyan dairy industry into a globally competitive, regional market leader by increasing smallholder household incomes by more than 200 percent through the sale of quality milk. KDSCP worked to eliminate inefficiencies, and lower production and processing costs throughout the dairy value chain, while at the same time ensuring that Kenyan milk meets domestic and international quality standards. The program also targeted women, youth and HIV/AIDS-affected households as active participants.

KDSCP conducted activities to increase the sector's competitiveness in the regional marketplace, encourage storage, packaging and safety standards, improve the policy and regulatory environment and foster better environmental stewardship. Specifically, the program organized small-scale farmers into dairy cooperatives and other community-based organizations in order to increase their bargaining power and incomes. The program also assisted those organizations to create processing plants and distribution systems, and partnered with processors to create and market new value-added products such as flavored yoghurt.

Participating farmers were educated about ways to increase productivity, for example, by using high-quality formulated feeds and productivity-enhancing technologies like Artificial Insemination. In addition, trainings were held on ways farmers can maintain a green and clean environment; for example, trainings on disease control emphasized proper disposal of pesticides and medical waste, and the utilization of animal waste for clean energy like biogas.

Using a "light-touch" business development services approach, KDSCP linked Small Business Organizations (SBOs) to inputs and services that helped them expand their businesses more quickly. The program also connected financial service providers directly with farmers to facilitate lending and expanded investment in the sector overall.

The US \$9 million program, implemented by Land O'Lakes International Development, operated from May 2008 to April 2013. In just five years, KDSCP improved the livelihoods of 338,000 smallholder farming households.

Challenges and Lessons Learned

- **Low milk quality:** At the program's outset, one of KDSCP's major objectives was to increase the amount of milk that conformed to high quality standards at collection and processing points. KDSCP facilitated training for 155,000 farmers in how to achieve higher milk quality by instructing them on proper hygiene and handling techniques. When practiced correctly, farmers can negotiate a higher price for their milk, leading to higher incomes. Milk quality is also important for consumer health and safety. The program facilitated trainings for 69 milk bulking groups and SBOs on Good Manufacturing Practices (GMP), while processors were sensitized on the need to become certified in Hazard Analysis and Critical Control Point (HACCP), a food safety system. The New Kenya Cooperative Creameries, one of Kenya's largest processors, received training in food safety and management from the International Standards Organization. KDSCP tracked the amount of milk collected that conformed to quality standards – in five years, it increased by 140 percent, exceeding the target by 55 percent.
- **Market distortion:** Some development programs in Kenya have continued to perpetuate dependency attitudes by paying farmers and funding inputs, or giving away dairy equipment. Some KDSCP clients initially expected payments to attend trainings. However, the program applied an innovative approach whereby farmer-members of dairy societies contributed from their milk sales in order to acquire cooling tanks and dairy equipment in their centers. The program also linked farmers directly to service providers, and payments for services were made through check-off systems on behalf of the farmers. KDSCP clients understood that they absorbed the cost for any services they desired. In total, 143,000 farmers and producers benefited from capacity building sessions, and nearly 1,050 service providers were linked directly to farmers during the program.
- **Lack of financial services:** At the start of the program, many rural dairy farmers, service providers and agribusinesses that wanted to expand their operations faced difficulty when applying for bank loans and credit. They often lacked the collateral needed for banks to approve a loan, and were deemed too high of a risk. KDSCP worked with nearly all banks and microfinance institutions to understand dairy and to design specific financial services for dairy

farmers, such as K-LIFT, K-REP, SACCOS and *Juhudi Kilimo*. The program facilitated access to loans and credit for over 60,000 individuals – 40 percent of whom are women.

observed that the milk yields among male farmers were not significantly higher than yields of female farmers. Also, youth often adopted new techniques at a higher rate than other groups.

→ **Low engagement of women and youth in dairy:** Traditionally, male dairy farmers allowed women to consume or sell the “evening milk” for pocket money; yet, women were not viewed as capable lead farmers. At the same time, youth were discouraged from entering into dairy farming, primarily due to their inability to buy land and the general perception that dairy did not generate income. By working closely with women and youth, KDSCP ensured that they were involved in capacity building training, where they could observe and apply agricultural best practices. The program empowered many women to increase their incomes, and take leadership positions in their farms or in cooperatives. Some cooperatives set up Youth Funds to ensure that the younger generation had a proper chance to see that they could earn money from dairy. Throughout the course of the program, KDSCP

→ **Post-election violence:** Just before KDSCP began in 2008, Kenya experienced widespread violence following disputed Presidential elections. The program conducted a study to understand the violence’s impact on the dairy industry, which was shared with all stakeholders. Dairy actors collectively united to overcome the lingering sentiments that reduced farmers’ interest in continuing their dairy work. KDSCP, in partnership with the Kenya Dairy Board and stakeholders, held several peace and reconciliation events and field days to help repair the often unspoken societal damages caused by the violence. In many cases, communities talked openly about the abuses suffered at the hands of their neighbors, and they agreed to “never again, never again fight!” KDSCP continued working in scarred communities by uniting formerly feuding farmers into successful cooperatives.



“KDSCP exposed me to farmers. Now, I know the way.”

- Titus Wambua, owner of Real AgriFeeds, which experienced 80 percent growth with KDSCP’s guidance.

Report Card: Results Vs. Targets

Indicators	Target	Actual	Difference
Rural households benefiting	300,000	338,000	+38,000
Increase in smallholder household incomes	80%	208%	+160%
Volume of milk purchased from smallholder farmers (MT)*	360 MT	735 MT	+105%
Value of milk purchased from smallholder farmers (US\$)	95 Million	275 Million	+180 Million
Increase in volume of milk conforming to quality standards	90%	140%	+55%
Increase in value of milk/dairy products sold by processors	15%	36%	+150%
Farmers using improved technology	180,000	185,000	+5,000
Reduction in cost of production at farm level	25%	29%	+16%
Number of industry policies improved or enacted	3	22	+19
Total value of non-project resources leveraged (US\$)	25 Million	28 Million	+3 Million
Producer organizations strengthened	120	135	+15
Groups with HACCP and/or national certification	40	69	+29
Firms providing new business services to producers	500	1045	+545
Number of producers receiving short-term training	153,000	155,000	+2,000

*MT = Metric Ton

KDSCP Impact Stories

Mary Rono: A Cooperative Leader Advancing Food Security and Gender Equity

The lush green fields of Kenya's Rift Valley are home to thousands of small-scale dairy farmers like Mary Rono. Initially selling her milk as an individual producer, Mary and others like her were forced to peddle their milk to informal traders who paid low prices and infrequently picked up their milk. But, with the assistance of USAID, Mary Rono is now heading a cooperative in a community that once shunned female leadership, and farmers she has inspired are finally enjoying the profits they deserve.

As a novice farmer, Mary faced many challenges managing her family's small herd near the town of Kitale. "I took my early retirement and decided to concentrate on dairy farming. I practiced on the job because I didn't have the right skills," she explained. Mary's interest in pursuing dairy farming full-time was first piqued in 2004, after she visited a dairy cooperative in Nyala town that was receiving assistance from the now-completed Kenya Dairy Development Program, managed by Land O'Lakes International Development and funded by the U.S. Department of Agriculture. "I spent two nights in farmers' homes so that I could see their activities. I learned something from how they kept their dairy cows. I learned how they benefitted from their cooperative society. I envied their style of work, and I came back to my home with a burning heart." But since she was not part of a producer group at the time, Mary only earned about 18 Kenyan

Shillings (KES) (US \$0.17) a liter, had limited access to productivity-enhancing inputs, and no guaranteed market at which to sell her milk.

In 2009, she learned about USAID's KDSCP from one of the program's Artificial Insemination (AI) technicians, and about the assistance it could provide to boost production and milk marketing. That year, Mary formed the Koitogos Dairy Dynamic Self-Help Group with 15 people. But the fact that she was a woman forced her to address the community's long-standing gender biases head-on. "We are from the Nandi tribe, and because of cultural beliefs, men don't allow women to lead. When I first spoke to members of my community about coming together to form a dairy cooperative society, they kind of listened to me, because most of them didn't do dairy farming. But, to some extent, they wondered how I would lead them through such a big enterprise."

"As I mobilized the members and told them about what I saw in Nyala, I challenged them that 'why don't we come together and learn more about the dairy cow?' I did not think that they were going to elect me as a leader. I understand their cultural beliefs whereby a woman is not supposed to lead men. But I insisted, I persisted, and they accepted the idea of forming a group," she said. With the support of KDSCP, the Koitogos Dairy Dynamic Self-Help Group was registered as a full-fledged Cooperative Society in February 2011, and Mary (Continued on next page)



*"I understand their cultural beliefs whereby a woman is not supposed to lead men. But I insisted, I persisted, and they accepted the idea of forming a group."
- Mary Rono*

Rono was elected its chairperson. Koitogos now has 350 members and bulks over 1,000 liters of milk per day.

By working together collectively as a cooperative and bulking their milk, farmers in Mary's community are now experiencing a vastly improved quality of life. "We have are now earning 31 KES (US \$0.30) per liter, and we have been able to do a lot with the profits we get from the dairy. We are able to contribute to the school fees of our children. We are able to pay our loans with ease." In addition to financial gains, the members of Koitogos Dairy Dynamic also learned how to improve production,

animal care and feeding, breeding, and how to enhance the effectiveness and governance of their cooperative in order to ensure food security.

The United Nations estimates that if women were given the same access to productive resources as men, they could increase yields on their farms by 20-30 percent. After witnessing first-hand the success of Koitogos, Mary hopes the model will be expanded to other communities: "I wish to ask my women folk to really work in their farms, to put food on the table in our homes. We will produce food and our country will not experience another dilemma of hunger."

Dairy Processor Goes Through 'Transformational Change'

With Kenya's dairy industry on the brink of unprecedented growth, ensuring it stands up to the competition — especially regionally — is critical.



Philip Pyeko stands in NKCC's warehouse in Eldoret.

In a white laboratory coat and hat, Philip Pyeko walks proudly through the New Kenya Cooperative Creameries (NKCC) dairy processing facility that he manages in Eldoret. Located in Kenya's Rift Valley, the facility partnered with KDSCP in the program's early stages to help increase its output and profits by upgrading its food quality standards. In 2012, the program facilitated training for NKCC to become certified in Food Safety Management from the International Standards Organization (ISO). The Kenya Bureau of Standards facilitated and trained NKCC staff from all of its processing facilities, which guarantees that their products collectively meet the same quality standard. When asked how this training helped them in their day-to-day work, Philip said their dairy processing plant experienced "transformational change." Today, the Eldoret facility makes several products such as UHT milk, flavored yoghurt and milk powder that meets ISO standards and makes it "very easy to win contracts," said Philip. NKCC now sells

their milk powder to Nestlé and Coca-Cola. ISO's comprehensive system of standards and regulations enabled the Eldoret NKCC facility to nearly double its milk output from 60,000 liters per day to 100,000. With an uptick in earnings, Philip could invest more resources into the plant for routine repairs and maintenance, which also helps them to meet ISO's standards. To promote quality among farmers, the Eldoret plant participates in Farmer Field Days where they demonstrate how to use and wash aluminum cans. Compared to traditional plastic jerry cans, these metal containers help preserve freshness and quality when collecting and transporting milk to the processor. Their next step is to start quality-based payments, where farmers meeting higher standards are rewarded for the extra effort they put toward milk hygiene. "Some farms are already meeting European standards," said Philip.

In collaboration with KDSCP, NKCC took part in a marketing campaign aimed at increasing awareness of dairy's health benefits among youth. They hope that they can help revive a school milk program, where parents would contribute a small fee to ensure their child receives 200 ml of milk each day. To lay an evidential framework for reinstating the milk program, KDSCP and NKCC developed a report for the Government of Kenya that outlined the potential benefits of such a program on dairy farmers, processors and service providers. With higher demand for milk, the potential benefits for Kenya's dairy farmers could be extraordinary.

Connecting Youth to Dairy Farming



Cooperatives provide grants and credit to youth that enable them carry on their elders' practices.

Youth in Kenya's Central and Rift Valley Regions are now taking part in dairy farming and learning how to support their families through this increasingly competitive industry, something that was not so easy before KDSCP. At the program's beginning, USAID knew it was essential to engage Kenya's youth. Many dairy farmers in Kenya are aging, and without external support and encouragement, there has been a growing disconnect between youth, ages 20-35, and the elder generation when it comes farming.

Youth will also play a critical role in maintaining Kenya's competitiveness in the dairy industry. Over one-third of Kenya's population is 18 to 35 years old. When the current generation of dairy farmers retires from the industry because of age or health status, it is up to Kenya's youth to take on the responsibilities of dairy farming. KDSCP enabled youth in parts of the country to gain confidence in their dairy management skills, while earning additional income in the process.

In 2012, KDSCP worked with members of the Kitiri Dairy Cooperative Society (DCS) in Kinangop to develop a proposal for a Youth Fund. With support from the International Labour Organization (ILO), which awarded 1.5 million KES (US \$17,900) to Kitiri, the fund started providing grants to youth that helped them purchase a cow, receive hands-on training and jump start their dairy careers. Members also contributed to the fund by raising an additional 750,000 KES (US \$9,000).

This initiative targets sons and daughters of Kitiri DCS members as a way to pass-on knowledge about dairy management and teach youth the skills necessary to make a living out of dairy. To qualify for a grant from the Youth Fund, potential clients must demonstrate a keen interest in dairy and seek approval for their participation from the Kitiri DCS Management Committee. After going through a vetting process to ensure applicants have the drive to learn about dairy farming, clients use funds to purchase a dairy cow. They also commit to selling milk through the cooperative, which enables Kitiri DCS to recover the loan amount through a check-off system when paying farmers for the milk deliveries. So far, 90 people have benefited from the Youth Fund, while nearly as many are on a waiting list to take part in the initiative. Kitiri DCS members have also noticed an increase in their membership since the launch of the Youth Fund.

Near the Uganda border in the Trans Nzoia milk shed, the Tarakwa Cooperative Society (SACCO) is also offering credit to women and youth members. To qualify for a loan, potential clients are required to save their shares with SACCO for a six-month period, and afterwards they can receive a loan for up to three times the share they originally put up front. Members with dairy cattle are required to deliver their milk to the SACCO, which keeps track of their deliveries and helps them recover their loan from these proceeds. Clients who do not own cows make a monthly payment instead. These loans are helping clients invest in productive assets.

A Sweeter Deal for Henry and Kenya's Dairy Farmers

In Nakuru, a bustling town in Kenya's Rift Valley, Henry Musaviri Ambwere recently moved into a new store to meet the demands of his growing business. "People want to shop in a nice place," said Henry proudly. Before opening his shop on one of Nakuru's main roads, customers had a hard time finding him. Now he believes that more customers will come. But, Henry's already experiencing a sharp increase in foot traffic thanks to the USAID Kenya Dairy Sector Competitiveness Program (KDSCP).

Before starting his own animal feed business, Henry worked in Kenya's sugar industry, where he developed skills that later enabled him to convert stored energy from molasses into a healthy, super digester for livestock. Today, this entrepreneur manufactures and sells his own line of animal feed supplements, called MolaPlus. His products specialize in boosting digestion in dairy cows, which also helps to increase their milk production. "MolaPlus predigests animal feed, which gets it to a silage state. It forms a microbial protein and then excretes sugars," he said. The formula is so effective, according to Henry, that it breaks down any "woody" part of the plant, such as maize stalks, and releases nutrients that are otherwise underutilized. This offers a unique solution for dairy farmers that struggle to find good quality feed, especially during the dry season. The product can be applied to post-harvest crop residue, too, which will then turn it into silage. "MolaPlus increases milk production by 2 to 3 liters per cow per day," said Henry. He also sells a Milk Booster product that he says can add another 1 to 4 liters to that figure.



Kenya's 1 million dairy farmers rely on service providers like Henry to help them increase production, keep costs low and get the best price for their milk. Feed manufacturers and suppliers play a critical role in ensuring optimal animal health and productivity. In 2008, KDSCP saw an opportunity to build the capacity of service providers in eight milk sheds across the country. Land O'Lakes International Development, the lead implementing agency for KDSCP, applied their signature "light-touch" approach to developing business services that essentially mobilizes and empowers service providers to gain – and sustain – more business.

“KDSCP has lifted us and we are carrying on.”

- Henry Ambwere

KDSCP's Project Coordinators talked with service providers in each milk shed and encouraged them to participate in trainings that would improve their service delivery and help them run their businesses. As service providers joined in the program's training sessions and applied their newly developed skills, they were empowered to deliver better products, gain the trust of farmers and earn loyal customers.

"I met KDSCP when we were very small," he said. Like so many small businesses, his company collapsed in its early stages. KDSCP linked Henry to other markets by giving him an opportunity to display his products at Farmer Field Days, which were organized by the program. Before working with KDSCP, he sold 100,000 KES (US \$1,400) of products per month. Today, he stocks shelves across Kenya, Tanzania, Rwanda and Uganda and sells more than 1 million KES (US \$11,400) each month. He also expanded his business to include consultation services and farmer trainings. "KDSCP has lifted us and we are carrying on," said Henry.

Within a five-year period, KDSCP supported more than 1,050 service providers to develop and provide new business services to farmers, surpassing the program's target by 50 percent. All of the service providers that participated in KDSCP are now offering farmer extension services.

Sparking Changes in Her Life and in Others

Armed with 100 acres, a vision and sheer determination, Elizabeth Chepchirchir Sang is now a role model for dairy farmers in the cooperative she started, and for women farmers everywhere.

On her farm outside Eldoret in Kenya's Rift Valley, Elizabeth Chepchirchir Sang applied many of the teachings she learned at trainings sponsored by KDSCP. She learned how to grind corncobs and mix the residue with hay and beans to feed to her animals in the dry season. After the program showed her how to construct a storage shed, she built her own where she stores this nutritious feed mixture, which helps it to stay fresh. She increased her knowledge in how to increase milk production and connected with an Artificial Insemination technician to acquire improved breed cattle. As a result, Elizabeth has 13 improved breed cows that are producing as much as 19 liters of milk per cow per day, and helping her earn 45,000 KES (US \$530) per month. Previously, she was only seeing 3 to 5 liters per cow per day. With her increased income, she built a new kitchen and water tank for her household that accommodates her five children.

Beyond improving her own livelihood, Elizabeth kept her sights on helping her neighboring dairy farmers that struggled to earn a living. She also wanted to shatter negative stereotypes about women that were pervasive in her community, "I wanted to work



hard and be a role model," said Elizabeth about her time before working with KDSCP. "Men believe that women are children," she said, "But, women have ideas."

Indeed, Elizabeth's own idea to start a cooperative has sparked positive changes for her and her neighbors. In 2008, she began the Kipchamo Poverty Eradication Programme (KIPEP) cooperative that now boasts 800 members — 90 percent of whom are women. With each member contributing 100 KES (US \$1.20) a month, the group saved enough cash to construct an office building and purchase a computer to help with their business. They also pooled their savings to give out loans to farmers. The cash supports farmers' need to buy productive assets, such as improved breed cows, better tools, or to build feed storage units like the one Elizabeth erected. To date, they have distributed 15 loans and most farmers have fully repaid them.

"I wanted to work hard and be a role model... now I am happy."

- Elizabeth Chepchirchir Sang

"Men have seen our results," she said. Through her vision and determination — and an entry point through KDSCP — Elizabeth demonstrated that women dairy farmers are capable of increasing productivity and profits for themselves and their families. "Now, I am happy," she said.



Kironji's Launch Family Business through Financial Services

Kenya's first bank loans for dairy farmers help expand operations and improve on-farm productivity for families operating their own small businesses.

Since 2008, Ng'aru Kironji has been a model client of USAID's Kenya Dairy Sector Competitiveness Program. He once dreamed of opening an animal feed shop, and despite being a certified Dairy Technician, Ng'aru needed additional technical training in Artificial Insemination (AI) and feed management. He heard about trainings offered by KDSCP and decided to participate. His distinct energy and drive helped him learn quickly, and he improved his skills and gained confidence. With that small step, he began turning his dreams into a reality.



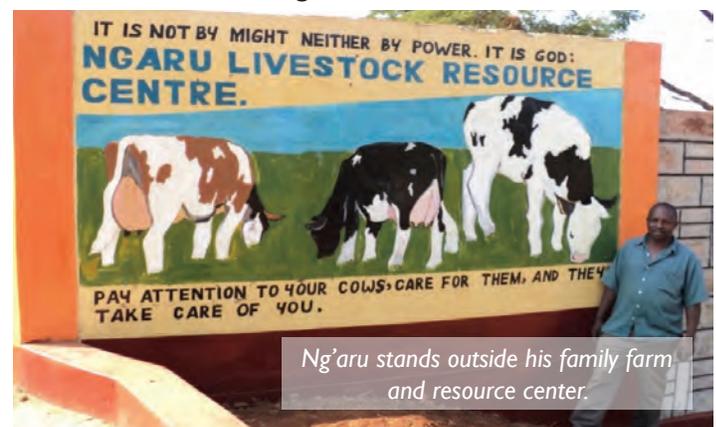
Yet, without a checking account or savings, banks were not willing to lend him the seed funding that would help him start his own business. KDSCP, which was working with financial institutions to develop specific products for dairy farmers, linked Ng'aru with Equity Bank. "I took a picture of my cows and brought it to the bank," said Ng'aru. Equity Bank was so impressed by the health and beauty of his cows that they decided to take a risk with this talented farmer and loaned him 30,000 KES (US \$350) that launched his career. He first purchased a truckload of hay for his cows, and then he sold half of the hay to neighboring farmers who desperately needed fodder during a particularly harsh dry season. From this first sale, he bought another truckload of hay and started offering services to farmers by combining AI with animal health.

With his expanding service provision business, Ng'aru's wife, Margaret, decided to invest her own savings, which she had earned from working as a school secretary, in an animal feed shop. After

becoming his partner in the business, Margaret now handles the majority of management decisions for the shop, including financials, while Ng'aru manages marketing duties. KDSCP gave them guidance on how to stock their shelves and give proper attention to their customers. "We listen to the details. When a customer complains about his or her sick animal, the appropriate remedy may be feed rather than medicine," said Ng'aru. They also provide free weekly seminars on animal health. Both of them agree that the quality of their feed and the care they put into serving their customers are the keys to their success.

They say that the largest profits they earn come from their 13 dairy cows because "they keep earning money," said Ng'aru, whose herd produces more than 100 liters of milk per day. He markets their milk through Kirere Dairy Services, where he also serves as a dairy extension service provider. Their dairy farm has also become a model for locals and international farmers that pay a fee to learn about their dairy management practices. Nearly 90 visitors come to their farm each month. To continue expanding their shop, service provision business and farm, Ng'aru obtained additional loans, which have totaled more than 3.6 million KES (US \$43,000). When the Kironji's house burned down, they put some of the funds toward reconstruction.

"Without the support of my wife and children, our dairy businesses would have never succeeded," said Ng'aru, who decided to run for office during the 2013 Kenyan elections. Although he did not win the County Representative seat in Murang'a County, he feels confident that he will get the seat next time.



King of Nakuru: Agricultural Innovation Cuts Costs, Reduces Harvest Waste

Husband and wife team up to expand their agribusiness beyond Kenya's borders.

Outside a metal workshop in Nakuru, Kenya, an unlikely entrepreneur shows off his machines, which are reducing production costs for farmers. Joseph Kimani Kiriri invented a chaff cutter that pulverizes maize stalks and Napier grass, turning it into ready-to-eat animal feed that is also easily digestible for dairy cows. Traditionally, Kenya's smallholder farmers rely on machetes to cut fodder and other harvest by-products, such as corncobs. Farmers commonly need to hire workers to perform this arduous labor, but most end up quitting because this backbreaking work is exhausting and monotonous.



The chaff cutter makes it easier to chop fodder and leftover by-products from harvests that can be fed to animals.

When Joseph was 16 years old, he came up with an idea to design a machine that would perform the chopping and save worker's energy. "The idea was inside of me when I was small," he said. "I designed it to make me happy." His determination paid off — the machine chops enough fodder and harvest residues in 30 minutes to equal the amount a worker can cut with a machete in one day. "Previously, 60 percent of it went to waste," he said. This pulverizing machine substantially reduces the waste and decreases the amount of money farmers invest in commercial animal feed. The machine can utilize "95 percent of maize stalks," according to Joseph. By breaking fodder into tiny pieces, it also reduces the space needed to store the feed.

To expand the market for his machine, Joseph and his wife, who is also his business partner, Faith Kimani, joined up with KDSCP. "They helped me with marketing... to go and display to people at

shows and service providers," he said. Joseph demonstrated his machine at over 300 Farmer Field Days and agricultural exhibitions in five years. He also paid for his travel fees. KDSCP mentored Faith in developing marketing materials to help promote their products. Without prior professional training, Faith now manages stocks, sales, customer care and communications with skill and efficiency for their company, called Nakuru Simba, all while taking care of their six children. A natural at communications, she came up with the idea for their company's name, which means "King of Nakuru."

"Yes, the name was my idea. We have another business here [in Nakuru] called Tiger of Nakuru," said Faith. "I thought we needed to be the lion." Joseph confidently agreed, "I'm a lion. I'm a king. I'm leading this industry."

In addition to being their lead sales agent, Joseph instructs farmers how to handle minor repairs and allows farmers to bring the machine in for fixing to one of his 9 shops across Kenya if additional work is required. He also designed different machines that shuck maize; and yet another with higher horsepower that works best for large-scale farms. Today, this husband and wife team sells 160 machines per month to farmers in Kenya, Uganda, Tanzania and Rwanda. They employ 50 workers in their metal shop and as sales agents in their stores. With KDSCP's support, they are also developing a business plan that will enable them to expand their market — even beyond Eastern and Southern Africa.



Joseph and Faith Kimani stand in their shop in Nakuru.

Kipsaina Dairy Bulking Center Creates New Opportunities for Members and Service Providers



Newton stands inside his zero-grazing unit that houses his improved breed cattle, thanks to Mathilda (right).

At the Kipsaina Dairy Bulking Center outside Kitale, Newton Aluda explains why he joined the cooperative to market his milk. Kipsaina's Board of Directors encouraged him to attend their KDSCP-led trainings that demonstrated best feeding techniques and breed selection of dairy cows. After participating in the meetings and applying new practices, he noticed an increase in his herd's productivity. Newton also felt assured that he would receive payment for his milk, something that has not always been a guarantee in an area plagued with historically corrupt cooperatives. "At the end of the month, I know I will get my check," he said. KDSCP worked with Kipsaina to ensure they applied good governance and set-up a proper business plan. Now their members' bulked milk passes quality tests, and they sell it to the Kitale's New Kenya Cooperative Creameries, one of Kenya's premier milk processors.

Newton's yields further increased when Kipsaina connected with an Artificial Insemination (AI) technician, Mathilda Sitoko. Displaced from her farm following Kenya's post-election violence in 2008, Mathilda met KDSCP's Project Coordinator for Trans Nzoia, Isaac Kamau, at a breeding show. "He encouraged me to do it [AI] better," she said. She decided to return to her home village near Kipsaina and mobilize farmers. She went to six churches and spoke with farmers about the benefits of AI, including increased productivity and resistance to certain diseases. This grandmother of two — who speaks with the enthusiasm of a teenager — brought together 30 farmers to learn the best techniques from KDSCP. Over time, Mathilda became Kipsaina's lead AI service provider for their members.

Since starting her own AI business in 2008, she carries out services in five communities, serving approximately seven farmers every day, including Newton. With Mathilda's support, Newton has seven improved breed cattle that have increased his farm's milk production from 40 to 100 liters per day. She also showed him how to make silage and advised him to construct a barn-like structure, which reduces his herd's open grazing and saves their energy. The unit still supplies enough nutrients to his cows, since Newton now collects and stores silage, which also enables him to reduce his production costs and save money for other farming supplies.

With her impressive skill set and proactive leadership style, Mathilda helped to reshape how the members of Kipsaina view women as dairy farmers. "Women stay at home and watch the cows," she said. "Their success rate is higher because they are watching." Indeed, anecdotal evidence gathered by Land O'Lakes International Development — USAID's implementing agency for KDSCP — suggests that women have a higher success rate with AI compared to men. Women are more likely to be at home and observe when cows are ready for insemination, which increases the likelihood for success.

Joe Bisere, the Chairman of Kipsaina, agrees. "We used to neglect women, but we now see they are as wise as others," he said. With savings from their group of 120 active members, Kipsaina has rented a new milk bulking center where they also hold meetings and trainings in agricultural best practices that they learned from working with KDSCP.

Cooperative Unites Dairy Farmers After Conflict



Gladys, center, talks with other Meeboot members about their bank loans.

Near Mt. Elgon, there is a small farming community called Kitalale. From 2007-08, residents were caught in the middle of a conflict brought on by the Sabaot Land Defense Forces (SLDF). Fighting over land, the SLDF engaged in guerilla warfare in the middle of civilian territory. While they invaded farmsteads and destroyed property, they also attacked, tortured and killed many Kenyans. In 2008, the Kenyan Army moved in to squash the SLDF, but allegations of destruction and violence at the hands of the military also quickly spread, as they were wrongfully accusing community members of being part of the SLDF. This terrifying 18-month conflict left more than 600 Kenyans dead and more than 66,000 displaced from their homes and farms.

“People fought and they killed one another,” said Gladys Ndiema, a dairy farmer and schoolteacher at Tiokony Primary School in Kitalale. “They would murder for no reason – just because they were from different tribes.” This community, which is comprised of five ethnic groups, witnessed how much of the fighting took place along ethnic lines. Community members tried to pick up the pieces and return to normalcy in the wake of the conflict. But, they had difficulty rebuilding their local economy and social ties, as many homes were burned, farms destroyed and cattle slaughtered. In 2008, the KDSCP team discovered Kitalale’s scarred past and began strategizing ways to support their dairy farmers.

At that time, KDSCP was conducting a series of peace and reconciliation events to help revitalize Kenya’s dairy industry following the 2007-08 post-election violence, which cost the dairy value chain more than 7 billion KES (US \$110 million). They decided to hold one of these meetings for Kitalale’s residents. “More than 2,000 people came together,” said Isaac Kamau,

KDSCP Project Coordinator for the Trans Nzoia milk shed. They started talking about the conflict and what it had done to their community. Isaac introduced them to dairy farming best practices, something that would later help farmers improve the productivity of their cows. “We showed them how to feed their animals, where to market their milk,” he said, “And then we held another [peace and reconciliation] event.” These meetings brought formerly feuding farmers together in the same room, and with a Ugandan pastor facilitating the discussions, they were able to bring out their emotions and try to move on from what they experienced. From that point on, many farmers decided to carry on with KDSCP and organized themselves into the Meeboot Dairy Farmers Cooperative Society.

During the cooperative’s start-up period, KDSCP trained Meeboot’s farmer-members on how to apply best practices, which enabled them to improve their farming and business skills. The members were also looking for a way to acquire more productive assets, including improved breed cows, which would further increase their profit potential. Isaac introduced them to financial services, including *Juhudi Kilimo*, or “Commitment to Agriculture,” and the Small Microenterprise Program (SMEP). Essentially bank loans, these services enabled members to invest in more productive livestock, zero-grazing units and better equipment for transporting milk. KDSCP had worked with financial institutions to develop the country’s first loans designed for dairy farmers. At the time of the program’s closing, the Meeboot Cooperative already secured more than 4 million KES (US \$46,000) worth of loans for their members. “The money that we used to buy good grade cows has changed our lives so much, because it has empowered us financially,” said Gladys, who also joined Meeboot.

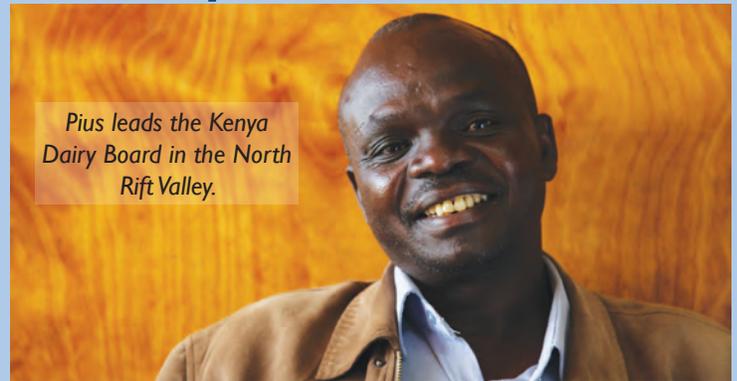
Gladys also believes that the cooperative helped unite people from the five ethnicities in her community. “We have the Kalenjins, the Luhyas, the Teso, the Turkana and even the Kikuyu. All these members are now like we are just one in the same society,” she said. By introducing the cooperative model to farmers in Kitalale, KDSCP supported Meeboot’s farmer-members to build a legally binding foundation for their business based on trust and inclusion. Cooperatives, by their nature, promote dialogue and negotiation as a means of diffusing issues facing members, while demanding accountability of their leaders. “When we joined this society... [it] brought us together,” said Agnes Bles Kiboi, Meeboot member, dairy farmer and widowed mother of seven. “Even this house, it is because of milk that I have it... and even my children have finished form four. They are going to college and it’s because of milk.” Agnes, who also takes care of her mother, Miriam, constructed a better home for her family because she applied the teachings of KDSCP, and saw her income increase. With the support of the program, she now earns enough to hire a worker to help her on her farm.

By promoting the cooperative model, KDSCP empowered Kitalale’s smallholders to access better services, acquire improved assets, and enjoy better quality lives and livelihoods, while overcoming their tragic past. “As far as this cooperative is concerned, I see that it has been of great importance because this has stabilized everybody financially,” said Gladys. “It has brought peace because people are now financially stable. We live now as brothers and sisters.”



Agnes, right, with her mother, Miriam.

Kenya Dairy Board Helps Lead Recovery Efforts



Pius leads the Kenya Dairy Board in the North Rift Valley.

Kenya’s 2008 post-election violence hit the dairy industry hard. The violence forced roads to close and no one could transport their milk. “No milk was reaching the market,” said Pius Cheserek, Kenya Dairy Board’s (KDB) Regional Manager for the North Rift Valley. “It caused an almost [total] collapse of the dairy sector in the region,” he said. During the conflict, Pius appealed to the youth to open roads and allow milk to move from the area’s farms to the processor, and from the plants to the market. Later that year, when KDSCP launched its mission to increase smallholder incomes through the sale of quality milk, the program recognized the need to work with KDB and engage dairy actors in communities impacted by the violence. Together, they held Peace Field Days, including six in the North Rift Valley region alone. People from affected communities came together and took part in football matches to build a better sense of community. “It was a breakthrough for bringing peace,” said Pius.

The post-election violence cost the dairy industry millions and many farmers lost good breed cows due to theft or death, which decreased production. “Some farms could not access the markets to buy feed, and veterinarians were unable to reach farmers in need,” said Pius. “The commitment to work on the farm was also low [after the violence].” According to Pius, KDSCP’s guidance helped the North Rift Valley’s dairy industry fully recover within one to two years. The program also helped KDB start a regional working group that meets 3 to 4 times a year. The group invites actors from all along the dairy value chain to discuss issues affecting their industry. Through their partnerships and continued collaboration, they are able to “network very quickly in case of any disaster — not just conflict,” said Pius.

Dreaming Big: Njoro Farmer's Prove Anything is Possible



Five years ago, dairy farmer Teresa Riungu retired from her role as a District Education Officer in Nakuru, and launched a new chapter in her life. She looked at retirement as an opportunity to help smallholder dairy farmers, like herself, in her community and established the Empowering Njoro Dairy Farmer's Cooperative Society (NDFCS). "The poor are not really poor. They have been exploited. There is no market for them to sell their milk; they just sell it to get rid of it. I wanted to empower the poor farmers of Njoro," said Teresa.

Teresa, who was once a struggling dairy farmer, had to learn better techniques that she could pass on to NDFCS' members. Through KDSCP, she participated in trainings about silage preparation, zero-grazing units and animal health. The program also introduced the benefits of improved breed cattle to Teresa, who was using indigenous breeds that only produced three liters of milk per day. With KDSCP's support, she expanded her herd to nine improved breed cows and applied the new skills she learned in fodder production and storage. Today, her farm produces 40 to 45 liters of milk each day. The productivity enhancements on her farm have also enabled Teresa to better care for her family, and employ a local laborer to help out on her farm.

Not surprisingly, Teresa sells her milk to the cooperative she started in 2007, which has grown from 40 to 670 members within five years. NDFCS also partnered with KDSCP to learn how to run their facility "as a business," she said. The program offered leadership training and guided them through the development of their first three-year business plan. Within a couple of years, NDFCS' members saved enough money to purchase two acres of land and construct a cooling facility, which now employs 20

local staff. They partnered with Brookside — a major private sector processor — to install a 10,000 liter chilling tank at their facility. Brookside pays NDFCS rent to house the tank on their premises, and the cooperative agrees to sell their milk exclusively to Brookside. "Brookside pays for all operations, including the diesel if we need to run on a generator," said Eunice Matiru, NDFCS' Unit Supervisor. Brookside collects the milk from their tank every day and "sometimes we still have metal cans waiting to be collected," she said. Through KDSCP, members have learned that aluminum cans help maintain their milk's freshness and quality during collection and transport. "We also advise them about not mixing their evening milk with their morning milk," said Eunice.

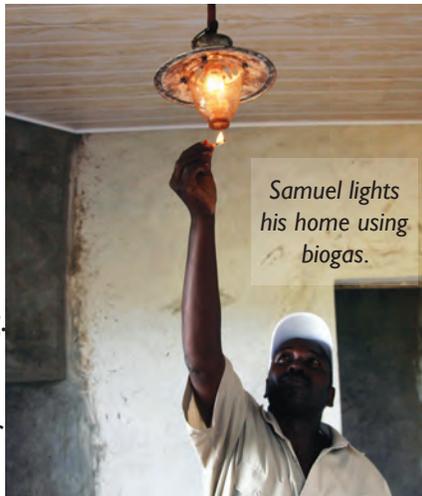
"The cooperative has touched 670 families and pays out 5 million KES (US \$60,000) per month," said Teresa. "Members can take their kids to school, they can afford better meals and supplement their diet with nutritious milk." Njoro Farmer's are also thinking of their future and plan to take out a loan that will enable them to purchase their own cooling tank and establish a processing plant. By essentially "buying out the processor," according to Teresa, NDFCS will increase their economic gains and add more value to their milk. "We want to have a milk processing plant and a store where farmers can buy input supplies and find their own processed milk for sale," said Teresa. Njoro Farmer's are already well on their way to achieving this goal — they saved more than 1 million KES (US \$12,000). They also want to build a training hall where members can come and improve their animal husbandry practices.

Teresa's success proves that it's never too late to dream. "This cooperative has given me the power to move on with my life," she said. "It keeps me going, and I continue improving myself."



Biogas Lights Up New Home, and Family's Life

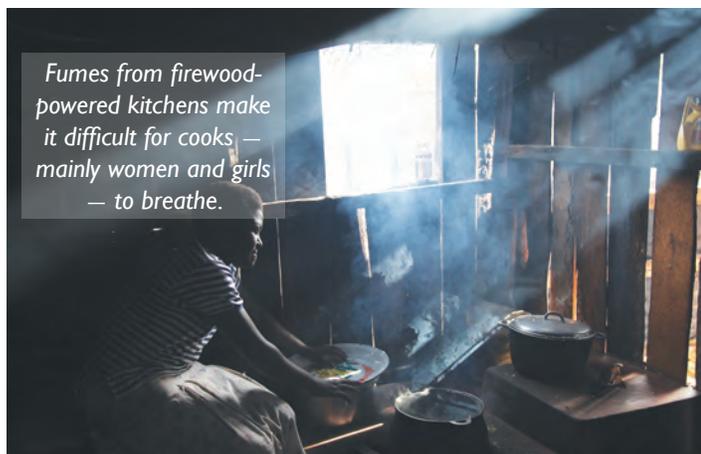
Nearly 80 percent of Kenya's rural homes are not connected to the electrical grid. Households also tend to rely on firewood for cooking. However, kitchens that women and girls use often lack proper ventilation, and the fumes from the fire irritate both their eyes and lungs. They also need to spend hours collecting firewood, which takes time away from enjoying moments with their families, and depletes forests.



Samuel lights his home using biogas.

household incomes, KDSCP actively promoted biogas digesters to families that could purchase a unit and support the upkeep. Biogas utilizes animal waste and turns it into a clean burning gas that can be used to light homes and fire up modern stoves.

Outside of Eldoret, the Barmasai family, who are clients of KDSCP, decided to invest in their own biogas digester in 2011. Samuel and Evelyn were already applying better farming practices, which has improved their milk yields from 10 to 72 liters per day. Their farm has become a model for other farmers in the area, and they host 10 visitors on a weekly basis. They always make a point to show them their biogas digester, which is now linked to their new permanent house — another positive outcome of their increased earnings. “The lights are bright at night, and they heat the house,” said Samuel. Evelyn and her daughter now use a modern stove for some of their cooking needs, which frees up their time and helps them breathe easier. When they finish building their house, they plan to use their new kitchen for all their cooking needs.



Fumes from firewood-powered kitchens make it difficult for cooks — mainly women and girls — to breathe.

Through KDSCP, USAID launched a remarkable initiative to combat the destruction of Kenya's forests, damage to women and girl's health, and lack of electricity in rural homes. While working with dairy farmers to help increase their milk productivity and

Within five years, KDSCP constructed more than 800 biogas digesters for farming families, which was made possible through a partnership with the Kenya National Federation of Agricultural Producers.



Samuel and Evelyn outside their new home.

Our Partners

The USAID Kenya Dairy Sector Competitiveness Program partnered with the following local institutions:

Animal Production Society Of Kenya
Association of Kenya Feed Manufacturers
Dairy Traders Association
Dairy Training Institute
Kenya Bureau of Standards
Kenya Dairy Board
Kenya Dairy Processors Association
Kenya Livestock Breeders Association

Kenya Livestock Finance Trust
Kenya Livestock Producers Association
Kenya Veterinary Association
Livestock Genetic society of East Africa
Ministry of Cooperatives Development
Ministry of Cultures and Social Services
Ministry of Livestock Development
Small Scale Dairy Farmer Association

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