



**RWANDA DAIRY COMPETITIVENESS PROGRAM II**

**Quarterly Report**

**April 1 – June 30, 2014**

**CA# USAID-696-A-12-00002**

**Submitted to**

**Fina Kayisanabo, AOR  
USAID/Rwanda &  
Martin Fischer  
USAID AO**

**Submitted by**

**Land O'Lakes, Inc.  
P.O. Box 64281  
St. Paul, MN 55164-0281**

**July 2014**

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**April 1, 2014 – June 30, 2014**

Name of Project:	Rwanda Dairy Competitiveness Program II
Regions:	Northern, Southern, Eastern and Kigali Milk Sheds
Dates of project:	January 6, 2012 – January 5, 2017

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## Acronyms and Abbreviations

ABS	African Breeders Services, Total Cattle Management Limited
AI	Artificial Insemination
BDS	Business Development Services
COMESA	Common Market for Eastern and Southern Africa
COP	Chief of Party
DCA	Development Credit Authority
DCOP	Deputy Chief of Party
DPPD	Dairy Public Private Dialogue
DSWG	Dairy Sector Working Group
DOAL	Dairy Quality Assessment Laboratory
EADD	East Africa Dairy Development project
EDPRS	Economic Development and Poverty Reduction Strategy
EMMP	Environmental Mitigation and Monitoring Plan
ESADA	East and Southern Africa Dairy Association
IEE	Initial Environmental Examination
INGO	International Non-Governmental Organization
GoR	Government of Rwanda
MCC	Milk Collection Center
MINAGRI	Ministry of Agriculture and Animal Resources
MINECOFIN	Ministry of Economic Planning and Finance
MINEDUC	Ministry of Education
MINICOM	Ministry of Trade and Industry
MINALOC	Ministry of Local Government
MINISANTE	Ministry of Health
MS – DSWG’s	Milk Shed – Dairy Sector Working Groups
MSME	Micro, Small and Medium Enterprise
NDS	National Dairy Strategy
PLWHA	People Living with HIV and AIDS
PMP	Performance Management Plan
PSF	Private Sector Federation
PSTA III	Strategic Plan for the Transformation of Agriculture in Rwanda – Phase
RAB	Rwanda Agriculture Board
RALIS	Rwanda Agriculture and Livestock Inspection Services
RARDA	Rwanda Animal Resources Development Authority
RBS	Rwanda Bureau of Standards
RDB	Rwanda Development Board
RDCP II	Rwanda Dairy Competitiveness Program II
RMSA	Rwanda Milk Sellers Association
RNDB	Rwanda National Dairy Board
SOQ	Seal of Quality
SP	Service Providers
TOT	Training of Trainers
UCD	University of California – Davis

## Introduction and Highlights

This is the quarterly report for the period April 1, 2014 to June 30, 2014. The Rwanda Dairy Competitiveness Program II (RDCP II) was designed to reduce poverty through expanded marketing of good quality milk that generates income and employment, and improves nutrition of rural households. RDCP II aims to achieve this by linking existing and new smallholder dairy producers to expanding market demand driven by improved quality, reduced transaction costs and increased investment all along the dairy value chain.

Three high profile events resulting in enhanced program visibility took place during the last quarter. These included 1) the launch of the RDCP II sponsored milk consumption campaign branded as Shisha Wumva, 2) Rwanda's first ever Cheese Expo and national cheese competition and 3) the launch of the newly formed RNDP with newly elected board members. All three are major milestones in the development of Rwanda's dairy sector providing evidence of the growing confidence levels in the sector. Increasing investments are highlighted in the report both centrally and at district level with a total of 38 new MILK Zones now in operation, retailing 16,000 litres of pasteurized milk per day. Many new and improved products are appearing in the market place with emphasis on quality and presentation now paramount in the rollout of these dairy products.

RDCP II concluded a three day residential model dairy farmer course with the aim of utilizing these 349 trained individuals as key agents of change at farm level. In collaboration with RDCP II trained service providers and RAB at district level these model farmers provide an excellent on farm mechanism to promote and disseminate enhanced productivity messages to large numbers of potential farm level beneficiaries across the key milk sheds.

**Highlights for the past quarter ending June 2014 include the following:**

**The National Milk and Dairy Consumption Campaign “Shisha Wumva” launched**



Figure 1: The Minister of Agriculture and Animal Resources, Dr. Agnes Mathilda Kalibata together with distinguished dignitaries launched “Shisha Wumva” – the National Milk Consumption Campaign alongside the opening of the Agri-Show 2014 at Mulindi show grounds.



Figure 2: At the “Shisha Wumva” launch, children were served milk sending a message to parents that milk is important for a child’s health and nutrition.

In a strong collaboration with the Ministry of Agriculture and Animal Resources (Minagri), the Rwanda Dairy Competitiveness Program II (RDCP II) launched a National Milk/Dairy Consumption called “Shisha Wumva” (literally meaning feel the goodness) that aims to raise awareness of the benefits of milk consumption and its availability on the Rwandan market.

This campaign was officially launched by Rwanda’s Agriculture and Animal Resources Minister Dr. Agness Matilda Kalibata at the 9<sup>th</sup> annual National Agri-Show on June 6, 2014 at Mulindi Agri-show grounds in Gasabo District. The campaign is designed to run for six months nationwide, using a mix of intergrated communications on TV, radio and other selected media.

At the event, Hon Minister Kalibata noted that consuming milk is healthy, and a positive step towards tackling malnutrition and promoting good nutrition. She further noted; “This is part of the intergrated approach towards implementing policies that encourage and promote healthy eating and physical activity across the country.

### **Visit by US Treasury Deputy Secretary to RDCP II supported activity**

On May 21, the project partner Cooperative Amizero Y’ Aborozi in Kamonyi district hosted a high level delegation led by US Deputy Treasury Secretary and the Permanent Secretary of MINAGRI. This was organized as an event during the AfDB annual meeting taking place in Kigali the same week. Officials were received at the MCC by the Vice Mayor for Economic Affairs of Kamonyi district. US Deputy Treasury Secretary and Officials from the US embassy, AFDB and Minagri were impressed by the progress made by the cooperative. The officials also appreciated RDCP II collaboration with Kamonyi district officials.

### **Rwanda Cheese Expo and Competition held.**



**Figure 3: The two-day cheese expo concluded with the awards ceremony which recognized local cheeses of the highest quality. The PS MINICOM presided as chief guest.**

For the first time ever in Rwanda, an exhibition of cheese and a cheese competition involving local cheese processors was held on May 29-30 2014. These events were initiated in collaboration with the Rwanda Private Sector Federation (PSF) and USAID’s RDCP II.

Presiding over the Rwanda Cheese

Championship Awards and the launch of the two-day Cheese Expo at New Papyrus Restaurant, Kimihurura, the Permanent Secretary in the Ministry of Trade and Industry (Minicom), Mr. Emmanuel Hategeka described the event as a great marketing and promotional platform for Rwanda's Cheese sector. GoR urged stakeholders to work hard in the aspects of improving the quality of Rwandan cheeses as well as finding ways to brand and market their products both in and out of Rwanda.

### Local Chefs trained on cheese recipes and usage

As part of the week long cheese events in May, 16 chefs from Kigali's top hotels and restaurants were trained by South African cheese expert Kobus Mulder.



Figure 4: 16 Chefs from top Kigali hotels and restaurants attended a training aimed at increasing use of cheese in daily menus



Figure 5: Master Cheese maker Kobus Mulder conducting the chef's training in Top Tower Hotel Kigali

The one-day training held at Top Tower Hotel in Kigali highlighted the nutritional value of cheese and aimed to stimulate increased usage of cheese in both the hospitality and catering sectors as both have the potential to be major consumers of cheese.

### University of Rwanda (UR) launches Dynamic Dairy management (DDM)

Following a clinical microbiology training and receipt of a sub-grant to the University of Rwanda (College of Agriculture, Animal Science and Veterinary Medicine (UR-CAVM)-Busogo and Nyagatare campuses), UR launched the DDM program on May 29. Over the course of 16 weeks, teams will collect and test milk samples from 100 cows for a range of mastitis causing organisms and implement a management system that helps to understand risk



Figure 6: RDCP II Grants manager Mrs Lillian Gasana (Center) signing grants documents with staff from the College of Agriculture, Animal Science and Veterinary Medicine at the University of Rwanda.

factors, causative agents, control measures and mastitis treatment protocols. At the end of the program, working with UC Davis, the UR will publish a scientific journal article on this activity. This is critical for researchers and practitioners to understand how to deal with mastitis as a leading cause of economic losses at farm level in Rwanda.

## **RNDP – a national advocacy platform for dairy sector established**

Following an eight-month process championed by Private Sector Federation (PSF) with a grant from USAID's RDCP II, the Rwanda National Dairy Platform has been established as a private sector-led organization to advocate on behalf of Rwanda's dairy sector.



**Figure 7: Officials from government, USAID Rwanda mission, private sector federation, RNDP and RDCP II taking a toast on milk during the platform launch.**

The new body is mandated to represent the Rwanda National Dairy Farmers Federation, the Dairy Processors Association of Rwanda, milk sellers/retailers, input dealers & service providers and the consumers' association. The platform henceforth will be the recognized voice of the dairy sector at both district and national level. During the launch, DG NAEB noted that milk has the potential to become a leading export earner and appealed to the sector players to work together to realize this goal.

## **Model farmer training completed**

Between mid May and end of June, five model dairy farmer training of trainers sessions were organised and delivered to model dairy farmers from the 17 districts in which RDCP II is operational. The residential training sessions, covered three days and were held at GAKO Organic Farming Training Center (GOFTC) outside Kigali.



**Figure 8: RDCP II Quality specialist Mr. Shukuru Bizimungu demonstrating a mastitis test to model farmers during Model Farmer training at GAKO training centre outside Kigali**

RDCP II trained more than 20 model farmers from each district of program operation. These farmers have the capacity to disseminate information on improved dairy technologies and best farming practices through extension in their respective home localities. In total 349 farmers were trained 127 female (36%) and 222 male (64%).



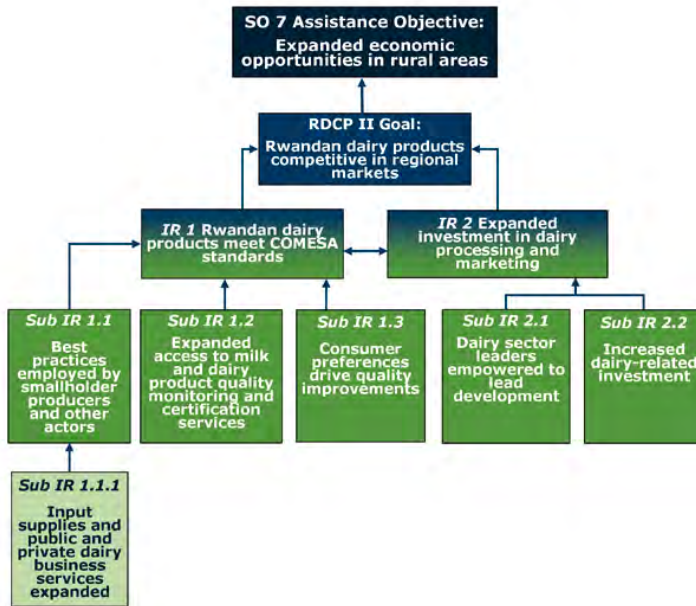
## **RDCP II hosts National Dairy Development Authority (DDA) of Uganda**

As part of their learning trip to Rwanda, DDA visited RDCP II office to learn about the processes undertaken to create sector ownership by the private sector. This was in particular reference to on-going collaboration to establish a private sector driven Rwanda National Dairy Platform(RNDP). In contrast, DDA is a Government of Uganda parastatal with authority to regulate dairy businesses. This visit offered DDA representatives an opportunity to learn about the progress towards achieving private sector ownership. This was seen as a preferred approach to the control and regulation by government.



**Figure 9: National Dairy Development Authority of Uganda during courtesy visit to RDCP II office Kigali, April 2014**

**Rwanda Dairy Competitiveness Program II  
Results Framework**



**IR 1: Rwandan Dairy Products Meet COMESA Standards**

Rwanda produces over 500 metric tonnes of milk annually which is largely marketed through poorly regulated informal routes. This results in losses to the dairy sector, both in volume and value of dairy products marketed. RDCP II aims to position Rwanda as a hub for high quality dairy products by benchmarking local standards to regional COMESA standards and working with sector actors to achieve the same through a reward mechanism for implementing a range of best practices under the Rwanda SoQ program. Progress has been made across the dairy value chain in terms of dairy farmers trained and milk transporters engaged, as well as dairy processors and MCCs enrolled and encouraged to drive this process. RDCP II has worked closely with RBS, RAB and RALIS to ensure these agencies are well prepared to support this



**Figure 10: High quality ISO certified Inyange Dairy Products penetrate both local and regional markets.**

shift. For the first time this quarter, 349 model farmers were trained and, in an endeavour to introduce a sustainable farmer to farmer knowledge transfer system, some of the model farmers have already been assisted to engage dairy farmers in their communities. The draft Ministerial Instructions developed during the previous two quarters are beyond the government legal review stage and are expected to be tabled in Cabinet by the end of next quarter. The Instructions will provide the legal basis to enforce best dairy practices across the entire dairy value chain from production through transportation, handling and processing. This will be the basis for a fully functional national inspection and certification program under RALIS.

### **IR1.1 Best practices employed by small holder producers and other actors**

#### **Key achievements:**

- 6,999(2487 – 37% - female and 4412 – 63%- male) individuals in total trained in addition to 15,422 trained up to the end of last quarter giving a cumulative total of 22,421 individuals trained (see FTFMS table for disaggregation details).
- 2,499 farmers and others followed-up this quarter, but trained up to the end of the last quarter, applied improved technologies and management practices giving a cumulative total of 13,986 farmers applying technologies and best practices.
- 2,272 members of Cooperatives and farmers groups benefited from program activities interventions in addition to 16,085 reported in previous quarters.
- The 11 AI service providers hired to train farmers and inseminate cows for vulnerable farmers inseminated 3,700 cows across 16 districts for 3,690 beneficiaries (1,391 female and 2299 male) (Table 2).
- Thirty three (7 female and 26 male) inseminators from the 11 AI service providers' companies that were contracted to train farmers and conduct AI for vulnerable dairy farmers were trained in pregnancy diagnosis by RAB consultants and RDGP II staff.

- 349 model farmers (127 female, 222 male) selected from all 17 RDCP II districts of operation were trained at GAKO Organic Farming Training Centre, Kicukiro District.



Figure 11: Model farmers undergoing training at Gako Organic Farming Training Center outside Kigali

- Veterinary Yield Entrepreneurs Cooperative (ITABAZA), a RDCP II grant recipient, inseminated 376 cows for 297 beneficiaries (25 female and 272 male) this quarter bringing the cumulative total of cows it inseminated to 511 for 398 beneficiaries (36 female and 362 male). 124 inseminated cows were pregnancy tested this quarter and 69% were pregnant.
- 3,186 new vulnerable household benefited from the program during the quarter giving a cumulative total of 10,058 since the beginning of RDCP II.
- 761 new micro and small enterprises were supported during the quarter, making a cumulative total of 3,871 micro and small enterprises supported since RDCP II began.
- A total of 764 ( female 38, male 764) full-time equivalent jobs were identified this quarter, realizing a cumulative total of 3,462 jobs created as result of FtF intervention.

Consistent with achieving the four core products/activities in relation to best practices i.e., the Feed Flow Plan, the Herd Health Plan, the Reproduction Plan, and the Clean Milk Production Plan and the SoQ, RDCP II continued farmer training using trained service providers. The approach taken was as described in previous reports in which selected service providers were trained on the best practices and then used as TOTs to train farmers. For this quarter, the service providers or partners were largely the 11 AI service providers that were engaged to train farmers and conduct AI for selected vulnerable farmers. In addition, model farmers selected during the last quarter were trained in the core best practices, particularly milk production and quality improvement, dairy farming as a business, gender mainstreaming and cooperative management. The trained model farmers are expected to lead dairy farmer field schools in their communities. Since the model farmers were trained for 3 days over a five-week

period, those that were the first to be trained began engaging farmers in their communities to share dairy best practices knowledge.

### **Implementation of Activities**

During this quarter, RDCP II facilitated training, through AI service providers and grant recipients (Table 2), in 16 districts of RDCP II operation and followed-up farmers in all the 17 districts of RDCP II operation. The number of farmers trained were 6,875 but the total number of farmers trained by the AI service providers since they were contracted to train farmers during the last quarter was 9772, as shown in Table 2. The farmers trained were largely from new sectors across the 16 districts. As a result of strategies described in last quarter.

**Table 1: Number of cows artificially inseminated and the beneficiaries, number of inseminations (AIs) conducted by the 11 AI service providers across 16 districts**

Service Providers	DISTRICT	Target AIs	AIs done	Beneficiaries			Number of farmers contracted to be trained under the AI grant		
				Male	Female	Total	Male	Female	Total
AGROJOY Ltd	Gatsibo	300	300	244	54	298	402	109	511
HOBAS Ltd	Kayonza	300	-	-	-	-	333	230	563
BARICE Ltd	Rwamagana	670	480	252	228	480	487	596	1,083
Nyamata Agri-inputs Ltd	Bugesera	300	300	163	137	300	388	205	593
	Kicukiro	280	168	94	74	168	160	149	309
COOVIGI	Gasabo	300	173	96	77	173	286	230	516
	Gicumbi	500	280	190	87	277	676	329	1,005
A.T.VET Ltd	Musanze	300	240	148	92	240	356	417	773
	Rulindo	300	300	196	104	300	246	262	508
UPROCENYA	Nyabihu	300	225	153	72	225	270	261	531
BAIR	Rubavu	300	267	164	103	267	405	202	607
SPAD Ltd	Gisagara	300	150	105	40	145	225	409	634

	Huye	300	150	112	38	150	366	240	606
NIR HOPE Ltd	Kamonyi	300	158	95	63	158	384	223	607
Nyanza Agro Center Ltd	Nyanza	300	150	89	61	150	207	107	314
	Ruhango	300	359	198	161	359	416	196	612
		<b>5,350</b>	<b>3,700</b>	<b>2,299</b>	<b>1,391</b>	<b>3,690</b>	<b>5,607</b>	<b>4,165</b>	<b>9,772</b>

As previously reported, farmers' training topics included feeding and conservation of forage, and disease control. Farmers were trained on hay and silage making, improving the quality of crop residues and conserved forages using molasses and urea treatment, making concentrates at home using home grown crops such as field beans, soybean and maize stovers, and feed flow planning in order to maintain milk production across seasons.

### Farmer follow-up



**Figure 12: Follow up exercises to establish the level adoption of best dairy farming practices and improved technologies after a series of training sessions across the country.**

By the end of this quarter, post training farmer follow-ups were conducted across the 17 districts of RDCP II operation. Overall, across the 17 districts, 2,499 trained farmers were reached giving a cumulative total 13,986 farmers including the 11,487 trained farmers reached up to the end of the last quarter. Similar to results from previous follow ups, all the farmers followed-up applied at least one technology or best practice. In general and not surprising, farmers that did not have milking cows applied the least number of technologies. As observed

previously, farmers applied technologies and best practices that did not require additional costs such as the milking hygiene, milk handling and disease control best practices. As in the past, improved technologies included silage and hay making, use of treated crop residues, minerals, feed concentrates, cow vaccination, milking hygiene, and record keeping.

A total of 764 ( female 38, male 764) full-time equivalent jobs were identified this quarter (see FTMS Table). As reported in the last quarter, three categories within which jobs are created were found to be trained farmers (the majority are small farmers), farmers individually supplying a relatively large quantity of milk to an MCC (>10 litres/day), and the dairy value players from MCC level to retail outlets. In general, 11% of the first category (small farmers) created jobs while 76% of the second category created jobs. In general, job creation is associated with increased milk deliveries to MCCs.

### **IR 1.1.1 Input supplies and Public and Private dairy business services expanded**



## Key achievements:

### Model farmer activities

The 349 model farmers (36% women) that were trained at Gako Training Centre constituted 91% of the expected trainee model farmers. This was a high attendance level. The farmers were invited, in groups of 80 people, for three days per group. In order to train all the model farmers, five such groups were trained over a five-week period. Individual trainee groups had participants from all the 17 districts; ultimately, about 20 model farmers per district were trained.



**Figure 13: Model farmers under going training on best dairy practices . Model farms will help RDCP II reach greater numbers of farmer beneficiaries across Rwanda**

The overarching training objective was to equip the model farmers with knowledge on dairy best practices to enable them to lead dairy farmer knowledge sharing (similar to farmer field school approach as employed by Minagri) in their communities. The broad topics covered during the training are similar to those for farmer training described in the farmers' training topics above.; however, the topics were covered in greater detail in this case. In addition, business management, gender mainstreaming and leadership skills development were emphasized. Further, the model farmers developed action plans for engagement with dairy farmers in their communities at the end of the residential training.

Given the limited public and private dairy extension services in Rwanda, RDCP II regards the training and action plan implementation as key activities to facilitate provision of sustainable dairy extension services in areas far from towns and service centers. In general, the Gako training facilities were good, particularly the dairy herd and forage species planted at the site were useful for demonstrations. Bringing the farmers together promoted knowledge sharing and creation of networks.

Some of the model farmers trained at the beginning of the program have already engaged dairy farmers in their communities. For example, 4 model farmers (1 female, 3 male) in Rugalika Sector, Kamonyi District, (Figure 1) organized dairy best practice knowledge sharing discussions for a total 216 farmers (85 female, 131 male) from 5 administrative cells. The discussions were conducted during afternoons, a preferred time for this activity. The farmers

welcomed the discussions and saw value in having a knowledgeable person within reach, and perennially available for consultation. RDCP II identified a need for further mentoring of model farmers to lead and facilitate the discussions; in addition, they need basic equipment and materials for use in demonstrations that will be developed by the program team.

## AI service provider activities



**Figure 14: Nyamata Agri-Input an AI service provider implementing AI activities in Gashora Sector, Bugesera District**

Apart from training farmers, the 11 AI service providers that commenced activities during the last quarter conducted AI (3700 inseminations) for 3,690 farmers (1,391 female, 2299 male), largely GIRINKA beneficiaries, across 16 districts (Table 2). The service providers are expected to inseminate a total 5,350 cows, thus there is a balance of 1,660 inseminations. The target inseminations were not accomplished because of limited availability of heat synchronization hormones that

are needed for group insemination of cows. While RDCP II had planned to support cow inseminations based on natural heat detection, the logistics of implementing this were challenging. In this regard, most of the administrative sectors chosen by the districts to benefit from the AI intervention are not easy to access due to poor roads and are far from AI service centers. This precludes provision of an economic and sustainable AI natural heat detection based AI service to farmers. RDCP II will negotiate with RAB for provision of heat synchronization hormones to complete the inseminations.

In order to facilitate pregnancy diagnosis of the cows inseminated by the AI service providers, RDCP II, using two RAB consultants, trained 33 (7 female, 26 male) inseminators from the 11 AI service provider companies and ITABAZA representatives in pregnancy diagnosis. The training was conducted at the RAB Songa Station near Huye. The trainees will be expected to begin pregnancy testing of the cows during the next quarter. As part of further training, the RAB consultants will monitor the the trainees to check on their field PD competence.

## **Feed formulation and processing training**

Forty three (6 female and 37 male) feed processors and feed formulation practitioners were trained by hired animal nutrition consultants and RDCP II staff. The course was conducted over a three-day period. Feed processors, feed retailers, university lecturers, and RDCP II feed mill grant recipients (NADCO & VETOPROX) and ITABAZA representatives attended the course. The interest in the course was high as witnessed by the attendance that was much higher than expected (30 trainees had been invited). Topics covered in the course included ruminant nutrient needs; feeding standards; energy, fiber and protein evaluation systems; feed formulation ingredients; feed formulation practice; feed processing, feed mill operations and financial management; stockfeed marketing strategies; and practicals and field visits.

Emanating from participants discussions during the course and a visit to IAKIB feed mill in Gicumbi, it was clear that the animal feed industry in Rwanda is still in its infancy. All the current major Rwanda stockfeed producers representatives participated in the course. It was noted that the combined stockfeed supply from all the known processors and suppliers did not exceed 30 metric tonnes per month. The challenges faced by the feed industry include lack of technical knowledge on feed formulation and processing, low demand for processed stockfeeds, limited stockpiles of raw materials to cater for seasons when they are in short supply, and competition with humans for acquisition of some feed ingredients.

None of the processors knew how to formulate feed using feed formulation principles. Most of the feed processors claimed that they download their formulations from the Internet and were therefore using formulations designed for other countries and contexts. None of the feed processors analysed their raw materials and feeds for compositional quality, presence of contaminants, and high moisture. Also, none of the processors had a quality control program for their raw materials and products.

Given these revelations, RDCP II will continue working with the feed processors and retailers to improve feed standards. In order to partly assist the processors, RDCP II and its consultants intend to visit them and advise them at their sites.

(For expanded detail on this activity please see Feed Formulation training report Annex 5)

## Feed input supply

One of the two RDCP II feed mill grant recipients, VETOPROX in Huye District in the Southern Milk Shed, reported declining cattle feed sales from 1,240 kg to 200 kg per month during the quarter. VETOPROX claims that this decline in demand is a consequence of massive public road construction activities that have precluded farmers from selling milk to MCCs. It is seeking alternative feed markets in nearby districts including Nyanza.



Figure 15: Animal feed mill granted to VETOPROX in Huye District, southern province

The other feed mill grant recipient, Nyagatare Agronomist Development Cooperative (NADCO) in the Eastern Milk Shed, did not sell more than 500 kg per month during the quarter. Surprisingly, NADCO claims that the farmers in the Eastern Milk Shed are not interested in buying stockfeed.

While cognizant of the challenges facing the Rwanda stockfeed sector, RDCP II expects the feed mill grant recipients to improve their performance. The feed formulation and processing training likely improved NADCO and VETOPROX's understanding of the feed business. The training enlightened them on least cost approaches to feed formulation and ensuring that the milk price per liter to feed price per kg ratio is more than 1.2:1. While farmers may not know about this ratio, it is the break-even ratio above which farmers start getting a profit from milk sales. In fact, while farmers may not calculate the profit they are making they often know when losing revenue.

## Veterinary service activities

One service provider, ITABAZA that received a capacity building grant for delivery of AI and veterinary extension services has continued offering commercial veterinary services. Demand for ITABAZA services including AI, veterinary drug supply and emergency veterinary services, and animal production consultancy services have continued increasing.

Emergency veterinary service cases handled by ITABAZA increased from a maximum of 6 cases per month by the end of the last quarter to an average 15 cases per month during this quarter. Gross revenue from services to attend to the cases was about USD 300 per month during the quarter while sales revenue from veterinary remedy sales increased to about USD900 per month and was more than the amount collected during the last quarter. The revenues may not be high enough to cover overheads but the business growth trajectory is

promising. However, challenges still exist including the expectation of free services by smallholder farmers.

Through use of heat synchronization hormones obtained from RAB and natural heat detection, ITABAZA inseminated 388 cows this quarter that when combined with 123 cows inseminated by end of last quarter gives a total 511 inseminated cows. This total number of cows belongs to 398 farmers (36 female, 362 male). ITABAZA inseminated the cows bred after natural heat for a fee; however, it was only given fuel and semen to inseminate the heat synchronized cows at no charge by the District in-charge of the heat synchronized AI program. The free insemination was done in order to promote farmer AI use.

## **IR 1.2 Expanded access to milk and dairy product quality monitoring and certification services**

### **Key achievements:**

- 32 4th year veterinary and animal production students from Umutara Polytechnic (UP) and Institut Supérieur d'Agriculture et d'Élevage (ISAE-Busogo) were trained on Dairy Dynamic Management (DDM)
- Ministerial Instructions on milk quality control and handling were approved in May by MINAGRI for final review by Ministry of Justice
- Continued collaboration with RALIS in the finalisation of audit documents (procedures, forms/templates, work instructions) and continued to monitor the use of required documents and record keeping procedures to facilitate compliance on introduction of Seal of Quality certification among dairy actors
- 7,583,727 liters of milk were marketed by MCCs this quarter making a total of 21,637,118 liters since the beginning of the fiscal year.
- 49% of milk collected at MCCs was channeled to dairy processors, thus complying with basic SOQ quality requirements



**Figure 16: Students at University of Rwanda trained and equipped to help implement the Dairy Dynamic Management (DDM) program**

Mastitis is one of the major contributing factors to Rwanda's poor milk quality and safety. It is on this note that RDCP II initiated the Dairy Dynamic Management (DDM) Project in partnership with University of Rwanda (Busogo and Nyagatare Campus) and University of California Davis. The DDM project is implemented by veterinary and microbiology staff from the two campuses.

In March 2014 UC Davis staff trained University of Rwanda technicians and others from different organizations both Government and private in collaboration with RAB. The objective of DDM is to identify mastitis causing organisms on farm and initiate practical on farm mastitis preventive strategies in the selected areas of Northern and Eastern Provinces.



**Figure 17: Veterinary student enrolled in the DDM program mastitis testing.**

This pilot program which commenced in May will run for a period of 16-weeks and involves 32 4<sup>th</sup> year veterinary and animal production students, 7 faculty members from both campuses, 30 dairy farmers and 100 cows from both Nyagatare and Nyabihu, Musanze and Rubavu districts. Exploratory tests carried out on cows at field level (farm) include California Mastitis Test (CMT), heart rates and rectal temperature. The results are compared over the 16 week period to see how they compare with their milk mastitis test results from the laboratories. Both campuses collect milk samples from the selected cows weekly. The samples are incubated, results analysed and collated in their respective laboratories and 10% of samples are cross checked at the RAB (Rwanda Agriculture Board) Laboratory in Kigali to compare and confirm results. This pilot phase will run until September 2014 and final reports will be produced and published in scientific journals by end of 2014.

Based on the findings of the pilot study, recommendations will be submitted to University of Rwanda, MINAGRI and RAB on how best to introduce mastitis prevention modules into the UR veterinary curricula. Empowering Rwanda's veterinary students/graduates with the means to apply their knowledge at farm level will be key to tackling mastitis on an ongoing basis.

Ministerial Instructions on milk quality control and handling were approved in May by MINAGRI for final review by Ministry of Justice. This was achieved after acquiring input from key regulatory stakeholders including RBS. The main purpose of the Ministerial Instructions is to provide guidelines on milk handling from the farm to the consumer. This provides the legal basis for implementing hygiene in Rwanda's dairy sector. It is anticipated that the Ministry of Justice will submit the Ministerial Instructions to the Office of the Prime Minister for official gazetting in August 2014. On completion of this process RDCP II will proceed with finalising a grant to RALIS to initiate the inspection and certification process.

During the quarter, in preparation for Seal of Quality roll out and certification RDCP II continued its collaboration with RALIS in the finalisation of audit documents (procedures, forms/templates, work instructions). 5 selected dairy actors whose documents were reviewed extensively by RDCP II included Blessed dairy, Zirakamwa Meza dairy processing plant, Kivu dairy MCC, Dukundamatungo MCC and Ingabo dairy processing plant are now using their own documents as a basis for following standard systems and procedures as related to milk collection and handling. RDCP II staff continued to monitor use of the newly created documents and record keeping procedures to facilitate compliance on introduction of Seal of Quality certification.

### **IR 1.3 Consumer preferences drive quality improvements**

#### **Product improvement**

New and improved products continue to appear in the market with improved quality and packaging demonstrating the adherence of processors to heightened consumer awareness on quality related issues. The reopening in June of a much improved Nyanza Milk Sellers cooperative premises which was closed in November 2013 following public health concerns demonstrates an active response to these valid concerns by both public and private entities. Following the closure, the milk sellers reorganized themselves to form a legally registered cooperative, construct new improved premises and are now purchasing up to 3500 litres of milk on a daily basis and are producing and selling a branded fermented milk product for both the export and domestic market. Without closure for quality related issues it is unlikely that this organization would have been obliged to progress to its current status.

#### **Milk zone franchise continues to grow**



**Figure 18: Newly opened Milk Zone in Kamonyi, a district outside Rwandan capital Kigali**

The Inyange milk zone concept continues to be adopted and there are now over 38 milk zones operating in Kigali with two milk zones operating outside the capital in Nyagatare, and Kamonyi and a third expected to open in Bugesera during the next quarter. The success of these outlets is testament to consumer preferences driving quality improvements. The milk zone brand has gained significant momentum and is fast becoming an established consumer brand with the potential to change the face of milk consumption in Kigali and Rwanda's other urban centers. Presently the milk zones are trading volumes of an

average of 16,000 litres of pasteurized milk per day.

During the last quarter Zirakamwa Meza Dairy in Nyanza upgraded its brand appearance and branded their refrigerated vehicle used to transport its dairy products. The owner Immaculate Kayitesi is confident that promoting a quality image is key to gaining new business in a competitive market with several different fermented milk products available. Zirakamwa Meza Dairy brand visibility will go a long way in promoting the processor and their products.



**Figure 19: Zirakamwa Meza Enterprise has recently purchased a refrigerated vehicle to transport its dairy products to the market.**

## **IR 2: Expanded Investment in Dairy Processing and Marketing**

### **IR 2.1 Dairy Sector Leaders Empowered to Lead Development**

#### **Key Achievements:**

- launch of the newly formed RNDP with newly elected board members and validation of RNDP strategic plan
- launch of the RDCP II sponsored milk consumption campaign branded as Shisha Wumva at National level and Northern Milk shed level
- Rwanda's first ever Cheese Expo and national cheese competition
- 15 new Milk Zones commenced operations in addition to 13 already operating bringing the total to 38 Milk Zones retailing 16,000 litres pf pasteurised milk per day
- 3 MCCs have formalized new monthly supply contracts to Inyanze Plant with a view to commencing deliveries in July
- 15 Dairy Cooperatives received specific technical supports ranging from training, marke linkages, legal registration to general institutional capacity building



## Build capacity of RNDP

Private Sector Federation (PSF) obtained a grant from RDCP II in late 2013 to facilitate the mobilization of the various clusters that make up the dairy value chain. The objective being the formation of a credible and legally registered body, namely, Rwanda National Dairy Platform [RNDP] which could ably represent and advocate on behalf of its dairy sector stakeholder members. Significant progress was made during the last quarter culminating with the launch of the Rwanda National Dairy Platform and its newly elected board members at the end of June. Originally the process was due to have been completed by April 30 2014 but to unforeseen delays with legal requirements for the registration process the deadline for completion was extended by three months to June 30.



Figure 20: Mrs. Florence Umurungi, elected as the RNDP Chairperson by the dairy delegates.

In advance of the inauguration of RNDP PSF held consultative meetings with high level stakeholders including the Permanent Secretary (PS) MINAGRI, PS MINICOM and DG NAEB to ensure buy in and understanding of new RNDP and their respective roles in facilitating the platform to perform its duties.

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Figure 21: The Chief Executive Officer, Rwanda Private Sector Federation (PSF), Mr. Hannington Namara, played a key role in the eight-month process to establish RNDP.

In addition the PSF network mobilized a series of day long meetings across the country in all milk sheds ensuring broad dissemination of information packages on the role of RNDP produced under the grant. During April and May meetings and elections were held to elect representatives of the various clusters. This process was concluded and representatives were elected from the following clusters service providers, milk sellers, milk processors, dairy producers (NDFFR) and consumers. This group overall is referred to as the general assembly and comprises 35 members – 7 from each cluster. Out of 35 members, 12 are females and 23 are males -34% female

composition of the General Assembly and 66% male composition.

Through the new RNDP formation process a total of 34 new institutions were aligned to the platform. These include 4 Cooperative Unions, 1 cooperative confederation of farmers, 1 local NGO, 13 dairy processors and milk sellers companies as well as 15 service providers (Input suppliers, consulting companies, RBS and the media ). On 9<sup>th</sup> May 2014 the presentation of the inception report of the strategic plan and procedures manual was made by the consultants ( MADOLIT ) hired by PSF. Following the deliberations of the meeting, the consultants carried out focused group meetings with all the clusters that comprise the platform. PSF organized and facilitated the participatory meetings between the cluster members and the consultants in order to enable the consultants to gather the opinions from the various actors of the dairy sector. This process culminated in the RNDP strategic plan validation workshop and election of board members and inauguration of the same on June 27 at the Grand Legacy Hotel, Kigali. Ms Florence Musiime (processor cluster) was elected as Chairperson and Mr. Stanislas Nkumbuye (Service providers cluster) as vice chairman of the RNDP.

Director General of National Agricultural Export Development Board [NAEB] on behalf of the Minister of Agriculture and Animal Resources [MINAGRI], highlighted the interest and potential of the RNDP in taking the dairy sector to another level and pledged cordial support and collaboration on behalf of MINAGRI towards successful implementation of the RNDP objective and activities.

Following the inauguration ceremony a two [2] days retreat for the board committee and other committee members [the audit and arbitration committee] was conducted for the leaders to enhance their understanding of the mission, vision, objective of the platform, get to know each committee's roles and responsibilities, dig deep in the understanding of the strategic plan, the procedures manual, the National dairy Strategy [NDS] and the role of RNDP in its implementation as well as enable them draft an action plan for the way forward of the RNDP. It is at this retreat that board committee members pledged full commitment and determination to take RNDP to another level.

Final documents for registration are currently with MIFOTRA with registration expected to be available by August 2014. As part of the strategic plan process the consultants produced concept notes proposing future potential funding arrangements for the newly created RNDP.



**Figure 22: The Director General of National Agricultural Export Board (NAEB) Ambassador Bill Kayonga presided over the RNDP inaugural ceremony as Chief Guest.**

RNDP clusters were facilitated by RDCP II in collaboration with PSF to actively engage in two key dairy promotional activities during the last quarter namely the Cheese Expo and competition on May 29 and 30 in Kigali and at the 9<sup>th</sup> National Agricultural show at Mulindi June 6- 12. The active participation of RNDP clusters at high profile



**Figure 23: Elected delegates from across Rwanda witnessed the Notary legalising the new dairy platform.**

events is key to achieving stakeholder ownership and visibility of the RNDP. Likewise in July/August RNDP will be present at the PSF organized Rwanda International Trade Fair at Gikondo. At this event each cluster will participate under the RNDP umbrella, it will also embrace the Shisa Wumva campaign – as ultimately the dairy industry stakeholders should actively participate in the drive to bring about increased milk consumption.

RNDP presence at the Gikondo trade fair is a significant promotional opportunity for the dairy sector and increases the profile of the many new dairy products now being introduced into the marketplace.

## **Facilitate institutional and association capacity building**

Despite considerable investment channeled into Milk Collection Centers by GoR, development partners and various financial institutions the following challenges remain prevalent at several:

- Poor cooperative and MCC management
- Low and slow adaptive capacity
- High levels of milk rejection
- low coop membership
- Low milk quantities supplied by coop members
- Poor working relations with their buyers and partners
- Poor financial and non-financial record keeping and reporting systems

AgPro (a cooperative performance assessment tool) developed by Land O'Lakes under another USAID funded program, has proved to be a highly effective means to bring about enhanced cooperative management practices and has been widely used with positive outcomes by Land O' Lakes in many countries.

- In this regard RDCP II, in collaboration with LISP-MINAGRI piloted AgPro in April 2014 with five dairy cooperatives from across the four milk sheds. Coops selected are listed below. In total 103 ( 63 males and 40 females)

participated in the assessment/training. The sessions focused on six cores themes including leadership, adaptive capacity, management capacity, operational capacity, supply processing and marketing and productivity and financial performance of the cooperatives.

COOPERATIVE	MILKSHED/REGION
Agiragitereka Kinigi	Northern
Gasabo Zirakamwa	Kigali
COOPAG Gahengeri	Eastern
CEPTL Cyanika (LISP)	Northern
Giramata Mworozzi-Nyagisozi	Southern

**Results of the cooperative assessment carried out in April were as follows**

Performance Area				CEPTL Cyanika	Mworozzi	Average for @ Area
1. Leadership	40%	33%	52%	60%	56%	48%
2. Adaptive Capacity	38%	33%	38%	54%	33%	39%
3. Management Capacity	46%	25%	27%	44%	58%	40%
4. Operational Capacity	45%	35%	45%	50%	70%	49%
5. Supply, Processing and Marketing	30%	28%	50%	45%	48%	40%
6. Productivity and Financial Performance	59%	25%	25%	38%	69%	43%

Feedback received from both LISP and the participating coops was very positive. RDCP II, in collaboration with LISP, will be rolling out this important tool to all the cooperatives working with RDCP II. The process will be implemented through collaboration with trained service providers, and district officials creating working relationships with the cooperatives as part of RDCP II sustainability plan/exit strategy.

This activity will be facilitated by the RDCP II grant program and individual service providers grants will be prepared for USAID review and approval in the next quarter.

By implementing AgPro, RDCP II will be able to:

- benchmark and obtain periodic monitoring on the performance of dairy cooperatives supported by the program;
- identify specific areas of improvement needed by these coops;
- monitor improvements in these areas;
- compare performance across the cooperatives in the program;
- mentor cooperatives towards business growth through increased profitability.

## **Selected Cooperative development activities from last quarter**

### **Northern Milkshed**

In Rubavu a series of meetings were held with local authorities including the mayor, vice mayor, district vet, JADF, sector executive secretaries service providers such as BAIR, MCC representatives, cheese processors, , and the entire dairy value chain actors to discuss formalization of milk sales – using MCCs as official consolidation points for milk.

Radio messages were broadcast on the Rubavu district local radio best practices related to milk marketing and handling in the district and the role of the local administration was emphasized.

As a result CODERU MCC which was operating at low capacity has raised its volumes collected per day from 500 to 1000ltrs.

Cooperative Turwanye Bwaki Kanama, Mahoko- milk receptionists were trained on hygienic handling and quality of milk, on platform tests as well as formation of one strong cooperative which has enabled them to market their produce together. Combined sales as of June 30 were averaging 7500 – 8000 per day.

Mizingo cooperative which faced issues of lack of market for their milk was linked to Girabayanywa milk seller's cooperative that sells milk across the border to DRC and is taking 800 litres per day from Mizingo.

Zirakamwa cooperative, Muhoza sector, was facilitated to re-start its operations on June 25 after several months of closure. It is now bulking milk from members and non-members of Muhoza sector and the neighboring sectors of Busogo, Nkoki, Cyuve & Nyange sectors. Currently milk volumes are c 1500 per day.

### **Eastern Milk shed**

In Nyagatare district Kamate ( members trained were 4 females, 8 males) and Zirahumuje Musheru Cooperative ( 23 trained 7 females 16 males) were trained on milk platform tests, business development, cooperative management and development as previously the cooperative was not functioning well.

In Gatsibo, Ngarama cooperative was facilitated to start collecting milk, trained on feeding of dairy cows, hygienic milk handling and milk quality monitoring, cooperative development and dairy as a business. 36 members ( 14 female and 22 males) were trained.

### **Kigali Milk shed**

In Kigali, (Kigali Milk Sellers Cooperative) was formed in April 2014 following a series of meetings facilitated by RDCP II. The cooperative has 23 members; 9 located in Kicukiro, 9 in Gasabo and 5 in Nyarugenge and employs 4 staff directly. The cooperative buys and sells 1000 liters per day from a farmer's cooperative in Gicumbi, a subsidiary of IAKIB Farmers union. The gradual formalization of milk sellers businesses around Kigali is an indication of the shift away from the previously informal basis.

In Gicumbi district, 38 members (female 5 male 33) of Twisungane cooperative of Nyamiyaga and 5 from Koperative Zamuka Mworozzi(KOZAMGI) were trained on cooperative development and cooperative formal structures, and roles and responsibilities of each committee member.

### **Southern Milk Shed**

In Nyanza, Indakemwa Mugandamuri milksellers cooperative was facilitated by RDCP II to obtain legal registration and re-open its operations in collaboration with the district authorities and is now bulking and selling over 2500ltrs per day. Milk is sourced from a network of 65 milk transporters around Nyanza town. The milk is sold as fermented product the majority of which is sold into the Burundi market

### **Milk Zone franchising progress**



**Figure 24: Milk Zone operating in Nyagatare District, Eastern Province**

During the last quarter an additional 15 Milk Zones commenced operations. This brings the cumulative number of milk zones now operating to 38 as of June 30 2014. Aproximately 16,000 litres per day is now sold to the public through these outlets. In addition to the Kigali based Milk Zones two upcountry shops have opened one in Nygatare and one in Kamonyi with a third planned for Bugesera likely to open in August. The cumulative investment in this activity now stands at an estimated \$836,000 as each zone costs approximately \$22,000 to establish

which includes branding and infrastructure. This investment will be reported in the next quarter when the exact cost per milk zone will be established. The

continued expansion and demand for pastuerised milk has the potential to permanently change the face of milk consumption in Rwanda with more and more clients moving from raw milk on a daily basis. Supply and logistics challenges remain but the momentum for change is very evident.

<b>S/No</b>	<b>MILK ZONE LOCATIONS</b>	<b>DISTRICT/SECTOR</b>
1	KANOMBE AIRPORT	KICUKIRO-NYARUGUNGA
2	GIKONDO-MEREZ II	KICUKIRO-GIKONDO
3	NYAMIRAMBO-BIRYOGO	NYARUGENGE-BIRYOGO
4	NYAMIRAMBO-40	NYARUGENGE-RWEZAMENYO
5	NYABUGOGO-MILIMO	NYARUGENGE-KIMISAGARA
6	NYAKABANDA CAFÉ	NYARUGENGE-RWEZAMENYO
7	KIMIRONKO –MUSHIMIRE	GASABO-KIMIRONKO
8	KABUGA TOWN	KICUKIRO-RUSORORO
9	KINAMBA-GISOZI MEMORIAL	GASABO-KACYIRU
10	KICUKIRO CENTRE	KICUKIRO-KAGARAMA
11	KABEZA-GIPOROSO	KICUKIRO-KANOMBE
12	KIMIRONKO-MARKET	GASABO-KIMIRONKO
13	KANOMBE M.HOSPITAL	KICUKIRO-NYARUGUNGA
14	KINAMBA I-MILTON	GASABO-KACYIRU
15	NYAMIRAMBO-KURYANYUMA	NYARUGENGE-MUMENA
16	GIKONDO-RUJUGIRO BUS TURN POINT	KICUKIRO-GIKONDO
17	SAMUDUHA	KICUKIRO-KANOMBE
18	KARURUMA-JABANA	GASABO-JABANA
19	GATSATA NEAR KOBIL DEPOTS	GASABO-GATSATA
20	KISEMENTI	GASABO-REMERA
21	NYARUGENGE-FORMER GACINJIRO AREA	NYAGUGENGE-CYAHAFI
22	KIBAGABAGA- HOSPITAL	GASABO-KIMIRONKO
23	NYABUGOGO-KIRUHURA ROAD	NYARUGENGE-KIGALI
24	KAGUGU BUS TURN POINT	GASABO-KINYINYA
25	MULINDI	KICUKIRO-NYARUGUNGA
26	KIMIRONKO -ISANGANO JUNCTION	GASABO-KIMIRONKO
27	MUHIMA NEXT TO OKAPI HOTEL	NYARUGENGE-MUHIMA
28	GATSATA NEAR SECTOR & GARAGES	GASABO-GATSATA
29	REMERA TAXI-PARK AREA	GASABO-REMERA
30	ALPHA PALACE ROAD AREA	KICUKIRO-SAHARA
31	GACINJIRO -GISOZI 2	GASABO-GISOZI
32	GIKONDO-SEJEMU/ KIMISANGE ROAD	KICUKIRO-KIGARAMA
33	KIYOVU-RUGUNGA AREA	NYARUGENGE-RUGUNGA
34	KANOMBE-BUSANZA ROAD AREA	KICUKIRO-NYARUGUNGA
35	GIHOGERE-CONTROL TECHNIQUE	GASABO-REMERA
36	KABEZA-MARKET AREA	Kicukiro

37	KIMISAGARA-KUNTARAGA	NYARUGENGE-KIMISAGARA
38	RUYENZI-RUNDA TOWN	KAMONYI-RUYENZI

## Improved milk supply linkages and potential partnerships

RDCP II continued to link MCC's with reliable buyers during the last quarter. With Inyange looking for additional sources of milk outside of their established supply chain three MCC's have formalized new monthly supply contracts to Inyange with a view to commencing deliveries in July. Mukarange MCC in Kayonza district and DUFACO in Rwamagana signed supply agreements at the end of June to commence delivery in July with KAMIRABOSE in Rwamagana expected to do likewise during the next quarter. All supply contracts for these MCC's are 2,500 litres per month. Blessed Dairies repaired and resumed deliveries with the milk tanker that was damaged in a road accident earlier this year. In addition Blessed purchased a second tanker and is able to meet their obligation to to deliver 20,000 of milk per day to Inyange.

Linking new MCC's to a formal buyer is not without it's challenges. The obligation to supply consistent volumes of milk of acceptable quality stretches the capacity of the MCC's initially and often they stop temporarily due to rejections. However the pull of the reliable market at a constant price provides the incentive to put in place systems to enable them to start again. For example in the last quarter Agitareka in Huye district had secured a supply contract with Inyange of 2,500 per day but after only a few weeks the cooperative was unable to meet the Inyange quality parameters. Despite this setback the cooperative is now supplying Nyanza Dairy a similar quantity on a daily basis. Nyanza Dairy is within the same geographic locality as Agitareka making supply logistics less complicated for the latter.

## IR 2.2 Increased Dairy-Related Investment

### Coordinate and leverage industry investment

#### Keys Achievements:

- INSPIRED International completed phase II of the Deep Dive for dairy value added investments and presented key findings to RDB and MINAGRI
- The official launch of a dairy consumption campaign named "Shisha Wumva"
- The cheese expo and competition organized to increasing the visibility, stimulate demand and increase consumption for cheese products
- Loans equivalent to USD 38,650.09 were provided to dairy sector actors by commercial banks and microfinance institutions



- Investment equivalent to USD 81,272.08 channeled in dairy sector through financial institutions loans and other donors support to dairy actors.

## Promote investment

Investment promotion is a key milestone for RDCP II. INSPIRED International completed phase II of the Deep Dive for dairy value added investments and presented key findings to RDB and MINAGRI in June. Phase II focused on

- deepening understanding regional demand
- availability of appropriate packaging,
- availability of refrigerated storage and transport
- availability of chemicals, additives and cultures
- Implications of introduction of new dairy regulations on handling and quality
- Expanding the costing of the investment scenarios for small scale and large scale investments
- Carrying out sensitivity analysis of small and large scale investments



Figure 25: Rwanda Development Board is a key government institution mandated to fast track economic progress by attracting private sector investment .

All scenarios explored both large and small are lucrative and offer significant returns on investment. In the case of the milk zone the investment breaks even after one month and the \$22,000 investment is recovered after eight months. Like wise the large scale investments show significant return on investment and provide return on the initial \$7.5 million investment after just 27 months.

Phase III will be completed in early September and will concentrate on developing business plans and investors prospectuses for the investment in *Small Scale Investments—Micro Dairy* and *Large Scale Investments—Processor of Milk and Fermented Milk for Export*.

In addition the consultants will convene a local reference group for the micro dairy concept (RDCPII has agreed to assist with this) and an international reference group for the large scale investment. These reference groups will be convened Septemeber 2- 5 in Kigali.

Overall this activity has highlighted the untapped potential that Rwanda's dairy sector provides with the immediate opportunity being the domestic market. The export opportunities into the Eastern DRC are considerable especially for

fermented product. The added advantage being that the export market will consume the same type of product as processed for the domestic market place. ( For expanded detail on this activity please see Deep Dive Phase II report in annex)

Formal dairy exports are on going as Inyange continued to export UHT milk to Eastern DRC and South Sudan. In the period July 2013 to July 2014 the equivalent of USD 1,469,724 (Rwf 1 billion) has been exported. Official figures for this activity were not captured by National Agriculture Export Board (NAEB) or National Institute of Statistics as the product is moving via the UN system.

Dairy investment equivalent to USD 81,272.08 was recorded during the quarter. 47% of these investments are loans injected in dairy sector by commercial banks and microfinance institution. The rest is leverage from Gates foundation through EADD program grant support to MCCs.

### **Milk consumption campaign – Shisha Wumva**

Creative Communications (CC) the communication company contracted by RDCP II to run the campaign commenced work on the milk consumption campaign at the end of April. A wide range of campaign materials and concepts were designed and submitted to USAID for approval, which was received in May. The campaign colours chosen were black and white, the campaign slogan of Shisha Wumva was adopted and a musical jingle was produced to be aired with all campaign announcements on TV and radio.

The official launch of the campaign was held at June 6 at the Agricultural show in Kigali, the guest of Honour was Hon. Minister of Agriculture. The show lasted 7 days and the Shisha Wumva campaign was very much in evidence during the entire event. The campaign was very well received by RDCP II stakeholders with MINAGRI hosting and validating the launch of the campaign.

Achieving MINAGRI's full support and engagement is a key milestone as it contributes to the credibility of the campaign as a national event and strengthens it's potential impact at district level.

A second major activity for the milk consumption campaign in June was the strong presence of Shisha Wumva at the RDB sponsored Gorilla naming ceremony 'Kwita Izina' in Musanze on June 29 and 30. This is a high profile annual event and was very well attended by key district officials including the Mayor of Musanze and people from the surrounding areas. The district warmly welcomed the initiative and emphasized the importance of milk in a diversified nutritional diet.

### **The campaign consists of two themes as follows :**

**Theme 1 - Increased consumption:** This theme features messages that are tailored to educate the consumers on the benefits of drinking more milk more regularly. It's primary goal is to increase per capita consumption of milk.

**Theme 2 - Increased awareness of quality:** This theme will build awareness of the need to observe quality along the entire dairy value chain. It is aimed at the consumers to empower them to demand for more quality control. This theme will run between September and November 2014 with materials and concepts for this theme to be designed in the next quarter.

In addition to the above, a key outcome, is the sustainability plan which will outline how future milk consumption campaigns will be continued beyond the life of RDCP II support. The sustainability plan is an integral part of this activity and will focus on identifying key partners both public and private, and from the NGO/donor community and how this activity will be funded in 2015 and beyond. The sustainability plan is due by end of next quarter.

### **Showcasing Rwanda's Cheeses**

In collaboration with PSF, RDCP II organized and facilitated the first ever Rwanda cheese expo and competition which was held in Kigali at Papyrus restaurant on May 29 and 30 2014. The cheese expo and competition was organized with objectives of increasing the visibility for Rwanda's cheese, stimulate demand and increase consumption for cheese products. Key events under this activity were as follows ( For expanded details on this activity please see cheese training report in the annex ):-



**Figure 26: Dr. Savio Hakirumurame, one of the judges in the Rwanda cheese competition**

- Chefs training
- Cheese Expo
- Cheese competition
- Chesemaker awards ceremony
- Video shoot

### **Stimulate supply and demand for dairy-related financial services**

#### **Dairy Financing Products**

##### **Invoice Discounting**

Duterimbere s.a is currently involved in invoice discounting though on a small scale. They have a facility with Muvumba Zirakamwa MCC whereby individual

farmers are paid directly by Duterimbere prior to settlement of the MCC invoice by Inyange. The monthly amounts paid out to farmers during the reporting period were:

- April: USD 3,527.3 (2.4 M Rwf)
- May: USD 3,624.3 (2.46M Rwf)
- June: USD 3,674.3 (2.5 M Rwf)

TOTAL	USD 10,825.9
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KCB (R) is in negotiation with Inyange for an invoice discounting facility of USD 200,000 (maximum overdraft) that will enable all MCCs supplying Inyange to be able to discount supply invoices with KCB country-wide. In spite of the interest by MCCs, KCB is yet to provide any invoice discounting facilities directly to the MCCs due to pricing issues.

Bank of Kigali (BK), a new partner in dairy financing, is also involved in invoice discounting in Nyagatare with 4 MCCs. Land O Lakes has now introduced 2 additional MCCs to BK to access the invoice discounting product.

### **Animal Loan products**

This product has experienced a low roll out pace principally due to the difficulty in the identification of the appropriate borrowers with the majority of the farmers linked through MCCs not necessarily bankable for the animal loans. LOL have embarked on a bankable farmer identification scheme for onward linkage to the financing institutions. A database of individually vetted bankable dairy farmers is progressively being developed. A list of 80 vetted farmers in the Nyagatare area has so far been shared the financial institutions for their independent consideration and loan assessments.

While numerous applications are currently being assessed by the three partner financial institutions, only 2 loans for purchasing animals have been disbursed (2.5 and 3 Million Rwf USD 3676 and 4411 respectively) by Duterimbere, Nygatare branch, during the reporting period.

Other financial institutions also provided loans to dairy actors equivalent to USD 27,824.19 as follows:

- USD 5,952.33 (4.05 million Rwf by BPR to farmers in Kamonyi to buy cows)
- USD 14,256.31 (9.7 million Rwf by BPR and BK (3M) to milk transporters and service provider in Nyanza District)
- USD 4,703.11 (3.2 million Rwf by BPR to Agri-Vet service providers in Ruhango District)
- USD 2,939.44 (2 million Rwf by Umurenge SACCO to MCC feeds Mill in Nyagatare).

Another loan estimated to 131 Million was provided to KIDACO processor. Different milk transporters but the exact number of loans and beneficiaries will be reported in next quarterly Report.

## **Savings Mobilization**

KCB continues to open saving accounts at various MCCs with 428 accounts having been opened so far. These accounts were opened for the purposes of savings mobilization and loan administration by the KCB in the following MCCs:

- DUKUNDAMATUNGO Rwamagana
- TERIMBERE MWIROZI Karangazi
- DUFACO COOPERATIVE Rwamagana
- COOPAG Rwamagana

The total value of the savings is 18,342,987 Rwf ( USD 26,959.12 in these accounts and three applications for loans

Other notable occurrences during the reporting period:

Duterimbere IMF:

After the numerous internal challenges in their Nyagatare Branch with most of the staff having left the institution due to financial malpractices, Duterimbere is now poised to restart their dairy financing program with the new staff now recruited. Duterimbere has thus requested LOL to train their new staff in the appraisal of dairy loan applications accordingly.

Bank of Kigali (BK)

Though the partnership with BK is still informal, they have expressed great interest in the dairy financing products and the Land O Lakes linkage program to bankable MCCs and farmers. A formal MOU is currently being reviewed by BK for possible execution.

LOL will thus commence linking the BK Nyagatare Branch to numerous MCCs as well as sharing lists of vetted potential clients for animal loans.

## **Monitoring & Evaluation and Knowledge Management**

During the last quarter, the M&E department continued to support the program efforts in data tracking process in the 4 milk sheds.

A farm follow up was conducted in 17 districts on a sample of 1,628 farmers with the aim of tracking farmers adoption of improved dairy technologies and best practices after benefiting program trainings.

In addition, a mini survey on milk suppliers at MCCs was carried out in 8 districts to track trend of new jobs created by farmers and traders/transporters supplying at MCCs since the program started its intervention at MCCs level in 2013. The survey reached 419 farmers and traders supplying to 14 MCCs.

Finally, M&E department participated training on the use of AIDtracker Plus system organized by USAID for all implementing partners. AIDtracker Plus system implementation will be effective starting with this 3<sup>rd</sup> quarter reporting period.

## Gender Mainstreaming

### **Proportion of female participants in USG-assisted programs designed to increase access to productive economic resources (assets, credit, income or employment)**

This quarter's target was to have a significant proportion of female model farmers trained and mentored. The figure achieved was 36 %. This was achieved by drafting a strategy that was disseminated to RDCPII field officers and with collaboration of local sector authorities such as national women's council reps, social affairs reps and sector veterinary officers to solicit for women model dairy farmers.



**Figure 27: A female veterinary medicine student carrying out California Mastitis Test (CMT)**

Two new female owned cheese processors namely Royal dairies and Local Cheese Promotion Co, based in Kicukiro attended the cheese expo to exhibit their cheeses. Both received trophies related to quality products and earned business deals by receiving new orders from hotels, supermarkets and individual buyers.

In Nyagatare district another female processor who owns Nyagatare Ice Cream and Yoghurt Processing Co Ltd was identified by RDCP II as a new partner.

### **Proportion of females who report increased self-efficacy at the conclusion of USG supported training/programming**

RDCP II Gender advisor and Cooperatives specialist continually followed up with PSF/RNDP to ensure female participation at general assemblies and cluster levels meetings. This resulted ultimately in over 30% female representation being attained with female representatives from the entire dairy value chain. In addition the newly elected leadership of RNDP is 43 % female. This is a milestone achieved in comparison to the previous RNDP which was predominantly male driven.

### **Proportion of target population reporting increased agreement with the concept that males and females should have equal access to social, economic, and political opportunities**

This indicator was measured on the responses received from the model farmers training using pre & post evaluation tests. 85% of respondent agreed with the concept that males and females should have equal access to social, economic and political opportunities.

Further checks on why 15% did not agree with the concept that both females and males should have equal access to social, economic and political opportunities found out that some model farmers had not attended RDCPII training on gender integration and mainstreaming. The conclusion was that farmers previously trained on the topic of gender equality were more likely to be receptive to the concept of equality for females as far as social, economic and political opportunities was concerned.

## Grants

During this quarter RDCP II provided sub-awards to 11 service providers to conduct farmer training and provide AI to vulnerable farmers in 16 districts. The progress so far is summarized below:

- Farmer training has been conducted and all planned farmers were trained.
- Artificial insemination started and some service provider completed their target e.g. in Gatsibo, Bugesera and Rulindo.
- RDCP II originally planned to purchase super semen for the artificial insemination program but supplies of super semen were not available so ordinary semen was procured instead
- Delay's in artificial insemination program were as a result of lack of hormones from RAB. They are expecting to receive more hormones in next quarter.

RDCP II procured the second batch of the Seal of Quality kits which will be distributed to 37 selected grantees.

RDCP II delivered grant equipment to Ihuriro Agiragitereka Huye of 1 lifan tricycle and 100 milk cans. This was delayed from last year due to cooperative registration issues which were finally resolved after guidance from the district cooperative specialist and Rwanda Cooperative Alliance (RCA).

### Subaward close-out and extension

- Subaward agreement no 13-RD2-A-G-0620 with Eragic ended in June 2014. 2,000 farmers were trained and 1,200 vulnerable farmers benefited from the insemination of their cows.
- Subaward agreement no 13-RD2-A-G-0785 with PSF ended in June 2014. RNDP final registration documents with MIFOTRA. New RNDP board committee was elected and inaugurated.

- RDCP II extended by three months the subaward with Veterinary Yield Entrepreneurs Cooperative (VYEC – Itabaza) to complete all activities including :
  - Conduct pregnancy diagnosis for the 500 inseminated cows.
  - Follow ups to the trained farmer.
  - Deliver veterinary ambulatory services.

## **Grant Monitoring**

Land O'Lakes conducted regular visits to the existing subgrantees to monitor activity progress with regard to milk quantity changes, environmental compliance, milk quality improvement, and market linkages.

## **Key Activities for Next Quarter**

### **Quarter Four 2014 will see many key activities taking place:**

- The milk consumption campaign will be extended to district and provincial platforms
- RDCP II will work closely with MINAGRI-RALIS to fastrack the gazetting of the now approved ministerial instructions on milk production, handling and distribution.
- RDCP II will aim to utilize the trained model farmers official community change agents and ambassadors of dairy best practices in their respective sectors by providing appropriate materials and resources necessary for scaling out RDCP II activities to a wider catchment.
- Monitor through the implementation of the pilot DDM program with UR and final documentation and publication of results of the exercise by the end of September 2014.
- Adopt a sustainable model of support to RNDP to ensure the sector received needed private sector support and leadership at the highest level.
- Host investor reference groups under the Deep Dive activity to discuss dairy investment opportunities available for Rwanda with a view of attracting atleast one large scale investor to Rwanda.
- Farmers annual survey will be conducted to assess program progress in achieving key impact indicators
- USAID SPRING assessment on program achievements with focus on Nutrition.



## **Annexes**

**Annex I: FTF MS Table**

**Annex II: Success Story – Say Cheese ! from a supermarket attendant to a Rwanda cheese champion.**

**Annex III: Deep Dive Phase II report**

**Annex IV: Cheese activities and consultancy report**

**Annex V: ABS Feed formulation training report**

**Annex VI: DDM photos**

**Annex VII: Washington Learning Event materials**

Indicator / Disaggregation	2014						Cumulative Achievement for all previous years	2015
	2014 Annual Targets	2014 Quarterly Results				2014 Annual Achievement		Target
		Quarter 1 Oct-Dec 2013	Quarter 2 Jan-Mar 2014	Quarter 3 Apr-Jun 2014	Quarter 4			PPR
4.5(2): Number of jobs attributed to FTF implementation	1,000	110	2,258	764	0	3,132	3,462	2,000
Location	1,000							2,000
Urban	200							800
Rural	800	110	2,258	764	0	3,132	6,630	1,200
Disaggregates Not Available								
New/Continuing								2,000
New	1,000	110	2,258	764	0	3,132	6,300	500
Continuing							330	1,500
Disaggregates Not Available								
Sex of job-holder	1,500	110	2,258	0	0	3,132	3,462	2,000
Male	750	91	1,721	726	0	2,538	2,838	1,000
Female	750	19	537	38	0	594	624	1,000
Disaggregates Not Available								
4.5(10): Total increase in installed storage capacity (m3)	50	14.5	25.5	6.00	0	46	58.50	50
Dry storage		0	0	0	0	0	0	
Cold storage	40	14.5	25.5	6	0	46	58.50	50
Disaggregates Not Available								
4.5.2(5): Number of farmers and others who have applied improved technologies or management practices as a result of USG assistance	6,800	558	6,142	2,499	0	9,199	13,986.00	12,000
New/Continuing							13,986	12,000
New	6,800	558	6,142	2,499	0	9,199	9,199	4,000
Continuing							4,787	8,000
Disaggregates Not Available								
Sex								
Male	3,400	424	3,562	1,624	0	5,610	8,744	6,000
Female	3,400	134	2,580	875	0	3,589	5,242	6,000
Disaggregates Not Available								
4.5.2(7): Number of individuals who have received USG supported short term agricultural sector productivity or food security training	8,500	2,970	3,935	6,999	0	13,904	22,421.00	15,000
Type of individual	8,500	2,970	3,935	6,999	0	13,904	22,421	15,000
Producers	8,000	2,845	3,679	6,875	0	13,399	21,673	13,350

Indicator / Disaggregation	2014						Cumulative Achievement for all previous years	2015
	2014 Annual Targets	2014 Quarterly Results				2014 Annual Achievement		Target
		Quarter 1 Oct-Dec 2013	Quarter 2 Jan-Mar 2014	Quarter 3 Apr-Jun 2014	Quarter 4			PPR
People in government		0	13	32	0	45	119	
People in private sector firms	500	125	242	92	0	459	627	1,650
People in civil society		0	1	0	0	1	2	
Disaggregates Not Available		0	0		0	0	0	
Sex	<b>8,500</b>	<b>2,970</b>	<b>3,935</b>	<b>6,999</b>	0	13,904	<b>22,421</b>	<b>15,000</b>
Male	4,250	2,003	2,409	<b>4,533</b>	0	8,945	14,519	7,500
Female	4,250	967	1,526	2,466	0	4,959	7,902	7,500
Disaggregates Not Available								
<b>4.5.2(13): Number of rural households benefiting directly from USG interventions</b>	<b>8,000</b>	<b>2,970</b>	<b>3,929</b>	<b>6,999</b>	<b>0</b>	<b>13,898</b>	<b>22,399.00</b>	<b>15,000</b>
New/Continuing							<b>22,399</b>	
New	8,000	<b>2,970</b>	<b>3,929</b>	6,999	0	13,898	13,898	7,500
Continuing							8,501	7,500
Disaggregates Not Available								
Gendered Household Type	<b>8,000</b>	<b>2,970</b>	<b>3,929</b>	<b>6,999</b>	<b>0</b>	13,898	<b>22,399</b>	<b>15,000</b>
Adult Female no Adult Male (FNM)	3,000	234	952	1,383	0	2,569	4,181	6,000
Adult Male no Adult Female (MNF)	700	40	261	1,368	0	1,669	2,226	500
Male and Female Adults (M&F)	4,300	2,696	2,716	4,248	0	9,660	15,810	8,500
Child No Adults (CNA)		0	0	0	0	0	182	
Disaggregates Not Available						0		
<b>4.5.2(14): Number of vulnerable households benefiting directly from USG interventions</b>	<b>3,200</b>	<b>763</b>	<b>1,234</b>	<b>1,840</b>	<b>0</b>	<b>3,837</b>	<b>7,712</b>	<b>3,920</b>
New/Continuing							<b>7,712</b>	<b>3,920</b>
New	3,200	<b>763</b>	<b>1,234</b>	1,840	0	<b>3,837</b>	<b>3,837</b>	1,120
Continuing							3,875	2,800
Disaggregates Not Available								
Gendered Household Type	<b>3,200</b>	<b>763</b>	<b>1,234</b>	<b>1,840</b>	<b>0</b>	<b>3,837</b>	<b>7,712</b>	<b>3,920</b>



Indicator / Disaggregation	2014						Cumulative Achievement for all previous years	2015
	2014 Annual Targets	2014 Quarterly Results				2014 Annual Achievement		Target
		Quarter 1 Oct-Dec 2013	Quarter 2 Jan-Mar 2014	Quarter 3 Apr-Jun 2014	Quarter 4			PPR
4.5.2(28): Number of private enterprises (for profit), producers organizations, water users associations, women's groups, trade and business associations, and community-based organizations (CBOs) that applied new technologies or management practices as a result of USG assistance	250	113	297	99	0	509	737	500
Type of organization								500
Private enterprises (for profit)	170	102	137	95	0	334	409	300
Producers organizations	65	11	16	0	0	27	81	170
Water users associations		0	1	0	0	1	1	
Women's groups	5	0	142	0	0	142	142	
Trade and business associations		0	1	1	0	2	101	15
Community-based organizations (CBOs)	10	0	0	3	0	3	3	16
Disaggregates Not Available	0	0	0	0	0	0	0	
New/Continuing				0	0	0	0	500
New	250	113	297	0	0	410	410	100
Continuing				0	0	0	228	400
Disaggregates Not Available						0		
4.5.2(29): Value of Agricultural and Rural Loans	\$ 400,000	\$ 43,438	\$ 161,142	\$ 38,678	0	\$ 243,258	273,109.01	200,000
Type of loan recipient								
Producers	100,000	\$ 14,725	\$ 61,329	\$ 5,952	0	\$ 82,006	\$ 82,006	20,000
Local traders / assemblers	100,000	\$ 24,296	\$ 7,458	\$ 32,726	0	\$ 64,480	\$ 64,480	60,000
Wholesalers/processors	100,000	\$ 4,417	\$ 81,913	0	0	\$ 86,330	\$ 116,180.93	60,000
Others	100,000		10,442	0	0	\$ 10,442	\$ 10,441.53	60,000
Disaggregates Not Available	0	0	0	0	0	0	0	
Sex of recipient								
Male	50,000	\$ 7,362.00	\$ 124,336.25	\$ 3,571.20	0	\$ 135,269	\$ 135,269.45	30,000
Female	50,000	\$ 7,363.00	\$ -	\$ 2,380.80	0	\$ 9,744	\$ 9,743.80	30,000

Indicator / Disaggregation	2014						Cumulative Achievement for all previous years	2015
	2014 Annual Targets	2014 Quarterly Results				2014 Annual Achievement		Target
		Quarter 1 Oct-Dec 2013	Quarter 2 Jan-Mar 2014	Quarter 3 Apr-Jun 2014	Quarter 4			PPR
Joint	150,000	\$ 28,713.00	\$ 36,805.79	\$ 32,726.00	0	\$ 98,245	\$ 128,095.53	100,000
n/a	150,000		0	0	0	\$ -	\$ -	40,000
Disaggregates Not Available								
4.5.2(36): Value of exports of targeted agricultural commodities as a result of USG assistance (for bilateral missions)	\$ 103,175	\$ -	\$ 4,419,910	\$ 1,469,724	0	\$ 5,889,634	\$ 12,986,463.69	120371
4.5.2(37): Number of MSMEs, including farmers, receiving business development services from USG assisted sources	500	429	1,388	761	0	\$ 2,578	3,871	1,000
Size of MSME						0		
Micro	400	424	1,360	761	0	2,545	3,761	180
Small	50	5	28	0	0	33	102	10
Medium	50	0	0	0	0	0	8	10
Disaggregates Not Available	0	0	0	0	0	0	0	
MSME Type							0	
Agricultural producer	100	316	1,005	664	0	1,985	3,102	20
Input supplier	150	0	5	33	0	38	53	80
Trader	150	108	343	17	0	468	571	80
Output processors	100	5	35	46	0	86	112	20
Non agriculture		0	0	0	0	0	32	
Other		0	0	1	0	1	1	
Disaggregates Not Available								
Sex of owner								
Male	200	329	757	480	0	1,566	2,314	93
Female	200	100	596	262	0	958	1,348	87
Joint	100		35	19	0	54	54	20
n/a				0	0	0	155	
Disaggregates Not Available							0	
FTF Indicator 4.5.2-38: Value of new private sector investment in the dairy sector or food chain leveraged by FTF Implementation	\$4,000,000	\$309,841	998,497.00	81,300	0	\$ 1,389,638	2,118,234	\$5,000,000

Indicator / Disaggregation	2014						Cumulative Achievement for all previous years	2015
	2014 Annual Targets	2014 Quarterly Results				2014 Annual Achievement		Target
		Quarter 1 Oct-Dec 2013	Quarter 2 Jan-Mar 2014	Quarter 3 Apr-Jun 2014	Quarter 4			PPR
4.5.1(24): Numbers of Policies/Regulations/Administrative Procedures in each of the following stages of development as a result of USG assistance in each case: (Stage 1/2/3/4/5)	3	1		0	0	1	4	2
Sector			0	0	0	0	0	2
Inputs			0	0	0	0	0	1
Outputs			0	0	0	0	0	
Macroeconomic			0	0	0	0	0	
Agricultural sector-wide		1	0	0	0	1	4	
Research, extension, information, and other public service			0	0	0	0	0	
Food security/vulnerable			0	0	0	0	0	
Climate change adaptation or natural resource management (NRM) (ag-related)			0	0	0	0	0	
Disaggregates Not Available			0	0	0	0	0	1
Stages of development			0	0	0	0	0	2
Stage 1 of 5 Number of policies / regulations / administrative procedures analyzed			0	0	0	0	2	
Stage 2 of 5 Number of policies / regulations / administrative procedures drafted and presented for public/stakeholder consultation		0	0	0	0	0	1	
Stage 3 of 5 Number of policies / regulations / administrative procedures presented for legislation/decrees			0	0	0	0	0	2

Indicator / Disaggregation	2014						Cumulative Achievement for all previous years	2015
	2014 Annual Targets	2014 Quarterly Results				2014 Annual Achievement		Target
		Quarter 1 Oct-Dec 2013	Quarter 2 Jan-Mar 2014	Quarter 3 Apr-Jun 2014	Quarter 4			PPR
Stage 4 of 5 Number of policies / regulations / administrative procedures prepared with USG assistance passed/approved			0	0	0	0	0	
Stage 5 of 5 Number of policies / regulations / administrative procedures passed for which implementation has begun			0	0	0	0	0	
Disaggregates Not Available						0	0	

Indicator / Disaggregation	2014						Cumulative Achievement for all previous years	2015
	2014 Annual Targets	2014 Quarterly Results				2014 Annual Achievement		Target
		Quarter 1 Oct-Dec 2013	Quarter 2 Jan-Mar 2014	Quarter 3 Apr-Jun 2014	Quarter 4			PPR
Custom Indicator 1 a : Volume of milk marketed by Milk Collection Centers (in Liters)	20,887,266	4,703,988	9,349,403	7,583,727	0	21,637,118	46,850,926	22,493,978
Custom Indicator 1.1.1 a: Value of inputs and services used by members of targeted cooperatives (USD)	2,851,470	0	0	0	0	-	1,782,169	393.77
Custom Indicator (a): Change in net dairy income among targeted households (in USD)	3,671,157	0	0	0	0	-	2,823,967	210.52
Custom Indicator 1.2 a: Number of new milk quality assessment technologies/protocols adapted/implemented	2	0	0	0	0	-	5	3
Custom Indicator 1.3 a: Number of new products awarded SOQ	8	0	0	0	0	-	0	8



Indicator / Disaggregation	2014						Cumulative Achievement for all previous years	2015
	2014 Annual Targets	2014 Quarterly Results				2014 Annual Achievement		Target
		Quarter 1 Oct-Dec 2013	Quarter 2 Jan-Mar 2014	Quarter 3 Apr-Jun 2014	Quarter 4			PPR
Custom Indicator 1.3 b: Percentage of milk marketed under SOQ	15%		10%	49%		30%	0	20%
Custom Indicator 2.1 a: Number of dairy related firms and organizations newly aligned within and provided a voice by dairy sector affinity organizations	70	4	20	34	0	58.00	70	70
Custom Indicator 2.2 a : Number of dairy enterprises with upgraded production facilities resulting from successful financing applications	500	15	8	0	0	23.00	24	600
Custom Indicator 2.2 b : Liters of additional daily milk processing resulting from financing assisted by RDCP II	20,000		40,961	20,910	0	61,871.00	61,871	30,000
GNDR-2 : Proportion of female participants in USG-assisted programs designed to increase access to productive economic resources (assets, credit, income or employment)	50%	32%	34%	37	0	34%	35%	50%
GNDR-3 : Proportion of females who report increased self-efficacy at the conclusion of USG supported training/programming	70%		78%	0	0	78%	78%	80%
GNDR-4 : Proportion of target population reporting increased agreement with the concept that males and females should have equal access to social, economic, and political opportunities	75%		89%	0	0	89%	89%	80%



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## SNAPSHOT

# Say Cheese! From Supermarket Attendant to Rwanda Cheese Champion.

**Like many businesses, starting was not smooth**



Photo: Emmanuel Nsekanabo/Land O'Lakes International Development

After trying to make ends meet to survive in Kigali City for over 10 years, Emmanuel made the leap towards realizing his dream when Gishwati Farms – his very own cheese-processing firm – was born in 2006.

*“With the advisory efforts from RDCP II, I formalized my business and secured company registration with Rwanda Development Board. This means that I can formally execute bigger business transactions with large establishments such as hotels, restaurants and supermarkets in upmarket malls.”*

— Mr. Emmanuel Kageruka ,  
Gishwati Farms CEO

### Telling Our Story

U.S. Agency for International Development  
Washington, DC 20523-1000  
<http://stories.usaid.gov>

Like many Rwandans, 48-year old Emmanuel Kageruka returned home from exile after the 1994 genocide and struggled to find a job in a country greatly affected by political turmoil. He eventually landed a position as an attendant at a supermarket where he worked for 10 years, before growing restless with the desire to do more with his skills. You see, two years before the genocide, Emmanuel had learnt how to make and market cheese, along with other entrepreneurial skills, during a three-month training in Verne, Belgium.

This budding entrepreneur took the plunge and left employment to realize his dream of setting up *Gishwati Farms*, which he successfully established in 2006.



**Mr. Emmanuel Kageruka receives a trophy from Ministry of Trade and Industry Permanent Secretary Mr. Emmanuel Hategeka, during the Rwanda Cheese Championship awards ceremony in May 2014.**

“My enterprise started with only four employees. Initially we collected 300 liters of milk to produce 30 kg of Gouda cheese per day. We also manufactured fresh cream.”

Six years later, in August 2012, Emmanuel was among 85 dairy sector actors introduced to the newly-launched Rwanda Dairy

Competitiveness Program II (RDCP II). Building on the success of a project implemented by Land O'Lakes and partners from 2007-2011, through RDCP II, Land O'Lakes and African Breeders Services Total Cattle Management Limited (ABS) are

working to increase the competitiveness of Rwandan dairy products in both domestic and regional markets. With funding to the tune of \$15 million made possible by the American People through the United States Agency for International Development (USAID), this five-year, Feed the Future initiative is supporting the Government of Rwanda's strategic priorities of improving food and nutritional security, promoting the growth of the private sector and facilitating research and investment in technology transfer.

“Although my business had been in operation for about six years, I had not yet managed to register with the Rwanda Development Board (RDB).”

The RDB is the government agency responsible for fast-tracking the country's economic development through building capacity of the private sector.

“RDCP II provided me with the advice and capacity I needed to formalize my business and secure company registration with the RDB.”

Aside from helping to formalize small enterprises such as Emmanuel's, the USAID-funded RDCP II also conducted a needs assessment exercise which pointed to lack of technical capacity in processing and marketing high-quality cheeses as one major limitation to the development of Rwanda's cheese sector.

In May 2013, Emmanuel's *Gishwati Farms* was among a number of cheese processors enrolled in RDCP II's capacity-building program to receive training from an international master cheese trainer. The program was a real eye-opener! Emmanuel learnt how to process many other types of cheese; from selling a mere two products in the first six years of the business, *Gishwati Farms* introduced eight more types of cheeses to the market just 14 months after the first cheese-processing training. The new products comprising *mozzarella*,

*feta, cheddar, halloumi, St Paulin, grunyiere, ricotta and tanner* cheese, together with capacity-building activities and business management advice under the RDCP II program, have helped to more than double this up-and-coming firm's monthly profit from \$1,911 to \$3,970 in just seven months. The number of employees at the firm has tripled and *Gishwati Farms* currently employs a total of 12 people in finance, marketing and production. *Gishwati Farms* now exports approximately 450 kg of cheese to Burundi per month and is exploring the possibility of exporting cheese to markets in Congo Brazzaville and Gabon via the new direct national carrier flights to these destinations.

Exactly a year after the training, in May 2014, Emmanuel's hard work and the RDCP II's invaluable capacity-building and market linkage opportunities received national recognition when *Gishwati Farms* won a whopping three trophies at the first-ever Rwanda Cheese Championship. Furthermore, *Gishwati Farms'* emergence as the overall champion in this contest, organized by the Rwanda Private Sector Federation, gave Emmanuel even more reason to "say cheese!" and to give a broad accompanying smile as he received the award!

# The Rwanda Dairy Competitiveness Program (RDCCP II)

Report as required per Par.1 c of the Consulting Agreement between Land O' Lakes and Consultant dated April 14, 2014.

Project Code: RD2101

Assignment period: May 17 – 31, 2014

## **Introduction**

The Rwanda Dairy Competitiveness Program II (RDCCP II) is funded by the US Agency for International Development (USAID) and implemented by Land O'Lakes International Development Division. The project was designed to reduce poverty in Rwanda through expanded marketing of quality milk that generates income and employment, and improves nutrition of rural households. RDCCP II aims to achieve this by linking existing and new smallholder dairy producers to expanding market demand driven by improved quality, reduced transaction costs and increased investment all along the dairy value chain.

Cheese has the potential to make a greater contribution to the dairy value chain in Rwanda. Presently the infant cheese sector consists of about 15 small scale processors making poor quality product the majority of which is sold into the urban market of Kigali. Quality and presentation of product continues to be poor.

## **Purpose**

The purpose of this assignment was to lead and design a series of events and workshops aimed at improving the awareness of cheese usage and consumption. This had to include a chef training, a TV programme centred on the theme '*cooking with cheese*' and a cheese expo and competition for the local cheese manufacturers.

The events were aimed at raising the profile of food dishes made with cheese, and to introduce a range of recipes with cheese into the hotels/restaurants. In addition, the Rwandan cheese makers will have an opportunity to showcase their cheeses and participate in the first national cheese competition.

### **Key Deliverables**

1. Present a one-day course to chefs on the use of cheese as a menu item and ingredient in dishes. The objectives of this action are to:
  - inform the chefs of the value of cheese in the food chain
  - create a demand for quality cheese and a larger variety
  - establish closer cooperation between the cheese makers and the food service industry
  - increase the use of cheese in the hospitality and institutional catering markets
  
2. Design and present an in-store cheese expo which includes cheese tasting in a large supermarket with cheese makers in attendance. The objectives of this action are to:
  - showcase Rwanda cheeses to consumers
  - demonstrate to cheese makers the value of in-store wet demonstrations
  - introduce cheese promotions to Kigali supermarkets
  - to increase per capita cheese consumption
  
3. Design and prepare content for a cheese tasting and cooking with cheese program for Rwandan TV with high profile chef in attendance. The objectives of this action are to:

- Create an awareness of cheese and the differences between different cheeses and their uses.
  - Engage the voluntarily services of a well known chef as a cheese ambassador for Rwanda cheese
4. Present a sensory evaluation course to selected cheese makers and technologists. The objective of this action is to:
- To equip cheese technologist to act as judges at the first and successive Rwanda Cheese Championships.
5. Present a cheese championship competition for the Rwanda cheese makers to exhibit their cheeses. The objective of this action is to:
- To evaluate Rwanda cheeses objectively
  - To recognise and reward Rwanda cheese quality
  - To improve cheese quality through competition
  - To create public awareness of the quality of Rwanda cheeses by publishing the results in local media
  - To allow the winners to use their awards in marketing campaigns

## **Acknowledgements**

1. The support, assistance and encouragement of the following sponsors and donors are acknowledged as without it, the Assignment would not have been possible:
- The United States Agency International Development (USAID)
  - Land O'Lakes Inc.,
2. The following organisations were partners and it must be stated categorically that without their assistance, in a variety of means, this Assignment could not have been the success which it turned out to be:

- Private Sector Federation of Rwanda (PSF)
- Ministry of Trade and Industry (MINCOM)
- Rwanda Cheese makers Association
- Papyrus Restaurant
- Kabana Club
- Sole Luna Restaurant

3. Consultant worked closely with a local coordinator, Ms. Florence Umurungi whose knowledge of the local cheese, retail and hospitality sectors proved to be a major help. Further, her previous involvement with the Rwanda Dairy Competitive Program II benefitted the Assignment and its action in such a way that it was completed successfully.

4. The Rwanda Land O'Lakes team's cooperation, helpfulness and knowledge of the local cheese sector and its role players made it easy and enjoyable to organise the deliverables and its actions.

### **Key Deliverable Actions**

Key Deliverable 1 – Present a one-day course to chefs on the use of cheese in dishes

Action: May 26, 2014

A one-day course was presented to 16 chefs from leading hotels and restaurants in a well equipped meeting room in the Top Tower Hotel in Kigali. To cover all the objectives of the deliverable, the presentation was divided into four sections namely:

- How is cheese made
- Sensory evaluation of cheese



- Cheese categories with tasting of cheeses from each category
- Cheese as an ingredient in dishes – ideas and dishes how to use cheese in dishes

The participants showed a remarkable interest in the cheese making process especially when the similarities between cheese, bread and wine making were highlighted. Questions about the different colours of cheese and the use of rennet showed that many of them have given these issues earlier thought. The length of maturation and how cheese flavour develops interested them and it was an ideal starting point to discuss the flavours cheese can deliver in dishes.

The sensory evaluation of cheese and cheese categories were found very interesting as it included the tasting of ten different cheeses while explaining their uses as an eating or ingredient cheese. Many of the chefs have heard of the cheeses presented for tasting and now had a first opportunity to taste them. Although the main emphasis was on the use of cheeses already available in Rwanda, the chefs were encouraged to talk directly to cheese makers about developing new cheeses which they require.

A large part of the presentation was spent discussing dishes in which cheese is used and which dishes could be interesting new addition to their menus. Advice was given on the selection of the right cheeses for dishes and on flavour pairing and combinations. Special attention was paid to the role cheese could play in a dish to obtain the correct food texture.

A considerable length of time was spent on answering question which was encouraging as it showed their interest. About half of them asked for the email address of the consultant to stay in contact with further questions; this was of course, agreed to. The day after the presentation the following email was received from the Head Sous Chef of the Serena Hotel, a leading Rwanda hotel group.

*Dear Mr. Mulder,*

*Hope this email finds well, I am Paul Kamugisha from Serena Hotel one of the chefs you touch on cheese making this Monday at Top Tower Hotel. I appreciated your*

*presentation and I told my boss and he said if possible you can also share same presentation with my colleagues at the Hotel.*



A number of the 16 chefs who attended the cheese in food course

### **Recommendation – Key Deliverable 1**

- Due to the exceptional interest shown by the chefs who attended the training, it is recommended that a second training session should be presented during late 2014 to reach more Kigali and Gisenyi chefs.
- It is further suggested that cheese makers should be present at the next training session in order to facilitate closer working and trading relationships with the hospitality trade.
- The Rwanda Cheese makers Association should be encouraged and assisted to aim to deliver 40% of their production to the vibrant Rwanda catering industry. This could be achieved through a closer working relationship between chefs and cheese makers to facilitate the supply of the correct cheese.

Key Deliverable 2 – Design and present an in-store cheese expo

Action: May 29 – 30, 2014

After deliberation between members of the Land O'Lakes party in Kigali, it was decided to stage the Cheese Expo at a city entertainment lifestyle centre. The venue, New Papyrus is centrally located and easily reachable by public or private transport. Facilities such as electricity, cold storage and meeting areas for cheese makers and clients were available. Publicity started one week before the event in the following formats:

- twice a day 30 second radio advertisements on two local radio stations
- a street banner placed at the busiest round-about in the city.
- a 30 minute live talk about the Expo and cheese in general was done on a third radio station on May 28.
- circa 100 personal invitations were delivered to hotels, restaurant and retail outlets
- role players in related government departments and non-governmental organizations were invited.

Nine cheese makers exhibited at the Expo namely:

1. Fromagerie la Reine
2. Gishwati Farms
3. Les Caves de l'Abondance
4. Ingabo Dairy
5. Muhe Farm
6. Fromagerie Urugero
7. Royal Dairies
8. Local Cheese Promotion
9. Gishwati Mountain Farm Ltd

Exhibitors were well prepared with tasting and selling stock, advertising material, sampling utensils and business cards. Visitors were offered tastings and explanations of the different cheeses while visitors were interested to learn about the regional locations of the cheeseries. Brisk selling also took place although it was not the primary objective of the Expo.

As the results of the Rwanda Cheese Championship were announced on the evening of May 29, the class winners proudly displayed their trophies on May 30 at their stalls.

Below a number of photos showing the interest at the Cheese Expo







**Recommendation – Key Deliverable 2**

- The first Cheese Expo was a success and it is suggested that it becomes an annual event.
- Publicity for the Expo was sufficient and the media strategy was well executed.
- It is proposed that future Expo's take place during a well attended public event such as the annual National Agriculture Show at Mulindi or The Rwanda International Trade Fair. The cheese makers had taken a considerable amount of time and effort to prepare for the exhibition and they deserve the maximum number of public and future clients to visit their stalls. The Cheese Expo should run for the duration of the Show or Fair at which it is staged.
- It is suggested that the Cheese Expo is complimented with a few additional cheese related exhibitors such as bakery products, processed meat and beverages. This will create a festive atmosphere which will encourage visitors to spend more time at the Expo and to depart with pleasant memories of the event.
- The group format in which the cheese makers presented and promoted their cheeses should remain the same as it shows the unity of the industry.

### Key Deliverable 3 – TV infomercials – Cooking with cheese

Action: May 22, 23 & 25, 2014

Three Kigali restaurants were selected at which to prepare dishes on camera while a program host asks interesting questions about the dish and deliver informative comments about the cheeses used as ingredients. The following restaurants and their chefs were selected:

- Francois Murenzi – Kabana Club
- Irangena Angello – New Papyrus Restaurant
- Stephan Lyamuremye – Sole Luna Restaurant.

A well known television presenter, Rhadia Umutohi, was selected to host the programs in Kinyarwanda and she was supplied with the following briefing, the facts of which she weaved into her copy.

- 1. The shoots are made to promote the cheeses made by the Rwandan cheese makers situated all around the country. Currently 15 cheese makers make cheese on a commercial scale and their cheeses are available in supermarkets and milk shops. Many restaurants use their cheeses in dishes and the demand from these restaurants has increased during the last three years. Since 2013 many efforts have been made to improve the quality of Rwanda cheese and the results can now be seen in the cheeses available to the consumers. The Rwanda cheese makers are serious in their efforts to make the best cheese in the region. Today Rwanda cheese makers make Gouda, cheddar, mozzarella, feta, hard mountain cheeses, St Paulin and soft goat's milk cheeses.*
- 2. Cheese is eaten for two reasons: firstly, because it is a very nutritional food with lots of protein which necessary for young children but also for adults. Secondly, because it has a nice flavour.*
- 3. Cheese can be enjoyed in two ways: firstly, as a snack when one feels a bit hungry or secondly, as an ingredient when making many dishes.*
- 4. When eaten as a snack, it usually done together with some dry biscuits or some fruits such as apples, grapes or pears. Cheese also compliments the taste of a variety of beverages.*
- 5. When cheese is used in food is gives two things to the dish: firstly, it gives an extra new flavour to the dish and secondly, it gives texture to the dish.*
- 6. The best example of cheese giving texture to food is when it is used to make pizzas. It is impossible to make a pizza without cheese. It will not have the correct texture in one's mouth.*
- 7. Mozzarella cheese: it was first made in Italy and it is part of the pasta filata cheese family and is used on pizzas because it can stretch when heated. Today it is made all over the world, also in Rwanda because pizzas are eaten all over the world. This stretch is made possible because of the unique way it is made. The curd of the freshly made mozzarella is put in near boiling water and stretch like rubber; this causes the cheese to stretch when it is heated on a pizza. It is eaten when very young and has very little flavour, which is not a defect, as it is not suppose to give flavour to the pizza but texture. Mozzarella has the texture of cooked chicken breast and gives a very special texture to a pizza.*
- 8. When one wants to add a new flavour to a dish you could use a cheese with more flavour such as Gouda or cheddar. Gouda cheese originates from the Netherlands but because it has a mild flavour, it is an ideal cheese to put on the sandwiches of children. Cheddar has more flour and should be used when more flavour are required in a dish such as spaghetti bolognaise. These two cheeses have a lot more flavour than mozzarella cheese and give a nice meaty flavour to the dish. These cheeses are firm enough to grate and sprinkle over the dish or it could be mixed into the ingredients.*
- 9. Feta cheese is more salty than other cheeses because it is suppose to be eaten with salads and vegetables which do not have a lot of flavour by themselves. It originates from Greece and is always eaten in a salad consisting of lettuce, tomatoes, radishes, onion to give more flavour to the blander vegetables.*
- 10. Cheese is a perishable food and should always be kept in a fridge to maintain the quality, nutritional value and taste. Always wrap it in grease proof paper when stored in the fridge.*
- 11. It should not be frozen as it spoils the texture and will cause the cheese to crumble when cut.*



12. *Do not keep cheese for too long but eat it within seven day otherwise it could pick up mould which makes it unattractive.*
13. *Cheese can be purchased in cheeseries, supermarkets, milk-shops or delicatessens in Rwanda.*

Ten easy-to-prepare recipes were presented to the chefs from which to select those they want to prepare on camera and the following dishes, with cheese as an ingredient, were prepared:

1. Pizza with mozzarella
2. Pizza with mozzarella and gouda
3. Tagliatelle with four cheeses (gouda, mozzarella, feta and soft goat's cheese)
4. Vegetarian pizza with gouda
5. Greek salad with feta
6. Caprese salad with mozzarella
7. Lasagne with gruyere cheese

Four cameras were used to capture every detail of the preparation and the filming was successful.

Every episode was concluded with an independent consumer being asked to taste the dish and to give his/her comment, which was of course always favourable.

It was hoped for consultant to be able to finalise the editing of the three episodes before his departure however, the service provider was not able to have these in an editable format by then. This wil now be done by via email.



Camera crew and Chef preparing for video shooting

### **Recommendation – Key Deliverable 3**

- It is recommended that the three fifteen minute infomercials be flight over a three month period on national television around time slots of popular television programs such as the news and/or “soap operas”.
- It is further suggested that the episodes be made available to educational institutions such as chef’s schools, high schools, teachers training colleges and women’s associations.
- The infomercials will have a big impact on the way consumers use cheese in their homes. The chefs performed very well on camera and the presenter was very good in bringing over the nutritional and gastronomic benefits of cheese in everyday dishes which can be prepared by Rwanda citizens.

Key Deliverable 4 – Present a sensory evaluation course to dairy technologists to act as cheese judges at the first Rwanda Cheese Championships

Action: May 21, 2014

The following persons were selected to be trained as cheese judges:

Euphasie Nyirazikwiye – RALIS, MINAGRI

Savio Hakirumurame- RALIS, MINAGRI

Denyse Mukamana- RALIS, MINAGRI

Cossam Muhatsi – supplier of cheese ingredients and owner of Century Foods Ltd

The following curriculum was presented to them:

1. Sensory tests and its objectives in dairy products
2. Physiology of sensory evaluation
3. Selection of evaluators
4. Thresholds detection and aroma identification
5. Cheese defects identified
6. Practical cheese evaluation and judging
7. Score cards; converting opinion into numerical points

Due to their involvement in the dairy and food industries, the persons found the training interesting, and were receptive to the information. The determining of their thresholds for the four basic tastes was one of the interesting lessons learned as it prepared them to be aware of their sensitivity to individual tastes. A variety of specially selected Rwanda and South African cheeses were used to identify particular attributes in the eight basic cheese categories. The persons from RALICS had many interesting questions as they are faced with standards and specifications on a daily basis.

Because of the interest all four persons showed in the training material, it did not come as a surprise to consultant that they performed very well during the judging of the cheeses entered in the Cheese Championship.



Euphrasie Nyirazikwiye and Denyse Mukamana during the judging training

#### **Recommendation – Key Deliverable 4**

- Although the persons trained as judges for the first Cheese Championships should be congratulated on a task well done, it is suggested they undergo a refresher course during late 2014 to be prepared for officiating at the 2015 Championship. Cheese judging can only be done successfully if the persons' senses are regularly refreshed and engaged.

- It is further suggested that a further two persons be added to the existing panel of four to enlarge the group of qualified judges.
- Individuals from this group could then be utilised to train further panellists.

#### Objective 5 – Present a cheese championship for Rwanda cheeses

Action May 21, 2014

The Rwanda Cheese Championship's main objective was to serve as a tool to improve Rwanda cheese quality. Further secondary objectives were:

1. To showcase the quality improvements which took place since the beginning of RDCP II
2. To showcase the larger variety of cheeses currently being made in Rwanda
3. To showcase the technical knowledge and skills of the Rwanda cheese makers
4. To create and set quality benchmarks for Rwanda cheeses

#### Highlights of the Championship

- 9 of the 15 members of the Rwanda Cheese makers Association entered cheeses for the Championship. These 9 cheese makers are thanked for their participation and leadership and consultant is convinced that more cheese makers will participate in 2015
- 23 cheeses were entered; 9 of which were new cheeses, launched during the past year. (Entry form Annexure D) These 9 new cheeses are a direct result of the actions taken under the Rwanda Dairy Competitiveness Program II during the past year.
- The improved appearance and texture of the traditional Gouda was especially noticeable.

- The six classes drew the following number of entries: (Class list Annexure B)
  - Gouda – 8 entries
  - Feta – 3 entries
  - Mozzarella – 4 entries
  - Fresh cheeses – 3 entries
  - Continental cheeses – 4 entries
  - Processed cheese – 1 entry
- The cheeses were very well prepared and packed for the Championship. The cheese makers are thanked for taking great trouble to prepare their cheeses for the Championship; it reflects the pride which they have for their cheeses.
- The following table shows the results of the Championship:

Class no.	Class name	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>
1	Gouda	Muhe Farm	Fromagerie le Reine & Gishwati Farm	Ingabo Dairy
2	Feta	Fromagerie le Reine	Muhe Farm	Gishwati Farms
3	Mozzarella	Gishwati Farms	Fromagerie le Reine	Fromagerie Urugero
4	Fresh cheese	Gishwati Farms (Halloumi)	Les Caves de l'Abondance (round goats)	Les Caves de l'Abondance (goats cheese spread)
5	Continental cheese	Gishwati Farms (St Paulin)	Royal Dairies (St Paulin)	Gishwati Farms (Gruyere)
6	Processed cheese	Local Cheese Promotion	No entry	No entry

- The Championship was a tremendous success firstly, because it excited the cheese makers to such a degree that they want to improve their cheeses for the 2015 Championships. Secondly, it showed clearly which quality problems still exist in their cheeses. These quality problems were discussed with the cheese makers after the competition and will be further addressed under the Recommendations below

- The defects in the cheeses as found by the judges during the judging process are describe in the Recommendation section below and are meant to be fed back to the cheese makers. A recommendation is also made as to how to address individual quality problems with individual cheese makers.

#### Quality status feedback from the Judges during judging

- Gouda
  - .1 Too salty due poor brining methods
  - .2 Too high moisture content which increases bacterial growth and shortens shelf life
  - .3 Bitter taste due to poor hygiene management and cleaning regimes
  - .4 Atypical flavour due to usage of incorrect cultures
- Feta and Mozzarella
  1. To soft texture due to poor working of the curds
  2. Low acid (pH) due to ineffective cultures
- Gruyere, Saint Paulin and Cheddar
  - .1 Atypical texture and flavour of the variety due to the fact that the cheese makers do not know the specification and standards of these new varieties.
  - .2 Too acidic which points to poor fermentation management
  - .3 Incorrect shape and format of the presentation and appearance.
    - Corrective actions for these defects are addressed under Recommendations below



Savio Hakirumuramyé and Cossam Muhatsi judging the Gouda class

### **Recommendation – Key Deliverable 5**

- It is recommended that individual visits to the participating cheese makers be done during late 2014 to address the individual cheese defects with the respective cheese makers. Consultant has kept records of defects in each type of cheese from each cheese maker and could address these on an individual basis
- Although the cheese maker/owners are eager to improve their quality, it is actually the technicians in the cheeseries who really make the cheese on a daily basis. It is clear, from the remaining defects that the information shared with the cheese maker/owners during past training sessions do not always reach the technicians.
- It is therefore suggested that the future visit of consultant should include working and teaching sessions with the technicians under cheesery conditions, to eliminate these defects.



- After the prize giving event five cheese makers approached consultant with the request to work with them at their cheeseries to correct defects and improve new cheeses.
- Mr. Emmanuel Hategeka, Permanent Secretary of Commerce and Trade has requested consultant to remain involved with Rwanda cheese makers to improve quality further. This request was referred to the Acting Chief of Party of RDCP II.

### **The Prize giving Cocktail**

The prize giving event took place on the evening of May 29 at the Papyrus Restaurant with all the participating cheese makers in attendance. A press release was issued, highlighting the winners and the Cheese Expo and is attached as Annexure I. The winner of each class received a handsome trophy and certificate whereas the second and third places were rewarded with certificates.



Muhe Farm Ltd receiving their First Prize for Gouda cheese



Happy cheese makers with their trophies.

Prepared by Kobus MULDER; June 12, 2014

The following documents are attached as annexures:

Annexure A – Rules of the Championship

Annexure B – Class list

Annexure C – Methodology of the Championships

Annexure D – Entry form

Annexure E – Judges Register

Annexure F – Score card

Annexure G – Trophy

Annexure H – Press release

Annexure I – Invitation to cocktail

# ANNEXURE A

## Rwanda Cheese Championship

1. Cheese makers must enter their cheeses in the classes as indicated in the class list.
2. The entry form must be used for this purpose
3. The completed entry forms must be forwarded to Ms. Florence UNURUNGI at Land O'Lakes, Kigali by May 2, 2014
4. A cheese maker can enter only one cheese of a type per class. E.g. only one Gouda in the Gouda class.
5. Cheese entered must be delivered to Land O'Lakes offices in Kigali on May 19 & 20, 2014.
6. Each cheese must be labeled with the cheese maker's name and the class number in which it was entered.
7. Whole cheeses must be delivered for judging. Cheeses must be in the same format in which it is sold or marketed.
8. Cheeses should be market ready and not under age.
9. Number of sample send for judging:
  - 9.1 2 cheeses for cheeses weighing 500 – 1 000gram
  - 9.2 4 cheeses for cheeses weighing 100 – 500 gram

## ANNEXURE B

### Rwanda Cheese Championship

#### Class list

Class 1 Gouda. Any size or shape.

Class 2 Feta. Any size, shape or packaging

Class 3 Mozzarella. Any size, shape or packaging

Class 4 Fresh cheese. Any size, shape or packaging

Class 5 Continental cheese. Any type, shape or packaging

Class 6 Processed cheese. Any size, shape or packaging

## ANNEXURE C

### Methodology of the Championship.

- Sample cheeses and entry forms (below) were delivered to the Land O'Lakes offices on May 19 & 20 to be judged during the afternoon of May 21.
- Each entry was numbered and catalogued in a Judge's Register in order to make blind judging possible.
- No discussions about the cheeses were allowed during the judging in order to obtain independent opinions.
- The scorecard was used and the highest average score of the five judges in a class determined the class winner.
- The same mathematical method was used to determine second and third places

ANNEXURE D

Rwanda Cheese Championship

Entry form

<b>ENTRIES CLOSE ON MAY 2, 2014</b>	
Name	
Address	
Tel. no	
Email address	

CLASS NUMBER	TYPE OF CHEESE

SIGNATURE .....

ANNEXURE E

2014 RWANDA CHEESE CHAMPIONSHIP

Judges Register

Class number:..... Class name .....

Entry no.	Exhibitor no.	Exhibitor name	Product
	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		

# ANNEXURE F

## 2014 RWANDA CHEESE CHAMPIONSHIP

### SCORE CARD

CLASS No: .....

JUDGE .....

Cheese no.	Appearance Max. 4	Texture Max. 9	Flavour Max.17	Total Total 30	Comments
1					
2					
3					
4					
5					
6					
7					
8					
9					

Scoring guide:

Quality	Appear & colour Max 4	Body & Texture Max. 9	Flavour Max. 17
Exceptional	4.0	8.0 – 9.0	14.0 – 17.0
Very Good	3.5	6.0 – 7.5	11.5 – 13.5
Good	3.0	4.0 – 5.5	8.5 – 11.0
Poor	<3.0	<4.0	<8.5

.....

**Judge signature**



ANNEXURE G



## ANNEXURE H



### *Rwanda Dairy Competitiveness Program II*

For Immediate Release

Date 29th/May/2014

**Contacts;**

[dennis.karamuzi@idd.landolakes.com](mailto:dennis.karamuzi@idd.landolakes.com)

[emmanuel.nsekanabo@idd.landolakes.com](mailto:emmanuel.nsekanabo@idd.landolakes.com)

### **Rwanda Cheese Expo and Championship Launched**

**Kigali Rwanda, May 29, 2014:** For the first time in Rwanda, an exhibition of locally made cheese and a corresponding cheese competition have been launched as two promotional events that are anticipated to occur annually.

The events have been initiated in collaboration with the Rwanda Private Sector Federation (PSF) and the Rwanda Dairy Competitiveness Program II (RDCP II), a program funded by the United States Agency for International Development (USAID) and implemented by Land O'Lakes International Development.

The first Rwandan Cheese Championship offered local cheese makers the opportunity to enter their cheeses in six categories. The winners are as follows:

- Gouda cheese class – Muhe Farm Ltd
- Feta cheese class – Fromagerie le Reine Ltd
- Mozzarella cheese class – Gishwati Farms Ltd
- Fresh cheese class – Gishwati Farms Ltd
- Continental cheese class – Gishwati Farms Ltd

- Processed cheese class – Local Cheese Promotion Ltd

While presiding over the Rwandan Cheese Championship Awards and the launch of the two-day Cheese Expo on Thursday May 29<sup>th</sup> at the New Papyrus Restaurant in Kimihurura, the Permanent Secretary at the Ministry of Trade and Industry (MINICOM) Emmanuel Hategeka described the events as great marketing and promotional platforms for Rwanda's cheese processing and trade.

He added, "We are very aware of the underlying challenges such as quality and presentation of cheese, but we also strongly believe that the industry offers a range of opportunities yet to be explored. We are therefore required to continue working hard in the aspects of improving the quality of our cheese, as well as the ways of branding and marketing our cheese, in and outside Rwanda."

Hannington Namara, the Chief Executive Officer at PSF, echoed similar sentiments by calling upon local cheese processors to improve their market and product linkages to established retail and food service industries. "If you want to succeed in business, you need to focus on provision of quality products and services, and also avoid being disconnected with the marketplace that will buy your cheese," he further urged the local cheese makers.

Acting Chief of Party for RDCP II Dennis Karamuzi explained that a key objective of designing and organizing a competition for Rwandan cheese makers was to develop a measurement, evaluation and improvement process for Rwandan cheeses. The competitions and exhibitions are intended help improve cheese quality, reward winners and enable them to promote the awards in their marketing efforts.

On the side-lines of the Cheese Expo and Championship, 16 chefs from Kigali's top hotels and restaurants were trained by international cheese consultant Mr. Kobus Mulder from Cape Town, South Africa. The one-day training held at Top Tower Hotel in Kigali helped inform the chefs of the value of type of cheese as ingredient in dishes. The objective of this initiative is to stimulate increased diversified used of cheese in the hospitality and institutional catering markets. Chefs were introduced to a range of dishes in which cheese plays an important role in improving the flavour and texture of the dishes. Increased diversified use of cheese in restaurant dishes will enhance the gastronomic enjoyment for patrons, as well as make a significant contribution to business growth in the cheese processing segment.

## ANNEXURE I

### **Agenda: First Cheese Awards Ceremony, May 29<sup>th</sup> 2014 at Papyrus Restaurant**

- |                      |   |
|----------------------|---|
| <b>17.30 – 18.00</b> | <b>Arrival of Invited guests</b>  |
| <b>18.20 – 18.25</b> | <b>Welcoming remarks by Acting Chief of Party Rwanda Dairy Competitive Program II. Mr. Dennis Karamuzi</b>  |
| <b>18.25 – 18.35</b> | <b>Explanation on Award categories and acknowledging judges – Kobus MULDER</b>  |
| <b>18.35 – 18.50</b> | <b>- Awards and certificate giving session – Florence Umurungi and Kobus MULDER</b><br><b>- Speech by Cheese makers Association representative.</b> |
| <b>18.50 – 19.05</b> | <b>Remarks by the Chief Executive Officer of the Private Sector Federation, Rwanda – Mr Hannington Namara</b>                                       |
| <b>19.05 – 19.10</b> | <b>Remarks by Head, Trade and Marketing, RDB – Mr Eusebe Muhikira</b>   |
| <b>19.10 – 19.15</b> | <b>Remarks by Guest of Honour – PS MINCOM, Mr. Emmanuel Hategeka.</b>   |
| <b>19.15 – 20.00</b> | <b>Networking</b>   |

**RDCP II TRAINING REPORT**  
**DAIRY CATTLE FEED FORMULATION AND PROCESSING**  
**Pyrenees Hotel, Gatsata, Kigali**

**DATE: 23-26 June 2014**

**By**

**Nathaniel F. Makoni**

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**TITLE OF COURSE OR TRAINING**

Dairy Cattle Feed Formulation and Processing

**DATE OF TRAINING**

The training occurred during the period June 23 to 25, 2014

**TRAINING VENUE**

The training venue was Pyrenees Hotel, Gatsata, Kigali, Rwanda. In addition a farm near the hotel was used for capacity building and a maize mill at IAKIB Cooperative in Byumba was used to demonstrate maize milling and feed formulation principles.

**INTRODUCTION**

This course was designed to address the needs and limitations of on-farm feed formulators and feed processors. This is inline with the Government of Rwanda dairy development policy that aims to improve dairy competitiveness by increasing efficiency of production while reducing cost. This is important because feed constitutes up to 70% of the cost of production making it a key driver in dairy business. When feed quality is poor, milk production per cow decreases thus increasing cost of production and negatively impacting profitability. In addition, cattle are key contributors to environmental degradation, particularly when herds emit more methane into the environment. In this regard competence in feed formulation to increase milk production per unit animal and reducing dairy herd size are prudent strategies for environmental smart and sustainable dairy production practices. Commercial feed producers and processors require knowledge on least cost formulation of feeds and developing marketing strategies that promote

sales and ultimately reduce feed costs. This course was developed to address these national and participant needs and to equip the feed producers and processors with skills and knowledge for competitive production of good quality feeds.

### **OBJECTIVES (LEARNER OUTCOMES)**

The objectives of the course were to build capacity and equip the feed producers and processors with skills and knowledge for competitive production of good quality feeds. The participants' outcomes were that by the end of the course they will be able to:

- Relate ruminant feed needs to the uniqueness of the ruminant digestive system.
- Specify the nutrient requirements of dairy cattle, particularly dairy cows, in accordance with lactation stage, age, bodyweight and physiological stage. In order to determine animal nutrient needs, identify the feeding standards that can be used for reference.
- Outline the energy evaluation systems used to determine the energy content of feed ingredients and animal energy needs.
- Outline the protein evaluation systems used to determine the protein content and quality of feed ingredients and animal protein needs.
- Outline fibre evaluation systems used to determine fibre content and quality of feed ingredients and animal fibre needs.
- Identify the feed ingredients available in the country, and list the key nutrients supplied by each ingredient.
- Develop feed ingredient procurement strategies for competitive feed production.
- Comprehend the feed formulation principles and economics, and formulate a dairy feed.
- Comprehend the feed processing principles and requirements and evaluate a feed mill operation.
- Distinguish the key differences in feed formulation and processing of feeds for different livestock species.
- Develop and manage feed processing business operations through use of appropriate accounting systems.
- Formulate feed marketing strategies.

## CONTENT OF THE TRAINING

The training content included the following topics:

1. Ruminant nutrient requirements (maintenance & production):
2. Feeding standards
3. Ingredients for feed formulation & their nutritive value
4. Feed formulation principles
5. Feed processing (principles, small & large scale
6. Feed processing (equipment, packaging, quality control, distribution & storage)
7. Raw material procurement, product choice & processing capacity use
8. Discussion on IAKIB visit

The training was motivational and aimed at getting the message across. A combination of methods used included brief lectures, discussions, demonstrations and group exercises.

Simplified power point presentation with pictures and handouts were used as teaching aids for training periods not exceeding 45 minutes per session. Electronic copies of power point slides and printed notes were given to RDCP II staff members for filing and also for distribution to the participants.



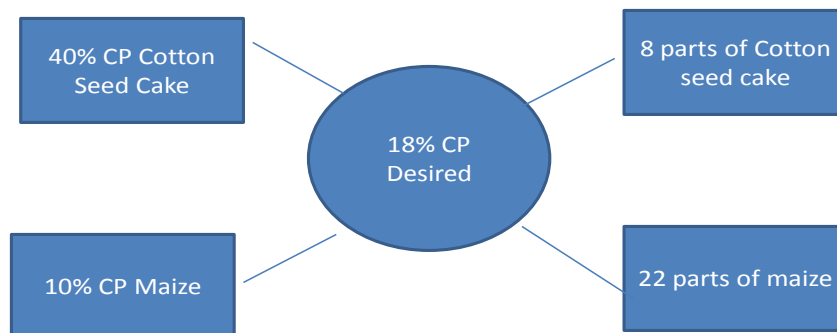
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FROM THE AMERICAN PEOPLE

**LAND O' LAKES, INC.**  
INTERNATIONAL DEVELOPMENT  
Innovative Solutions for Global Prosperity



### Rwanda Dairy Competitiveness Programme II

***Example: make a ration with 18% crude protein using cottonseed cake (40% crude protein) and maize (10% crude protein)***





## Rwanda Dairy Competitiveness Programme II



### TRAINEE FEEDBACK

In general perceptions of the trainees about the course were positive; however, details on appropriateness of the course for the level of the trainees was assessed in Kinyarwanda language. Given time constraints, this feedback would be shared later to facilitate planning for future courses.

### CHALLENGES

Challenges observed included:

1. Instruction language comprehension as some of the participants neither understood nor spoke English. This challenge was overcome by brief intercession translations of the delivered lesson into Kinyarwanda language.



2. The participants had a wide gap in subject understanding, as their educational backgrounds were very different. The course content was simplified to ensure wider understanding of the subject matter though the downside is limited learning for those with advanced knowledge in feeds and processing.

## **LESSONS LEARNED**

**Keen interest in learning on feed formulation and processing.** Participant turn up exceeded numbers initially enrolled for the training. Although the participants had different backgrounds both educational level and work experience wise, all participants were engaged in livestock feeding, teaching, feed production and distribution. The entire participant group was keen to learn about feed formulation and animal feeding to increase production. Their level of participation and alertness indicated this keen interest that was also exhibited during the entire workshop period. Furthermore, the morning summary recap sessions were taken seriously and the delivery by volunteer presenters was commendable.

## **RECOMMENDATIONS**

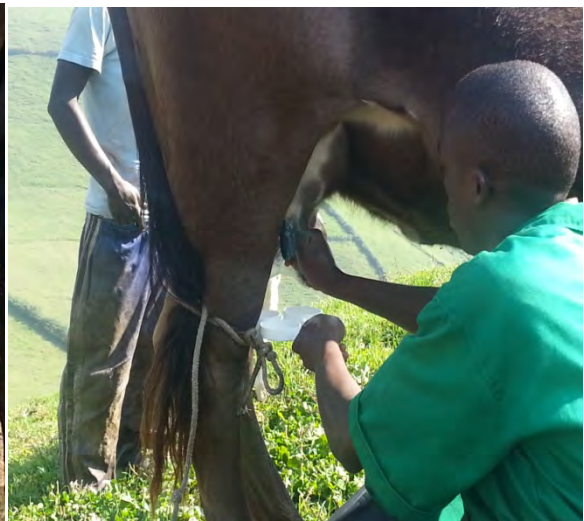
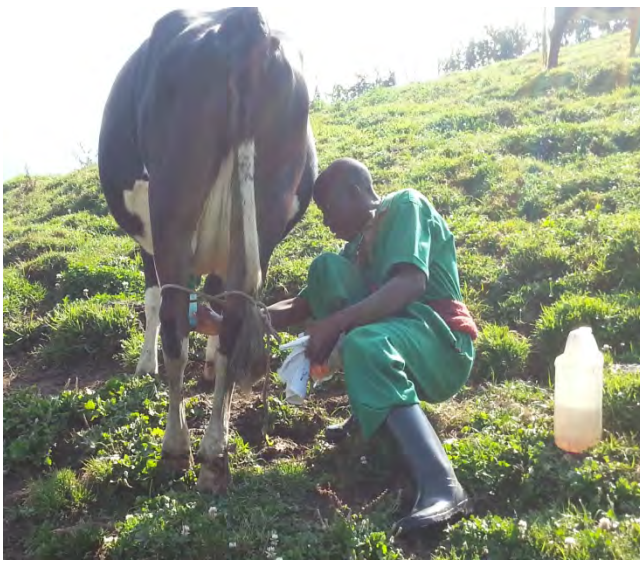
The following are my recommendations:

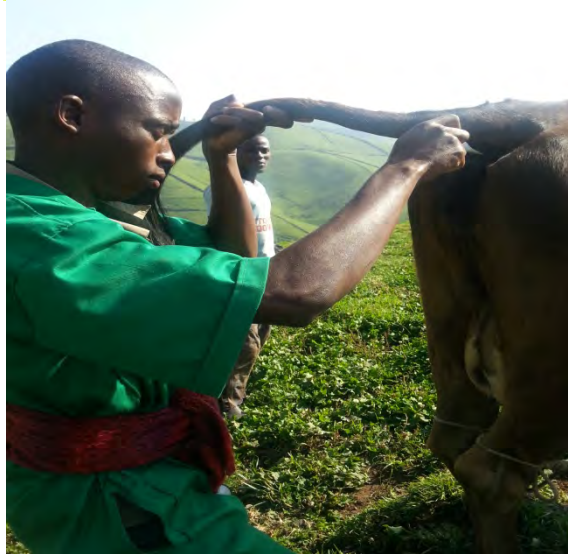
- Further training and field follow up visits are recommended for reinforcement and as a guide to the effectiveness of the training program. The field follow up should be carried out at least a month following training and should be done by a consultant who can also double-up the follow up with capacity building of participants in loco. Given the diverse knowledge base and experience of the participants there is need to separate and select an innovator group that includes those with good knowledge of feeds formulation and processing and the other participants would be followers. This will be done for the purpose of appropriate targeting and deepening the capacity building whilst also ensuring that the latter group is accorded an opportunity to fully grasp the subject matter.
- Participants of this training should be followed up and sensitized on benefits of forming a feed platform to address issues of common concern and also act as a lobby group for a conducive policy environment and their needs such as setting up a feed analysis and advisory

service laboratory for the industry. Eventually, the group can address issues on quality feeds as an association of feed manufactures/suppliers.

- There is need to identify a functional feed laboratory for training tours, ingredient and product quality testing and to assist develop a guide on nutrient levels of common feeds that can be used for industry feed formulations.
- More capacity building will be required on feed business skills that encompass strategies for consistent ingredient supply chains, procurement agreements and risk management.

**Busogo Campus DDM pictures**





Busogo Animal Health Monitoring Form

Sample Collection Date -  
Enter date sample was collected  
Month Day 2014  
T 07 2014

Recorder Name -  
Please enter full name(s) of recorder. If multiple recorders, separate names with a "+".  
MUNYEMUNYEMU ZYKUNYEMUNYEMU

Cow ID - UID -  
4 / B4 B2 R0 A N C 1 2 2 A

Days in Milk -  
Enter cow's number of days in milk without commas or spaces.  
450 days

Milking Schedule -  
Once Daily = 1, Twice Daily = 2  
1

Milk Output -  
Enter milk output in # Liters/ Milking without commas or spaces. If none, enter 0.  
[ 3 ]  
This is a required question.

Rectal Temperature -  
Enter rectal temperature in °C without commas or spaces.  
37.0

Heart Rate -  
Enter rate in BPM without commas or spaces.  
60

Liveweight -  
Does the subject present with any livew. sickness? No = 0, Yes = 1  
0

Comments  
In parentheses or present in which industry







# FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

## FEED THE FUTURE INNOVATION

### MILK ZONES

#### WHAT IS A MILK ZONE?

In June 2013, a Rwanda-based processor called Inyange opted to compete directly with the informal market for fresh milk in Kigali. Every day, very large volumes of milk are sold raw through kiosks. Normally, milk is purchased in rural areas, transported un-chilled to kiosks, and cooled slightly and retailed without sterilization, pasteurization or any other processing to consumers who purchase it with their own containers. This milk is brought home, boiled and consumed.

The processor devised a concept pilot called the Milk Zone. They are brightly painted, clean, strategically located milk kiosks that sell chilled, pasteurized milk to consumers who, as with the other kiosks, bring their own containers as the supply of milk in plastic sachets is banned in Rwanda. The price charged by the Milk Zone is slightly higher than the price charged by the informal kiosks.



#### BENEFITS OF MILK ZONES

##### QUALITY ASSURANCE



Traditional milk kiosks typically sell milk with bacteria counts of more than 3 million cfu/ml, whereas milk sold by Milk Zones have bacterial counts of less than 10,000 cfu/ml, which is considered quality Grade A in milk. This is largely a positive result from pasteurization and selling milk from hygienic surroundings. Consumers in Kigali are now showing preference for milk from Milk Zones, which is driving Inyange to introduce more of them. The challenge continues to be the logistics for prompt milk delivery to the Milk Zones to meet demand. The demand is so high that Milk Zones run out of milk during the day”.



##### DAIRY FARMER



Changing consumer preferences for milk quality is key to bringing about real change all along the dairy value chain. Raising Rwandans’ expectations, in conjunction with implementing regulations on milk handling, ensures all dairy actors from transporters to aggregators to the dairy farmer strive to produce a cleaner, safer product.



##### CHANGING PERCEPTIONS



Milk Zones present an opportunity to grow the market. The assumption that Rwandan consumers were unlikely to change their milk consumption habit and their preference from raw to pasteurized milk were incorrect. Inventories of high quality product run out every single day.

It is likely that many of the consumers of this improved product are “early adopters.” Nonetheless, the businesses break even quickly as these early adopters clearly appreciate the product.

Critical to the success of this approach has been the concept of embracing a traditional product, but doing it better. Using a tested approach, the vendor has simply improved the quality of the product and the way it is presented.

This experience lends VERY strong support to the notion that the Rwandan consumer will adopt a better handled, smartly packaged and marketed, similarly priced, conveniently located, quality product with little resistance.

##### SHOW ME THE MONEY



The first Milk Zone was established in June of 2013. Installed capacity is 1,000 liters of fresh milk delivered early morning.

The first Milk Zone investment cost USD 22,500.

Monthly revenue was USD 22,400.

Monthly costs include:

- Inventory – USD 17,757;
- Operations – USD 1,393;
- Depreciation – USD 152.

The first Milk Zone netted USD 3,000 monthly and broke even within eight months.

The expected annual return on the initial investment is 136%.

The Milk Zone normally sells its inventory of 1,000 liters by midday. Since the stellar success of this first retail location, 23 additional locations (five owned by the processor and 18 established under a franchise arrangement) have been established.



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## FEED THE FUTURE INNOVATION

# DAIRY IN RWANDA: FROM FARM TO MARKET



### FARMER PRODUCTIVITY

RDCP II is facilitating service providers to improve their service delivery at farm level. RDCP II to date has trained 638 service providers who have in turn trained 13,158 farmers on key productivity interventions including animal health, dairy nutrition, A.I. and milk handling resulting in milk productivity increases.



### MILK COLLECTION CENTERS

Women walk many kilometers every day carrying milk to distant trading centers. RDCP II has facilitated the re-opening of 19 Milk Collection Centers across Rwanda, reducing the distance milk needs to be carried.



### STEREOTYPE

RDCP II is capitalizing on Rwanda's policy of gender integration in its economic transformation and is mobilizing more participation of women in the development of the dairy sector.



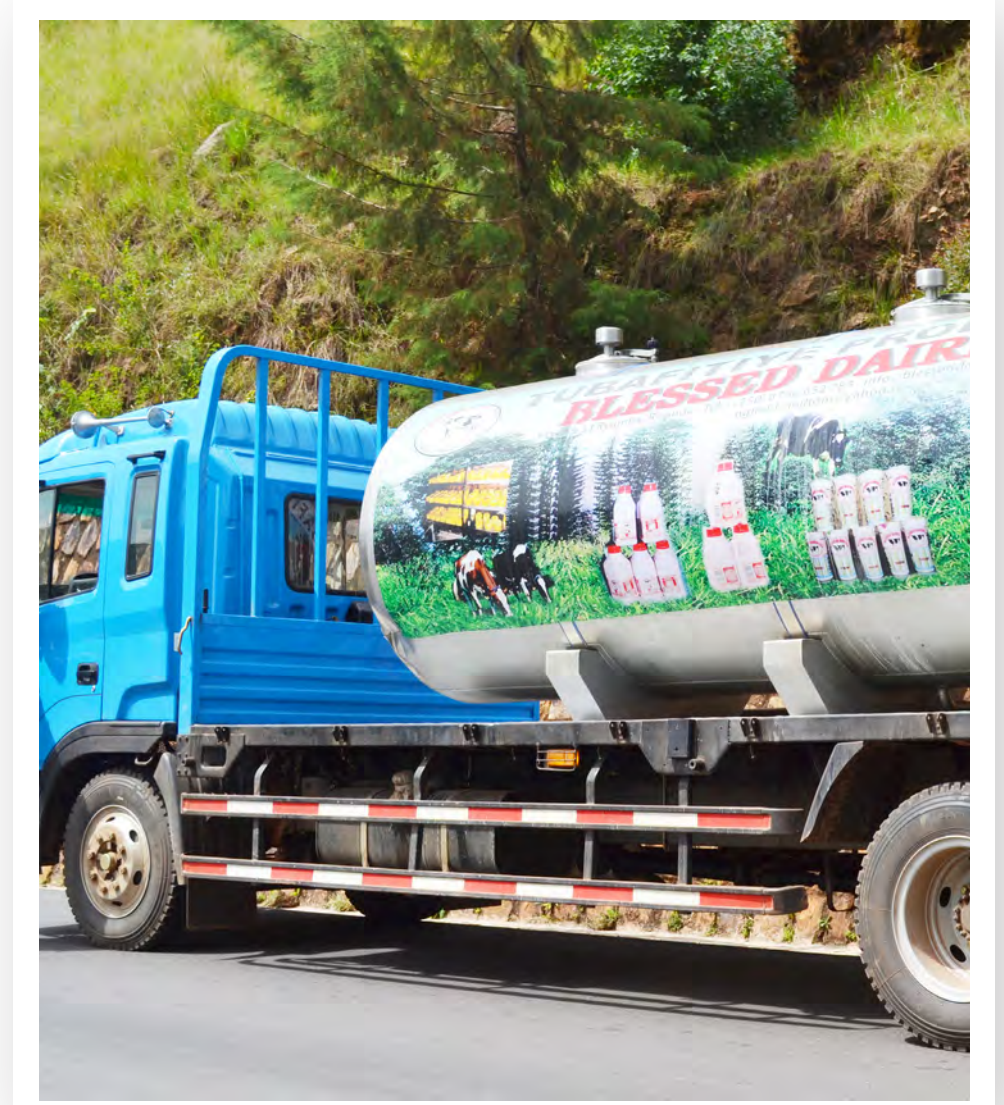
### MILK TRANSPORTATION & HANDLING

RDCP II has made strategic milk transportation and milk handling interventions. 13 motorized tricycles and 1412 stainless steel cans have been granted to 11 milk collection centers across Rwanda.



### TECHNICAL FACILITATION

Through collaboration with the University of California Davis, The Rwanda Agriculture Board and the University of Rwanda, RDCP II is building the capacity of Rwandan laboratory technicians to identify bacterial organisms causing mastitis, a major contributor to poor milk quality in Rwanda.



### MONETARY FACILITATION

Rwanda's dairy sector requires significant investment to scale up growth and to position it as a key player in the country's economic transformation. RDCP II granted an insulated tank to Blessed Dairies, which increased the volume of milk collected per day from 15,000 liters to 25,000 liters.



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