USAID FROM THE AMERICAN PEOPLE	**Rwanda Dairy Competitiveness Program II**	LAND O'LAKES, INC. INTERNATIONAL DEVELOPMENT Innovative Solutions for Global Prosperity

RWANDA DAIRY COMPETITIVENESS PROGRAM II

Quarterly Report

January 1 – March 31, 2016

CA# USAID-696-A-12-00002

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CA# USAID-696-A-12-00002

QUARTERLY REPORT

January 1, 2015 – March 31, 2016

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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
DQAL	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
NAEB	National Agricultural Export Development Board
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 III
RAB	Rwanda Agriculture Board
RALIS	Rwanda Agriculture and Livestock Inspection Services
RARDA	Rwanda Animal Resources Development Authority
RBS	Rwanda Bureau of Standards
RCA	Rwanda Cooperatives Agency
RDB	Rwanda Development Board
RDCP II	Rwanda Dairy Competitiveness Program II
RMSA	Rwanda Milk Sellers Association
RNDP	Rwanda National Dairy Platform
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 January 1 to March 31, 2016. USAID's Rwanda Dairy Competitiveness Program II (RDCP II) was designed to reduce poverty through expanded marketing of quality milk that generates income and employment, and improves nutrition of rural households. RDCP II achieves this by linking existing and new smallholder dairy producers to an expanding market demand driven by improved quality, reduced transaction costs and increased investment along the dairy value chain.

During this reporting quarter, RDCP II focused on facilitating the transition of many activities that the project previously supported while building capacity of would-be custodians at exit. This included closely monitoring the project implementation plan, the approach to execution and follow up of implemented activities. RDCP II plans to transition leadership of such activities to local partners which it has identified, including key agencies like Rwanda Agriculture and Livestock Inspection and Certification Services (RALIS) and Rwanda National Dairy Platform (RNDP). RALIS, through a grant from RDCP II, has positioned itself to lead initial processes for a national raw milk and milk products certification system that will see the transition from a largely informal unregulated dairy subsector to a more organized and competitive one. RNDP is anticipated to take the role of dairy development facilitator as the lead private sector advocacy agency in Rwanda and a one-stop reference for key information related to dairy investment opportunities. Below is a selection of some activity highlights:

RALIS concludes milk value chain actors training

Figure 1: Milk handling is very key in the milk quality management, and RALIS has therefore undertaken a certification program of dairy enterprise to improve milk quality in Rwanda

Rwanda Agriculture and Livestock Inspection and Certification Services (RALIS) completed training of different value chain actors in accordance with the guidelines set out in the national gazette regulating the handling, distribution and retail of raw milk in Rwanda. The training, which took place during this quarter, focused on areas for improvement across different milk retail and distribution outlets in preparation for the upcoming mandatory inspection and auditing for certification of dairy enterprises under the Seal of Quality program. (see activity report in Annex IV).

RNDP support cluster strengthening through producer cooperative unions

As part of RNDP's mandate to provide support towards establishment of respective cluster leadership and training, the dairy platform facilitated the formation of 5 new cooperative unions and supported the restructuring of 6 unions that have been idle since their establishment. The focus on unions is important to empower the largest cluster of producers to fully and actively participate in the functioning of the dairy platform. This will further help sensitization of members of the primary cooperatives about their membership obligations under the RNDP (see activity report in Annex V).

Roll out of radio soap opera and community theatre outreach events

Figure 2: In a bid to improve awareness about milk nutritional benefits, RDCP II has launched a mass campaign through radio soap opera and outreach events across the country.

Urunana Development Communications (UDC), with a grant from RDCP II, launched the radio soap opera with integration of selected messages, highlighting the nutritional benefits of milk and milk products. The campaign started in February 2016 and features characters in the popular soap opera tactfully introducing themes on milk in an integrated community act that has been running in Rwanda since 1999 and is based on the lifestyle of a local village (Umudugudu) community. Further, Urunana launched community outreach theatre shows in four districts of RDCP II operation, Ruhango, Gisagara, Bugesera and Gicumbi. The theatre is based on a pre-approved script that identifies key factors responsible for low milk consumption in a particular zone. During these events, the population in the selected districts is excited to meet their favorite character, while learning about the benefits of milk. Audiences have been estimated between 9,000 – 9,500 people who come from miles away to listen to the important message while being entertained by the theatre group. The sessions are interactive, allowing participants to ask pertinent questions. In addition to the four community theatre sessions, Urunana will conduct another two events in two high priority districts of Nyabihu and Gatsibo where the rate of malnutrition is high but with potential for high milk production in the same districts (see full report in annex VI).

RDCP II hosts Farmer to Farmer Animal feeds expert volunteer

Figure 3: Rwandan farmers are getting sensitized on improved feeding technologies in order to improve milk productivity.

Through the Farmer to Farmer (F2F) program, Lance Staggenborg, a plant manager at one of Land O'Lakes Purina Foods plants, volunteered to spend time in Rwanda to conduct a quick assessment of the animal feed sector in Rwanda and provide an interactive training and feedback session with the plant owners and managers. As a volunteer under a F2F program, his time was voluntary and unpaid and his travel costs were covered by the F2F program so it was a great complement to RDCP II activities.

RDCP II completes semi-annual survey

This quarter, RDCP II conducted the semi-annual survey to establish key developments following intervention in key areas of RDCP II implementation. The semi-annual survey was conducted in 15 out of 17 districts and reached 555 individual farmers receiving support from RDCP II.

Highlights from the semiannual survey include:

Adoption of technologies and best practices

A major improvement at the farm level during this quarter was the level of record keeping which increased from 37% in 2015 to 61% in 2016, a record high since the project was launched in 2012. This improvement may be attributed to the impact of increasing focus on business management practices during training which emphasizes farming as a business and the benefits of record keeping. While disease control and management and milk quality control practices remained high in adoption, cattle feeding technologies and practices dropped this period.

Increased awareness of the benefits of milk consumption

The mid-year survey results indicate an increase in awareness about milk benefits among targeted farmers to 98% with the majority of respondents clearly highlighting its importance as a source of protein (75%), minerals (40%) contributes to child development (67%) and early mental development (34%). The increase in awareness is generally attributed to both the completed milk consumption campaign (Shisha Wumva) and the on-going bi-weekly Urunana radio soap and the community theatre events which attracted massive crowds to listen and learn. With this increased awareness, and over a long period of time, such efforts will greatly influence behavior change towards higher per capita milk consumption in Rwanda.

Stakeholder collaboration

Dairy Sector Working Group meetings

Figure 4: The Northern Milkshed meeting attracted a good number of chain actors to reflect on challenges and opportunities in the dairy sector.

This quarter, RDCP II organised and facilitated milk shed dairy sector working group meetings for Rwamagana and Kayonza District stakeholders. In Kayonza the meeting was held in February, 2016 while in Rwamagana the meeting was conducted in March, 2016. Both meetings discussed the progress that has been registered, MCC Milk Business, cooperative governance and management as well as dairy investment and financing opportunities. The meetings also addressed impending challenges that are still experienced by dairy actors and called for Government intervention. Some of the challenges that were discussed include: poor governance of cooperatives, low membership in the cooperatives, lack of reliable market and low milk volumes due to roadside milk selling by some farmers and transporters. Earlier in January, the 6th Northern Milkshed DSWG meeting and business opportunity seminar took place in Gicumbi district.

Processors meetings

Figure 5: Crystal Bottling Industries is the new market entrant at a large milk processing level

In March, RDCP II held meetings with the leading processors Inyange Industries and Crystal Bottling Industries. The purpose of the meeting was to touch base with the two biggest processors about their progress, and current and future plans. RDCP II discussed the new law that is going to help regulate the sector and highlighted opportunities that are going to be created. Further, RDCP II discussed with the processors about their expansion plans particularly regarding the now popular "milk zone" retail approach for pasteurized milk.

Made in Rwanda Expo

RDCP II attended "Made in Rwanda Expo", aimed at promoting Rwandan made products. The dairy sector was represented by RNDP cluster members that included large and small processors, input providers as well as farmer representatives. RNDP's stand was visited by the Senate and Lower chamber Parliamentary representatives who expressed appreciation about the progress that has been registered by the sector players. This visibility of the activities of key value chain players is crucial to gaining support from the policy makers in the country.

Figure 6: The local dairy products were also showcased during the 'Made in Rwanda Expo'.

Table 1: Indicating summary of key achievements

SUMMARY OF KEY ACHIEVEMENTS				
Indicator	**Baseline value (2012)**	**Cumulative Achievement (2012 - March 2016)**	**LOP Target**	**Scale up target**
New jobs created	0	11,809	7,500	11,745
Number of Farmers applying improved technologies or dairy best practices as a result of USG assistance	0	46,638	28,000	51,368
Rural households benefiting directly from USG interventions	0	52,867	35,000	54,460
Vulnerable households benefiting directly from USG interventions	0	23,695	14,000	22,656
Net dairy income among the targeted rural households	$2.8 million	$ 25.1 million	$ 4.5 million	
Gross margin per dairy cow	$162.22	$248.15	$251.93	
Liters of milk marketed through MCC's	16.06 million	106.19 million	25.70 million	
Value of incremental sales at collected at farm-level	$4.6 million	$ 56.7 million	$ 31.5 million	
Total increase in installed storage capacity at MCCs, transporters and processors level	0	182,000 liters	150,000 liters	
Value of rural loans for dairy sectors	0	$ 2.8 million	$ 1 million	
Value of dairy exports	$85,979	$ 39.1 million	$137,567	
Private sector investment leveraged	0	$ 5.8 million	$ 20 million	
Policy / regulations/ administrative procedures in development, passed or being implemented	0	9	9	

IR1. Rwandan Dairy Products Meet COMESA Standards

Rwanda produces over 600 metric tons of milk annually; at least 80% of this quantity is 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 has continued positioning 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 improved dairy practices under the Rwanda Seal of Quality (SoQ) program. In addition, through the Grant Program, RDCP II delivered milk testing equipment to various dairy businesses in addition to a recent award to RALIS to initiate inspection and certification of dairy actors that have complied with good milk handling practices as established by the Ministerial Order approved last quarter with the award of Rwanda dairy quality mark (Seal of Quality). During this quarter, RALIS initiated a major component of the SOQ program including both the training of dairy value chain actors and pre-inspection of the same to provide on-site mentorship of the dairy businesses at location. This will go a long way to prepare the enterprises for the upcoming audit process as a final step towards certification. RALIS has completed the certification plan based

Figure 7: Local processors have continued to introduce new products on the market, and Rwanda positions itself as a hub for quality dairy products

on the Ministerial order No. 001/11.30 of 10/02/2016 regulating the collection, transportation and retail of milk in Rwanda.

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

Using model farmers and service providers, RDCP II trained farmers in dairy improved practices described above. Up to the end of this quarter, RDCP II had trained a total 52,907 (33,061 male & 19,846 female) individuals, including dairy farmers, people from private sectors and government institutions against a scale up target of 56,500 to be reached by the end of the program.

Up to the end of this quarter, a total 46,638 (88%) trained farmers had implemented improved dairy practices and technologies introduced by RDCP II. The proportion of farmers implementing the improved practices and technologies is likely to increase as further follow ups of trained farmers are conducted in Q3 with an emphasis on proximity services offered in collaboration with trained model farmers. Adoption across project districts is currently being driven through the trained model farmers supported by district service providers to ensure sustainability of the practices.

Training and access to RDCP II derived benefits reached a cumulative total 23,695 vulnerable households since the beginning of RDCP II up to the last quarter. This number is about 44.8% of the total beneficiaries reached, which is just over the expected 40% over the life of the project.

Key achievements for this quarter

- 5,798 (female -2,726 ; male –3,072) individuals including dairy farmers and other value chain actors(dairy farmers, MCC technicians, cooperative members, financial institution and dairy processors, etc.) benefited from training on dairy best practices, gender and BDS skills. This brings the cumulative number of individuals that have benefited from training to 52,907.
  The breakdown of numbers of beneficiaries trained this quarter is as follow:
  - Dairy farmers: 4,382 (2,299 female, 2,083male)
  - People from Government institutions: 21
  - People from private sector firms: 1,395

- 3,328 new vulnerable households benefited from RDCP II interventions. Cumulatively to the end of the quarter, 23,695 vulnerable households have benefited from RDCP II interventions including farmers that benefited from Pregnancy Diagnosis (PD) service offered by AI service providers through RDCPII grant.

- 2,267 cows were tested for pregnancy out of which 1,480 (65%) were tested PD positive and 787 were PD negative after first insemination.

Implementation of activities

Training and extension outreach

A total of 4,382 (2,726 female, 3,072 male) dairy farmers alone were trained on dairy farming technologies focusing of milk production improved practices, milk handling and hygiene, dairy as business, gender and cooperative development. The farmers trained will utilize the technologies to increase the quality and quantity of milk they produce and sell.The model dairy farmer approach that RDCPII has established, has been very successful, and so far includes a network of 1,064 model farmers in RDCP II zones trained to train others. So far, out of 4,382 newly trained dairy farmers reported above that were trained this quarter, 1585 (36%) were trained by model farmers – a strong indicator for sustainability of such interventions in communities. It's evident that farmers appreciate learning from each other by doing on-site demonstrations. RDCP II will aim to scale up this activity over the next quarter as the project prepares to exit from the districts in July as part of the close out process. Cumulatively, model farmers have trained 8,612 since the program started.

Figure 8: In a sustainable approach, the project has created and trained a network of model farmers who as a result impart skills and knowledge on other farmers.

The engagement of model farmers has created a close dialogue between farmers and model farmers. These model farmers were identified from their area of residence where they are doing farming business, and during identification many were recommended by different stakeholders including farmers and cooperative representatives. Following training, they committed to start sharing knowledge acquired from training to their fellow farmers . Their aspiration is to share with fellows what they learned and develop together.

The table below illustrates the number of farmers trained by model farmers per district.

Table 2: RDCP II Trained model farmers who later on trained other farmers

Table 1 : SHOWS RDCPII TRAINED MODEL FARMERS AND FARMERS TRAINED BY MODEL FARMERS									
District	Model farmers trained			Farmers trained by model farmers in Quarter II 2016			Cumulative # of Farmers trained by model farmers since start of program		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Rubavu	43	20	**63**	79	24	**103**	560	167	**727**
Nyabihu	45	24	**69**	273	96	**369**	760	271	**1031**
Musanze	27	38	**65**	178	91	**269**	309	187	**496**
Rulindo	31	39	**70**				196	94	**290**
Gisagara	37	27	**64**				403	102	**505**
Huye	35	26	**61**				354	213	**567**
Nyanza	39	28	**67**				129	95	**224**
Ruhango	22	39	**61**	35	15	**50**	302	200	**502**
Kamonyi	23	30	**53**	99	36	**135**	815	1,069	**1884**
Rwamagana	33	30	**63**				116	92	**208**
Kayonza	30	34	**64**				160	69	**229**
Gatsibo	38	28	**66**				146	60	**206**
Nyagatare	30	32	**62**	120	46	**166**	419	155	**574**
Bugesera	29	31	**60**	87	21	**108**	265	114	**379**
Gasabo	33	21	**54**	77	27	**104**	127	41	**168**
Kicukiro	20	15	**35**	17	11	**28**	52	41	**93**
Gicumbi	62	25	**87**	195	58	**253**	399	130	**529**
Total	577	487	**1064**	1,160	425	**1585**	5,512	3,100	**8612**

During the quarter 21 (3 females, 18 males) sector veterinarians (civil servants workers) from Gicumbi district were trained upon request from the district administration in an effort to build capacity of sector livestock staff at grassroot level. This will complement current project efforts in combination with model farmers from Gicumbi to help farmers to increase their incomes through milk production increase and sales. This model farmer's extension approach has been appreciated to facilitate social cohesion and quick dialogue with fellow farmers from the same area. Other specialised trainings have been requested by some districts and are expected to be carried out before the end of the next quarter. RDCP II will also be completing field implementation of district work plans for the fiscal year 2015-2016 in June beyond which the program will embark on series of close out events to showcase achievements and arrange formal transition through the responsible district agencies and selected service providers or collaborating partners.

The training of dairy farmers through service providers and model farmers has impacted farmers with knowledge on dairy best practices, gender and farming as a business. Trainings were also opportunities to establish linkages between farmers and service providers across milk sheds (Input suppliers, vets, milk collection cooperatives and milk buyers). As a result of trainings, farmers increased milk production and more quality milk is sold to MCCs which increased the confidence and commitment of buyers at MCCs level.

As mentioned in highlights, 3,328 new vulnerable households benefited from RDCP II interventions. The support provided this quarter is mainly related to training, distribution of fodder inputs for trial and pregnancy diagnosis for cows inseminated in previous quarters. Cumulatively, 23,695 vulnerable households have benefited from RDCP II interventions since the 2012.

Input supplies and public and private dairy business services expanded

Highlights during this quarter include:

- A.I service provider activities completed
- Pregnanc y diagnosis for inseminated cows
- RDCP II commits to support Rwanda Council of Veterinary Doctors (RCVD)
- A.I distribution services to be decentralized
- RDCP II hosts Dairy learning lab in partnership with Agri-ProFocus Rwanda

AI service provider activities completed

Following two successive years (2014-2015) of RDCP II support to deliver artificial insemination and farmer training services through contracted service providers (SP) in districts of RDCP II intervention where such services were determined to be insufficient, seven of the SP contracts came to an end during this quarter with the last expected to end in April 2016. The role of the Service providers over the life of the program has been significantly impactful with 10,303 inseminated belonging to 10,234 vulnerable benefiaries of the GoR “one cow per poor family program”. The service providers have been a catalyst of private artificial insemination services in communities which previously had limited opportunity to access the services. Likewise, the SP’s who previously did not want to risk accessing new territory were introduced to a number of potential clients who continue to use their services at commercial fees. Additionally, by delivering services to the most vulnerable under the RDCP II grant, the contracted SPs opened up to do business with the rest of the communities and farmers who were able and willing to pay for services rendered. This created a win-win situation for both farmers, including the vulnerable, and the SPs who have largely maintained their services in the communities they served under the RDCP II grant.

Pregnancy diagnosis in inseminated cows

2,267 cows were tested for pregnancy out of which 1,480 (65%) were tested PD positive and 787 were PD negative after first insemination. The pregnancy diagnosis was conducted to ascertain the conception rate among cows previously inseminated by contracted service providers. While the success is not 100%, it’s significantly higher at 65% than the national average reported by Rwanda Agriculture Board at 55% in 2014. These reported good results are attributed to the engagement of service providers from the same area with farmers, which facilitates timely insemination of the cow at the required time. The knowledge farmers acquired from trainings offered by RDCPII helps farmers to increase conception rates within their herd by improving their ability to detect cows on heat early enough allowing for the insemination to be done in a timely manner .

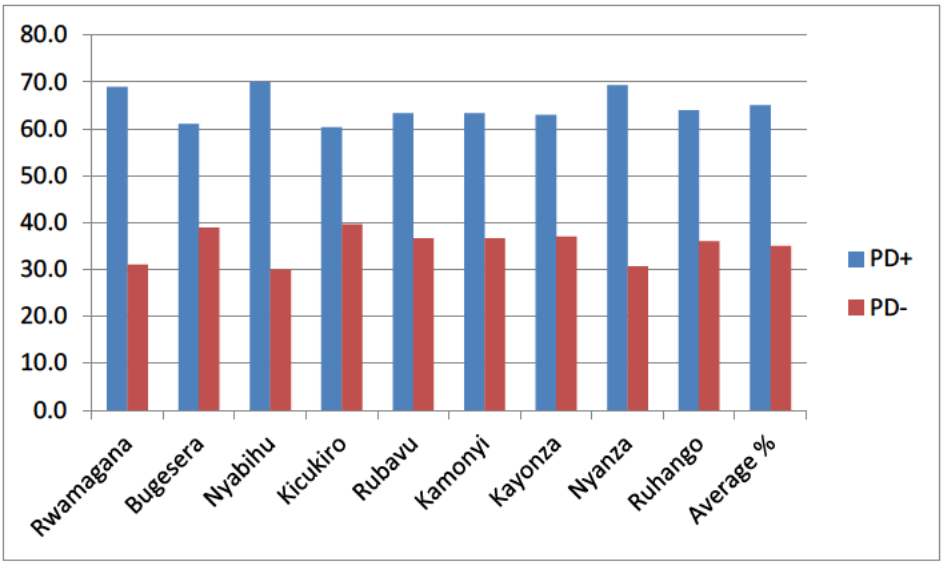


Chart 1: Conception rates for inseminated cows for vulnerable farmers during Q2

Cumulatively from the previous quarter, out of 4,047 cows tested for pregnancy 2,664 (66%) were positive and 1,383 (34%) were negative. Overall, a score of 66% is a good result and as mentioned earlier is attributed to the proximity based service delivery model adopted by RDCP II.

Table 3: Cumulative pregnancy diagnosis results for cows Inseminated 2015

District	Beneficiaries	Male	Female	Cows received PD	PD positive	PD negative
Bugesera	300	217	83	293	179	114
GASABO	99	50	49	99	76	23
GICUMBI	299	204	95	299	226	73
Huye	291	141	150	291	188	103
Kamonyi	300	220	80	300	191	109
Kayonza	300	228	72	300	189	111
Kicukiro	180	109	71	174	105	69
Musanze	269	168	101	269	164	105
Nyabihu	300	222	78	300	210	90
Nyagatare	300	245	55	300	204	96
Nyanza	300	191	109	300	208	92
Rubavu	297	216	81	297	185	112
Ruhango	300	183	117	300	192	108
Rulindo	225	119	106	225	140	85
Rwamagana	300	197	103	300	207	93
Total	**4060**	**2710**	**1350**	**4047**	**2664**	**1383**

RDCP II plans for a grant to support Rwanda Council of veterinary Doctors (RCVD)

Figure 9: A collaboration between the project and the Rwanda Council of Veterinary Doctors (RCVD) has indentfied need to support capacity building of A.I technicians and improve the practice in Rwanda

While service contracts for A.I. and training services SP's ended this quarter, RDCP II has been engaged with Rwanda Council of Veterinary Doctors (RCVD) to discuss supporting a capacity building program for 102 A.I. technicians under the direct supervision of the council. RCVD is a private professional development organization established to support the growth of the veterinary professionals and paraprofessionals in Rwanda. The council is also mandated by law to ensure ethical conduct of professionals during their call of duty. Established in 2014, the council is currently requesting a grant to train 102 selected veterinary technicians and qualified animal production assistants in areas of RDCP II activity with limited A.I services availability. The proposed grant will cover costs of training, purchase of A.I supplies and monitoring of the project to ensure an extended service support to the selected areas there by creating a permanent service provider presence. The council will contribute by providing the role of facilitator in the selection and accreditation of the A.I technicians trained under this program. Further, field supervision will be conducted jointly between RCVD and the collaborating district extension veterinary services staff. The approach will contribute to the RDCP II sustainability /exit plan upon which the RCVD will continue to build upon to deliver upon their mandate to continuously build capacity of professionals under their care.The request for approval to USAID will be submitted to USAID during the next quarter.

A.I distribution services to be decentralized: The future of the A.I service industry

Following a successful approach employed by RDCP II in the delivery of the A.I and training services using private veterinary professionals practicing in the industry, the practice has gained prominence with Rwanda Agriculture Board (RAB) adopting a similar approach to address issues of service gaps. A close collaborating partner under the RDCP II service contracts, RAB has followed keenly the implementation by the A.I service providers (SPs) since they were engaged. Under this arrangement, the SP to farmer relationship got stronger and services to the farmer were delivered accordingly. It

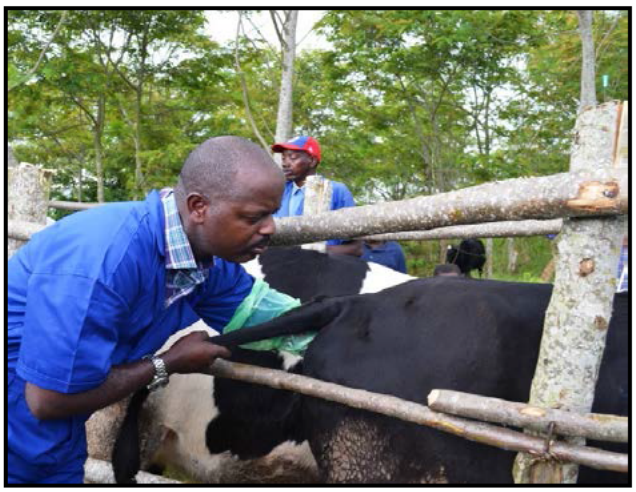


Figure 10: The project has been able to see private veterinary practice gaining a footprint in Rwanda, thanks to the project's engagement with the private sector.

has been testified that, those SPs who were linked to dairy farmers have improved their relationship with farmers, where their businesses have grown due to the linkage created between them and farmers by RDCPII.

This concept of engaging SPs to inseminate cows has been a good approach which was appreciated by the government of Rwanda. Consequently, RABhas adopted the same approach of engaging service providers to manage A.I activities in districts/ provinces. RAB has recruited service providers to manage this activity in decentralized way/ approach. The Identified SPs have been allocated 4 to 5 districts to manage the A.I distribution program.

The mandate of the AI providers that were selected includes:

- Ensure the proximity service through a regular supply of liquid nitrogen, semen, AI consumables and other allied services (District level, sector level) in conformity with the existing monthly timetable.
- Assure close follow up of AI implementation ensuring that the target of at least 4 AI per Artificial insemination technician (AIT) per week is really effective and also the PD and the census of AI calves are executed on regular basis ;
- Collect on monthly basis the necessary documentation related to AI done and AI calves recorded from the AITs and submit them to RAB / animal production with accuse de reception ;
- Execute refresher courses for AITs as per RAB planning ;
- Distribution of extension materials to AITs ;
- Organize the AITs into Coops and support them to become really effective ;
- Work with AITs co-operatives and farmers cooperatives in providing good information to farmers on the AI service itself (breeds and quality of semen available, genetic improvement,sanitation and hygiene,and farm economics. Develop reports of AI activities carried out

By adopting this approach, the Government of Rwanda has chosen a gradual withdrawal strategy from managing the above activities with a long term plan to liberalize the industry. The engagement of the private service providers to manage on behalf of government is an indicator of the future in which this will be privately managed by independent SPs.

Figure 11: A field based learning tour has been organized, where selected practices and technologies were demonstrated

Dairy learning lab in partnership with Agri-ProFocus Rwanda and PUM

During this quarter, RDCP II emphasized field based learning through practical demonstration of selected practices and technologies. To this effect RDCP II in collaboration with AgriproFocus Rwanda and Netherlands Senior Experts (PUM) hosted the first farmer to farmer dairy learning event dubbed "dairy lab". The two day-learning event took place in Nyagatare district and attracted 34 dairy farmers and the district veterinary extension facilitator. The approach

included a morning field visit to selected farmers who have put into practice learning from various training with significant impact on their farm productivity. Major learnings included pasture selection, management and preservation, farm husbandry and calf management, disease control, especially mastitis, for dairy cows and farm recordkeeping practices among many. The field learning /training events were expertly and jointly facilitated by PUM, AgriproFocus and RDCP II staff who organized in collaboration with a service provider VYEC-ITABAZA a project grantee who has made considerable improvements in their outreach and extension business since receiving a grant from RDCP II in 2013 (see joint report in Annex VII).

Mastitis control

Through collaboration of the model farmers, RDCP II has organized mastitis testing demonstrations across the districts of operation. At least 20 model farmers from each district will be given mastitis testing and prevention kits for demonstration in their farms and, these demos are intended to be done during model farmers training fellow farmers. This will further create awareness on how to do basic mastitis testing and prevention practices to farmers around the model farmer.

Figure 12: After realizing a high prevelance of mastitis in the country, the project stepped up efforts to control against the cattle disease

Farmer follow-up survey

The semi-annual survey was conducted in 15 out of 17 districts and reached 555 individual farmers receiving support from RDCP II.

Table 4: Showing a breakdown of number of farmers reached per districts

Milk Shed / District	Sample size	Milk Shed / District	Sample size
EAST MILKSHED	**150**	**NORTH MILKSHED**	**159**
GATSIBO	36	MUSANZE	25
KAYONZA	37	NYABIHU	50
NYAGATARE	41	RUBAVU	50
RWAMAGANA	36	RULINDO	34
KIGALI MILKSHED	**133**	**SOUTH MILKSHED**	**113**
BUGESERA	38	HUYE	27
GASABO	25	KAMONYI	41
GICUMBI	44	NYANZA	45
KICUKIRO	26		
Grand Total			**555**

From the survey findings it was observed that, over 99% of trained farmers adopted at least one recommended technology. It was observed that adoption of mastitis control and record keeping had increased substantially.

The chart below shows adoption percentage by category of technologies in comparison with year 2015. However, it has been revealed that milk production dropped resulting in a corresponding drop of gross margin compared to the previous period. The drop in milk production is likely to be caused by prolonged dry period that extended beyond expected. A decrease in adoption of some feeding technologies also played a role, especially for technologies requiring farmers to incur monetary expenses such as the use of purchased and farm-made concentrates. In addition, land for cattle fodder is becoming more scarce as it's competing with agriculture crops and population settlement in some areas.

Figure 13: Local farmers in Rwanda are steadily adopting modern technologies to improve animal feeding and other areas of dairy farming

The follow up survey again revealed that, due to implementation and adoption of improved technologies by farmers, the lactation period in cows has been prolonged as shown below :

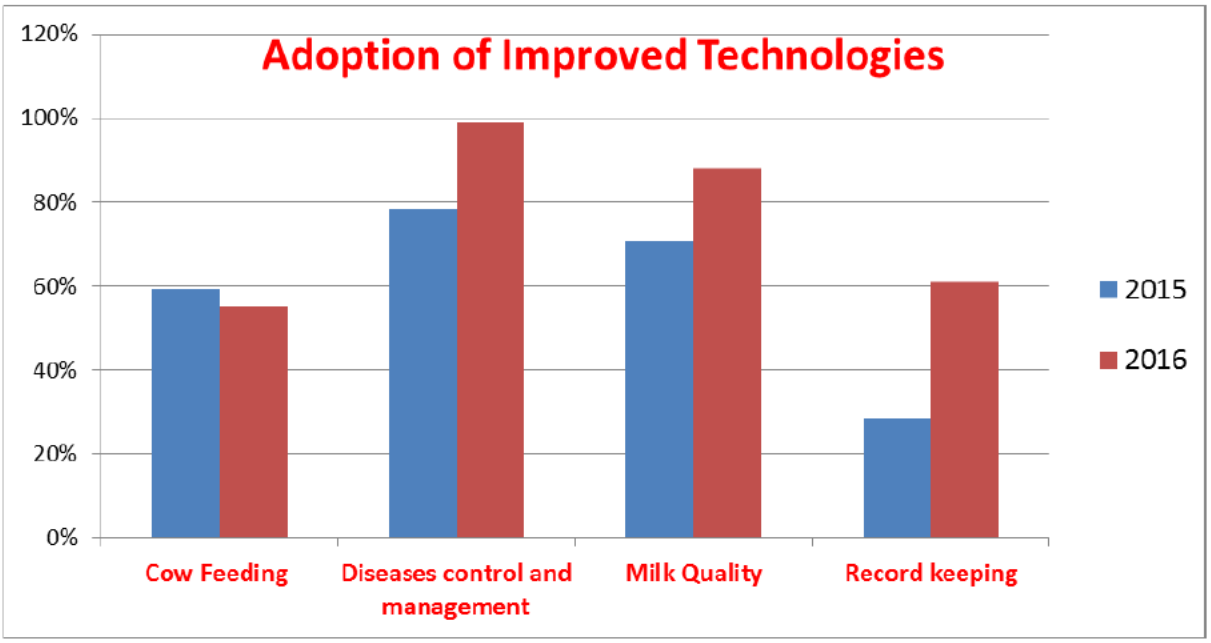
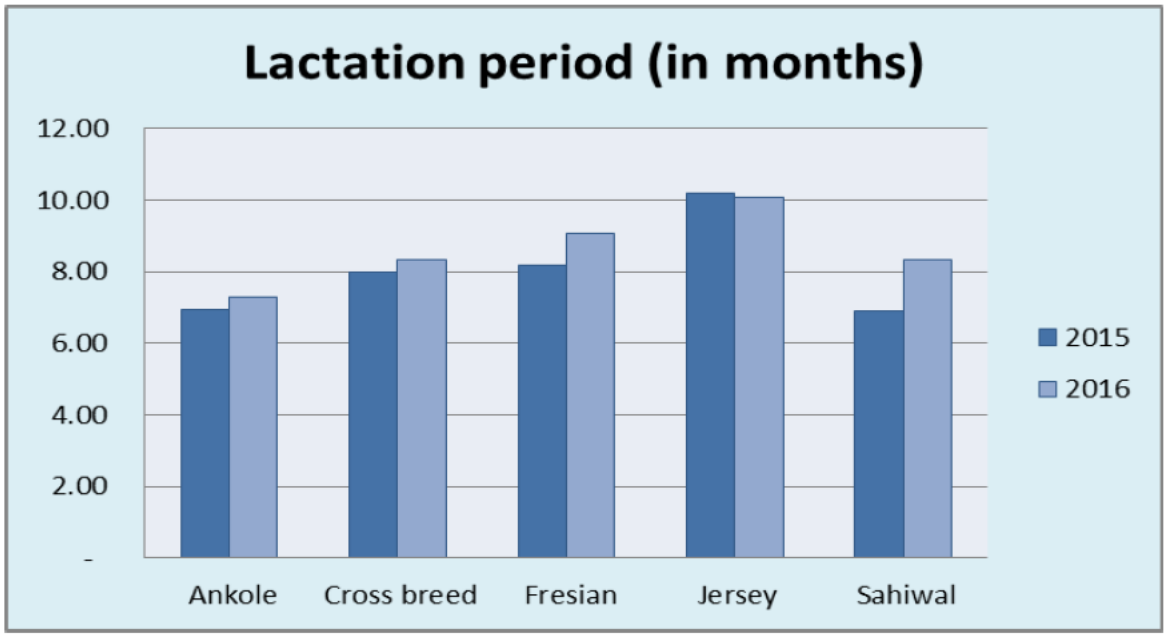


Chart 2: Adoption of Improved Technologies

Chart 3: Lactation period



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Prolonged lactation happened in Ankole, Cross breeds, Friesian, and Sahiwal breeds. This is a good indication of cows that had good management practices in place. Previously, farmers reported dry cows much earlier due to poor management practices which led to reducing milk production.

Support to processed animal feeds processors

Animal feed industry in Rwanda is getting better by the day, due to engagement of partners in development, they have been sensitizing farmers on better nutrition/ ration for their cows. RDCP II interventions have motivated,an increasing number of dairy farmers to develop their dairy enterprises and ultimately the dairy industry in Rwanda, one farmer at a time. Previously, there has been limited supply of processed animal feed due to scarcity of feed processing facilities for livestock and dairy in particular, and this created an investment opportunity for interested business owners. As at end of Q2, Rwanda has 6 recognized feed processors located in different geographic zones of the country in the North, East, South and Kigali city. These are Gorilla feeds limited in Kigali, Premier Animal Feed Industries (PAFI) and MINIMEX in Rwamagana, Zamura Feeds limited in Musanze, Poultry East Africa (PEAL) in Bugesera, and Vetoprox in Huye. The plants above are in addition to small scale cooperative or individual owned feed mills .Further, a new Frw 3.5bn state of the art facility is under construction in Huye district under the sponsorship of the Korean cooperation (KOICA) and all combined once fully operational will contribute approximately 200 tons

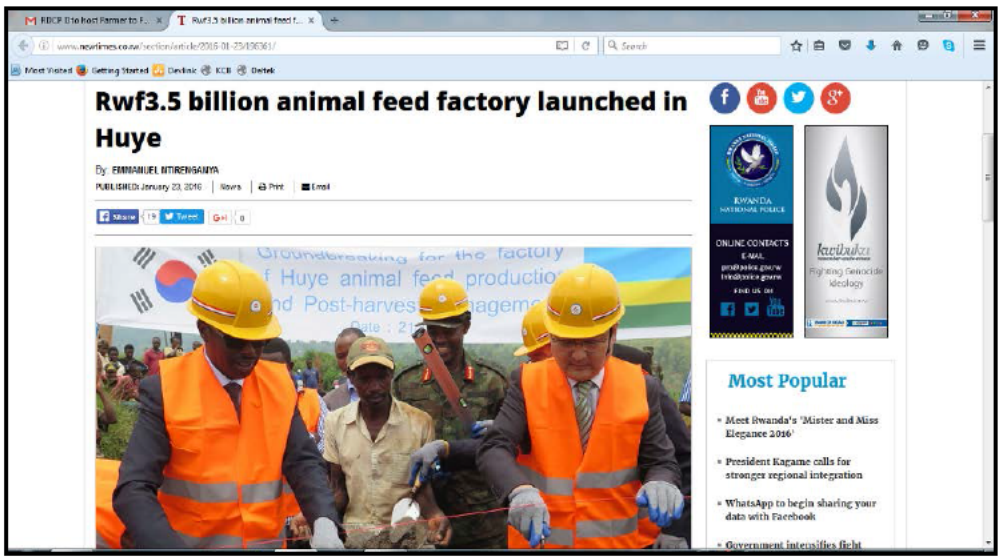


Figure 14: Coinciding with the efforts to sensitize farmers on better nutrition/ration for cows, substantial investments have been made in feed processing in the country

of animal feed -- including dairy. These animal feed factories all established from 2013, after RDCPII had been already on the ground will play a significant role in transformation of the animal feeds sector. The contribution of RDCPII to this growing industry has been gradual through either direct grant support or technical assistance through training.

During this quarter, RDCP II hosted a Farmer to Farmer (F2F) volunteer who animal feed processing plants, including Zamura, PEAL, PAFI, MINIMEX, IAKIB in Gicumbi, and Vetoprox limited. The purpose of his visit was two-fold: to understand the operating environment of Rwandan feed processors and to share practical on-site lessons with the local processors in comparison to the consultants' US processing experience. The volunteer consultant also used the opportunity to provide knowledge to plant managers and owners about potential risks and benefits of different practices and raw material use. The consultant conducted a one day seminar for feed processors mainly as a feedback session to the processors visited and others interested, with a focus on improving profitability of their businesses, proper feed rations, safety at work (equipment risk) and risks associated with diseases e.g bovine spongiform encephalopathy (BSE). Other issues of discussion included the quality of feed processed, marketing and distribution as well as cost management to ensure profitability of the feed business. During his 2-week assignment, Lance Staggennborg spent most of his time working with the processors at different sites and developed recommendations for each one of them. Back home in USA, Lance manages a staff of 16 employees at a 48,000 + annual ton Land O'Lakes Purina Feeds facility composed of 95% bulk and 5% packing. His experience during his 10-day stay (Jan 19 to 29) provided insights about the potential of the industry and provided some tips to feed processors on how to scale their businesses.

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

Progress of SoQ sub-grant implementation awarded to Rwanda Agricultural Livestock and Inspection Services (RALIS)

During the last quarter, RDCP II held an orientation meeting aimed at presenting to the RALIS team the grant's scope of work, sub-award terms and conditions, as well as the payment process. The RALIS team was briefed about the activities involved in the sub-grant, milestones to achieve, environmental mitigation and monitoring plan requirements among others. Also RALIS was in the final phase of identifying and selecting project beneficiaries. During this quarter, RALIS completed the identification and selection of the beneficiaries who were later trained on the SoQ project materials. Prior to their training, RDCP II in conjunction with RALIS conducted a refresher training of RALIS and RAB staff that will directly be implicated in this sub-grant as elaborated below:

Figure 15: The project has extended a grant to RALIS with a high expectation to contribute towards improving milk quality in Rwanda

Refresher training of RAB/RALIS SoQ ToTs on dairy and dairy products standards

RDCP II Senior Milk Quality Specialist and two members of RALIS staff conducted a refresher training at the RALIS office for **fifteen (15)** RAB and RALIS technical staff, including 12 males & 3 females. The training was implicated in a grant that RALIS received to implement a SoQ project on inspection, auditing and certification of MCCs, cottage processors, milk zones and milk kiosks

The objective of the training was to acquaint RAB and RALIS technical staff with the SoQ concept and materials to be used during the grant. The materials include the Ministerial Order on milk handling, transport and commercialization, various milk and milk products standards. The trainees will not only be implicated in the training of the target beneficiaries on these materials but also in pre-auditing and full auditing of their operations, that will eventually lead to the award of a certificate of compliance to quality best practices.

Training of MCCs, small/mid dairy processors, milk zones and milk kiosks operators

Managers and technicians of MCCs, small/mid dairy processors, milk zones and milk kiosks operators were trained by RALIS in collaboration with RAB and RDCP II over a 2-week period. The training was based on the concept of SOQ certification, the code of hygiene practice (CAC/RCP 57-2004), milk & milk product Standards and the Ministerial Order that regulates collection, transport, selling of milk. The following materials were presented to the trainees:

- Concept of Seal of Quality
- Code of hygiene for milk and milk products: CAC/RCP 57-2004
- Principles of food hygiene: CAC/RCP 1-1969
- Rwanda Standard-Specifications of Unprocessed Milk- RS 41:2012
- Rwanda Standard-Specifications of Pasteurized Milk- RS 42: 2012
- Rwanda Standard-Specifications of fermented Milk- RS 43: 2012
- Rwanda Standard-General Requirements for Cheese-RS61-part1:2012
- Rwanda Standard-Specifications of Yoghurt-RS 60:2012
- Dairy Standard Operating Procedures
- Ministerial Order N° 001/11.30 of 10/02/2016 that regulates collection, transport and selling of milk.

Below are numbers of dairy enterprises selected and trained by RALIS:

Table 5: Number of dairy enterprises and participants selected and trained by RALIS

Category of Dairy Enterprise	**Number of Dairy Enterprises Selected**	**Number of Dairy Enterprises trained**	**Number of participants**	**Male**	**Female**
MCCs	78	71	139	104	35
Processors	27	21	42	34	8
Milk Zones	50	29	29	13	16
Total	**155**	**121**	**210**	**151**	**59**

The table above shows that among the 155 dairy enterprises selected to undergo SoQ training and subsequent auditing and certification schemes, only 121 turned up for the training. Two hundred

and ten (210) managers and technicians of these dairy enterprises were trained on the SoQ materials and the Ministerial Order.

During the next quarter, all the trained dairy enterprises will be subjected to a pre-auditing exercise, while few of them will further be subjected to a full auditing exercise that will probably lead to issuance of a certificate of compliance to best practices.

Dairy quality improvement practices

Monitoring of SoQ kits usage

Monitoring the proper use of quality testing kits at MCCs, milk processors and kiosks was done as usual during this quarter. In particular, consistency in the proper use of these kits was checked and technical advice given, where necessary, to ensure continuous improvement. Generally the testing kits are used as appropriately as possible for the various parameters and recordings are taken although not in a consistent manner in some MCCs. During RALIS training, the issue of record keeping, documentation, and development of Standard Operating Procedures was further and deeply emphasized since it's a critical component for certification.

In addition, during this quarter, USAID approved the sub-grant request to award twenty four (24) MCCs and processors with SoQ kits. RDCP II is aiming at procuring and distributing these kits by end of the next quarter.

Milk transporters quality training

A total of 102 transporters in Gicumbi, Ruhango, Nyanza and Rubavu District were trained in milk quality and briefed about the recently approved Ministerial Order on milk handling, collection and commercialization. They were trained about the factors that influence milk quality, hygienic milk production, handling, storage, transport; hygiene and sanitation of milk handling equipment and use of basic milk quality tests. The general objective of the training was to impart the transporters with knowledge and skills on basic hygienic milk production, handling and transportation with the purpose of improving milk quality delivered at these MCCs.

Figure 16: In a continued process, some milk transporters have been briefed about the approved Ministerial Order on milk handling, collection and commercialization.

Table 6: Number of transporters trained

District	Number	Sex disaggregation			
		Males	%	Females	%
Gicumbi	33	31	**93.9**	2	**6.1**
Nyanza	50	50	**100**	0	**0**
Rubavu	19	17	**89.5**	2	**10.5**
Total	**102**	**98**	**94.5**	**4**	**5.5**

The table above shows that one hundred and two (102) transporters were trained in milk quality best practices of which 94.5% were males while only 5.5% were females. The small number of female transporters is attributed to the energetic requirements that are of more interest to their male counterparts; hence reason for their lower turn up.

IR 1.3 Consumer Preferences Drive Quality Improvements

Volumes of milk under Seal of Quality

Table 7: Milk volumes marketed under the Seal of QualityMonth

Month	Total milk volumes marketed	Volumes marketed under SoQ	Percentage (%) of milk volumes marketed under SoQ
January	4,19,2294	2,866,360	68%
February	4,011,219	2,619,104	65%
March	3,471,945	2,194,160	63%
Total	**11,675,458**	**7,679,624**	**66%**

During this quarter, *7,679,624 liters* of milk were sold under the seal of quality. The average percentage of milk marketed under SoQ is equivalent to 66%. This milk was sold 95 several Milk Collection Centres to Inyange Industries, Blessed Dairies, Crystal Industries, Zirakamwa Meza dairy, and Nyanza milk industries.

New dairy products developed

Twenty (20) new dairy products have been developed as a result of milk quality improvement, processor innovations and consumer demand for new products. The newly developed products mainly consist of various packaging sizes of butter, fermented milk, yoghurts and ghee. Below are new products that were developed in this quarter:

Figure 17: A number of new diary products have been launched on the market to increase consumer's choice on shelf

Table 8: New dairy products developed

District	Dairy enterprise	New products developed
Kicukiro	Inyange dairy enterprises	1. Tetra fino-packaged UHT milk-500ml 2. Salted Butter-500g 3. Salted Butter-250g 4. Unsalted butter-500g 5. Unsalted butter-250mg
	Imena dairy	6. Fermented milk-1 litre
Gicumbi	Blessed Dairies	7. Unsalted Butter-500g 8. Unsalted Butter-250g
Bugesera	Crystal Bottling Company	9. Fermented milk-5 litres 10. Fermented milk-3 litres
Nyagatare	Nyagatare yoghurt and ice-cream processors Ltd	11. Straw berry-flavoured Yogurt-250ml 12. Ice-cream-250ml
Rwamagana	Indatwa processing company	13. Plain yogurt-250ml 14. Straw berry-flavoured Yogurt-250ml 15. Vanilla-flavoured Yogurt-250ml
Rulindo	Kalisimbi Ghee Processors	16. Ghee-500g 17. Ghee-250g

Nyanza	Nyanza Milk Industries	18. Fermented milk-1L 19. Fermented milk-3L 20. Fermented milk-5L

Inspection of milk sellers' quality practices

Figure 18: Efforts have been put in place by the project and its stakeholders to ensure that consumers access safer and quality milk products

The RNDP consumers' cluster ADECOR, in collaboration with the International Consumer Rights Organization, planned a series of activities in commemoration of the International Consumers' Rights day. This year's theme was dubbed as "Safer milk and safer dairy products for healthier people." In line with this theme, ADECOR in collaboration with RALIS, RNDP and RDCP II conducted a rapid inspection of the quality situation of randomly selected milk selling points in 11 Districts to learn about the quality practices employed as per the code of hygiene practices for milk and milk products (CAP/RCP 57-2004), and per the Rwanda Ministerial Order regulating collection, transport and selling of milk.

Several parameters were inspected, and these included: design of premises, hygiene and sanitation of personnel, premises, utensils & equipment, mode of milk transportation from the source, milk quality control practices, nature of milk handling equipment, temperature control, water and electricity supply, pest control, waste disposal systems, record keeping and documentation systems. Findings of this inspection exercise will be used by RNDP, through its consumers cluster, to create awareness in the promotion of hygienic milk handling, selling and consumption of safer milk and processed dairy products. One hundred and nineteen (119) fresh milk selling outlets in 11 Districts were inspected and spot recommendations were made accordingly to the inspected entities. The Districts whose milk bars and kiosks were subjected to inspection include Kicukiro, Nyarugenge, Gasabo, Nyagatare, Kayonza, Bugesera, Gicumbi, Musanze, Rubavu, Nyanza and Huye. The technical recommendations given will contribute to meeting of standard certification requirements and consumption of safe and quality milk and milk products. In line with the on-going Seal of Quality program, milk kiosks will be subjected to a formal audit process to assess their readiness for

certification. Along with this process, RALIS will provide a compliance certificate which will be a prerequisite for milk kiosk licensing.

Publication of the Ministerial Order regulating milk collection, transport and selling in the official National gazette

The Ministerial Order denoted ''Ministerial Order regulating the collection, transportation and selling of milk N° 001/11.30 of 10/02/2016'' was finally signed and published in the National gazette n° 07 of 15/02/2016. This is a major milestone achieved by RDCP II that will contribute to the smooth running of the Seal of Quality Program that will eventually lead to hygienic milk marketing, formal milk marketing and guarantee consumer safety.

Figure 19: Milk collection and transportation, among others, will be at the center of the ministerial order implementation process because the two elements play a key role in the value chain.

Creating awareness of the Ministerial Order regulating milk collection, transport and milk selling

In collaboration with RDCP II and MINAGRI Agricultural Information and Communication Centre *(CICA), RALIS developed a communication strategy to create awareness of the Ministerial Order. The strategies developed include:*

- *Holding a national workshop that will bring together key dairy stakeholders in the country. This workshop will be aimed at* officially sensitizing the Rwandan community about the existence of the ministerial order regulating the collection, transportation and selling of milk in Rwanda.
- Holding similar workshops in all the 30 Districts of the country
- Holding TV talk shows and radio talk shows via the national radio and community radios
- Holding road shows in all the Districts
- Designing of promotional materials such as flyers and posters and their dissemination during sensitization campaigns and at Milk Collection Centers.
- Incorporation of the Ministerial Order in the Urunana outreach programs for the rest of their remaining contractual period

Campaigns to create awareness of the Ministerial Order regulating collection transport and selling milk will commence in the next quarter.

Nutrition community outreach and radio programs

Figure 20: The project has taken the famous Urunana Radio actors to the countryside, where they extended key nutritional messages to huge crowds

In the continued effort to discourage rural households from supplying the whole yield to the market without saving sufficient milk for home consumption, RDCP II extended a grant to a theater production firm – Urunana Development Communications – to develop and implement a community outreach program for both radio and live theater in rural Rwanda. The grant aims to promote milk consumption to eliminate malnutrition among children less than 5 years and pregnant and nursing mothers in particular. The Urunana project focuses on promoting behavior change that will be demonstrated through increased milk consumption.

In addition to encouraging saving milk for home consumption, the soap opera relays key messages on milk nutritional benefits for the children below five in the rural areas where stunted growth is prevalent. The drama production firm, which produces Rwanda's most famous radio theater, has so far aired the key milk nutritional messages through radio and also staged drama in the districts of Ruhango, Gisagara, Gicumbi and Bugesera in this quarter.

While on the outreach program, the drama team attracted mammoth crowds in the different four sites. The events in Ruhango, Gisagara, Gicumbi and Bugesera attracted about 12,000, 15,000, 4,000 and 85,00 people respectively. In total, the messages are estimated to have reached approximately 39,500 people,a great achievement interms of scale of messaging . The numbers of people reached through radio broadcasts are expected be higher because the selected Radio stations – Radio Rwanda and Radio 10 – have a national coverage of 98 % and 80 %, respectively. In this quarter, 9 episodes have been aired on the two official partner broadcasters (Radio Rwanda and Radio 10 FM). At the end of the contractual period later this year, 36 episodes will have aired twice a week on each of the two contracted radio stations.

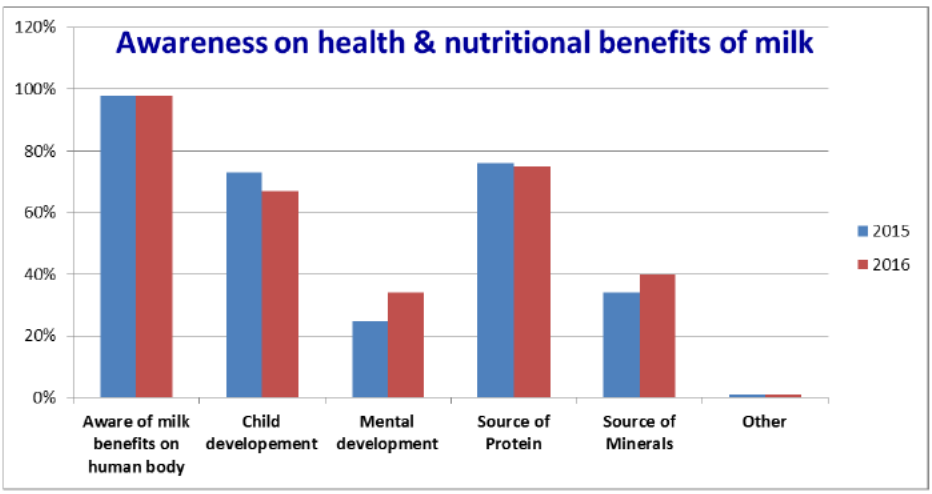
From RDCP II semi-annual survey , out of the 555 respondents in the survey conducted in the areas of RDCP II operation in March this year, 55% said that they listen to Urunana Radio program. Impressively, 59% said that they have heard milk nutritional messages on the radio program.

The penetration of the National Milk Consumption Campaign "Shisha Wumva"

Overall, while the campaign ended in 2015, it has significantly contributed towards the dairy sector visibility because of the increased presence in both paid and non-paid prime media previously. In addition to raising consumers' awareness about the importance of drinking milk, the campaign has served as a wakeup call to some dairy private sector actors who, as a result, have stepped up their creative promotional efforts. Of recent, Inyange industries Ltd and Crystal Milk Ltd have increased advertising on billboards, television, radio and press. This is therefore anticipated to carry on the culture of promoting milk products like other competing beverages. The semi-annual project survey has revealed that out of 555 respondents, 80% have heard messages about the milk consumption campaign – "shisha wumva" through various communication channels. For example, Radio and community events rank the highest at 40% and 42%, respectively. Printable materials and vehicle branding account for 24%, while word-of-mouth accounts for 14%. The campaign which aimed at raising awareness of milk nutritional benefits, has made tremendous impact with 98% of the 555 respondents in 15 districts aware of the milk nutritional benefits in the recent survey. Out of the same survey, 73%, 76%, 34%, and 25% are awareness of the milk benefits on child development, protein intake, mineral intake and mental development respectively.

Figure 21: The direct campaign ended in 2015, but many other stakeholders have continued the culture of advertising and promoting dairy products, targeting sales incremental through increased consumption and milk and milk products

Chart 4: Awareness on health and nutritional benefits of milk



The campaign effects continue to be felt across the country with activities to promote the same through the RDCP II district work plans, where some government events have been identified for collaboration in continuing to promote milk consumption.

IR 2: Expanded Investment in Dairy Processing and Marketing

RDCP II aims to increase both public and private investment in human and financial capital to enable Rwandan dairy products to become locally and regionally competitive. This calls for concerted efforts and increased stakeholder engagement to improve both policy advocacy and leadership development within dairy organizations and businesses.

IR 2.1 Dairy Sector Leaders Empowered to Lead Development

Milk shed dairy sector working group meetings (DSWG)

As mentioned earlier in the program highlights, RDCP II organised and co-facilitated milk shed dairy sector working group meetings for Rwamagana, Gatsibo and Kayonza District stakeholders. In Kayonza the meeting was held in February , 2016 while in Rwamagana and Gatsibo the meeting were conducted in March, 2016. All meetings discussed the progress that has been registered, MCC Milk Business, cooperative governance and management as well as discussed dairy investment and financing opportunities. The meetings also addressed impending challenges that are still experienced by dairy actors and called for Government collaboration. Some of the challenges that were discussed include; poor governance of cooperatives, low membership in the cooperatives, lack of reliable market and low milk volumes due to roadside milk selling by some farmers and transporters. Earlier, the 6th Northern Milk shed DSWG meeting and business opportunity seminar took place in January. These Milk shed working group meetings provide regular sector updates and allow interaction of private dairy business owners and district leaders providing a conducive environment for policy dialogue. Facilitation of similar platforms will continue into program close out to embrace the new leadership recently elected into district offices at the beginning of 2016. As an existing forum, it will help to orient leadership priorities in the dairy and livestock subsector.

Collaboration with other Development Organisations

This quarter, RDCP II was approached by representatives of various organizations among them H2O Venture Partners (Rwanda) a branch of UK based social capital investment group called H20 UK, Vision Finance (VF) , a financial wing of World Vision and Agriterra, a new Dutch NGO, interested in working with Dairy farmers and processors. All parties were interested in learning from RDCP II and also establish working relationships. A common interest among the partners above was their interest to collaborate and further explore opportunities for investment. RDCP II welcomed their initiatives and invited them to participate in some RDCP II program activities, depending on their availability and interest.

RNDP participation in the COMESA-ECDPM Regional workshop

During this quarter, RNDP participated in a regional stakeholder meeting in Nairobi . The COMESA Secretariat, ASARECA and ECDPM organized a Technical Workshop on regional dairy value chain development under the Regional Investment Programme in Agriculture (RIPA II)—Priority Area 2 of the COMESA Regional CAADP Compact (RIPA II) in Nairobi, Kenya on 29-30 March, 2016. COMESA, with technical assistance from the European Centre for Development Policy Management (ECDPM), has developed RIPA-II, aimed at removing barriers to agricultural trade and better link farmers to markets and regional value chains. As part of this process, COMESA and ECDPM organized a series of consultations in the countries involved and with all relevant stakeholders, including two Consultative Meetings in Kigali, Rwanda, in November 2014, and in Lusaka, Zambia, in December 2015. At these meetings, policy-makers, the private sector and other stakeholders reviewed preliminary propositions under RIPA-II, and discussed the case of the dairy sector in Eastern Africa as the first pilot for the development of sub-regional public-private platforms for strategic agro-food value chains under the framework of RIPA-II. This Technical Workshop aimed to better identify policy priorities and effective policy instruments within the interventions areas selected under RIPA II during the above consultations, notably (1) quality in milk marketing processes and (2) dairy market information systems. Under the aegis of the COMESA Secretariat, experts, practitioners,

policymakers, regulators and value chain operators engaged in a dialogue on current challenges in the dairy sector, identified critical gaps, and discussed appropriate approaches to implement policy responses through the RIPA-II Regional Dairy Platform, taking into account on-going policy and private sector development processes linked to milk quality issues and market information systems in Kenya, Rwanda and Uganda. This meeting also served to strengthen the regional network of public, private, knowledge and development actors in the East African dairy sector and provided an opportunity for the Rwanda National Dairy Platform to contribute to this high level dialogue. Such platforms continue to lay a firm foundation for a sustainable RNDP beyond the support of RDCP II.

Facilitate institutional and association capacity building

Capacity Building of RNDP Cluster Leaders

Rwanda National Dairy Platform conducted training for cluster leaders of RNDP at the provincial and national levels following the situational analysis conducted in December 2015, which indicated the need for training cluster leaders. Capacity building of cluster leaders was successfully conducted and completed during the month of March 2016. Trained cluster leaders included Cluster of Milk Sellers, Cluster of Processors, and the Cluster of Service Providers.

Objective of the Training

- To provide basic knowledge and skills about Management and leadership.
- To provide basic knowledge on Business planning and development.
- To train cluster leaders on Milk testing, hygienic and handling of milk.
- To train cluster leaders on provision of quality service to farmers.
- To provide basic knowledge and skills on Animal feeds rations formulation for dairy cows.
- To provide a forum for cluster leaders for exchange of experience and knowledge contributing to the sustainability of the RNDP.

The Outcome of the Training

- At the end of the training, participants gained package of skills and knowledge about management and leadership, business planning and development, milk testing, hygienic and handling of milk, animal feeds rations formulation for dairy cows useful for providing capacity building to the cluster members at the provincial level.
- Improved inter- communication of cluster leaders at the provincial level which will allow them to exchange information on market opportunities necessary to develop further Rwanda Dairy Industry

Formation of Dairy Cooperative Unions

As part of further strengthening the platform for grass root organizations, the RNDP Secretariat in collaboration with the Chairperson of the Cluster of Producers (National Dairy Farmers Federation) organized meetings at five sites across the country with the objective of mobilizing primary cooperatives to form a representative union and increase their representation in the National Dairy Farmers' Federation under the platform. This processes identified zones with limited representation. There was at least one site in each province. The sites were as follows;

- Musanze (Northern Province) which brought together coops from the districts of Musanze; Burera and Gakenke. 91 representatives of primary coops attended the meeting which was held in the meeting hall of Muhoza sector.
- Rubavu (Western Province) which brought together the districts of Rubavu; Rutsiro, and Ngororero. 62 representatives of primary coops attended the one day meeting. The meeting took place at the meeting room of Amahoro Cell.
- Muhanga Site (Southern Province) which brought together the districts of Muhanga and Ruhango. 39 representatives of primary coops attended the meeting. The meeting convened at the Youth Friendly Centre located in Muhanga Township.
- Bugesera –Mayange Site (for Eastern Province): 27 representatives of primary coops attended the meeting.
- Kayonza-Mukarange Site (also for Eastern province): For Kayonza site, the meeting was conducted at the sector hall of Mukarange sector. 19 representatives of primary coops attended the meeting.

The meetings were presided over by the 1st and 2nd vice chairperson of RNDP to facilitate a smooth election process of union representatives. RNDP facilitated the activity of elections as well as putting in place the leadership structures of new Dairy Cooperative unions formed. As earlier described, elections to were democratically conducted, with the following positions elected:

i. The President

ii. Vice President

iii. Secretary

iv. Two advisors

v. Three members of the audit committee

At the end of this exercise, 10 unions of cooperatives were established out of the 46 primary cooperatives from the 5 districts earlier mentioned above.

Visibility of the Rwanda National Dairy Platform

Various visibility meetings were conducted all aimed at creating awareness and making various partners understand the roles, mission and objectives of the platform as a way of attracting them to support the implementation of the platform's strategic programs. As a result, the Platform's visibility has greatly improved. The platform will continue to utilize upcoming forums during key events such as national agri-expo as well as conferences and meeting where the Platform has been engaged before. The

Figure 22: The Minister of Trade and Industry, Mr. Francios Kanimba, is one of the key figures that have facilitated the increased visibility of RNDP at the high level

hosting of a website which is currently under construction is expected to bring a strong visibility to the industry. Further, RNDP Chair and Executive Director have featured at several industry events as key note speakers facilitating better understanding of their operations. For the platform to operate and fulfil its mandate, the RNDP has developed internal rules and procedures to guide its internal functioning and management of its resources as well as general management of various issues including the strategy for future sustainability. The internal rules and procedures manual will be presented to the general Assembly for adoption during the next quarter. Lastly each cluster has developed vision, mission and objectives for guidance in the course of implementation of their strategy.

Business Development support to dairy businesses

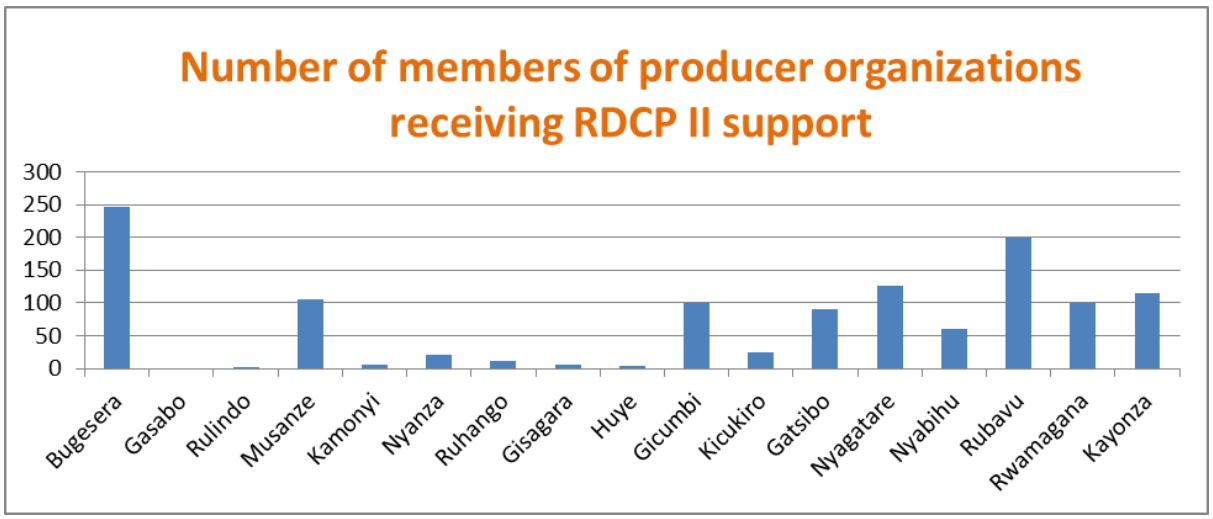
Members of Producers organizations and community based organizations receiving RDCP II program assistance

During QII (Jan-Mar), a total 1,217 (655 female and 562 male) members of producer organizations benefited from RDCP II program assistance. This was as a result of:

- Training on different topics including but not limited to cleaning procedures, milk hygiene, and business management practices;
- Identifying and engaging new cooperatives like Ejo Heza in Mwogo Sector of Bugesera district and Urumuli in Mwulire sector of Rwamagana;
- Reopening of milk businesses for cooperatives like Agiragitereka in Huye and COOPAG in Rwamagana;
- Business opportunity seminars and market linkages with service providers such financial institutions, input providers, milk transporters, insurance providers to mention but a few;
- Facilitating model farmers to form small business groups for collection and sell their milk produce, such include model farmers in Nyagatare, Nyabihu and Rubavu;
- New members joining dairy cooperatives as a result of continued mobilization and engagement with the communities.

The figure below indicates members of producer organizations per district:

Chart 5: Number of members of producer organizations receiving RDCP II support



Source: Field staff and AgPrO STTA team reports

Private enterprises (for profit), producers' organizations, women's groups, trade and business associations, and community-based organizations (CBOs) that applied new technologies

During the reporting period, RDCP II identified and engaged 58 new for-profit organisations; 28 private enterprises, 23 producer organisations including cooperatives, 1 women-owned business and 6 traders and business associations, and community-based organizations (CBOs). Cumulatively over the life of the program the number of enterprises including producers organization and private businesses that were engaged by the program and are applying improved technologies and management practices is 1,202.

These enterprises applied new technologies or management practices as a result of RDCP II program assistance including reaching out to farmers for marketing of farm inputs by input providers, business planning and strategy, rehabilitation of processing facility, branding & packaging of products, record keeping, conducting PD for inseminated cows, use of CMT to test for mastitis, tiling of floors and walls for hygiene, use of computers software & equipment, introduction of new products, acquisition of loans from Financial Institutions for purchase of dairy cows and improving cow sheds.

Table 9: Showing private enterprises engaged by districts during the quarter

Private enterprises (for profit), producers organizations, women's groups, trade and business associations	
District	Number
Bugesera	4
Rulindo	5
Musanze	10
Kamonyi	1
Nyanza	2
Ruhango	1
Gisagara	1
Huye	1
Gicumbi	6
Nyagatare	4
Nyabihu	3
Rubavu	3
Rwamagana	9
Kayonza	8
TOTAL	**58**

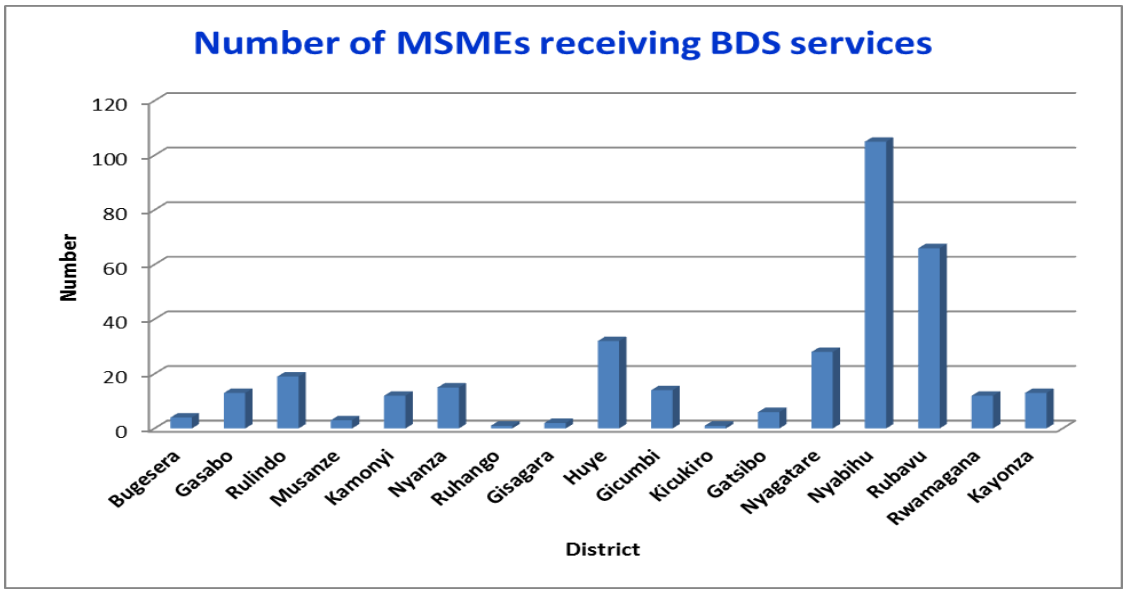
Source: Field staff reports

MSMEs, including farmers, receiving business development services

During the reporting period, the program provided support to at least 346; 276 micro, 59 small and 11 medium MSMEs to access business development services. The type of MSMEs facilitated included but were not limited to MCCs, milk processors, SACCOs, MFIs, Banks, individual farms, Milk sellers, Insurance companies, Associations, Milk transporters, Input provides, Milk traders and Equipment sellers. The mentioned MSMEs received business development services which included additional trainings and equipment to model farmers in the program area of operation, business opportunity seminars and trainings for Financial institution staff including loan officers and branch managers, training of MCC technicians in milk handling and testing practices, recruitment process and human resources policies and procedures, market linkage with milk buyers such as Kora

Mworozi & Borozi Twisungane Nyamiyaga and linkage to input providers for dairy farmers in Kayonza and Rwamagana toaccess dairy loans.

Figure 5: Showing number of MSMEs that accessed business development services per district



Source: Field staff reports

Milk Collected and Sold Through Milk Collection Centers

During the quarter, volumes of milk that passed through MCCs were 11,675,457 liters from the 17 districts of program operation. Milk volumes have gone up by 260,276 liters compared to the same period in 2015. . This increase can be attributed to a combination of factors including less milk rejections at the MCCs level and collaboration with local leadership, improved data collection & reporting and mentorship to enterprises including MCCs/cooperatives and SMEs under the AgPrO program.

Figure 6: Indicating milk volumes by district during Q2

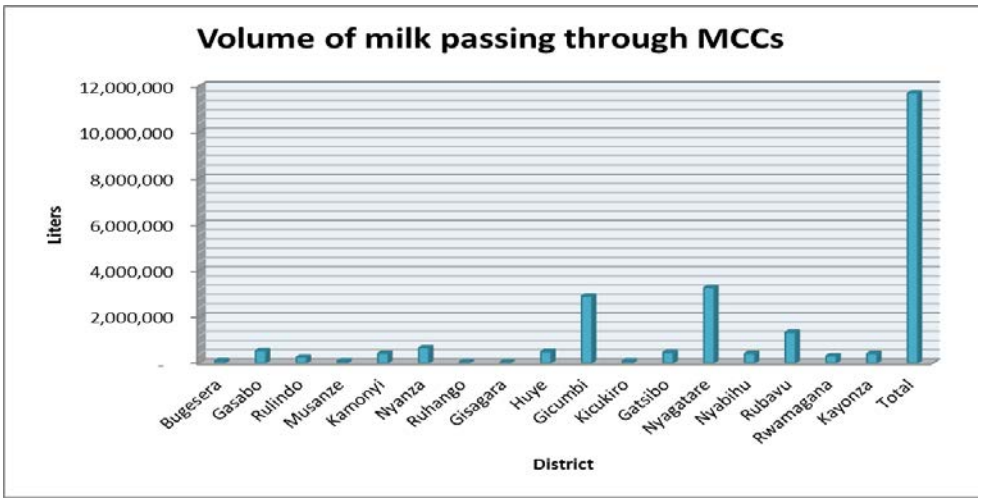
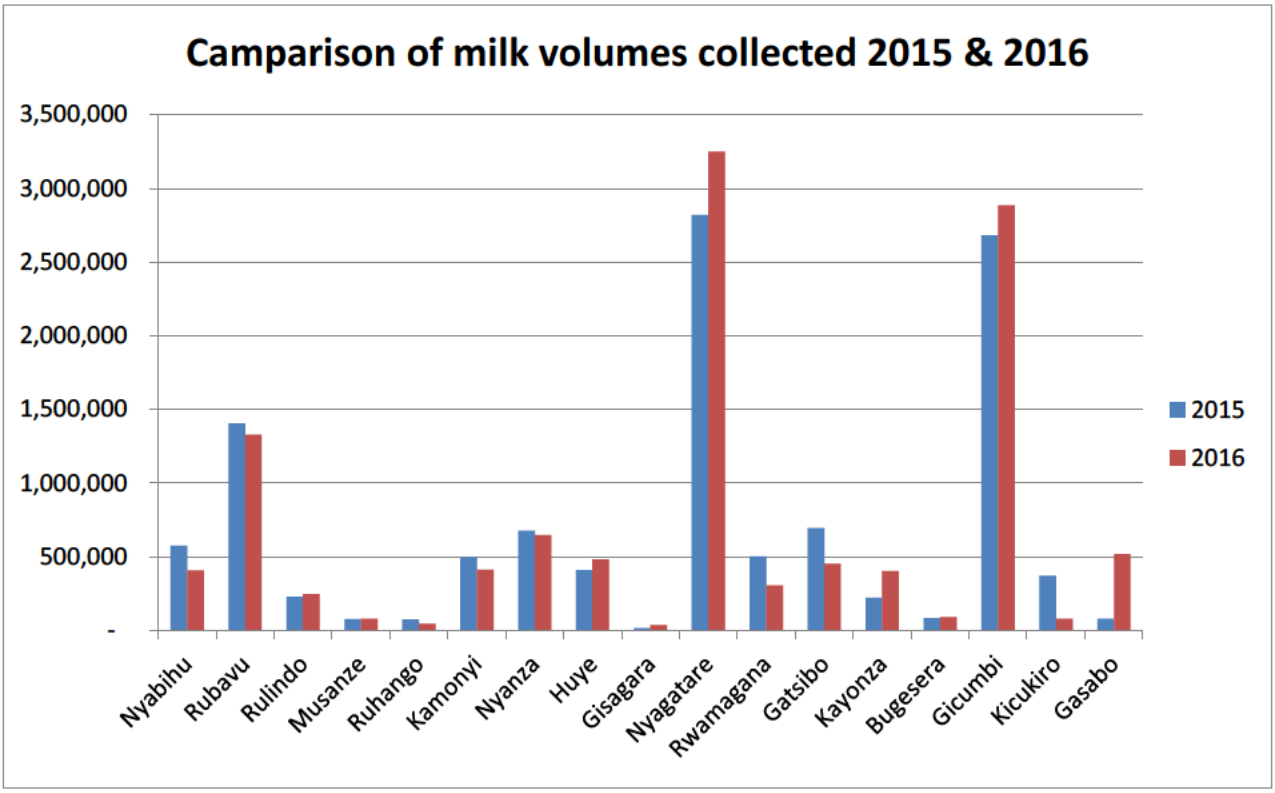


Figure 7: Showing a comparative illustration of the change in milk volumes for 2015 and 2016



Performance Measurement and Management (Ag-Pro implementation)

During this quarter the AgPrO team was able to reach out; provide technical support and mentor 54 dairy cooperatives/MCCs and 82 SMEs making a total of 136 benefiting partners. The supported and mentored cooperatives and SMEs included input providers and processors, SACCOs and MFIs, milk processors and Agrovet shops. These were linked to farmers and dairy actors for increased market access and business transaction towards enterprise development.

The 54 cooperatives under the AgPrO program have received support to conduct second round assessment using the PM2 tool and develop action plans that can guide them towards achieving business goals. This has guided the implementing team to understand the level at which each cooperative/SME is hence make decision on whether to coach or mentor and which areas need more focus and technical support. On the other hand SMEs have been engaged and supported to ensure business development services will continue to reach and be accessed by dairy farmers hence continuity of program interventions.

Membership in the AgPrO supported cooperatives has increased by 756 (418 female and 338 male) from 3,759 in Q1 to 4,515 members in Q2. This has been as a result of creating more awareness and change in leadership in the supported cooperatives as well as positive collaboration of the leadership of these entities.

Additionally, record keeping & reporting, filing and documentation, market awareness, engagement with business development service providers, recruitment of staff and milk transporters, annual planning, focus on nutrition, environmental compliance, tax filing to mention but a few have been a registered success during the reporting period.

Cooperative leadership

With the support of the AgPro short term assistants, cooperatives were assessed and the core issue highlighted was that some cooperatives do not have by-laws. Others have by-laws, but do not comply to the cooperative law provisions; for example they do not hold 2 general assemblies in a year. With the support of STTAs, however, a number of cooperatives under RDCP II support have held general assembly meetings twice per year as provided by the by-law. Also through the support rendered to these cooperatives the level of accountability and transparency in cooperatives has been enhanced since cooperative leaders have to provide relevant documents and present them to the general assembly in time determined by the law. In addition, those without by-laws have been facilitated to develop them/revise for proper guidance. Women as well as men have been seen on lists of cooperative members that accessed loans both from SACCOs and cooperative/MCC loans. This is an indication that Female are beginning to take steps towards accessing loans for solving their family needs and for investment for development without fear.

Figure 23: RDCP II gender specialist, Ms. Alice Bamusiime, sensitizes women on importance of joining and leading cooperatives as key to their socio-economic welfare development.

In cooperative meetings and forums we have noticed an indication that men recognize that female members are capable of becoming leaders, for example, most of the cooperatives that elected new leadership this March as per the law shows that 30% and more positions were occupied by female leaders and in key positions such as chairperson and vice chairperson respectively.

Cooperatives formalizing their way of doing things

RDCP II efforts to support and facilitate partner cooperatives to formalize their way of doing their business started since 2013, and it is beginning to bear fruits; notably 70% of partner cooperatives supported by RDCP II now have a mission, vision, shared beliefs and values, Cooperative by-laws, implement with the guidance of an action plan or a business/strategic plan; have a manager who oversees the daily activities of the cooperative/MCC, have Policies; human resource policies, Quality policy. They have internal operations guidelines, staff and Milk buyers' contracts, Log book/visitors, Cooperative BDS directory and a standard cooperative filing system and Asset documentation.

February, RDCP II attended the general assembly for Dukundamatugo (CDA) farmers' cooperative, located in Rwamagana. The meeting agenda was: to present the new staff that were recruited with support from RDCP II, discuss management conflict between the board leaders, the need to conduct audit for the MCC business. The board managed to secure approval to hire new staff, and agreed to hire external auditors as well as settled the conflict between management.

IR 2.2 Increased Dairy-Related Investment

Coordinate and leverage industry investment

Dairy financing and investment

This quarter, the Dairy sector benefited from a new investment of cheese and yoghurt processing plant worthy 488mRwf. The new processing plant was constructed with support from the European Union (EU) and the United Nations Industrial development Organisation (UNIDO), supervised by the Ministry of Trade and Industry in conjunction with BDF. The plant was launched this February and started its maiden operation with the processing of cheese, then will be followed by yoghurt and fresh milk.

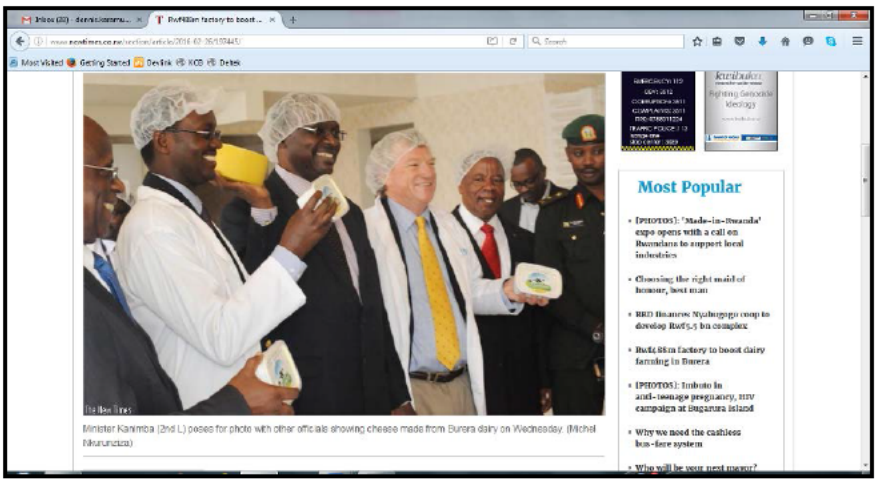


Figure 24: As published in the local media, investments have continued to be made in the dairy sector.

Dairy Financing

During this quarter, dairy stakeholders borrowed and invested in number of dairy related activities that, including buying cows, cans, coolers, jerry cans for milk packaging, bicycles, tricycles for milk transportation. Others renovated MCC buildings and bought land for upgrading farm activities.

In total, 762,661,900 Rwf (USD $974,025.42) was invested by dairy stakeholders this quarter, as shown in the table below:

Table 10: Indicating the investments made in all milksheds

Milk Shed	District	Sum of Loan Amount (in USD)	Sum of Equity	Sum of Total investment (in USD)
East	GATSIBO	2,612	-	2,612
	Kayonza	13,665	-	13,665
	Nyagatare	13,406	498	13,904
	Rwamagana	10,856	-	10,856
East Total		**40,539**	**498**	**41,037**
Kigali	Bugesera	6,296	-	6,296
	Gasabo	19,476	-	19,476
	Gicumbi	98,193		98,193
	Kicukiro	3,831		3,831
Kigali Total		**127,797**	**-**	**127,797**
North	Burera	-	623,244	623,244
	Musanze	3,193	-	3,193
	Nyabihu	61,031		61,031
	Rubavu	46,999		46,999
	Rulindo	3,065	-	3,065
North Total		**114,287**	**623,244**	**737,531**
South	Gisagara	13,410	766	14,176
	Huye	21,073	14,049	35,121
	Kamonyi	-	255	255
	Nyanza	9,419	84	9,503
	Ruhango	6,386	2,218	8,604
South Total		**50,287**	**17,373**	**67,660**
Grand Total		**332,910**	**641,115**	**974,025**

This quarter has had the highest investments compared to the previous reporting periods in 2015. The increase in investment this period is attributed to the vigorousness of RDCP II team in collecting investment data and the recent financial workshops that were conducted. As indicated below, the workshops helped to highlight investment opportunities but also emphasized and strengthened relationships between RDPC II and Financial Institutions(FIs).

There has been renewed commitment by Financial Institutions to work with dairy actors. Banks are more than willing to provide data about loans that were accessed by dairy actors for investment. In addition, Banks have demonstrated much interest in participating in RDCP II program activities such as training. Going forward, RDCP II will continue to conduct financial workshops in order to highlight available opportunities and seek for public and private partnership.

Dairy Investment and Financing Opportunity workshops

In February, and March, RDCP II organised financial workshops between Financial Institutions (FIs) and Dairy Stakeholders in the four milk sheds. The first workshops were conducted in Nyanza and Huye Districts, located in the Southern milk shed. In Nyanza the workshops were held at Nyagisozi and Muyira Sectors. While in Huye, one workshop was held at Kidaco cooperative premises, where

primary producers, transporters and milk sellers attended together with BPR, UoB and Saccos from the area.

In the Eastern Milk shed the workshop was organised in Nyagatare and was attended by 55 stakeholders, that included representatives of Financial Institutions such as BPR, BDF, Saccos, and other Service providers like Insurance companies, input providers and Media representatives.

In Kigali Milk shed, the workshop was held in Gicumbi and was attended by 19 stakeholders that included 14 males & 5 females from Saccos and cooperative representatives. Whereas in the Northern milk shed, the workshops were held in Nyabihu and Rubavu Districts. Both Districts had 50 participants in total, coming from Saccos , BPR, BDF and UoB as well as Local Government representatives.

The aim of the workshops was to present and discuss MCC milk businesses , available dairy investment opportunities and the ministerial Order for milk handling, transportation and trade. Some of the investment opportunities that were highlighted include; production, transportation, processing, packaging, marketing and distribution. About the Ministerial Order, RDCP II presented specific articles regarding milk collection and handling, transportation and selling and emphasized the fact the law will help to regularize dairy sector operations by guarding the interests of stakeholders as well as create opportunities.

The financial workshops, were also attended by Local Government officials, who expressed appreciation to RDCP II for organizing the events and requested that RDCP II continues to sensitize the public and provide information about available opportunities.

Cheese Expo Preparatory meetings

This quarter RDCP II, organised preparatory meetings for the 3rd annual Cheese and Butter Expo and competition scheduled to take place in May, 2016. The meetings are held between cheese makers, Rwanda National Dairy Platform (RNDP) and RDPC II and discuss logistical requirements and develope an agenda for the events. In addition, RDCP II and RNDP discussed other upcoming events such as the Agri-show, organised by MINAGRI, Private Sector Federation National Expo, organised by PSF, and the upcoming ESADA Conference which will be stage managed by RNDP and MINAGRI.

Figure 25: The Cheese Expo and Championship is back, and scheduled for May this year

Gender Mainstreaming

Female and Male participation in RDCP II activities

The target for this quarter was to train more females on dairy best practices for three reasons; firstly, females tend to implement what they have been trained as long as it will lead to increased incomes/yield for the benefit of their households/families.Secondly to bridge the gap between male and female farmers trained on dairy farming best practices. Thirdly, to ensure that both females and males have the skills to boost their dairy business and recognize that female as well as males deserve the skills for development. This target was implemented and results are amazing. Females turned up in high numbers at all training sites between 150 to 400 females participating at each training. The secret behind the high turn out was our collaboration with local authorities such as the National Female Council (CNF) to facilitate the invitation rather than using the cooperative chairpersons,

district and sector veterinary officers as per RDCP II previous tradition. Given the turn out, one may theorize that the veterinary officers and cooperative chairpersons target men more than females. The way forward is that the program will continuously organize exclusive trainings for Female in the following quarters through collaboration with national Female council. As a result of this intervention/approach the overall participation of Female in RDCP II facilitated trainings are at 48%, which is close to the program's target of 50%.

Self-Efficacy: Whether Female have gained confidence to solve issues that face them

As regards self-efficacy creation/ development among female beneficiaries/partners of RDCP II, there are results that confirm that women have been equipped with capacity to solve issues that face them, for example, Tuzikamire Kabumba dairy cooperative linked up with Urwego Opportunity Bank (UOB) and secured a loan of 3,500,000 Rwf to buy a motorized tricycle to transport milk. This is the second tricycle for the cooperative, in addition to the one donated by RDCP II in January 2015. Many other women have accessed loans or applied and are waiting for bank approvals. As a result of the semi-annual survey, 88% of women interviewed confirmed feeling more confident and compentent to undertake dairy activities and to solve issues that they may face in their activities..

Figure 26: RDCP II has worked to empower women in dairy sector, and encourage them to assume an influential role in their communities. Ms. Immaculee kayitesi has won an award of the woman Entreprenuer of the 2014

Female and male agreement that Female equally like men should have equal access

The other indicator that was checked was 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". The indicator intends to measure to what extent do men and women agree that females should have equal access to social economic and political opportunities? The survey results showed 95% of men and women agree on that concept while in 2015 the percentage was 90.8%. This is visible in the case of recent cooperative general assembly committee elections where an estimated 35% of females have taken steps to access leadership positions in their respective groups of operation such as cooperatives and other small groups where they belong.

Equal sharing of Revenues accrued from the Dairy Business

The semi-annual survey established that 92% of the project beneficiaries revenues accrued from the dairy business are equally shared between men and women. This was also confirmed during training sessions where females and males were asked to willingly share experiences about management of revenues and resources in their homes and a number of them echoed the fact that their husbands now recognized that females deserve equal access and control over social, economic

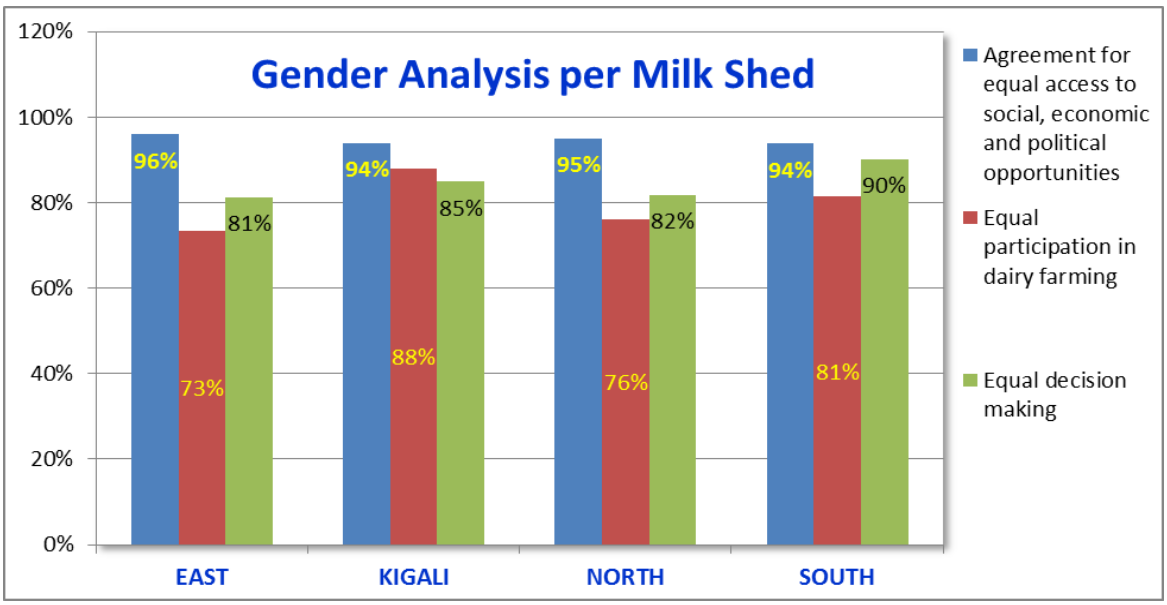
Figure 27: Women and men are encouraged to collaborate on sharing revenues accrued from the Dairy Business

and political opportunities to the extent that some husbands now decide to put milk management in the hands of their wives, or consult them for decision making over what resources to allocate to specific needs of the family. Dairy revenues were reported to be mostly spent on school fees for their children at 82% followed by medication at 81%. This component was checked along with the concern whether other household responsibilities are also shared equally and indeed 90% of the respondents share responsibilities that are dairy related equally.

It is worth noting that, some chores such as cleaning cowsheds and cleaning milking utensils were found to be dominated by females while milking and transportation was dominated by men. 14 % of women interviewed declared to be engaged in milking, while 54% of them confirmed to be involved in milk transportation to selling points. Indeed these may seem low percentages but views from the field indicate a great improvement of Female taking up some activities previously known to be purely men's such as milking.

As regards to decision making, there is increased agreement and recognition that women as well as men jointly make decisions in all processes of the household which was at 90% of those interviewed. Decisions made include how much to allocate to specific needs, such as school fees, medical insurance, farming and social activities.

Chart 8: Showing gender analysis on three key gender indicators for the quarter



Grant Updates

Grants and Grant Monitoring

During this quarter, RDCP II received USAID approval for one grantee, Cooperative Agiragitereka Kinazi (COOPAGIKI), which is a Milk Collection Center located in Ruhango district. This cooperative will receive an in-kind grant that include 25 milk cans, 1 tricycle and 1 generator.

RDCP II received USAID approval for 24 grantees (19 are MCCs and 5 dairy processors), enrolled in the Seal of Quality (SoQ) program to receive the SOQ kits. The objective of this grant is to enhance the dairy industry of Rwanda through adoption of best practices that will result in improved quality,

quantity and consistency of milk. The SoQ program will stimulate consumer demand for quality dairy products while building the capacity of the industry to meet Rwanda and COMESA tandards.

Table 10: Approved grants for January – March, 2016 for Milk Collection Centers

NAME	DISTRICT
1) Cooperative Ayera Dairy Muhoza	Musanze
2) Cooperative Uruyange (KOPURUYA)	Rulindo
3) Koperative yo Gukusanya amata no Kuyatunganya Rulindo (KOGAK – Rulindo)	
4) Cooperative Turwanye Bwaki – Kanama (CTBK)	Rubavu
5) Cooperative Agiragitereka Kinazi (COOPAGIKI)	Ruhango
6) Koperative Agiragitereka Byimana (KOAGIB)	
7) Ruhango Zirakamwa Cooperative (RUZICO)	
8) Cooperative Indakemwa Mugandamure	Nyanza
9) Cooperative Uruhimbi Nyanza Milk	
10) Cooperative Hinga Orora Kijyambere (HOK)	Nyagatare
11) Kamate Daily Marketing Cooperative Society (KAMDAMACO)	
12) Cooperative Zirahumuje	
13) Coopérative de Développement d'Elevage Ngarama (CODEN Jyambere Mworozi)	Gatsibo
14) Cooperative Borozi Twisungane Kabuga	Bugesera
15) Cooperative Zirakamwa – Ruhuha (KOPEZIRU)	
16) Koperative Indashyikirwa m'Ubworozi (KOINDAMU)	
17) Cooperative Isonga Mixed Farm	Rwamagana
18) Dukorerigihugu Farmes' Cooperative (DUFACO)	
19) Cooperative Kamirabose	

Table 11: Approved grants for Dairy Processors

NAME	DISTRICT
1) Cooperative Uruhongore Nyakiliba	Rubavu
2) Royal Dairies Ltd	Kicukiro
3) Fumbwe Multisectoriall Farm Ltd	Rwamagana
4) Rusatira Dairy Company Ltd (RUDACO Ltd)	Huye
5) Nyagatare Yoghurt and Ice Cream Processing	Nyagatare

Following USAID approval received for five grantees, RDCP II started procurement process to purchase dairy equipment which will be completed next quarter.

RDCP II identified Rwanda Council of Veterinary Doctors (RCVD) to facilitate access to A.I services among project partners by increasing number of inseminators and equipping them to provide quality artificial insemination to dairy producers in Rwanda. These key activities will contribute directly towards RDCP II I.R. 1.1.a Increase smallholder adoption of best practices through delivery of extension services and IR 1.1.1 Input Supplies and Public and Private Dairy Business Services Expanded. This subrecipient was not identified by name in Land O'Lakes' original proposal. RDCP II will submit a subaward approval request to USAID in the next quarter.

In addition, as part of the transition plan to strengthen the capacity of RNDP to host key industry events previously supported by RDCP II, the project is working on a plan to position the platform in the lead for the same. This will include co-facilitating the upcoming cheese expo, the national agri-show and 2016 private sector expo all leading up to the 12th Africa Dairy Exhibition (ESADA) in August 2016. RNDP has requested financial support to prepare appropriately the members clusters. Internal approval process is underway before submission for approval to USAID.

Upcoming grant approvals

RDCP II will submit new subaward approvals to USAID early in the next quarter for pre-selected grants including:

- Subaward modification to Zirakamwa Meza limited subaward to support processing capacity
- Subaward modification to RNDP to expand their scope
- New Subaward to Rwanda Council of Veterinary to provide capacity building to aritificial insemination technicians

Sub-awards close-out and extension

RDCP II extended by 2 months the subaward agreement with Agrojoy Ltd from February 29, 2016 to April 30, 2016. The objective of this extension is to give them more time to complete the pregnancy diagnosis.

This quarter, the subaward agreements with 7 grantees ended as follows:

Table 12: Subaward agreement that ended

No	Organization	District	Sub award end date
1.	Agriculture et Techniques Veterinaires (A.T. VET)	Musanze	January 31, 2016
2.	Barice Ltd	Rwamagana	January 31, 2016
3.	Southern Province Agriculture Development (SPAD)	Gisagara	January 31, 2016
4.	Cooperative des Veterinaires et Inseminateurs de Gicumbi (COOVIGI)	Gicumbi	February 29, 2016
5.	Nyamata Agri Input Ltd	Bugesera	February 29, 2016

6.	Union pour la Promotion des Cooperative des Eleveurs de Nyabihu (Uprocenya)	Nyabihu	February 29, 2016
7.	Nyanza Agrovet Center	Nyanza	February 29, 2016

Environmental compliance

Environmental compliance has continued to be a key component of the program and trainings and advisory have been provided to a number of cooperatives and program subgrantees to ensure they comply. The nature of advice includes construction of waste disposal pits, putting in place hand washing facilities, purchase of additional milk cans, improving general hygiene, tiling, rehabilitation, wall painting, filing and documentation and record keeping.

As a result of mentorship and advice, cooperatives like Kora Mworozi in Gicumbi, COOPEKA in Kamonyi, CTSOR in Rulindo and CEZONYI in Nyabihu as well as SMEs such as GISHWATI farms Ltd have continued to improve in regards to environmental compliance.

This quarter, RDCPII put much focus on trainings to farmers and businesses including MCC and MSMEs to improve the environment in cow sheds and business premises. Assessment and training on environmental compliance has been done to the 54 supported cooperatives under AgPrO and SMEs like Blessed dairies and Milk kiosks. Additionally farm level trainings and model farmer refresher trainings have been conducted. The general hygiene at MCCs has improved due to technical advice and ability for business owners to adopt the set action plans.

Examples of benefiting cooperatives include RUZICO, Uruhimbi Rwizihiye Rukoma who installed a washing facility, CDA Kigabiro who tiled their sanitary area and milk reception area, COOPEKA Kayenzi improved hygiene at the MCC and road leading to the MCC, COOPEMOBU worked too worked on the road heading to the MCC, staff at Terimbere Mworozi started to use service and are currently improving the MCC laboratory and GAFCO renovated their MCC.

Monitoring & Evaluation and Knowledge Management

Monitoring and Evaluation (M&E), an integral part of RDCP II, is used to enrich the quality of RDCP II interventions. The RDCP II Performance Management Plan (PMP), approved by USAID, is a guide for RDCP II results management/measurement process and reporting. The PMP includes indicators to track results/progress made during the year. Particular emphasis is placed on tracking RDCP II impact on women and income generation as a result of project interventions at all levels of the dairy value chain. It is important to note that in addition to overall program progress assessment through monthly, quarterly reports and bi-annual surveys, RDCP II implements activities within approved district workplans that are periodically assessed.

District mid-term reports

In January, RDCP II reviewed District work plans to assess progress concerning the implementation of program activities. After review, RDCP II prepared and submitted progress reports to all 17 districts and related information were uploaded in the Government development partners' online system. Following submission of reports, some districts conducted RDCP II field assessments on program activities based on the commitments made in the work plan. As the program draws closer to the end, every effort has been made to ensure a smooth transition to exit from the districts through existing district subworking groups initiated by RDCPII and a strong collaboration of RAB and RNDP partners in the zone of influence.

Semi-annual farmers' survey

The M&E department's main support during the quarter was to ensure that the quality and standards of data collection and reporting process were carried outas recommended in the program PMP and FTF guidance.

During the quarter, RDCP II conducted a semi-annual farmer survey covering the period from October 2015 to March 2016. The survey was carried out in 15 districts and a total of 555 farmers were reached, with the results of the survey included in this quarterly report. The household survey is carried out every 6 months and helps to track progress made on key indicators at household level.

In addition, as part of reporting process, the M&E department supported in completing quarterly quantitative report submitted to the Donor through AIDTracker sytems. Also during the quarter, RDCP II submitted the annual report for 2015 USAID Microenterprise Results Reporting (MRR).

As RDCP II is entering the last 3 months of implementation of activities in the Districts, this period will be an opportunity for the program to hold events in different milk sheds preparing beneficiaries and partners including district administration for the close-out of the program.
This also means that the next three months will be dedicated to completing activities not yet completed in the work plans and to district assessment/evaluation of RDCP II achievement during the fiscal year.

For the remaining period, the M&E department intends to continue documenting program achievement since 2012 and in collaboration with Communication Department and milk shed staff to continue documenting success stories and lessons learnt before we end activities in Districts.
The plan to conduct the annual data collection is also underway. August is suggested as the appropriate period to start the process. Details will be discussed with HQ M&E department for the support needed and proper approach to carry out the final annual data collection.

Annexes

Annex I: FtF MS Table

Annex II: RDCP II creates 2,105 new jobs in milk transportation

Annex III: Dairy in the press

Annex IV: RALIS value chain training report

Annex V: RNDP Producer Cluster capacity development report

Annex VI: Urunana Community Outreach report

Annex VII: RDCP II - AgriProFocus Dairy Learning event report

Annex I: FTF MS Table

Indicator / Disaggregation	Baseline Value	2016 Target	2016 Results				2016 Annual Achievement	Cumulative Achievement for all years
			Quarter 1 Oct-Dec 2015	Quarter 2 Jan-Mar 2016	Quarter 3 Apr-Jun 2016	Quarter 4 Jul-Sept 2016		
4.5(2) Number of jobs attributed to FTF implementation	**0**	**11,745**	**10,817**	**11,809**			**11,809**	**11,809**
Location		11,745	10,817	**11,809**			**11,809**	**11,809**
Urban	0	0	0	0			0	0
Rural	0	11,745	10,817	11,809			11,809	11,809
Disaggregates Not Available	0	0	0	0			**0**	**0**
New/Continuing		**11,745**	**10,817**	**11,809**			**11,809**	11,809
New	0	1,000	72	992			1,064	1,064
Continuing	0	10,745	10,745	10,817			10,745	10,745
Disaggregates Not Available	0						0	0
Sex of job-holder		**11,745**	**10,817**	**11,809**			**11,809**	**11,809**
Male	0	10,825	9,971	10,944			10,944	10,944
Female	0	920	846	865			865	865
Disaggregates Not Available	0	**0**	0	0			**0**	**0**
4.5(10) Total increase in installed storage capacity (m3)	**0**	**30**	**10**	**5.5**			**15.50**	**182.00**
Dry storage	0	0	0	0			**0**	**0**
Cold storage	0	30	10	5.5			**15.50**	**182.00**
Disaggregates Not Available	0	0	0	0			**0**	**0**
4.5.2(5) Number of farmers and others who have applied improved technologies or management practices as a result of USG assistance	**0**	**18,000**	**1,042**	**12,228**			**13,270**	**46,638**
New/Continuing	0	**18,000**	**1,042**	**12,228**			**13,270**	**46,638**
New	0	18,000	1,042	12,228			13,270	**46,638**
Continuing	0	0	0				0	0
Disaggregates Not Available	0	0	0				0	0
Sex	**0**	**18,000**	**1,042**	**12,228**			**13,270**	**46,638**
Male	0	13,000	682	7,955			8,637	29,689
Female	0	5,000	360	4,273			4,633	16,949
Disaggregates Not Available	0	0	0	0			0	0
4.5.2(7) Number of individuals who have received USG supported short-term agricultural sector productivity or food security training	**0**	**14,000**	**4,609**	**5,798**			**10,407**	**52,907**
Type of individual	0	**14,000**	**4,609**	**5,798**			**10,407**	**52,907**
Producers	0	13,800	4,312	4,382			8,694	47,991
People in government	0	150	0	21			21	216
People in private sector firms	0	50	297	1,395			1,692	4,695
People in civil society	0	0	0	0			0	5
Disaggregates Not Available	0	0	0	0		0	0	0
Sex	0	**14,000**	**4,609**	**5,798**			**10,407**	**52,907**
Male	0	10,000	3,102	3,072			6,174	33,061
Female	0	4,000	1,507	2,726			4,233	19,846
Disaggregates Not Available	0	0	0	0			0	0
4.5.2(13) Number of rural households benefiting directly from USG interventions	**0**	**54,460**	**47,069**	**52,867**			**52,867**	**52,867**
New/Continuing	0	**54,460**	**47,069**	**52,867**			**52,867**	**52,867**
New	0	12,000	4,609	5,798			**10,407**	**10,407**
Continuing	0	42,460	42,460	47,069			**42,460**	**42,460**
Disaggregates Not Available	0	0	0				0	0
Gendered Household Type	0	**54,460**	**47,069**	**52,867**			**52,867**	**52,867**
Adult Female no Adult Male (FNM)	0	8,850	7,747	8,438			8,438	8,438
Adult Male no Adult Female (MNF)	0	4,777	4,483	4,823			4,823	4,823
Male and Female Adults (M&F)	0	40,651	34,658	39,425			39,425	39,425
Child No Adults (CNA)	0	182	182	182			182	182
Disaggregates Not Available	0	0	0	0			0	0
4.5.2(14) Number of vulnerable households benefiting directly from USG interventions	**0**	**22,656**	**20,367**	**23,695**			**23,695**	**23,695**
New/Continuing	0	**22,656**	**20,367**	**23,695**			**23,695**	**23,695**
New	0	4800	2,511	3,328			5,839	5,839
Continuing	0	17856	17,856	20,367			17,856	17,856
Disaggregates Not Available	0	0	0	0			0	0
Gendered Household Type	0	**22,656**	**20,367**	**23,695**			**23,695**	**23,695**
Adult Female no Adult Male (FNM)	0	5398	4,561	**5,481**			5,481	5,481
Adult Male no Adult Female (MNF)	0	2053	1,917	**2,110**			2,110	2,110
Male and Female Adults (M&F)	0	15205	13,807	**16,022**			16,022	16,022
Child No Adults (CNA)	0	0	82	82			82	82
Disaggregates Not Available	0	0	0	0			0	0

4.5.2(23) Value of incremental sales (collected at farm-level) attributed to FTF implementation	**$4,606,135.00**	**$31,535,461.30**	**$0.00**	**$1,168,832.88**			**1,168,833**	**56,776,325**
FTF 4.5-4 Gross margin per dairy cow	**$162.22**	**$251.93**	**$0.00**	**$126.45**			**$126.45**	**$248.15**
4.5.2(27) Number of members of producer organizations and community based organizations receiving USG assistance	**0**	**2000**	**821**	**1,217**			**2,038**	**25,484**
Type of organization	0	2,000	821	1,217			**2,038**	**25,484**
Producer organization	0	2,000	821	**1,217**			2,038	25,483
Non-producer-organization CBO	0	0	0	0			0	1
Disaggregates Not Available	0	0	0	0			0	0
Sex	0	**2,000**	**821**	**1,217**			**2,038**	**25,484**
Male	0	1500	467	562			1,029	15,798
Female	0	500	354	655			1,009	9,686
Disaggregates Not Available	0	0	0	0			0	0
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 practicies as a result of USG assistance	**0**	**1,166**	**1,144**	**1,202**			**1,202**	**1,202**
Type of organization	0	**1,166**	**1,144**	**1,202**			**1,202**	**1,202**
Private enterprises (for profit)	0	806	778	806			806	806
Producers organizations	0	210	201	224			224	224
Water users associations	0	2	1	2			2	2
Women's groups	0	9	7	13			13	13
Trade and business associations	0	129	151	151			151	151
Community-based organizations (CBOs)	0	10	6	6			6	6
Disaggregates Not Available	0	0	0	0			0	0
New/Continuing	0	**1,166**	**1,144**	**1,202**			**1,144**	**1,144**
New	0	100	78	58			78	78
Continuing	0	1066	1,066	1,144			1 066	1 066
Disaggregates Not Available	0	0	0	0			0	0
4.5.2(29) Value of Agricultural and Rural Loans	**$0.00**	**$800,000**	**$ 610,961**	**$ 332,910**			**$ 943,871**	**$ 2,797,077**
Type of loan recipient	0	**800,000**	**$ 610,961**	**$ 332,910**			**$ 943,871**	**$ 2,797,077**
Producers	0	250000	$ 415,465	$ 292,470			$ 707,935	$ 1,135,834
Local traders / assemblers	0	300000	$ 108,477	$ 34,055			$ 142,532	$ 748,836
Wholesalers/processors	0	210000	$ 87,020	$ 6,386			$ 93,406	$ 898,678
Others	0	40000	0	0			0	$ 13,729.20
Disaggregates Not Available	0	0	0	0			0	0
Sex of recipient	0	**800,000**	**$ 610,961.00**	**332,910**			**$ 943,871**	**$ 2,797,077**
Male	0	450000	$ 381,760	$ 120,130			$ 501,890	$ 1,377,793
Female	0	150000	$ 77,281	$ 26,999			$ 104,280	$ 268,912
Joint	0	200000	$ 151,920	$ 185,781			$ 337,701	$ 1,150,372
n/a	0	0					0	0
Disaggregates Not Available	0	0					0	0
4.5.2(36) Value of exports of targeted agricultural commodities as a result of USG assistance (for bilateral missions)	**$85,979.00**	**$18,052,788.60**	**$0.00**	**$3,918,987.00**			**$3,918,987.00**	**$39,143,987.94**
4.5.2(37) Number of MSMEs, including farmers, receiving business development services from USG assisted sources	**0**	**3,000**	**571**	**346**			**917**	**11,728**
Size of MSME	**0**	**3,000**	**571**	**346**			**917**	**11,728**
Micro	0	2950	566	276			842	11,458
Small	0	45	5	59			64	235
Medium	0	5	0	11			11	35
Disaggregates Not Available	0	0	0				0	0
MSME Type	0	**3000**	**571**	**346**			**917**	**11,728**
Agricultural producer	0	2950	542	**154**			696	10,445
Input supplier	0	0	1	25			26	126
Trader	0	45	24	100			124	911
Output processors	0	5	3	19			22	163
Non agriculture	0	0	0	12			12	45

Other	0	0	1	36			37	38
Disaggregates Not Available	0	0	0	0			0	0
Sex of owner	0	**3000**	**571**	**346**			**917**	**11,728**
Male	0	2000	286	235			521	7,125
Female	0	1000	261	61			322	4,235
Joint	0	0	24	23			47	341
n/a	0	0	0	27			27	27
Disaggregates Not Available	0	0	0	0			0	**0**
FTF Indicator 4.5.2-38 Value of new private sector investment in the dairy sector or food chain leveraged by FTF Implementation	**$0.00**	**$7,000,000.00**	**$610,961.00**	**$974,025.42**			**$1,584,986.42**	**$5,781,980.93**
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)	**0**	**1**	**1**	**3**			**4**	**15**
Sector	0	**1**	1	3			4	**15**
Inputs	0	0	0	0			0	0
Outputs	0	0	0	0			0	0
Macroeconomic	0	0	0	0			0	0
Agricultural sector-wide	0	1	1	5			6	15
Research, extension, information, and other public service	0	0	0	0			0	0
Food security/vulnerable	0	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
Stages of development	**0**	**1**	**2**	**6**			8	**15**
Stage 1 of 5 Number of policies / regulations / adminitstrative procedures analyzed	0	1	0	0			0	2
Stage 2 of 5 Number of policies / regulations / adminitstrative procedures drafted and presented for public/stakeholder consultation	0	0	2	3			5	6
Stage 3 of 5 Number of policies / regulations / adminitstrative procedures presented for legislation/decree	0	0	0	0			0	3
Stage 4 of 5 Number of policies / regulations / adminitstrative procedures prepared with USG assistance passed/approved	0	0	0	0			0	3
Stage 5 of 5 Number of policies / regulations / adminitstrative procedures passed for which implementation has begun	0	0	0	3			3	5
Disaggregates Not Available	0	0	0	0			0	0
							0	0
Custom Indictor 1 a Volume of milk marketed by Milk Collection Centers (in Liters)	**16,067,127**	**25,707,404**	**11,158,232**	**11,675,457**			**22,833,689**	**129,027,778**
Custom Indictor 1.1.1 a Value of inputs and services used by members of targeted cooperatives (USD)	**$1,782,168.68**	**$7,364,539**	**$0.00**	**$1,685,546**			**$ 1,685,546**	**$18,989,253**
Custom Indictor (a) Change in net dairy income among targeted households(in USD)	**$2,823,967.12**	**$9,489,425**	**$0.00**	**$4,318,181**			**$ 4,318,181**	**$29,457,243**
Custom Indictor 1.2 a Number of new milk quality assessment technologies\protocols adapted\implemented	**0**	**3**	**0**	**0**			**0**	**12**
Custom Indictor 1.3 a Number of new products awarded SOQ	**0**	**9**	**0**	**20**			**20**	**43**

Custom Indictor 1.3 b Percentage of milk marketed under SOQ	0	35%	65%	66%			65%	65%
Custom Indictor 2.1 a Number of dairy related firms and organizations newly aligned within and provided a voice by dairy sector affinity organizations	0	40	250	0			250	320
Custom Indictor 2.2 a Number of dairy enterprises with upgraded production facilities resulting from successful financing applications		400	29	112			141	213
Custom Indictor 2.2 b Liters of additional daily milk processing resulting from financing assisted by RDCP II	0	40000	79,993	85,026			165,019	449,320
Number of promotional and educational events/program on dairy consumption implemented/conducted	0	10	11	4			15	38
Number of people reached during the milk consumption promotional campaign	0	200,000	824,715	39,500			864,215	1,514,215
Percentage of consumers that are aware of nutritional and health benefits of milk	0	100%	98%	98%			98%	98%
GNDR-2 Proportion of female participants in USG-assisted programs designed to increase access to productive economic resources (assets, credit, income or employment)	0	50%	33%	47%			41%	41%
GNDR-3 Proportion of females who report increased self-efficacy at the conclusion of USG supported training/programming	0	95%	76%	88%			82%	82%
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	0	90%	90.8%	95.0%			92.9%	92.9%

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FROM THE AMERICAN PEOPLE

SNAPSHOT

RDCP II creates 2,105 new jobs in milk transportation

Milk transportation, a key source of employment for the youths

Photo: Emmanuel Nsekanabo/Land O'Lakes International Development

"The dairy market has steadily grown as a result of various stakeholders' interventions to ensure that milk is formally collected through appropriate channels of quality management. Many transporters are now so keen on investing in the transportation business, because they are guaranteed a reliable market," the 43 year old transporter Bizimana explained

Figure 1: Rwanda's milk transportation network is largely composed of bicycles and motorbikes

Although dairying can provide the reliable income rural farming families need to move out of poverty, its perishability means it can easily spoil and become worthless without effective transport to get it to market. While Rwandan roads and infrastructure are generally in better shape than many of its regional neighbors, the long distance between farms, processors and end markets can make or break the success of any dairy development effort.

Moreover, the sustainability of economic development programs often hinges on the extent to which they can strengthen the broader market system – creating the long-term jobs, market demand, commercial investments, supportive policies and other factors – needed to ensure the entire sector can continue to move forward after donor-funded programs culminate. Rwanda's dairy sector still remains largely informal, with the cold chain only beginning at Milk Collection Centers (MCCs) – where farmers collectively bulk their milk – and lasts through the processor and end market. However, the process should ideally begin earlier, with transporters carrying the milk from farms to MCCs playing a key role in the cold chain.

Telling Our Story
U.S. Agency for International Development
Washington, DC 20523-1000
http://stories.usaid.gov

Impressively, over the last four years, the Rwanda Dairy Competiveness Program (RDCP II) has helped create 2,105 new jobs, mainly for youth, in milk transportation. Funded by the United States Agency of International Development (USAID) and managed by Land O'Lakes International Development, RDCP II has enabled the creation of transportation jobs in 17 districts; an area that covers nearly 55 percent of Rwanda.

The project has made various interventions since 2012, which are mainly aimed at creating an enabling environment to transform the dairy sector into a vibrant and competitive industry. Creating jobs and improving income generation for rural residents has always been a key goal of the U.S. $ 15 million dollar project.

Predominantly done by bicycle and motorcycle, these 2,105 new jobs in the milk transportation business can be attributed to RDCP II project interventions in different areas of the market. The biggest catalyst for job creation has been getting Milk Collection Centers (MCCs) operational. MCCs are milk collection facilities, mainly set up by the Rwandan government and given to cooperatives for management. They link milk producers to the market, and also ensure a better milk quality management through appropriate channels. By bulking and chilling milk cooperatively at MCCs, rather than having individual farmers selling on their own at the farm gate, they are able to capture better prices, bigger and more reliable sales markets, and collectively access the inputs and services they need to improve productivity. An MCC is a critical piece of the infrastructure for most Land O'Lakes International Development dairy programs, as it provides farmers, transporters, processors and consumers with a larger, more reliable market, while keeping milk safely chilled at the right temperature to ensure food safety. Together, these transporters are playing a critical role in moving the 3,724,426 liters of milk bulked each year across the 17 districts supported by RDCP II.

Compared to when the project launched in 2012, when there were only 40 operational MCCs across the project area, by 2016 operational MCCs have more than doubled to 82. To help make them functioning business entities, the RDCP II team provided substantial training and raised the awareness of dairy cooperatives and small and medium enterprise on the existing opportunities in the dairy sector, and how they can position themselves to run commercially-minded ventures. For instance, the co-ops and SMEs were advised on formalization of their business procedures and adopted best business management practices. These included recordkeeping and contract management with suppliers and bulk buyers, which rendered them creditworthy to secure loans for re-investment with financial institutions.

RDCP II has also provided MCCs, and milk and cheese processors, with equipment valued at US $440,000. Getting these key market actors functioning at an optimal level has incentivized a market need for milk transportation, resulting in 2,105 new jobs being created in the last four years.

Bizimana Donatien, a 43-year-old milk transporter, has been hauling milk for the last four years across the rolling hills in Rwanda's northern region of Gicumbi District. He started milk transportation by carrying a 20-liter can of milk on his head each day. He then bought a bicycle and increased his milk transportation capacity to 80 liters of milk a day. As business improved, he upgraded to a motorbike, which enabled him to transport 400 liters of milk per day. He now plans to buy a car, because he believes the business is worth the investment.

"The dairy market has steadily grown as a result of various stakeholders' interventions to ensure that milk is formally collected through appropriate channels of quality management. Many transporters are now so keen on investing in the transportation business, because they are guaranteed a reliable market," Bizimana explained.

As a result of his job, he has managed to buy three improved breed cows, build a four-bedroom house for his family, pay for medical insurance and provide the needed college tuition for his 20-year-old daughter.

The New Times
Rwanda's Leading English Daily

Rwf3.5 billion animal feed factory launched in Huye

By: EMMANUEL NTIRENGANYA

Munyantwali (L) and Amb. Park during the groundbreaking ceremony for construction of the Huye animal feeds production facility on Thursday. (Emmanuel Ntirenganya)

Construction works of Rwf3.5 billion animal feeds factory were launched in Huye District on Thursday.

The factory with capacity to produce 40 tonnes of high quality and affordable animal feeds per day, is expected to solve the problem of lack of nutritious animal feeds and is due for completion in December 2016.

Rwanda received a $5 million grant from the Korean government to build the factory.

According to Felix Nyirishema, the coordinator of Korean projects in the Ministry of Agriculture and Animal Resources, the factory will be the largest animal feeds production facility in the country. It will produce fish, poultry, piggery and cow feeds.

The facility will be constructed on 1.7 ha plot in Huye's Sovu Industrial Zone, and will consist of a production unit, store and a laboratory, among others.

Speaking on Thursday during the officiating ceremony in Huye District, Yong-min Park, the Ambassador of the Republic of Korea to Rwanda, said the high price of feeds was hampering the development of livestock industry in the country.

He added that the factory would play a critical role in provision of the much needed animal feeds.

"Sometimes farmers give up on poultry farming because the cost of feeds is higher. The factory will provide feeds for poultry and fish farmers so that they can meet the increasing demand for poultry products and fish," he said.

The factory aims to produce high quality feeds which can substantially support livestock industry in Rwanda and the region as whole.

He said the ground breaking ceremony marked another step in the Korean government's cooperation with Rwanda through manufacturing.

Alphonse Munyantwali, the Governor of the Southern Province, thanked the Korean government for building the capacity of Rwandans and said the factory was an added value.

"The largest number of our population is engaged in farming and we have various programmes like Girinka (One-Cow-per- Family) which has contributed to eradicating extreme poverty. But, we are still lacking animal feeds. Therefore, the animal feeds production unit is very important for our farmers. It will help farmers ensure the macro and micro development of our country," he noted.

Residents welcomed the factory, saying it would solve the shortage and high price of animal feeds as well as offer some of them jobs.

"I'm a piggery and livestock farmer. Feeds are expensive. We buy a kilogramme at Rwf120 and a pig can eat up to 10 kilogrammes per day depending on its size. When they lack

nutritious feeds, pigs do not give the desired produce. We expect this factory to solve the feeds issue," said Stephanie Mukasine, a resident of Huye Sector.

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The New Times
Rwanda's Leading English Daily

Rwf488m factory to boost dairy farming in Burera

By: **MICHEL NKURUNZIZA**

Minister Kanimba (2nd L) poses for photo with other officials showing cheese made from Burera dairy on Wednesday. (Michel Nkurunziza)

A new milk processing plant worth Rwf488 million was launched on Wednesday in Burera District, to boost dairy farming in the area.

It was constructed by the Ministry of Trade and Industry in conjunction with Business Development Fund (BDF), the European Union and United Nations Industrial Development Organisation (UNIDO).

The factory has machines used in filtering, two tanks with 1,500 litre storage capacity per day and milk coolers, according to the manager Emmanuel Mahoro.

It produces 100 cartons of cheese per day, coagulated milk and butter.

It is expected that the plant would strengthen Girinka programme by adding value and increasing household income for the farmers.

“Before the factory construction, one litre of milk was at Rwf70 due to low demand but now it has doubled. The low price was affecting livestock farmers,” said James Niyongira, a resident of Cyanika sector.

Speaking at the launch, the minister for Trade and Industry Francois Kanimba said the plant would boost exports in the dairy sector.

“Transporting milk from farmers to collection centres and then to factory requires infrastructure to preserve quality. Every year we have to set a budget for that. By March UNIDO, accepted to give Burera Dairy a transport truck with milk coolers. This is part of a 5 year programme to develop dairies in Rwanda,” he said.

However, dairy farmers said transport and milk supply remains a challenge.

Farmers said 62 per cent of their 1879 cows are traditional breeds with low milk yields, only 38 per cent are hybrid and Friesians.

We need more milk to satisfy the factory demand, said Celestin Rubura, the president of the dairy farmer’s cooperative known by its acronym as C.E.P.T.L.

The factory receives between 800 and 1,000 litres of milk per day, below 6,000-litre capacity.

Kanimba asked the cooperative to organise its management properly so that they can get autonomy to manage the new plant.

He pledged that the transport issue will be solved in March.

Mahoro, the manager, said once they get Rwanda Standard Board certification, there is ready market for their products even in DR Congo.

Aime Bosenibamwe, the governor of Northern Province, urged farmers to adopt high yielding cows and start buying animal feeds for their animals to increase milk productivity.

Joseph Mungarurire, the director general of National Industrial Research and Development Agency (NIRDA) responsible for community processing centres said more research could be carried out on products which could be produced by the plant.

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Annex IV: RALIS value chain training report

DAIRY QUALITY BEST PRACTICES TRAINING REPORT

INTRODUCTION

A dairy quality best practices certification (SoQ) project for dairy related businesses was initiated through the collaboration of the USAID-Funded Rwanda Dairy Competitiveness Program II (RDCP II) and MINAGRI, and was launched in May 2013 by the Ministry of Agriculture and Animal Resources.

The project has been designed as a mechanism to enhance safety, quality, quantity and consistency of Rwandan milk following a system that involves training, inspection, auditing and certification of dairy value chain actors from farmers to milk kiosk outlets.
As a mechanism of implementing this project, RALIS obtained a grant from RDCP II to carry out a pilot project aimed at certifying dairy enterprises meeting the minimum standard requirements. This pilot project will prepare RALIS for institutionalization and operationalization of dairy best practices certification project through enforcement of the Ministerial Order on milk handling and standards requirements especially the mandatory standards on milk and milk products in the whole country for sustainability purpose.

It is in this regard that RALIS organized and conducted trainings of selected MCC operators, milk kiosks operators, milk zones operators and small processors across the whole country in a way of acquainting them with the requirements of the SoQ project. The training covered different courses such as **Milk and milk product code of hygiene, Ministerial Order regulating the collection, transport and commercialization of milk and milk standards** both aiming at improving Rwandan milk quality through implementation of dairy best practices

DATE OF TRAININGS
The training started from 14th March and ended 25th March 2016

TRAINING VENUES
The training was conducted in six training sessions:
- ✓ 14th to 15th at Lavoisina hotel, MUSANZE (1 session)
- ✓ 14th to 26th at Centre Saint Andre Kabgayi, MUHANGA (4 sessions)
- ✓ 23th to 24th at La Palisse Hotel Nyandungu, KIGALI (1 session)

This training addresses the following weaknesses:
- ✓ There is inadequate organization and harmonization of dairy value chain operations which make certification of dairy systems difficult hence making such products from such dairy systems less competitive on domestic, regional and international markets.
- ✓ There is a lack of adequate skills on milk handling and processing standards' requirements by dairy chain actors
- ✓ There is a low quality, safety and traceability system among the dairy-related businesses because of poor documentation, implementation and record-keeping.

ATTENDANCE

Table 1: Number of MCCs that attended the training

			Sex Disaggregation	
Province	**Number of MCCs**	**Number of participants**	**Female**	**Male**
South	16	32	10	22
West	15	29	7	22
East	24	47	12	35
North	16	31	6	25
Total	**71**	**139**	**35**	**104**

Table 2: Number of processors that attended the training (country wide)

		Sex Disaggregation	
Number of processing units	**Number of participants**	**Female**	**Male**
21	42	8	34
Total	**42**	**8**	**34**

NB: Processors were trained in one training session

Table 3: Number of milk zones/milk kiosks that attended the training (Kigali City)

		Sex Disaggregation	
Number Milk zones/milk kiosk	**Number of participants**	**Female**	**Male**
29	29	16	13
Total	**29**	**16**	**13**

OBJECTIVES

- ✓ Creating awareness on ministerial instructions on milk handling, safe and quality milk consumption to dairy chain actors and consumers;
- ✓ To improve adherence/compliance to the ministerial instructions on milk handling and standards' requirements;
- ✓ To initiate/improve documentation, implementation of the documented procedures and record-keeping in a consistent manner by dairy value chain actors;

LEARNER OUTCOMES

By the end of the course trainees had gained adequate knowledge and skills to:

- Be able to produce safe and clean milk.
- Be able to handle milk in hygienic conditions as per the code of hygiene practice
- Be able to conduct basic milk quality tests.
- Be familiar with milk standards.
- Be familiar with the Seal of Quality Program
- Initiate/improve documentation, implementation of the documented procedures and record-keeping
- Abide by the Ministerial Order regulating milk handling, transport and selling

CONTENT OF THE TRAINING

The training content was tailored in accordance to the type of dairy enterprise in question. The general training content is outlined below:

- *Concept of Seal of Quality*
- *Code of hygiene for milk and milk products: CAC/RCP 57-2004*
- *Principles of food hygiene: CAC/RCP 1-1969*
- *Rwanda Standard-Specifications of Unprocessed Milk- RS 41:2012*
- *Rwanda Standard-Specifications of Pasteurized Milk- RS 42: 2012*
- *Rwanda Standard-Specifications of fermented Milk- RS 43: 2012*
- *Rwanda Standard-General Requirements for Cheese-RS61-part1:2012*
- *Rwanda Standard-Specifications of Yoghurt-RS 60:2012*
- *Dairy Standard Operating Procedures*
- *Ministerial Order N° 001/11.30 of 10/02/2016 that regulates collection, transport and selling of milk.*

As for the proceedings of the training sessions, RAB staff led a session on hygienic milk production and mastitis control, while RALIS staff led sessions on the seal of quality concept, code of hygiene practice, record keeping, development of procedures and the Ministerial Order on milk collection, transport and selling. In some sessions, RDCP II staff led sessions on specific milk and milk products Standards and practical milk quality testing practices.

The training delivery method was by way of power point presentations, group work preparation and presentation, practical demonstrations, use of flip charts for emphasis and trainee participatory approach.

TRAINEE FEEDBACK

The training was quiet appropriate to the level of trainees and in some cases it was a kind of refreshment on what they have been trained on before except the component of documentation of SOPs which seemed to be a new thing for them. They participated actively during the training presentation as well as in breakout sessions.

According to the general perception, trainees were very interested in having the ministerial order in place and were very attentive at every article of it. They are happy to have in place a regulation which will help them to run their businesses efficiently.

CHALLENGES

The main challenge is that some participants expect to get money from the training instead of thinking about the knowledge and skills they will get from the training. That's why some of beneficiaries who were invited didn't attend due to the previous experience.

RECOMMENDATIONS

- ✓ We recommend the field follow-ups by field RDCP II staff, right after this training especially for the component of Documentation and record keeping especially "**Standard Operating Procedures (SOPs)"**
- ✓ We also recommend RDCP II staff to advise dairy actors on the maintenance of buildings (flows, walls) and equipment maintenance **(Calibration)** because the implementation of milk code of hygiene guidelines requires to have foundation, it means well maintained facilities or "**Prerequisite Programs(PRPs)"** in the language of **HACCP**

APPENDICES

- ❖ Attendance list was submitted as **Annex I**

- ❖ Pictures

Pictorial

Figure 1: Visit to one of the nearest MCC for practical sessions

Figure 2: Group presentation on procedure development

Figure 3: Trainees following the course presentation

Figure 4: Milk testing exercises by trainees them selves

Figure 5: Trainees doing group exercises

Report for the Dairy Producer's Cluster on the Formation of Dairy Cooperative Unions.

The photo above shows the union leaders in the swearing in ceremony.

1. Introduction

Rwanda National Dairy Platform (RNDP) received financial support from Land O' Lakes RDCPII to establish functional leadership for each member cluster of the Platform. This report is specifically for the cluster of dairy producers and is categorized into two parts as follows;

- The establishment of district dairy cooperative unions
- The conduction of situational analysis or needs assessment as one of the means to address some of the challenges identified

2. The Objective of the exercise

The program aimed at achieving the following;

- To increase the number of district unions joining the Federation of Dairy Farmers of Rwanda (NDFF)
- To have a viable and functional leadership at primary and districts cooperative level
- To improve management and functioning of cooperatives, unions and ultimately the Federation of dairy Farmers
- To highlight challenges, needs and expectations of the dairy producers in the country
- To assist the Platform to put in place strategic actions and programs geared towards solving challenges that impede dairying business in Rwanda
- To act as an opportunity to extensively discuss on the Platform's vision, mission , goals and objectives to the main drivers of the dairy industry

3. Expected outcome/Output

This program is expected to provide the following results to the development of the cluster of producers;

- More district unions will be formed to join the existing National Dairy Farmers Federation
- Management of dairy primary cooperatives, unions as well as the Federation will be significantly improved
- Dairy farming business will be significantly improved as a result of improved management of cooperative unions
- Milk production, collection, storage and marketing will be improved as a result of improved management at MCC's and Unions
- The Platforms' performance will be significantly enhanced through a viable and functioning cluster of producers

- The Platform will be capable of formulating strategic programs aimed at finding solutions to various challenges identified along producers value chain segment
- Leaders of the cluster of producers will be enlightened with details concerning the Platform and its social-economic importance to the development of dairy industry of Rwanda

3. Implementation Framework of the Program

The Secretariat of the Platform in collaboration with the Chairperson of the Cluster of Producers (National Dairy Farmers Federation) organized meetings across the country at five sites. At least there was one site in each province. The sites were as follows;

1) Musanze (Northern Province) which included the districts of Musanze; Burera and Gakenke.

   Out of 107 invited participants, 91 persons managed to attend the meeting which was held in the meeting hall of Muhoza sector.

2) Rubavu (Western Province) which included the districts of Rubavu; Rutsiro, and Ngororero.

   On this site, out of 78 persons who were invited for the meeting, 62 persons managed to make it to Rubavu for a one day meeting. The meeting to place at the meeting room of Amahoro Cell.

3) Muhanga Site (Southern Province) which included the districts of Muhanga and Ruhango.

   At this site 72 people were called for the meeting but it was only 39 people who made it to Muhanga for the meeting. The meeting convened at the Youth Friendly Centre located in Muhanga Township.

4) Bugesera –Mayange Site (for Eastern Province)

   At this site, 48 members of primary cooperatives were invited for a meeting, but only 27 persons managed to attend.

5) Kayonza-Mukarange Site (also for Eastern province)

For kayonza site, the meeting was conducted at the sector hall of Mukarange sector. 30 persons were invited for the meeting, but 19 persons only managed to attend.

NB: The meetings were presided over by either the 1st or 2nd vice chairperson of the Platform. During this period, the chairperson and the Executive Director of the Platform were out of the country on official mission to attend the Technical meeting on the Development of Dairy value chain in EAC organized by COMESA, ASARECA and ECDPM. The meeting was held in Nairobi- Kenya.

As usual, the first item on the agenda after general introduction was the explanation on the purpose of the meeting, the roles and responsibilities of the Platform in the dairy industry, the vision, mission and objectives of the organization, its future development scenarios with regard to the industry in Rwanda as well as the importance of forming unions of dairy producers.

4. Establishment of District Dairy Cooperative Unions

4.1. Establishment of Unions of Dairy Producer's Cooperatives in Northern Province (Musanze Site).

The meeting was conducted on 28th march 2016 at a meeting room of Muhoza sector. Through the chairperson of NDFF, the Platform had invited 107 participants from 4 districts in the Northern Province as follows; Burera; Gakenke; Musanze and Rulindo districts. The participants from each districts were as follows;

- Musanze district-16 persons
- Gakenke district-36 persons
- Rulindo district-23 persons
- Burera district -23 persons

A total of 107 participants were invited but 98 managed to attend

Through democratic election process, 4 unions were established for each of the above mentioned districts. The names for each union formed are as follows;

- Iriba ry' Aborozi ba Musanze : formed by 3 primary dairy producers cooperatives operating in Musanze district
- Union des elevere de Gakenke: formed by 5 primary dairy producers cooperatives of Gakenke district
- UPROCEBRU: formed by 6 primary dairy producers cooperatives of Rulindo district
- IABU: formed by 4 dairy producers cooperatives operating in Burera district

4.2. Establishment of Unions of Dairy Producer's Cooperatives in Western Province (Rubavu Site).

Again through a democratic election process, the meeting which took place on 29^{the} march 2016 at meeting room of Amahoro cell Mahoko sector elected into office two district unions of Rutsiro and Rubavu. The platform had invited 78 participants from 3 districts as follows; Rubavu, Rustiro and Ngororero Districts, The participants from each district were as follows;

- 14 participants from Ngororero district
- 15 participants from Rustiro district
- 33 participants from Rubavu district

A total of 62 invitees managed to make it to Rubavu.

Two unions for Rubavu and Rutsiro were formed leaving Ngororero without forming any due to not fulfilling the requirement of forming a union. As per RCA instructions, a union can be formed by a minimum of three primary cooperatives. Ngororero was represented by two primary cooperative unions, thus did not legally qualify.

The following are the names of the unions formed

- IARU : this was formed by 7 cooperatives in Rubavu district
- Urukundo Union: this was formed by 3 cooperatives in Rutsiro District.

4.3. Establishment of Unions of Dairy Producer's Cooperatives in Southern Province (Muhanga site).

As highlighted above, the meeting to form unions of dairy cooperative in the province convened on 31^{the} march 2016 at a meeting room of Muhanga Youth Friendly Center in Muhanga district.The Platform had earlier invited 72 participants from 2 districts as follows;

- 17 participants from Muhanga district
- 22 participants from Ruhango district

A total of 39 Participants made it possible to attend the meeting

Two unions with their corresponding names were formed in the southern province as follows;

- Muhanga Cooperative Farmesr Union(MCFU) :formed by 4 primary dairy cooperatives in Muhanga district
- Ruhango dairy union cooperative (RUDAUCO: this was formed by 4 primary dairy cooperatives operating in Ruhango District

4.4. Re-establishment of unions of dairy producer's cooperatives in Eastern Province (Kayonza site).

As narrated here above, the meeting to re-establish/revive a dormant Kayonza Dairy Farmer's Cooperative union was held on 30 ^{he} march 2016 at a meeting room of Mukarange sector Garden. The Platform had earlier invited 30 participants from Kayonza district. However, 19 persons managed to attend the meeting.

NB: Kayonza union had been established sometime in the past but was not functional due to management problems regarding lack of ownership and responsibility. The name of the union was KDFU (Kayonza Dairy Farmes Union) and was formed by 5 primary cooperatives operating in Kayonza district.

4.5 Establishment of Unions Of Dairy Producer's Cooperatives in Eastern Province (Bugesera site).

As above, this was the second site for the Eastern Province. The meeting to elect into office the leaders of District union convened on the 1^{tst} April 2016 at a meeting room of Mayange Sector. As usual, the Platform had invited 48 participants from Bugesera district. However, 27 persons managed to attend the meeting.

A district Dairy farmers Union for Bugesera was formed. The name of the Union is (UCEVABU) Horaninka Union des Cooperatives des Elevere de Bugesera which was formed by 5 cooperatives operating in Bugesera district.

In summary, RNDP facilitated the activity of elections as well as putting in place the leadership structures of new Dairy Cooperative unions formed. As earlier described, elections to put in place leaders were democratically conducted to elect into office filling the following positions;

i. The President
ii. the Vice President
iii. The Secretary cum treasurer
iv. Two advisors or councilors
v. three members comprising audit committee for the union

- Table below shows the names and position of union leaders in the Northern province

1. Gakenke union: UEG

No	Names	Position
1	Barame Mathieu	President
2	Urimubenshi Jean Baptiste	Vis President

3	Mukakirezi Beatrice	Secretary
4	Mujawamariya Marthe	Counselor
5	Dukuzumuremyi Ephrem	Counselor
6	Ukurikiyemungu michel	Auditor
7	Tuzahirwa Vincent	Auditor
8	Twagirayezu Constance	Auditor

2. Burera union: IABU

No	Names	position
1	Hakuzimana Aloys	President
2	Uwamahoro Hycienthe	Vis President
3	Mujyambere Jean de Dieu	Secretary
4	Habiyambere jean Baptiste	Councilor
5	Ndayambaje Mecthilda	Councilor
6	Uwanyirigira Marie Jeanne	Auditor
7	Rutayisire Jean de Dieu	Auditor
8	Dushimiyimana Dominique	Auditor

3. Musanze union: IAMU

No	**Names**	**position**
1	Ryamukuru Innocent	President
2	Rukundo Silas	Vis President
3	Hakizimana Jacques	Secretary
4	Mitutu Emiel	Councilor
5	Rwangobwa Samuel	Councilor

4. **Rulindo union: UPROCEBRU**

No	Names	position
1	Rwagasore Venuste	President
2	Muhawenimana Marguerite	Vis President
3	Uwabera Aaron	Secretary
4	Rutayisire Marc	Councilor
5	Ntirubabarira Marc	Councilor
6	Mukanturanyenabo Patricia	Auditor
7	Ndayambaje staton	Auditor

Table below shows the names, position of union leaders in the western province

5. **Rubavu union: IARU**

No	Names	position
1	Kazarwa Uwamwiza dativa	President
2	Nganizi Gasangudu	Vis President
3	Nyirakarebori Marie Louise	Secretary
4	Gasafari Constatin	Councilor
5	Ndagijimana Theogene	Councilor
6	Rwangobwa samuel	Auditor
7	Karemera Claude	Auditor
8	Musabyimana Thomas	Auditor

6. **Rustiro union: URUKUNDO**

No	Names	position
1	Niyoteze John	President
2	Rutabigwa Butatu	Vis President
3	Nkotanyi Evariste	Secretary
4	Nyiransabimana Josiane	Councilor
5	Nsababera Theophile	Councilor

Table below shows the names and position of union leaders in the southern province

7. **Ruhango union: RUDAUCO**

No	Names	position
1	Uwamariya Alvera	President
2	Bashima Hussen	Vis President
3	Nyiramugisha seraphine	Secretary
4	Ndayisaba Alexis	Counselor
5	Semuhungu Jean Marie	counselor

8. **Muhanga union: MCFU**

No	Names	position
1	Karubera beline	President
2	Niyonkuru syliveste	Vis President
3	Mujawajambo marie Grace	Secretary
4	Musengimana theogene	Counselor
5	Umutoniwe sylivia	counsolor

9. **Bugesera Union: UCEVABU**

No	Names	position
1	Gasirabo louis	President
2	Yaramba joseph	Vis President
3	Mukantwari speciose	Secretary
4	Rutaremara Innocent	councilor
5	Mukabaramba Thacienne	councilor

5. Conduction of needs assessment/ situational analysis

This activity was carried out concurrently with the process of putting in place leadership structures for the unions. The objective was to get from the horses' mouth the real challenges, issues, opportunities and threats that dairy producers currently face with the ultimate goal of looking for solutions and actions to intervene or support initiatives earmarked for dairy producers' development.

Through participatory discussions and interactions, the following issues were highlighted;

a) Un-organized and poorly managed primary cooperatives coupled with lack of committed leadership and poor management practices
b) Lack of improved dairy cattle breeds
c) Lack of veterinary support services or in general there is inadequate provision of Artificial Insemination services
d) Lack of knowledge in preparation or compounding of animal feeds and when tried its of very poor standards attributed by lack of technical knowhow
e) Expensive or not affordable veterinary drugs and equipment (being expensive for farmers to purchase)
f) Inadequate supply of animal feeds raw materials for the production of balanced animal meals and when available are very expensive, thus concentrates are not affordable for small hold dairy farmers
g) Most of the cooperatives managed MCC's are not working due to lack of electricity supply and water
h) Lack of elementary knowledge and skills on business development

However, the strength of the cluster of producers is imbedded in their numerical size (big number of producers), a wealth of huge number of cattle kept as well as national wide organizational set up which has been facilitated and mentored by the Cooperative Agency of Rwanda. On top of that, the National Dairy Farmers federation is a member of PSF and

automatically a member of the Chamber of Agricultures; this gives it a unique quality of strength and is marked as an important cluster component to the Platform.

6. Identified needs for the cluster

The following issues were finally adopted as key needs for the development of the cluster;

a) Training in management and leadership skills development
b) training in elementary business development aimed at making each smallholder dairy farmer to mange his/her farm as an enterprise
c) Training and capacity building in dairy cattle breeding as well as in AI techniques for those without knowledge
d) Capacity building in general dairy cattle husbandry best practices
e) Training in animal feeds compounding/mixing for a balanced cow meal
f) Study tours to areas with well developed dairy farming in the region and beyond

7. The way forward:

i. After the situational analysis of the cluster of producers, elected persons will undergo capacity building on various themes aimed at strengthening their leadership capability.
ii. Each newly formed district dairy cooperative union will be facilitated to initiate steps to establish legal personality through registration in the appropriate body.
iii. There shall be organized training and capacity building exercise for all cluster members aimed at addressing some of the issues highlighted during this exercise.
iv. There shall be organized various meetings with key partners in the public and private sector aimed at facilitating or linking producers to relevant support services in a bid to solve some issues mentioned above

8. Recommendations

It has been found out that, there are still districts that have not yet formed dairy cooperative unions. The cluster of producers is thus requesting for further support to facilitate the establishment of unions in the remaining districts.

Also, although it is believed that there has been at 12 existing unions that formed the national dairy farmers' federation, these unions are not actively working due to lack of resources as well as poor management practices. They lack skills to run the unions. Therefore the management of the federations is seeking for further support to strengthen the existing unions so as to have a strong federation capable of contributing to sustainability of the platform.

Finally, the Platform would like to put more emphasis on the development of dairy farmers cooperatives and unions since, this is the fundamental cluster for the increased production

and productivity of milk which by itself being strong ,will drive the economy of the whole dairy value chain of Rwanda strongly.

10. Conclusion

The exercise of forming the district unions went well as was planned. We got a lot of lessons, observed various challenges of the cluster, but more importantly, district unions were established. It is the platform's hope that, the federation of dairy farmers shall become strong and contributes to its sustainability as well as for RNDP.

The next step as highlighted above in the way forward would be to conduct capacity building for newly elected leaders as it was done with other clusters.

Prepared and submitted by

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ED-RNDP

CC. RNDP Board members-all

Urunana Development Communication (Urunana DC)

In partnership with

LAND O' LAKES, INC.

Project Title:

"Awareness Creation towards Improved Nutrition through Increased consumption of Milk and dairy products in Rwanda" (ACINIM)

The report of the Community Outreach Theatre shows in Gisagara, Ruhango Gicumbi and Bugesera districts

April, 2016

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List of Abbreviations

BSCC	: Behaviour and Social Change Communication
Urunana DC	: Urunana Development Communication
RDCP II	:Rwanda Dairy Competitiveness Program II
ACINIM	: Awareness Creation towards Improved Nutrition through Increased Consumption of Milk and dairy products in Rwanda
RBC	: Rwanda Biomedical Centre
SPIU	: Single project Implementation Unit
MCCH	: Maternal Child and Community Health
VPDP	: Vaccine Preventable Diseases Program
HPV	: Human Papilloma Virus
HC	: Health Centre
HIV	: Human Immune Virus
AIDS	: Acquired Immune-Deficiency Syndrome
CD	: Compact Dis

INTRODUCTION

Urunana Development Communication (Urunana DC) is a National Non-Government Organisation specialised in development Communication mainly focusing on behaviour and Social change Communication (BSCC) using innovative communication strategies through various communication channels. Urunana DC BSCC communication program aims at contributing to the improvement of health and social welfare of the population in Rwanda. Urunana DC disseminates a blend of educative and entertaining messages via a Radio Soap Opera, Urunana and other BCC products such as Umuhoza Radio Magazine, radio sketches, radio spots, mini drama, and etcetera.

What makes our productions unique is that Urunana DC balances a blend of entertainment and Education with a suspense that generates interest to track the next programme for connection especially in Urunana Radio Soap Opera. This kind of communication offers an advantage of increasing the audience's belief that people in similar circumstances can learn vicariously and model positive characters. Such entertaining and educative programmes positively reinforce beliefs and behaviours compatible with public health goals.

In partnership with **LAND O LAKES/Rwanda Dairy Competitiveness Program II (RDCPII)**, funded by the **USAID**, Urunana DC is implementing a communication project titled "*Awareness Creation towards Improved Nutrition through Increased consumption of Milk and dairy products in Rwanda (ACINIM)*". Research findings have revealed that part of the causes of severe malnutrition in Rwanda is due to low consumption of milk and dairy products. The effect of malnutrition is widespread among children under five years and also among expectant as well as lactating mothers.

LAND O LAKES/Rwanda Dairy Competitiveness Program II (RDCPII), found it imperative to raise awareness among the Rwandan population to increase knowledge and improve attitude and behavior towards milk consumption. It is important also to highlight the nutritional benefits of milk and dairy products, among the target population. Milk is generally considered among the population, more of source of economic income thus end up selling it all without living any for home consumption. Prior to developing the key messages which could address the existing gaps

in knowledge, attitudes/behaviour and practices among the target population, LOL/ **Rwanda Dairy Competitiveness Program I and II (RDCPII)** facilitated a orientation workshop for Urunana DC production team and other technical staff, to present and analyze the problem of malnutrition and the need to increase consumption of milk and dairy products by the target population. During the workshop, potential stakeholders in the dairy and nutrition Sector were identified. The workshop helped the production team of Urunana DC in exploring the existing communication gaps among the target population and also helped in identifying communication strategies which could challenge prevailing negative attitudes and behaviors.

1.2 Project purpose and objectives

The purpose of the project is to increase milk consumption in order to diversify diet towards improving nutrition of pregnant women/lactating mothers and children below five years.

1.2.1 Project objectives:

(**1**) To increase knowledge about the nutritional benefits of milk and dairy products among the target population;

(**2**) To improve attitude and behaviour about milk consumption among the target population.

(**3**) To increase milk consumption in order to diversify diet towards improving nutrition of pregnant women/lactating mothers and children below five years.

During the current partnership with Land O' Lakes, Urunana DC aims to raise awareness towards improved consumption of milk and other dairy products, promote milk hygiene and handling practices among the Rwandan population.

PROJECT ACTIVITIES IMPLEMENTED

This section describes the community outreach theatre activities at carried out during the month of March 2016. On March 5, 6, 19 and 20, 2016, Urunana DC in collaboration with Land O' Lakes Inc. carried out community outreach theatre shows in the districts of Ruhango, Gisagara, Gicumbi and Bugesera district, respectively. The community skits were performed live by the famous Urunana actors at the selected sites. All of the theatre shows were attended in large numbers ranging between 5000 – 12,000 people. Three (3) community outreach theatre skits were performed at each of the four (4) sites. The key messages in the skits aimed at addressing the following communication objectives:

- To increase knowledge about the nutritional benefits of milk and dairy products;
- To increase milk consumption with the aim of improving nutrition of pregnant women/lactating mothers and children below five years.
- To improve attitude and behaviour about milk consumption
- To raise awareness on milk hygiene and handling practices

It was estimated that about forty thousand (40,000) people were reached with the key messages through the community outreach theatre skits performed at the four selected sites. A question and answer session (Quiz session) was conducted to ensure that the audience clearly understood the key messages. During the quiz session, participants who responded to the questions correctly were awarded with some promotional materials such as T-shirts and brochures.

The community theatre animator (MC) also interviews among the audience to ensure that the key messages were understood. The community theatre animator moved around among the audience interviewing at random any participants who wanted to share any lessons learn from the skits performed by Urunana actors.

Table 1: Sites where the community outreach theatre shows were performed

Date of the community theatre	**Site of the Event/Place**	**Estimated attendance**
05/03/2016	Kinazi sector, Ruhango district	11500-120000
06/03/2016	Kansi sector, Gisagara district	14500-15000
19/03/2016	Mukarange sector Gicumbi district	3800-4000
20/03/2016	Ruhuha sector, Bugesera district	8000-8500
Total		**37800 -39500**

Photos 1: Photos showing cross-section of audience and actors on stage performing the skits at various sites

Photo 1: Scene in Ruhango in a family where the family head (husband) sold all the milk leaving nothing for his family consumption

Photo 2. *A attentive and excited audience at Ruhuha in Bugesera district as Urunana actors were performing the skit on stage*

Photo 3: *Another scene in Ruhango a community mobilize trying to convince the family head to always leave some milk at home for his family consumption*

Photo 4: *A scene in Kansi, Gisagara about proper handling of milk*

Photo 5: *Another scene in Kansi, Gisagara about making the taking of milk a priority*

Photo 6: In Mukarange, Gicumbi district on the issue of some men who sell all the milk without catering for family consumption

Photo 7 a

Photo 7 b

Photo 7; a & b: In Gicumbi about pregnant women who are not provided enough milk for consumption

***Photo 8**: In Bugesera,a scene where a woman who was denied milk at home, hides it and takes it at her neighbour's home*

***Photo 9**: In Bugesera district about some family heads catering for their booze (beer) than they do for milk required for home consumption*

Distribution of milk to children who are below five years

This was one of the key activities during the community outreach theatre show events. With the support of Land O' Lakes, Rwanda Dairy Competitiveness Program 11 (LOL/RDCP II), children were served with milk. The children and their mothers/care takers were very excited about the offer where fresh milk was served to children by Land O' Lakes staff and Urunana DC staff. This activity was done following the key messages to raise awareness towards increasing milk consumption through the community outreach skits.

Photo 2: ***Photo 10 & 11: Children taking fresh milk***

***Photo 10& 11**: In Gicumbi district children, pregnant and breastfeeding mothers being given milk*

Lessons learned:

- Community mobilization using the community outreach theatre approach with skits carrying the desired key messages is very effective considering the way messages reach huge numbers of the population who attend the events;
- The provision of milk for milk to children was very a very important approach as it could address issues of malnutrition among children. At least during the activities one could tell that parents/care takers had a positive attitude towards milk as they were happy to give it to their children;
- The support of the partner, Land O' Lakes Inc. contributed significantly towards the success of the community outreach theatre shows at the four sites.

Conclusion and Recommendations:

The community outreach theatre show events were very successful at all of the four sites. About forty thousand people were reached with key messages aimed at raising awareness on improved nutrition through consumption of milk and dairy products. The provision of fresh milk to children was very exciting to parents/caretakers and children were very happy to drink milk. Despite the fact that this was a one-time activity, it could have help in the addressing any existing malnutrition among the children who were served milk during the community outreach events.

We recommend that the partner, Land O' Lakes Inc. continues to provide for fresh milk to be distributed to children during the upcoming community outreach theatre show events. This could further help to dispel any existing negative attitudes towards milk consumption among the population when they see that children take milk and it does not negatively affect them.

Prepared by,

_____
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Project Officer

Approved by,

_____
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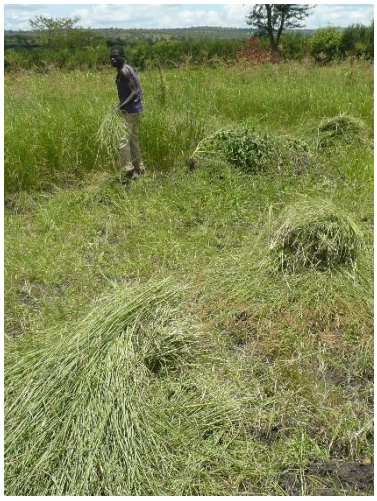
AgriProFocus and partners pilot the first Dairy Learning Lab in Rwanda.
10-11 March, Nyagatare

For the first time in Rwanda, AgriProFocus Rwanda in partnership with Land O'Lakes Inc. implementing the Rwanda Dairy Competitiveness Program II organized a Dairy Learning Lab. This was 2 day training with morning farm visits to emphasize the expression: "seeing is believing" and afternoon workshops for feedback and additional learning.
Beside the organizers there were 34 participants: 12 females and 22 males.

The first visit was at a farm in Bugaragara of Rwemiyaga Sector at Mr. Nkuranga Oswald's farm with 5 ha of land and 9 cattle of which 5 were in lactation. At the beginning of the visit a list with questions and attention points was given to the participants. This had to be translated for most of them. The farmer attended a course about cattle management and took the decision to sell his 5 head herd and start business with 6 new cows. He grazed the cows in rotational grazing and supplemented them two times a day with some grass cut on the field with a sickle. An employee was cutting 4 bundles of at the utmost 10 kg of grass two times a day.



In one field there was some wild Desmodium, in the other field the weed was weeded out after cutting the grass. A mixture of grass and legumes could be very profitable for the quality of the feed and for the animals (and yield).

There were some piles with manure on the field but not spread. To make the best use of manure and compost, it should be stored in one pile (mixed when necessary) and be spread over the field when the nutrients are needed. When the manure is stored in small piles on the field, nutrients are

lost because they are leaking out of the pile and cannot be kept by the soil (too much nutrients on one spot).

The farmer supplied ad libitum raw salt in a trough beside the feeding trough.

On the farm were experiments with improved grasses like Napier grass. Improved grasses yield more and have a higher feeding value than the natural grasses. What variety to choose of improved grasses and legumes depends on the suitability to the circumstances on the farm (dry, wet, soil fertility, grazing or cutting). A hippo caused a lot of damage in one of the field with improved grass and ate a lot of that obviously tasty grass. It was realized the participants started collecting grasses and took some plants to use them on their own farm.

The farmer made hay and sold part of it in bales, made with a hay box especially in the dry season. He demonstrated how to use the hay box and how to make nice bales. The advantage of bales is that more hay can be stored in the same storage because it is compacted. The hay was mature (high quantity) while high-yielding cows need young grass with high feeding value (high quality).

The farmer sold also seeds from his grasses. The advice for seed harvesting is to harvest seeds from a part of the field and harvest the other part of the field at a younger stage, delivering high quality roughage. Roughage from grass for seed is mature and has lost most of the feeding value.

Together with his neighbour he pumped water in a basin from the river with a hired pump, to provide the cows with water.

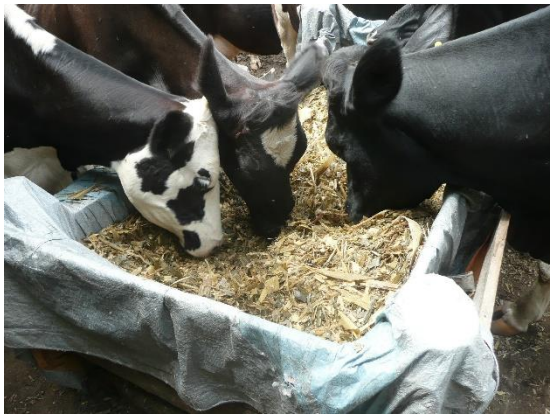
The second farm visit was at Nyagashanga of Karangazi Sector at the farm of Mr. Turatsinze James. We walked down the hill and saw the 12 cows and young stock grazing on natural grass. The second part of the list with questions was explained by Anatole. Next time questions should be translated in the local language for a better understanding and to save time. We saw the feeding of maize silage and the farmer explained how he made the silage and did the feeding.

On the farm there are 4 ha of maize, of a local variety. The farmer harvests in January and in July and turns the whole plant into silage. With the help of people from the local community, they are able to chop 1 ha per day (cutting the plants, carry the harvest to the chopper and put it in the silo). Compacting is done by walking over the silage constantly and trying to get it as compact as possible to get the air out. In four days they can ensile all the 4 ha. The silage is covered with a plastic sheet and on top of that a thick layer of soil (to keep the pressure on the silage). The chopper was used together with another farmer to save money.

The silage pit is about two meters deep and two meters wide and 30 meters long. That can contain the maize of the 4 has, being 120 m3 of feed. When compacted well, each m3 contains 150 kg of dry matter.

For the next harvest a new pit will be dug. The pit has a kind of a ditch to drain the effluent from the silage. To prevent these effluent losses, a layer of hay covers the bottom of the pit before the pit is filled with maize silage. The maize is cut when the grains are in the milk maturity stage: when you squeeze them between the thump and the finger, only a little milk like substance is released. In this way there are almost no losses of feeding value.

The silage is taken from the silo every day and about one meter is fed in a week. So in the silo is enough feed for 30 weeks, more than half a year. The farmer used about one metre per week, equal to 600 kg dry matter from the silage (1 m3 is 150 kg DM). The silo is 4m3 per meter, so 4 * 150 kg DM is 600 kg DM per meter of silo). Per day is 85 kg DM available, or 7 kg per animal.



The maize silage was fed in a feeding trough covered with plastic and cows were standing in a bit of a hole (created by scraping manure and soil from it). In this way manure and urine can leak into the soil and are lost to use it on the maize fields. When there is some money left, the advice would be to build a concrete plate as feeding area and collect as much manure as possible.

Cows were grazed 2 times 2 hours a day and could eat maize silage the rest of the day (except milking times). Water from a well was available at all times. It was collected in a hole and there it could lose some freshness.

AI was used for breeding and the nitrogen container was stationed at the cooperative to which this farmer belonged. The farmer bought own straws of semen and he himself inseminates. The farmer experimented with sexed semen because bull calves demand as much feed and care as female calves but bring only one third of the price when sold. Few cows were inseminated with Fleckvieh semen, a dual purpose breed from Switzerland with a good milk yield.

The yield of the cows was up to 25 kg milk per day and they were milked for about 300 days. Reproduction was OK with every year a calf. When fed well, heat detection is not a problem because the cows show it (as we could see). The main problem is tick borne diseases although the animals were sprayed two times a week. No vaccination against ECF. Another problem was mastitis, an inflammation of the udder.

The calves were confined and had no roughage and had a bit long hair: flourishing calves show short coats with shiny hair.

The afternoon sessions were to discuss the observations of the morning visits and compare them with the situation for the participants back home. In the afternoon discussions the main topics were:

- Feeding calves, colostrum and milk. It is very important to feed a calf as soon as possible after being born with colostrum. The first milk of a cow after calving contains a lot of antibodies that are boosting the immunity of the calf. These antibodies are able to pass the intestinal wall of the calf till about 8 hours after birth. To make full profit of this immune boost, feed the calf as much colostrum as possible within 8 hour, preferably earlier. Be sure that the calf gets enough colostrum when it is suckling. After the colostrum period (the first 3 days) you supply milk to the calf, preferably in more meals per day. The amount of milk depends on the weight of the calf and your wishes about growth of the calf and saving milk for the family or for selling. Schemes of milk supply to calves are summarized in the table. From cow's milk about 12% of the weight at birth should be supplied, Research shows that a more milk gives higher producing cows.

Period	Milk per day (in two meals per day)			Water	Soft roughage	Concentrates
Weight at birth	20	30	40			
1 – 2 weeks, litre	2.5	4.0	5.0	always	always	
3-8 weeks, litre	2.5	4.0	5.0	always	always	100 – 700 gr
9-12 weeks, litre	1.0	2.0	2.5	always	always	700 – 1000 gr

- Insemination age or development

  When calves and young stock are fed well, they reach 50% of their adult weight when they are about 15 month of age. They can be inseminated when they are well developed without any disadvantage for further development or yield, When heifers are nor well developed, postpone insemination or bringing it to the bull and wait till it is about 50% of the adult weight.

Adult weight of cattle	300	400	500	600	700
Birth weight	25	30	35	40	45
50% of mature weight at 15 month	150	200	250	300	350
Daily gain	278	378	478	578	678

- Body weight of cows

  The body weight of a cow depends on the breed, the body condition (skinny or fat) and pregnancy. A small survey with the participants proved that the body weight of cows ranged from 300 – 600 kg.

- Dry matter of feed and the feeding value

  The feeding value of all feeds is in the dry matter (see in your handouts).That doesn't mean that all dry matter has the same feeding value. So in calculating rations, you should focus on energy and protein in the dry matter of a feed and not on the dry matter itself. For example: Straw has a high dry matter content: the dry matter is rather low in energy and protein. Young lush grass has a low dry matter content: the dry matter is very rich in energy and protein.

- Energysystem

  In the hand outs you can find energy values of feeds in Megan joules ME (Metabolic energy) and the needs of animals, also in Megajoules ME. That's how it works: the requirements of animals and the feed value in the same system. The protein requirements of cattle are given in CP (crude protein) and so is the protein-value of feedstuffs. Other energysystems are TDN (Total Digestible Nutrients) and NE (net Energy) while protein in other systems is given as DCP (Digestible Crude Protein).

- Different feedstuffs and the value for animals

  The most precise way of knowing he feeding value of your feeds is to analyse them. For the majority of the farmers that is not a real option. In those cases you could look in feed tables where the average values of different feeds are shown. You find the feed that is closest to yours and calculate with the data given. Calculations should be used as a guideline: keep an eye on your animals to see how they perform. In Feedipedia you can find data and other info about hundreds of feedstuffs used in the tropics.

- The best concentrate mixture

  A concentrate mix must be fitted to the rest of the ration and to the needs of the animals. When you feed roughages low in protein then the concentrates should compensate for that and have a high amount of protein. On one of the farms maize silage was large part of the fodder. Maize is low in protein, so the concentrates should be rich in protein. When you feed large amount of legumes, the concentrates can be low in protein. You can also add minerals and trace-elements to the concentrate mixture to be sure that animals are not deficient. And again, this should be fitted to the ration and the needs of your animals.

- Maize choppers

  We saw a powered chopper for maize and grass. That was used by two farmers. You could make a kind of a cooperative and buy a chopper that can be used by more

farmers so you can also share the costs. There are very simple hands or foot driven choppers that work well but require human power.

- Vaccinations against ECF/used car oil against ticks

  It is possible to vaccinate against East Coast Fever and it is effective. Ticks don't like grease on animals because they can't connect. In Zambia used car oil is sprayed over the back and hind part of the animal and is effective against ticks (it is not the most environmental friendly solution because contamination with metals).

- Bringing cattle together to spray, dip etc.

  Animals do have some resistance against the pathogens they know: the ones on your own farm. They can build op immunity against those pathogens at a young age. When there is an infection, the immune systemcan conquer the disease because the animals have some resistance. When animals meet new pathogens they don't have resistance against it and get diseased. Those mighty happen when you bring your cow to a communal bull, gather cattle from different farmers for spraying or dipping, graze on communal land.

- Mastitis prevention/Milking technique

  For healthy animals the focus in the first place should be on preventive management: Don't let cows get sick. Prevention is avoiding stress in all kind of ways: good feeding, fresh water, good care, friendly farmer, good milking technique, good hygiene, vaccination. One of the handouts shows all preventive measures for mastitis, including squeezing the milk out of the udder instead of pulling.

- Antibiotics and resistant pathogens

  Were-ever you apply antibiotics in your lactating cow, you should not use the milk yourself nor deliver it to the collection centre within the withdrawal period. That is mentioned on the package of the medicine. 3-5 days after the last antibiotic application you should discharge the milk. That counts when you apply antibiotic tubes in the udder but also when you injectsomewhere-else in the cows body. Be aware that antibiotics are only effective against bacteria and protozoa.

  When you start using antibiotics, you should use it according to the instructions on the package. When it says that you should use the medicine for 3 days, you must continue for 3 days even when the symptoms disappear after the first application. When you stop the application to early, the strong pathogens might survive and start being resistant against the medicine. This also can affect humans, because the same medicine is used as in animals. The same happens with arcaracides: After a period of time the ticks cannot be killed by the medicine because they are resistant against it.

- Book keeping

  Few of the participants kept records of the animals, the yield, diseases and treatments, inputs and outputs and used it in managing the farm. When you start doing business you have to know where the possibilities are to improve, what is

profitable and what gives losses and keep an eye on the development of the farm. You can start very simple in a small booklet to record animal ID (including data of birth, dam and father, breed, specifications about birth), daily milkyield and sold amount at what price, Inputs as feed, concentrates, medicine and outputs as milk, other animal products, animals.

- Improved breeds = improved management (especially high quality feed)

  When you want to keep improved breeds (crosses with local and exotic breeds or pure exotic breeds) you have to be sure that your management is sufficient to keep them productive, healthy and fertile. Improved breeds are more susceptible for diseases and not so well equipped for the conditions in the tropics as the local breeds are. When your management supplies enough high quality feed, enough care, hygiene and facilities it can be profitable for you to start crossing or buy exotic breeds. As long as there is a gap between the needs of the animal and the supply of the farm (management), exotic breeds on your farm could end in a disaster: your cows don't produce what you expect them to do, they get very skinny and susceptible for diseases because the immune system is on a very low level and cows are not fertile anymore.

Conclusion.

All the participants appreciated the dairy learning lab experience and committed to use this experience in improving the dairy farming. "I have learnt everything but I really wanted to see with my own eyes" said one of the participants. The inputs of the expert were very useful but time was limited considering how eager farmers were to ask questions.