To express interest in this assignment, email: Maria Figueroa at maria.figueroa@crs.org

CRS Farmer to Farmer Program

Volunteer Assignment Scope of Work

Summary Information	
Assignment Code	**UG236**
Country	Uganda
Country Project	Livestock Country Project
Host Organization	Balawoli Kyebaja Tobona Dairy Cooperative Society Ltd
Assignment Title	Herd management in small holder dairy production systems
Assignment preferred dates	March – April, 2019
Objectives of the assignment	To train the dairy farmers on improved herd management practices focusing on pasture management, animal nutrition, and disease diagnosis, prevention/ control measures
Desired volunteer skill/expertise	• Specialized expertise in dairy management/production systems • Formal qualifications in dairy production/management or livestock production/management • Wide experience with small holder dairy production systems in developing countries • Hands-on practical experience in training, extension and emphasis on adult facilitation skills
Type of Volunteer Assistance	Technology Transfer (T)

Type of Value Chain Activity	On Farm Production (F)
PERSUAP Classification	Type II

A. Background

CRS Farmer -to-Farmer program (F2F) is a USAID funded five-year (2019- 2023) program currently in its 2nd year of implementation with a primary goal of reducing hunger, malnutrition, and poverty across six countries: Benin, East Timor, Ethiopia, Nepal, Rwanda and Uganda. The program aims at achieving this goal through advancing inclusive and sustainable agriculture led growth aimed at generating sustainable, broad-based economic growth in the agricultural sector. The program's secondary goal is to increase US public understanding of international development issues and programs and share the knowledge back in the US. To achieve its goals, F2F program provides volunteer technical assistance to farmers and farmer groups (associations and cooperatives), private agribusinesses, agriculture education institutions in developing countries like Uganda to address host identified technical needs in selected agricultural value chains. F2F volunteers are pooled from abroad range of US agricultural expertise, from private farmers with varied experience, University professors, bankers/certified accountants, animal health and nutrition specialists, soil scientists, agronomists who support local host organisations F2F program introduces innovation and develops local organisations capacity for more productive, profitable, sustainable and equitable agricultural systems while providing an opportunity for people- to-people interactions within the agricultural sector. In Uganda F2F program focuses its technical interventions in the livestock and agribusiness value chains

Livestock accounts for 53% of the agriculture capital stock and contributes 30% to agricultural GDP and contributing about 18% to overall agricultural GDP. The subsector provides opportunities for income generation, employment creation and improved food and nutrition security to households across the different production systems and along different value chains (such as meat, eggs, dairy, live animals and hides). It is projected that the demand for livestock products will increase substantially over the next 25 years, however the demand will supersede supply. About 5 million households in Uganda own livestock. The major livestock species in Uganda are; cattle (15 million), sheep (4million), goats (12.5million), pigs (3.6 million), and poultry (42 million). According to the ASSP 2016/2020, the sector is prioritizing the following livestock products over the medium term: Dairy/milk, Beef, Pork, Mutton,

Goat, Poultry, Honey, Silk and Hides and Skins. Beef, dairy cattle, and poultry have been identified as strategic agricultural commodities for the country that are to receive increased investment for accelerated production. The sector targets to produce 3.35 billion liters of milk annually and its products worth approximately USD 49.673 million by 2020. Thirty three percent (33%) of the marketed milk in Uganda is processed whereas sixty seven percent (67%) is marketed raw, providing opportunities for further investment in dairy processing.

In Uganda, there are predominantly two livestock production systems; the traditional system and the improved systems[1]. The traditional system, characterized by minimal inputs and correspondingly small outputs, depends on natural grazing and local breeds. Improved systems, on the other hand, involve some investment such as fencing, pasture and grassland improvement, provision of water and breed upgrading. Livestock production systems and management practices are dictated by the degree of dependence of the household on livestock products for income, cultural values, food supply, and crop agriculture practiced in association with livestock under traditional and non-traditional practices. development of forage resources in the country is continually being done by the national livestock research organisations however, adoption of improved forage varieties by small holder dairy farmers is still very low which has partly contributed to the persistent low milk yields. However, there are opportunities to improve; livestock production continues to grow at a rate of 4% per annum according to statistics in response to increasing demand for milk and meat in the local market[2]. A higher rate of growth is envisaged as the government continues to pursue its policies of modernizing and commercializing agriculture. The targeting of high-potential areas as a basis for resource allocation, by both government and private investors, has led to the rapid increase in output and the integration of the livestock sub-sector into the cash economy, especially for dairy and beef related enterprises.

B. Issue Description

[1] Within these general types the five grazing methods have been documented namely i) Communal /pastoral system ii) Tethering iii) Enclosed ranching iv) Fenced dairy farms and v) Zero grazing See, for example, Country pasture/forage resources profile-Uganda (Mwebaze, 1999).

[2] The demand for milk in Uganda comes from households, schools, hospitals, catering institutions, food and dairy processing plants. By 2001 the dairy sector in Uganda was reported to contribute about 20% to the food processing industry, which itself contributed about 4.3% to the national GDP (http://www.ugandainvest.com/livestock.pdf).

Despite the noticeable progress in the development of the livestock sector and dairy sub sector, there are several limitations deterring progress. These setbacks include, among others: increasing degradation of grazing areas due to poor grazing practices (like over-grazing); inadequate production of improved pastures and short supply of good livestock feeds; inadequate knowledge on improved livestock/dairy herd management practices to prevent high morbidity and mortality levels within the individual herd; inadequate feeding due to shortage of quality and quantity of forage and fodder particularly during the dry season; lack of access to high quality seed and vegetative planting material and the high cost of production in the intensive systems resulting in low returns. These limitations are exacerbated by the widespread low literacy levels among most livestock farmers which hinder the adoption of improved technology. The sector is further constrained by the poor market outlets for milk (due to a poor rural road network and near absence of rural electrification).

Balawoli dairy cooperative society members continue to experience low milk yields currently at 3-5 Litres and 12 litres per day from indigenous and cross breeds respectively which is below the expected yield potential of the dairy animals. Majority of members have between 5 - 10 heads of cattle most as cross breeds, 50% use AI while 50% use bulls, most farmers practice zero grazing methods while about 1% are pastoralists, the common form of feed supplementation is using hay and silage though still limited among farmers. Average land ownership is varied with about 50% of the farmers owning 10 acres. This situation is attributed to several reasons such as; inadequate knowledge/skills of herd management among dairy farmers, specifically over stocking of animals resulting into over grazing, absence of feed supplementation for animals (heifers and dairy cattle), poor pasture management practices, and lack of knowledge on disease management techniques. Common disease challenges are tick borne related diseases mostly prevalent in the wet season and liver fluke related diseases in the dry season. The cooperative board and management is seeking for F2F volunteer technical assistance with a focus on general herd management in small holder dairy production systems to help provide recommendations for addressing these challenges.

Brief host profile: Balawoli Kyebaja Tobona is a member owned dairy cooperative dating back to 1960 started through the government initiative of cooperative development; and a member of Busoga dairy cooperative union. The cooperative had slowed down its activities due to organizational related

challenges, however given its potential to create great impact with in the community it was revived in 2014 with support from East Africa Dairy Development (EADD) project implemented by Heifer International, the project closed in 2018 but the cooperative continues with its operations. The cooperative is governed by an eight-member board, has a team of management staff responsible for day-to-day operations, and a total membership of 795 members out of which 35% are female. The organization has three milk cooling centers located in different districts (two with in Kamuli as the main branch where all milk from members is bulked and chilled before transportation to the other centres, and Jinja), with total cooler capacity of 7000 liters of milk. Currently the cooperative operates under capacity collecting 2,200 liters of milk per day and sell an average of 300 of liters four times a week. The host is engaged in yoghurt processing – 500 Liters is processed per week and sold with in surrounding communities.

C. Objectives of the Assignment

The main objective of this volunteer assignment is to train the dairy farmers of Balawoli cooperative on improved herd management practices focusing on: pasture improvement and feeding, breeding through AI, housing, and disease prevention/ control measures.

Specific objectives include:

- Overview of principles and practices of (improved) livestock production with specific reference to dairy cattle production.
- More focus placed on pasture improvement and management practices: pasture establishment (appropriate types including fodder trees), harvest, and preservation procedures to produce good quality forages,
- Improved animal nutrition practices including: nutrient requirements, feeding regimes and feed rations and related costs in relation to available raw materials;
- Disease management: Diagnosis, prevention and treatment aspects (including management practices on hygiene and sanitation, disease diagnosis (signs and symptoms, disease prevention/ control measures like vaccination, spraying disease carrying/causing organisms, deworming, isolation of sick animals etc improved housing requirements /facilities and health conditions.). common diseases: tick borne related and mastitis among milking cows

The requested volunteer technical assistance targets the small holder dairy farmers who subscribe Balawoli dairy cooperative.
The volunteer will provide training at two levels:

Level 1: Training of Trainers (TOT). Dynamic individuals from different dairy interest groups will be selected to participate in the ToT training – receiving a more in-depth training and there after cascading them to groups not reached by the volunteer. Subcounty staff will also be encouraged to participate in the training sessions.

Level 2: A total of 150 dairy farmers will be trained in above mentioned topics to help them improve herd management skills. The farmers will be divided into manageable groups to allow easy learning and interaction.

The target audiences for this training will be drawn from both the host dairy farmers and local government lead farmers. The audience will mostly be comprised of illiterate to semi-illiterate farmers, the volunteer should design materials bearing that he/she will train through a local translator. The materials should be delivered in a participator manner with emphasis on practical demonstration of recommended practices on a dairy farm.

Host contribution –Balawoli dairy cooperative will mobilize farmers, dynamic individuals as ToTs and potential resource persons to the trainings to be conducted by the volunteer. The dairy cooperative will also avail key personnel to work closely with the volunteer, during the preparations and actual trainings, to ensure that key staff are trained to backstop TOTs who will continue training other members even after the assignment is completed.

D. ANTICIPATED RESULTS FROM THE ASSIGNMENT

Technical assistance that helps improve herd management skills will help improve overall dairy productivity, incomes, and wellbeing of small holder dairy farmers.

The anticipated deliverables include:

- Trainings conducted, and people trained
- Training manual/guide developed in herd management practices
- Debriefing with USAID and in country group presentations during or after assignment
- Field trip report and expense report

E. Schedule of Volunteer Activities in Uganda

The volunteer will be expected to spend 2.5- 3 weeks in country, with a strong preference for the longer duration.

Activity
Arrival at Uganda Entebbe Airport. Pick up by Fairway Hotel shuttle to Kampala and check in at Fairway Hotel. **NB:** In case the volunteer encounters any difficulty, please request for assistance from Airport Staff to call George on 0772 472103 or Maria on 0783922882.
At 9.00 am, the volunteer is greeted at the hotel by CRS staff and thereafter proceed to CRS office for introductions and briefings including host brief, logistics and expectations and anticipated outcomes. Hand-outs will be prepared at CRS offices. In the afternoon: Travel to Kamuli district to commence the assignment.
In the morning, F2F team introduces the volunteer to the Balawoli dairy cooperative management. And board Together with CRS and board members, the volunteer will review and finalise the action -plan. The action plan should include group presentations to be done after the assignment This is followed by a familiarization tour of cooperative premises, facilities In the afternoon, the volunteer together with the manager and extension coordinator will visit selected dairy farms for an initial assessment and familiarization with existing on farm practices to help inform trainings. The volunteer will visit at least five farms (small, medium and large-scale farms) with in close vicinities.
Commencement of the course: Volunteer introduces the course (objectives, planned content, schedule) and gathers and discusses participants' expectations with a view of harmonizing these with the initial plans. Agree with the participants on the final training program, venue and time as well as the code of conduct (rules and norms) for the course. Recap of the relevance of the assignment to the participants emphasizing the importance of attending the full course for full benefits from the package.
Overview of the principles and practices of (improved) livestock production with specific reference to dairy cattle production.

Volunteer will endeavour to make this *an experience sharing session* during which both the volunteer and the participants share experience with the various dairy cattle production systems; with the volunteer sharing his/her personal experiences acquired either as a dairy farmer or elsewhere in small holder dairy farming conditions.
Detailed discussion on improved dairy herd management practices –improved nutrition practices; housing requirements /facilities and health conditions In discussing these topics volunteer will endeavour to use appropriate/familiar examples of improved (dairy herd management) practices within small holder dairy production systems
Continue with discussion of topics in Day 8 (as deemed relevant)
Continue with discussion of topics in Day 9 (as deemed relevant).
Relevant practical activities in relation to the topics discussed on Days 8-10. These activities should focus on in-depth analysis and understanding of the current dairy herd management practices aimed at identifying the bottlenecks to be addressed and opportunities to be strengthened.
Discuss management focusing on, feeding, housing, disease prevention/ control measures and management practices.
Continue with discussion of topics in Day 8-10 (as deemed relevant).
Relevant practical activities in relation to the topics discussed on Days 12-13. These activities should focus on in-depth analysis and understanding of the current management practices, aimed at identifying the bottlenecks to be addressed and opportunities to be strengthened.
Summing up the assignment and emphasize take-home practical tips; participants evaluate the training; volunteer solicits participants' input into assignment final report recommendations.
The cooperative management evaluates the assignment and together with the Volunteer discusses assignment final report recommendations.
Volunteer travels back to Kampala

-If possible, the volunteer and CRS team attend a debrief at USAID Mission
Submit the Trip Report (TR) and other deliverables and discuss any pending issues with relevant CRS staff.
Depart for USA

F. ACCOMMODATION AND OTHER IN-COUNTRY LOGISTICS

In Kampala, the volunteer will stay at Fairway Hotel & Spa (www.fairwayhotel.co.ug). In Kamuli, the volunteer will stay at Century Hotel which is within the town. The volunteer will work accompanied by cooperative staff in rural areas where groups are located.

CRS will pay for hotel accommodation and provide the volunteer with per diems to cater for meals and other incidentals. The volunteer may get an advance which has to be cleared before departing Uganda. For more information, please refer to Uganda country information that will be provided.

G. RECOMMENDED ASSIGNMENT PREPARATIONS

The volunteer should prepare materials for hand out which can be printed at CRS office in Kampala before commencement of the assignment. Flip charts, markers, masking tapes can be obtained at CRS offices in case the volunteer wishes to make some illustrations.

CRS strongly recommends that the volunteer becomes familiar with Uganda's agriculture sector plans and priorities, the livestock production and management systems in Ugandan. Details on weather, security and appropriate clothing are included in the country visitor's information pack.

H. KEY CONTACTS

To express interest in this assignment, please email the CRS Baltimore contact listed below. To find out additional information about the host, issue description or field conditions, please email the country contact provided below, copying the CRS Baltimore contact.

CRS Baltimore

<table>
<tr><td colspan="2">Maria Figueroa
US Operations Manager/Uganda Recruiter
Farmer to Farmer Program
228 W. Lexington Street
Baltimore, MD 21201
410-951-7366
Email: maria.figueroa@crs.org</td></tr>
<tr><td colspan="2">CRS Country Program</td></tr>
<tr><td>George Ntibarikure
Project Director
Farmer to Farmer Program
Uganda
Office Tel: +256 031 226 5658
Mobile cell phone +256 772 472 103
Email: george.ntibarikure@crs.org</td><td>Maria Nakayiza
Senior Project Coordinator
Farmer to Farmer Program
Uganda
Office Tel: +256 031 226 5658
Mobile cell phone +256 783922882
Email: maria.nakayiza@crs.org</td></tr>
<tr><td colspan="2">Host Organization:</td></tr>
<tr><td>Katuramu Charles
Chairman Board
Balawoli Dairy Cooperative society
Phone: 0774289034
Email: balawolidairies@gmail.com</td><td>Bosco Kaijanazo
Extension Coordinator
Phone: 0777009623</td></tr>
</table>