 

**Farmer-to-Farmer East Africa**

**Volunteer Assignment Scope of Work**

**NOTE: SCOPE OF WORK AWAITING FINAL EDITS**

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| **Summary Information** |
| Assignment code | ET-46 |
| Country | Ethiopia |
| Country Project | Horticultural Crop Production and Sector Support |
| Host Organization  | Sebeta Gethsemane Nunnery  |
| Assignment Title | Training on drip and small scale irrigation technologies and irrigated tropical fruit and vegetable production practices  |
| Preferred Dates | June – October 2015 |
| Assignment objectives | * Train and innovate modern irrigation technologies
* Equip target beneficiaries in skills and techniques on improved irrigated fruit production practices
* Demonstrate installation of drip irrigation kits
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| Desired Volunteer’ Skill/Expertise | Irrigated fruit and vegetable production specialist with experience in drip and small scale irrigation |

1. **BACKGROUND**

The Farmer-to-Farmer (F2F) East Africa program leverages US volunteer’s expertise to assist small holder farmers and small scale processors in East Africa to improve their business practices through volunteer assignments conducted with host organizations. Through F2F intervention, CRS will improve the livelihoods and nutritional status of significant numbers of low income households by: i) broadening their participation in established commodity value chains as producers and service providers; ii) strengthening community resilience to shocks such as droughts that adversely affect livelihoods; and iii) preserving/enhancing natural resources upon which most rural communities depend. CRS will also increase the American public’s understanding of international development programs and foster increased cross-cultural understanding between host countries and US volunteer.

Ethiopia faces challenges of increasing population pressure and low levels of agricultural productivity, which contribute to food insecurity and poor nutrition. Increasing production and diversification of fruit crops must be coupled with behavior change of households (HHs) to increase productivity levels and subsequently improve incomes and nutrition status. . Low use of modern production technologies and practices, including in irrigation farming, contributes to yields that are lower than would be expected. Yet, Ethiopia has the potential for its development both in terms of vast suitable land and fresh water resources that can be utilizes for irrigation. Despite the potential of the irrigation sector; it is still in an infant stage and therefore not contributing to agricultural sector growth. Since a limited amount of land in Ethiopia is currently cultivated using irrigation, the majority of crop production is rain-fed. However, the horticulture sector, including fruit and vegetable crops, are a priority for the Agricultural Growth Program (AGP) of the Ethiopian government.[[1]](#footnote-1)

Sebeta Getesemane Nunnery is home to about 85 nuns and 164 orphaned girls. The nunnery has more than 20 hectares of land used for integrated farming including the production of different fruit and vegetables crops cultivated with both rain water and irrigation. In August and September, 2014 two F2F volunteers, Ms. Christine Blackledge and Mr. Rodrigo Orlin Gonzalez, provided training and technical assistance to the nunnery on vegetable and fruit production. Ms. Christine tried to introduce drip irrigation technology to the nunnery, however due to time constraints, was not able to install the drip kits. Both volunteers recommended improving the current flood irrigation practices, irrigating trees at the right intervals and irrigating deeply. Following the volunteers recommendation, the host requested an irrigation specialist who can show them how to install drip irrigation and introduce modern irrigation techniques.

1. **ISSUE DESCRIPTION**

The nunnery is situated on 28 hectares of land, of which 20 hectares are used for farming. The farm is in the tropical highland humid agro-ecology zone at an altitude of about 2,200 meters above sea level. In normal years annual precipitation is sufficient for crop production in the main season (June to September), however both rain fed and irrigation crop farming systems are used, though are predominantly conventional type of production system. The main water source for small-scale irrigation is spring and ground water, which is diverted to a reservoir and distributed throughout the farm by gravitational force in an earthen canal. During this volunteer assignment period (Jan-May), the nunnery’s horticultural fields will use this irrigation scheme, as well as rain from the “belg” short rainfall season.

The host uses an integrated farming system producing grain, horticulture, livestock and, to some extent, apiculture. Horticultural crops produced by the nuns include avocado, orange, pomegranate, apple, cabbage, tomato, pepper, kale and carrot. In general, the major production constraints impeding irrigation development in the nunnery are:

* Lack of proper diversion, regulation, storage and controlling structures
* Poor irrigation scheduling/crop-water-requirement balance
* Inefficient water utilization irrigation method
* Low-technology of the overall existing production systems
* Limited access to improved irrigation technologies and inadequate research support
* Lack of trained manpower

Therefore, the host requested CRS for F2F volunteer assistance on horticultural crop irrigation systems and drip irrigation installation. An F2F volunteer specialist on small-scale irrigation will address these knowledge gaps through a variety of training interventions and technical assistance.

1. **OBJECTIVES OF THE ASSIGNMENT**

The objective of this particular volunteer assignment is to train and/or technically assist the nuns and orphaned girls on practical modern irrigation methods, improved production practices of tropical fruit and vegetable crops and installation of drip irrigation. The volunteer will assess current practices and recommend improved practices through a series of training events and practical field demonstrations, as applicable. The specific objectives of this assignment are to:

* Upgrade the existing and develop a new small-scale irrigation system
* Rehabilitate the existing irrigation schemes suffering from inappropriate design and lack of proper operation and management
* Demonstrate drip kit installation

Although there are no objections for receiving a male volunteer, the nunnery prefers a female volunteer for this particular assignment. The beneficiaries for this assignment will be 70 nuns and orphan girls.

Anticipated topics for training/technical assistance include but are not limited to the following:

* Practical irrigation methods that can be adopted for the current irrigation schemes
* Good irrigation agronomic technologies and practices (GAP)
* Crop water requirements

**Host contribution** – The host has committed to mobilize the 70 trainees to receive the volunteer’s technical and practical assistance. The host will also avail key personnel to work closely with the volunteer at all times, assisting her/him during training and practical demonstration sessions, ensuring translation to the local language and advising on the culture of the nunnery. The host will also provide office space and furniture in the nunnery for the volunteer as required. CRS will cover lodging costs against receipts and other related costs. In coordination with the host and the volunteer, CRS will also arrange and pay for transport services for the daily roundtrip travel from the hotel in Sebeta/Alemgena town to the nunnery.

1. **ASSIGNMENT DELIVERABLES**

It is anticipated that this volunteer assignment will improve the beneficiaries’ knowledge and skills on basic principles of modern or adaptable irrigation methods for improved fruit and vegetable production that will ultimately lead to sustainable yield increases. The major anticipated outputs of this assignment include, but not limited to:

* + Prepare initial materials, presentation and work plan in collaboration with the host and beneficiaries
	+ Train and technically assist 70 beneficiaries (100% women) on proper irrigation methods and improved irrigable fruit and vegetable production technologies/practices
* If possible, develop training of trainers guidelines or handouts
* Submit field trip report with recommendations to the host organization and CRS
* Reconcile logistics and advances (if any) with CRS
* Conduct a final debriefing (PowerPoint presentation) with the host organization (plus key stakeholders) and CRS/USAID
* Conduct outreach events upon return to the US
1. **SCHEDULE OF VOLUNTEER ACTIVITIES IN ETHIOPIA**

| **Day** | **Activity** |
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| Days 1  | Arrival to Ethiopia, Bole international Airport. The volunteer will be picked by Sor-Amba Hotel with a placard bearing “**CRS logo and volunteer name”**.  |
| Day 2 | Introduction to CRS higher officials and briefing meeting (security, general orientation, logistic, reporting formats, etc.) at CRS office. Discuss anticipated outcomes and work plan. |
| Days 3 | * Car travel to the assignment site (Sebeta town, 25km Southwest of Addis Ababa). S/he will be introduced to the host and accommodated in Sebeta/Alemgena town.
* General orientation with the host, first-hand briefing on the main objectives and modality of the assignment and adjustment of the agenda for the coming days (work planning session).
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| Days 4 | * Further identify skill and training gaps through visiting and discussing with the host.
* Based on information gathered and gaps identified, enrich the prepared training materials incorporating hands-on practices.
* Firsthand information/data collection by volunteers as applicable.
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| Day 5-7 | * Conduct firsthand training and presentation to the nuns and girls.
* Assess and refine the quality of trainings through feedback and observations.
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| **Day 8** | **Rest day.**  |
| Days 9-12 | Continuation of the trainings and technical assistance  |
| Day 12 | * Group debriefing presentation to the host in the presence of CRS.
* Volunteer travels back to Addis Ababa.
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| Day 13 | * Finalize reimbursement expenditures and liquidations (if any) with finance.
* Finalizes his/her report and submit training M&E forms to CRS F2F staff.
* Debriefing at CRS office with USAID Mission and CRS staff
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| Day 14 | * Depart for USA (evening hours)
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| TBD | Outreach event when back in the US could include: presentation with a local group/organization, press release, media event and/or speaking tour. |

1. **DESIRABLE VOLUNTEER SKILLS**

The volunteer will have the following qualifications and competencies:

* Irrigable fruit/horticulture crops specialist with demonstrated experience in irrigation farming and tropical fruit production and management
* Experience in adult and youth training and technical assistance in small scale irrigation
* Experience in installation of drip irrigation kit
* Willingness and interest to train and technically assist to orphan girls and nuns
* Willingness to travel in rural areas and in areas of small-scale irrigation schemes
* Respect for the cultural and religious norms of the rural people.

1. **ACCOMMODATION AND OTHER IN-COUNTRY LOGISTICS**
* Before travelling to the assignment place, the volunteer will stay in Addis Ababa at one of the CRS’s client hotels, Sor-Amba Hotel ([www.sorambahoteladdis](http://www.sorambahoteladdis)) or another hotel that will be booked and confirmed before the arrival date.
* In Addis Ababa, the hotel usually has rooms that include services such as airport pickup and drop-off, breakfast, wireless internet, etc.
* The hotel or CRS will arrange a vehicle for short travel from the hotel to CRS and vice versa while in Addis Ababa.
* All required materials will be prepared ahead of time and provided to the volunteer. CRS Ethiopia will provide the volunteer with a laptop computer (if s/he needs), local internet dongle (modem/EVDO) and mobile phone with a charged local SIM-card. Any other required logistics and facilities can also be requested by the volunteer during her/his stay in Addis Ababa.
* CRS will provide a vehicle and accompany the volunteer to the place of assignment.
* During her/his assignment period, the volunteer will be booked in a hotel in Sebeta town.
* CRS Ethiopia will arrange hotel accommodations and cover the lodging bills against receipts.
* CRS HQ will provide the volunteer with a per-diem advance to cater meals and incidences.
* CRS Ethiopia will also reimburse the volunteer with laundry costs against receipts.
* Before departing from Ethiopia, the volunteer will liquidate any advances received in Ethiopia.
* For more information, please refer to country information that will be provided.
1. **RECOMMENDED ASSIGNMENT PREPARATIONS**
* Although CRS F2F has developed such hinting SOW, the volunteer can fine-tune through her/his professional qualifications to successfully carry out this assignment.
* The assignment site is adjacent to dry lowland (hot) areas where malaria may be a problem. Therefore, the volunteer is advised to take pills or vaccination for malaria and (maybe also for cholera) as per medical recommendations by her/his doctors/health professionals in US before departing from US.
* Prior to travel, the volunteer is advised to prepare necessary training and demonstration aids and written handouts. Softcopies of the handouts and any other paper materials can be printed for immediate use at the CRS office in Addis Ababa on request by the volunteer.
* If the volunteer requires simple training aids like flip charts, markers or tape s/he should make the request and collect from the CRS office in Addis Ababa prior to travel to the assignment place.
* Translation of handouts to the local language can be done in the locality of the assignment, if required.
* Depending on the meeting places and availability of electric power and LCD projector, the volunteer may use a laptop and projector for power point presentations.
1. **KEY CONTACTS**

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1. World Bank (2010): Ethiopian Agricultural Growth Project (AGP) Project Information Document (PID)-Appraisal Stage, Report No.: Ab5416 [↑](#footnote-ref-1)