 

**Farmer to Farmer East Africa**

**Volunteer Assignment Scope of Work**

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| **Summary Information** | |
| Assignment Code | ET95 |
| Country | Ethiopia |
| Country Project | Grain Production and Sector Support |
| Host Organization | Social and Development Coordinating Office of Arsi-Robe (SDCOR) |
| Assignment Title | Root Cellar technology and vegetable post-harvest management |
| Assignment preferred dates | October or Dec 2017 or May 2018 |
| Objective assignment | To reduce post-harvest lost by utilizing root cellar techniques |
| Desired volunteer skill/expertise | Construction and design of root cellars in various climates. Experience on horticulture, produce storage and leading trainings. |

1. **BACKGROUND**

The Farmer-to-Farmer (F2F) East Africa program is a program that leverages US volunteer’s expertise to assist smallholder 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 volunteers.

Vegetable production is an important economic activity in Ethiopia, ranging from gardening smallholder farming to commercial state and private farms (Zelleke and Gebremariam, 1991). Vegetable crops of economic importance that are largely produced in Ethiopia include pepper, kale (Ethiopian cabbage), onion, tomato, pepper, chilies, carrot, garlic and cabbages. Evidently, Ethiopia has favorable climate and edaphic conditions for the production of tropical, sub-tropical and temperate vegetables in the lowlands, midlands, and highlands, respectively (EHDA, 2011). Despite its potential vegetable production is very small in area coverage and the productivity is also very small. The assignment area is located in the high land part of the country and widely grown vegetables are cabbage, potato, kale, onion, and hot pepper.

As farmers begin to scale up productivity it is essential that improved storage techniques for produce become more broadly utilized. Root cellars are a cost effective and easily adaptable to varying climates. Root cellars are structures built underground or partially underground to store harvested goods and protect against loss.

1. **ISSUE DESCRIPTION**

Post-harvest losses are a major source of food loss. Farmers growing horticultural crops are facing high economic losses, because there have been no methods of increasing the shelf life of these crops. Besides the country is not getting foreign exchange from horticultural crops due to the low levels of postharvest technology, which makes the product of inferior quality, with no chance of competing in the world market. There are not enough processing plants and the post-harvest losses of perishable (vegetable and fruits) food crops in Ethiopia is estimated at about 30 percent due to high moisture content, insect infestation and damage during handling (packaging, storage and transportation). Generally, low productivity and poor post-harvest management coupled with lack of access to credit, input and poor market linkage constrain Ethiopia’s vegetable production.

The host, therefore, requested F2F volunteer assistance to provide technical support on root cellar construction and post-harvest management at small scale and back yard farming which is usually undertaken by women farmers. Generally, the reasons for the less productivity, poor quality, and high post-harvest losses are due to produce staying long periods in inappropriate storage conditions (too hot, little or no ventilation, exposure to insects, dust and other contaminants). An F2F volunteer specialist will address these knowledge gaps through a variety of training interventions and practical demonstration.

1. **OBJECTIVES OF THE ASSIGNMENT**

The objective of this particular volunteer assignment is to train and practically demonstrate construction of root cellars to 70 people (farmers and host staffs). As farmers in Ethiopia become more efficient in production and utilization of food crops, proper storage is needed to increase food self-sufficiency and export earnings. Modern food processing/storage techniques and post-harvest handling are the main tools to reduce food losses and maintain/raise the quality of products. Demand for horticultural products tends to grow very rapidly with urbanization and increased income. Diversity of fruits and vegetables are demanded by consumers, such growth provides major opportunities for farmers to diversify their production and increase their incomes. Vegetable production plays important role in poverty alleviation through employment generation, improving the feeding behavior of the people, and creating new opportunities for poor farmers. With diversity of fruit and vegetable growth proper storage is required.

Therefore, the specific areas the volunteer might focus will include:

* Provide very brief presentation on proper handling of vegetables such as harvesting, sorting, cleaning, storing and packaging
* Factors related to post-harvest storage: effects of temperature, relative humidity, etc.
* Simple storage structures suitable to local environment etc.
* Develop simple guidelines demonstrating principles and practices of effective post-harvest handling of vegetables.
* Preservation techniques and methods
* Root cellar storage construction techniques

The beneficiaries of this assignment will be 70 (10 from the host staffs and 60 smallholder farmers). The 10 host staffs will include the government extension agents.

**Host contribution**

The host Robe Catholic Secretariat will select members and stakeholders in various positions to attend trainings, gather materials in addition to a root cellar demonstration site, and facilitate the volunteer to reach them. The host will also avail key personnel to facilitate the volunteer in his/her overall works including informal training. The host will make prior arrangements to ensure that the volunteer can attend scheduled training forums to train the farm employees. The host will also provide the volunteer with office space with furniture. In consultation with CRS, the host will arrange vehicle for field work and facilitate volunteer field travel.

1. **ANTICIPATED RESULTS FROM THE ASSIGNMENT**

As a result of the volunteer assistance, it is anticipated that this assignment

* Skill transferred on root cellar construction and maintenance
  + Increased incomes from reduced crop losses
  + Contribute for market stability
  + Dietary diversity contributing to improved nutrition and enhanced food security
  + Employment creation for youth engaged in this project

The anticipated deliverables accomplished by the volunteer also include:

* + Training of trainers on root cellar construction and use
  + Post-harvest handling and storage guidelines developed
  + Field report with recommendation produced at the end of the assignment.
  + Outreach activity in country and when back in the US

1. **SCHEDULE OF VOLUNTEER ACTIVITIES IN ETHIOPIA**

| **Day** | **Activity** |
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| Days 1 | Arrival to Ethiopia. The volunteer will be met at Bole Airport by CRS’s client hotel Churchill (churchillhotel@ethionet.et / info@churchillhoteladdis; phone # 0111111212) or another client hotel with a placard bearing “CRS logo and volunteer name”. |
| Day 2 | * Take CRS car or hotel shuttle to CRS office (CRS working days are Monday to Friday from 8:00AM to 5:00 PM) * Welcoming by CRS, and briefing meeting on security, general orientation, logistic and reporting formats. * Discuss anticipated outcomes and work plan |
| Days 3 | Drive to the assignment site (Kofele town 270 km from Addis Ababa to the South-East). S/he will be introduced with the host and will be accommodated at Koffele town. If time permits, general orientation with the host will be pursued. |
| Days 4 | * First hand briefing on the main objectives and modality of the assignment and adjust the agenda for the coming days (work planning session). * Further identify skill and training gaps through farm visiting and discussing with clients/customers. * Based on information gathered and gaps identified, enrich the prepared training materials incorporating hands-on practices. * Firsthand information/data collection by volunteers as applicable. |
| Day 5-6 | * Conduct firsthand training and presentation to staffs and coop members * Assess and refine the quality of trainings through feedback and observations. |
| Day 7 | * Local market visit and collect information |
| **Day 8** | **Rest day.** |
| Days 9-14 | Practical demonstration of root cellar construction |
| **Day 15** | **Rest day** |
| Days 16-17 | Continue the practical demonstration of root cellar construction |
| Day 18 | Wrap up trainings and emphasize key concepts of assignment. Participants evaluate the assistance and together with the volunteer discuss on the final report/recommendations. |
| Day 19 | * Group presentation to the host in the presentation of CRS * Volunteer travels back to Addis Ababa |
| Day 20 | * Finalize reimbursement expenditures and liquidations (if any) with finance. * Finalizes his/her reporting and submit training M&E forms to CRS F2F staff. * Debriefing at with CRS staff and/or USAID Mission |
| Day 21 | Complete any unaccomplished activities and depart for USA |
| TBD | Outreach event when back in the US |

1. **DESIRABLE VOLUNTEERS SKILLS**

The desired skills of the volunteer will include a background and experience the following:

* Experience in Root Cellar design and construction
* Preferably graduate in horticultural science
* Experience in adult training or learning alliances with smallholder farmers, community development/extension workers, members of community based organizations (CBOs), etc.
* Good analytical and intercommunication skills.

1. **ACCOMMODATION AND OTHER IN-COUNTRY LOGISTICS**

* Before travelling to the host partner at the assignment site at Koffele, the volunteer will stay in Addis Ababa at one of the CRS’s client hotels, Churchill hotel (churchillhotel@ethionet.et / info@churchillhoteladdis; phone # 0111111212) or other hotels that will be booked before arrival dates.
* 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 will be 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 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 arrange transport vehicle and as well as will accompany the volunteer to the assignment site.
* During the assignment period, the volunteer will stay at the host guesthouse or a CRS client hotel at Shashemene town (23km from Koffele). The accommodation details will be confirmed prior to the volunteer arrival in country. And CRS Ethiopia will pay for guesthouse or hotel accommodations
* CRS HQ will provide the volunteer with per diem advance to cater for meals and incidentals.
* CRS Ethiopia will also reimburse the volunteer with laundry costs against receipts.
* Before departing to the US, the volunteer will also liquidate advances (if any) at CRS Ethiopia.
* For more information, please refer to country information that will be provided.

1. **RECOMMENDED ASSIGNMENT PREPARATIONS**

* Although CRS F2F together with the host has developed such hinting SOW, the volunteer can fine-tune through her/his professional qualifications to successfully carryout this root cellars and vegetable post-harvest management assignment.
* The assignment district is located in dry lowland (hot) areas where malaria maybe a problem. Therefore, the volunteer is advised to take pills or vaccination for malaria (and 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. Electronic copies 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 use of simple training aids like flip charts, markers or tapes/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 local languages 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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| **Host Organization:** | |
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