 

**Farmer to Farmer East Africa**

**Volunteer Assignment Scope of Work**

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

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| **Summary Information** | |
| Country | Ethiopia |
| Assignment number | ET65 |
| Country Project | Horticulture |
| Host Organization | Organization for Rehabilitation and Development in Amhara/ORDA) |
| Assignment Title | Post-harvest handling and storage of fruits and vegetables |
| Preferred dates | January – April, 2016 |
| Objectives | * Increased shelf-life of fruits and vegetables through reduction in post-harvest losses * Develop simple post-harvest handling guidelines on fruits and vegetables |
| Desired volunteer skills/expertise | Fruit and vegetable production expert with experience in post-harvest handling and storage of fruits and vegetables |

1. **Background**

Agriculture is the mainstay of Ethiopia's economy and it provides all the necessary dietary foods, raw materials for food industries and quality products for export market. The country's agricultural potential for food production is known to be immense and over 90 percent of its export earnings come from this sector. Coffee, oilseeds, spices, fresh fruit and vegetables contribute the largest portion of the export earnings. At the national level, agriculture is important as a vehicle for addressing food security problems. Stimulating agricultural growth will therefore be the major instrument for increasing the income of the country and households in particular with which food can be bought domestically and imported from abroad. The largest groups of people in Ethiopia who suffer from food insecurity are the rural poor who have insufficient land and other resources to provide sufficient income or food.

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 country is losing foreign currency by importing processed products. 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). Efficient production and utilization of food crops are needed to increase food self-sufficiency and export earnings. Modern food processing techniques and post-harvest handling are the main tools to reduce food losses and maintain/raise the quality of products. They are the only means to develop processed, semi- processed and new products with added value, at lower cost, and with reduced energy and labor. Moreover, establishing food processing cottage industries creates local employment opportunities, increase income and increases foreign exchange revenue.

1. **Issue Description**

The regional government of Amhara and other development actors like ORDA are promoting the cultivation of fruits and vegetable (tomato, potato, apple, mango, papaya) by small holder farmers in South Gonder Zone of the Amhara Region with the aim of improving the nutritional status of the local communities and increasing their incomes because vegetable and fruits fetch higher prices. These efforts have not produced the desired outcomes mostly due to the high post-harvest losses and limited knowledge on value addition through prolonging shelf life by processing. The reasons for the high post-harvest losses include some of the following;

* The produce is harvested at the wrong physiological stage (early or late harvesting) and often the harvesting methods are inappropriate
* Fruits and vegetables are living and therefore highly perishable once harvested
* Fruits and vegetable are not sorted after harvest, sometimes diseased and injured produce is mixed with the good quality produce, which results in contamination and hence reduces the shelf-life
* Produce is improperly handled during harvest, storage, transport and often at the retail point
* The produce stay long periods in inappropriate storage conditions (too hot, little or no ventilation, exposure to insects, dust and other contaminants.

ORDA is a local NGO that is implementing a food security and nutrition project in Amhara region. This project has youth beneficiaries who are organized in a group, with the aim of processing and canning fruits and vegetables. The youth lack relevant skills and experience in agro-processing. To introduce the post-harvest handling of fruits and vegetable, ORDA has established a small scale vegetable and fruit processing unit in Deber Tabor, with the support of Ethiopia Environmental Protection Authority. This plan has been handed over to an organized youth group comprising of 30 members, 27 of whom are young women. This cottage processing unit is not yet functional because the youth do not have the necessary post-harvest and processing skills in fruits and vegetables handling and processing. It is for this reason that ORDA has requested CRS for F2F volunteer assistance.

1. **Objectives of the Assignment**

The specific objective of this volunteer assignment is to reduce the post-harvest losses of vegetables and fruits through training the youth group on vegetable and fruit post-harvest handling principles and practices. By applying these principles and practices, the youth will realize an increase in incomes generated from the sale of the produce. This assistance is also anticipated to contribute to pro-longed shelf-life of the vegetables, which will also directly contribute to produce availability over a longer period of time, hence also contribution to nutrition through diet diversity.

For the processing unit, the produce coming in for processing will also be of assured quality, which will in turn contribute to processing of good quality products that are competitive in the local markets, and ultimately nationally and internationally.

The volunteer expert will spend significant time with the youth, directly assisting and equipping them with skills on the following;

* Proper handling of fruits and vegetables; handling during harvest, sorting, cleaning and packaging
* Optimum post-harvest storage conditions; effects of temperature on post-harvest storage, importance of relative humidity, effects of air flow and ventilation
* Storage structures; types and characteristics of simple storage structures suitable to local environment etc.
* Develop simple guidelines demonstrating principles and practices of effective post-harvest handling of fruits and vegetables.

**Host contribution:** ORDA will mobilize the project staffs to facilitate the volunteers to reach the targeted beneficiaries to ensure successful assignment completion. The host will also arrange training and facilitate the training in post-harvest handling of fruits and vegetable to ORDA and government stakeholders. ORDA will also provide the volunteer with office space and arrange transport from Bahir-Dar to project site (Debre Tabor) both beginning and end of assignment.

1. **Anticipated Results from the Assignment**

It is anticipated that this volunteer assignment will contribute to improved post-harvest handling of fruits and vegetable, which will directly contribute to the following;

* + Increased incomes from reduced losses
  + Increase in volumes of produce processed
  + 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:

* + Post-harvest handling and storage guidelines developed
  + Appropriate and relevant technologies transferred,
  + 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**

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| **Day** | **Activity** |
| 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 and meeting with CRS management, and briefing meeting (security, general orientation, logistic, reporting formats, etc) at CRS office. Discuss anticipated outcomes and work plan. |
| Day 3 | Travel to assignment site. Introduction and assignment briefing with host representatives |
| Days 4 - 18 | Complete assignment related activities at the host location |
| Day 19 | Exit meeting, outreach activity conducted and discuss the report and final recommendations, draw an action plan for implementing recommendations |
| Day 20 | Travel back to Addis Ababa |
| Day 21 | Debriefing at CRS office with USAID Mission and CRS staff.  Volunteer will finalize his/her reporting at CRS office and fill out all necessary M&E forms as well finalize advances and expenditures with finance. Depart for the US |
| TBD | Outreach event in the US |

1. **Desirable Volunteers Skills**

The volunteer will have the following qualifications and competencies:

* Specialist in post-harvest handling and storage of fruits and vegetable experience in in small scale processing of vegetable and fruits at community level is desirable
* Communication and training skills for adult audience

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 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 provide a vehicle and accompany the volunteer to the place of assignment.
* During the assignment period, the volunteer will be booked in a hotel at the project site, to be confirmed prior to volunteer arrival. CRS Ethiopia will arrange hotel accommodation 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 also liquidate if s/he received any advances in Ethiopia. For more information, please refer to country information that will be provided

1. **Recommended Assignment Preparations**

* Prior to travel, the volunteer is advised to prepare necessary training and demonstration aids and written handouts. Electronic copies of these handouts and any other printed 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 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 at the assignment location 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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| **CRS Baltimore** | **CRS East Africa Regional Office** |
| **Maria Figueroa**  Volunteer Coordinator  EA Farmer to Farmer Program  228 W. Lexington Street  Baltimore, MD 21201  410-951-7366  Email: [maria.figueroa@crs.org](mailto:maria.figueroa@crs.org) | **Nyambura Theuri**  Deputy Project Director  EA Farmer to Farmer Program  P.O. Box 49675 – 00100  Nairobi, Kenya  St. Augustine Court Karuna Close Road  Email: [nyambura.theuri@crs.org](mailto:nyambura.theuri@crs.org) |
| **CRS Ethiopia Country Program** | |
| Biruk Tesfaye  Ag .Project Director  F2F Program  P. O. Box 6592, Addis Ababa.  Email: [biruk.tesfaye@crs.org](mailto:biruk.tesfaye@crs.org)  Phone (landline): +251-112 788800  Cellphone: +251-911-718450 | Art Kirby,  Head of Programs (HoP)  P. O. Box 6592, Addis Ababa.  Email: [art.kirby@crs.org](mailto:art.kirby@crs.org)  Phone (landline): +251-112 788800  Cellphone: +252-911-507305 |
| **Host Organization:** |  |
| 1. **Mr Dejene Miniliku,**   Deputy and Programs’ Director of ORDA,  Tell: +251 582221557  Mobile: +251-(0) 918 -340-476  Email: [o.r.d.a-3@ethionet.et](mailto:o.r.d.a-3@ethionet.et), [ordaprogram@gmail.com](mailto:ordaprogram@gmail.com)   1. **Tsehay Asmare**   Food security and agricultural development Program Manager  Tell: +251-(0)582-203-706  Mobile +251-(0)918-701-191  Email [orda-4@ethionet.et](mailto:orda-4@ethionet.et), [tsehayasmare@gmail.com](mailto:tsehayasmare@gmail.com) | **Dessalegn Alemu,**  Project Manager  Debre Tabor, Ethiopia  Cell phone: +251-(0)932-272-141  Email: [fnsorda@gmail.com](mailto:fnsorda@gmail.com) |