



Farmer to Farmer East Africa

Volunteer Assignment Scope of Work

Summary Information	
Country	Ethiopia
Assignment number	ET100
Country Project	Horticulture production and sector support
Host Organization	Ethiopian Catholic Church-Social and Development Coordinating Office of Adigrat (ECC-SDCOA)
Assignment Title	Vegetable and fruit post-harvest handling and preservation
Preferred dates	Dec 2017-Jan 2018 or June-Aug 2018 (for cactus fruit)
Objectives	<ul style="list-style-type: none"> Enhanced skills in small-scale/household processing of vegetables and fruit to increase off-season availability of fruits and vegetables thereby reducing malnutrition and improve food security Increased rural incomes through reduction in post-harvest losses
Desired volunteer skills/expertise	Experience in fruit and vegetable preservation, preferably homebased and small-scale food processing experience

A. 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, reduction in post-harvest losses, processing and utilization of fruits and vegetables are needed to contribute to increased food self-sufficiency and increased incomes.

Modern food processing techniques and post-harvest handling are the main tools to reduce 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.

B. Issue Description

Fruit and vegetables are living products that need to be handled carefully and properly to ensure that they stay in the best condition and are good to eat. Some fruit and vegetables can be stored for a long time after they have been harvested, but others are more delicate and susceptible to spoilage and cannot be stored for long. Fruit and vegetables usually have a short growing season and a short shelf life. The main harvesting time for fruit is November and December, and it is common that during this time the price for fruits decrease due to market saturation and there are no mechanisms that farmers are utilizing to preserve the fruits to stay long until the prices return to a profitable margin.

Several factors cause fruit and vegetables to spoil. The key among them are enzymes within fruits and vegetables, micro-organisms (including bacteria and molds) and environmental factors, including temperature, moisture and sunlight. In Ethiopia as in many parts of the tropics, spoilage occurs faster especially because of high temperatures. ECC-SDCOA is currently working with farmers who are

engaged in production of fruits and vegetables and similar challenges are facing these farmers. Orange and banana are common types of fruits and onion, lettuce, Swiss chard, cabbage, pepper and carrots are grown by the beneficiary farmers of the host where lower market price during harvesting season is the major challenge. This is because of absence of postharvest preservation mechanisms that farmers can keep for more weeks until the market prices become reasonable for sale. Therefore, the host would like to get a volunteer who can technically assist farmers and host staffs on areas related to post-harvest handling and preservation methods for fruits and vegetables.

C. Objectives of the Assignment

The main objective of this volunteer assignment is to build the capacity of the host staffs and smallholder farmers with appropriate technologies and techniques on vegetable and fruit handling, processing and preservation for home consumption and retail marketing. As such, it will concentrate on techniques and processes that can be carried out at the small-scale, using a very limited range of equipment. The equipment has already been donated by the host organization. This will be completed through simple and practical demonstrations on simple processes used to preserve fruit and vegetables for later use. These processes do not require expensive and complicated equipment and can be used at home or for small-scale enterprises.

This assignment is expected to be completed alongside a vegetable post-harvest handling and storage, and will therefore concentrate on two major aspects;

At the end of the assignment, the target beneficiaries and other participants will fully understand principles of vegetable and fruit preservation through understanding and application of simple pre-processing and processing activities that deactivate the enzymes that are naturally present in fruit and vegetables and that cause ripening and spoilage. They will also be able to understand food hygiene during and after processing, and will also be equipped with skills that enable them to develop high quality new value added products that are appealing, marketable and can be readily incorporated in the local diets, thereby adding dietary diversity. The target beneficiaries shall also receive practical training of post-process packaging, as well as storage.

Host contribution: The host ECC-SDCOA will assign a co-worker from its staff and mobilize the project staffs to facilitate the volunteers to reach the targeted beneficiaries in various ways. The host will also arrange training and facilitate the trainings to the intended project beneficiaries. The host will also provide the volunteer with working space in the project office compound, which is stationed in Adigrat town,

120Kms from the regional capital, Mekele city. ECC-SDCOA will arrange safe vehicle for round trip travelling from Adigrat to project site during the assignment period. The host can advise CRS for fuel reimbursement or to rent a car.

D. Anticipated Results from the Assignment

It is anticipated that this volunteer assignment will results in improve the capacity of organized beneficiaries in processing post-harvest handling of fruits and vegetable. During this particular volunteer intervention, some resultant impacts of the following will be expected:

- a. Reduced post-harvest losses as a result of food preservation
- b. Increased availability of off-season fruits and vegetables
- c. Increased incomes for the small-holder farmers engaged in production and small scale processing
- d. Employment creation for the youth engaged in production and processing as well as other actors along the fruit and vegetable value chain

The deliverables to be accomplished by the volunteers also include:

- e. Initial presentation done (outlines/list of activities, plan, approach, etc.),
- f. Appropriate and relevant technologies transferred,
- g. Trainings and technical assistances delivered,
- h. Field report with recommendation produced at the end of the assignment.

E. Schedule Of Volunteer Activities In Ethiopia

Day	Activity
Day 1	<ul style="list-style-type: none"> • Arrival to Ethiopia. The volunteer will be met at Bole Airport by CRS’s client hotel Churchill (churchillhotel@ethionet.et / info@churchillhoteladdis; phone # 0111111212) hotel kiosk in the airport to receive their pre-arranged shuttle
Day 2	<ul style="list-style-type: none"> • Briefing meeting at CRS office with CRS F2F staff and become fully briefed on logistics and itinerary of trip. Discuss anticipated outcomes and work plan
Day 3	<ul style="list-style-type: none"> • Air flight to Mekelle city (50 minutes) and car travel to Adigart town (120 km from Mekelle)

	<ul style="list-style-type: none"> Briefing on the main objectives of the assignment and work planning session and adjust the agenda as appropriate with the staffs of the host and CRS F2F.
Day 4	Meeting with the host and discuss on details of the SOW and plan for moving forward
Day 5-7	Assess and observe about the existing situation
Day 6-7	Start first hand training
Days 8	Rest day
Day 9-14	Continue providing training and practical field assistance for farmers
Day 15	Rest day
Day 16	Continue providing the training and field assistance
Day 17	Conduct a seminar or short discussion with Adigrat university staff and/or students
Day 18	Wrap-up meeting between host, CRS F2F and volunteer to discuss final report recommendations and draw an action plan based on the recommendations
Day 19	Volunteer drives back to Mekelle and flight back to Addis Ababa accompanied by CRS staff
Day 20	<ul style="list-style-type: none"> Volunteer finalizes his/her reporting and submits training M&E forms to CRS F2F staff. Debriefing at CRS office with USAID Mission and CRS staff. Volunteer liquidates cash advances and expenditures with finance. Depart for US (evening hours)
TBD	Outreach event upon return to the US, could include: presentation with a local group/organization, press release, media event and/or speaking tour.

F. Desirable Volunteers Skills

The volunteer will have the following qualifications and competencies:

- Experience in small-scale fruits and vegetable handling, processing and preservation
- Experience in adult training or learning alliances with smallholder farmers, community development/extension workers, members of community based organizations (CBOs), etc.
- Good communication skills.
- Committed to help and work with smallholder farmers under Ethiopian context

G. 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, Churchill or another hotel that will be booked and confirmed before the volunteer arrival date. The hotel 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 & 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 hotel at Adigrat town. The accommodation details will be confirmed prior to the volunteer arrival in country.
- 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 US, the volunteer will also liquidate advances (if any) at CRS Ethiopia.
- For more information, please refer to country information that will be provided.

H. 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.

I. Key Contacts

CRS Baltimore	CRS East Africa Regional Office
<p>Maria Figueroa Recruitment Manager EA Farmer to Farmer Program 228 W. Lexington Street Baltimore, MD 21201; 410-951-7366 Email: maria.figueroa@crs.org</p>	<p>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</p>
CRS Ethiopia:	
<p>Biruk Tesfaye, F2F program manager CRS Ethiopia Office, P. O. Box 6592; Addis Ababa, Ethiopia Phone: +251-112-788800, Mobile: +251-911-718450 Email: biruk.tesfaye@crs.org</p>	<p>Zemed Zewdie, Head of Programs (HoP) CRS Ethiopia Office, P. O. Box 6592 Addis Ababa, Ethiopia Phone: +251-112-788800, Mobile: +251-911-507305 Email: zemed.zewdie@crs.org</p>
Host Organization:	
<p>Sebhatu Seyum SDCOA Department Head Email: sebhatu2003@yahoo.com Phone: +251-914-300-414</p>	<p>Aregay Gebrehiwot, Project coordinator Email aregayg@gmail.com Tel +251-914-300-633</p>