



### Farmer to Farmer Volunteer Assignment Scope of Work (SOW)

#### To express interest in this assignment, please contact maria.figueroa@crs.org

Summary Information		
Assignment Code	ET207	
Country	Ethiopia	
Country Project	Crop (Grain and Horticulture)	
Host Organization	Kombolcha Agricultural, Technical and Vocational Education and Training (ATVET) College	
Assignment Title	Promoting Horticultural Crops Production and Post-Harvest Management	
Assignment preferred dates	June 2019	
Objectives of the assignment	<ul> <li>Train plant science students and staff members on horticulture crop production and post-harvest management.</li> <li>Introduce new horticulture production and post-harvest management technologies.</li> </ul>	
Desired volunteer skill/expertise	<ul> <li>Experience in horticulture production and post-harvest management of horticultural crops (fruits and vegetables)</li> <li>Experience in in small-scale production of vegetable and fruits at community level.</li> </ul>	
Type of Volunteer Assistance	• Technology Transfer (T)	
Type of Value Chain Activity	• Information and Input Support Services (S)	
PERSUAP Classification	Type II	

### A. BACKGROUND

CRS Farmer-to-Farmer (F2F) Program is a USAID funded 5-year program (July 2018 – June 2023) that will provide technical assistance from United States (U.S) volunteers to farmers, farmer groups (cooperatives and associations), agribusinesses and other agriculture sector institutions. The program objectives are to facilitate economic growth within targeted agriculture sub-sectors, enhance sub-sector inclusiveness to expand participation to a broader range of individuals and communities and to increase the American public's understanding of international development issues and US international development programs. Volunteers, recruited from all States and the District of Columbia, are individuals who have domestic careers, farms and agribusinesses, or are retirees who want to participate in development efforts. F2F program will assist in agriculture development, commodity value chain competitiveness and firm upgrading by providing technical assistance to introduce new technologies, innovations and development of local capacity for more productive, profitable, sustainable and equitable agriculture systems.

Development Agents (DAs) support the large base (85%) of smallholder farmers in the Ethiopian agricultural sector. Smallholder farming communities experience limited flow of agricultural knowledge, skills and technologies. This disparity has shown to be critical- there is a need to increase the number of well-trained DAs so that smallholder farmers can receive proper training and advice on improved practices and management.

The objective of ATVET Colleges in Ethiopia is teaching agricultural students and producing technically equipped personnel to serve as DAs. After graduating at either the Diploma or Bachelor of Science degree level, DAs join their respective offices in the regional Bureaus of Agriculture and Natural Resource. These offices are under the Ministry of Agriculture and Natural Resource. DAs are usually assigned at kebele<sup>1</sup> level to work for the grassroots farming communities. DAs are responsible for demonstrating modern agricultural practices at Farmers Training Centers (FTCs) which are found at kebele level. In each kebele, 3-5 DAs are assigned with the overall responsibility of addressing agriculture issues through the following ways: problem identification and analysis, on-farm research and extension linkage, technological demonstrations, innovations of modern agricultural techniques, training of smallholder farmers and their cooperatives, project implementation at kebele levels, and data collection. DAs are also responsible for supporting farmers' institutions such as farmers' cooperatives (primary cooperatives and their unions) and the integration of community-based organizations (CBOs).

Kombolcha ATVET College is found in Kombolcha, Amhara regional state. It is one of the 25 ATVET colleges in the country and pursues three interrelated pillars: education/training, research, and community support services. Under the education program, the College trains students in plant science, animal science, irrigation, cooperative, and natural resource management. The College's curriculum ensures that 70% of class time is devoted to practicum and 30% for theoretical aspect. The College has a farm about 12km from the main campus that is used for production and practical demonstration purposes. The College mostly receives students directly from grade 10 and trains them to be DAs. The College also receives experienced DAs that are upgrading their Diploma to degree level. Graduates from ATVET colleges are expected to play significant role in modernizing Ethiopian agriculture; however, there are capacity and technical skill gaps at the College level that prevent them from providing the expected quality education and services to their students. Among the gaps, the College identified limited skills and knowledge on horticultural crop production and post-harvest management.

# **B. ISSUE DESCRIPTION**

In Ethiopia, there is a high potential for horticultural crop production, but the yield is very low. Due to its low productivity, fruits and vegetables are not commonly available in the market. The unavailability of this horticultural product leads to the population's lack of nutrients which exposes to hidden hunger. Improving production and productivity of horticultural crops increases farmers income and ensures food and nutrient security of the population. There are, however, a number of limiting factors within this sector: low productivity, lack of supply of improved varieties, lack of skilled man power, poor pre-harvest management practices and post-harvest management practices.

Kombolcha ATVET College wants assistance in addressing these limiting factors so that students are best prepared to serve the surrounding community as DAs upon graduation. The biggest technical problem that the College faces is absence of skilled staff who can provide advanced training in agronomic practices in improving horticultural crop productivity and producing improved seed varieties which is almost

<sup>&</sup>lt;sup>1</sup> Kebele: town/village

inaccessible for many farmers. Even local research centers do not have improved varieties for horticulture crops. Besides, there is lack of skilled staff on horticultural crops management which in turn farmers are unaware of post-harvest management techniques, thus, causing high commodity loss along the entire value chain. Both the students and staff need to learn improved practices in post-harvest management so that they can provide farmers with the best methods.

In Ethiopia in general and in the surrounding area specifically, common fruits grown are: mango, papaya, avocado, and apple. And common vegetables include: onion, potato, lettuce, cabbage. When the local varieties are planted, there is often bad management and farmers do not maximize their output.

Kombolcha ATVET College pursues three interrelated pillars: education/training, research and community support services. Under the education and community service pillars, the College is requesting volunteer assistance in horticulture crop production and post-harvest management. F2F Volunteers will fill some of the identified gaps by providing trainings on horticultural crop production and post-harvest management to DAs and teaching staff at the College. Then the students, after completion of their training, will train and give technical advice to smallholder farmers in urban, peri-urban and rural areas with special emphasis on improved horticulture crop production and post-harvest management.

# C. OBJECTIVES OF THE ASSIGNMENT

The general objective of this volunteer assignment is to improve horticulture crop production and postharvest management. The host wants the assignment to cover the following topics: land preparation, nursery establishment, irrigation supply, propagation techniques (grafting), post-harvest physiology, and storage management. The host wants the students to learn about fruit and vegetable production and postharvest management based on the locally available fruits and vegetables: mango, papaya, avocado, onion, potato, lettuce, and cabbage. Students will update their theoretical knowledge and skills and in turn convey these ideas to the wider community in rural areas. The specific objective of the assignment includes:

- Soil nutrient management
- Introduction to basic horticultural production practices (Propagation, nursery/transplanting seedlings),
- Pest control (disease and Weed Management) and IPM,
- Post-harvest handling (post-harvest management technologies)
- Facilitate field demonstration on Fruit and vegetable production technologies in the college farm

Therefore, the College requested CRS for F2F volunteer assistance on horticultural crop production and its post-harvest management to 40 plant science students and 5 staff members. Thus, an F2F volunteer specialist will address these knowledge gaps through a variety of training methodologies. S/he will train on horticulture crop production and post-harvest management.

## **D. HOST CONTRIBUTION**

The host, Kombolcha ATVET College, will select and mobilize staff and dairy farmers to be trained. It will also avail key personnel to work closely with the volunteer at all times to ensure translation to the local language (Amharic) and to assist the volunteer during trainings. The host will arrange transportation and venue as required. CRS F2F Ethiopia will organize the volunteer's hotel arrangements (lodging) and

ensure all required facilities are appropriate. CRS will cover lodging costs against receipts and provide per-diem advances for meals.

## E. ANTICIPATED RESULTS FROM THE ASSIGNMENT

The volunteer training will lead the company staff into understanding horticulture crop production and post-harvest management. The volunteer will contribute to the following:

- 40 plant science students and staff members will be trained on horticulture crop production and postharvest management.
- 40 students of the plant science department cascade information learned to farmers in rural areas.
- Improved productivity and post-harvest life of horticultural crops at the College.
- Farmers in surrounding rural areas increase their knowledge on horticulture crop production and postharvest management.

### F. DELIVERABLES

- Initial presentation is completed (outlines, activities, plans, approach, etc.)
- Volunteer final report having feasible recommendations due before departure
- Group presentation with local stakeholders at the end of the assignment.
- Presentation to CRS staff and/or USAID
- Outreach activity press release or a media event upon return to the US

### G. SCHEDULE OF VOLUNTEER ACTIVITIES IN ETHIOPIA (DRAFT)

Day	Activity	
Day 1	Arrival in Addis at Bole Airport. The volunteer will be met by CRS's client hotel Saro Maria Hotel (mail: <u>reservation@saromariahotel.com</u> ; <u>Phone</u> : <u>+251 11 667 2167</u> ). The volunteer will locate the hotel kiosk and use pre-arranged shuttle	
Day 2	Rest Day (Sunday)	
Day 3	<ul> <li>Take hotel shuttle to CRS office (CRS working days are Monday to Friday from 8:00AM to 5:00 PM East Africa Time)</li> <li>Welcoming by CRS, and briefing meeting on security, general orientation, MEAL, logistic and reporting formats.</li> <li>Discuss anticipated outcomes and work plan</li> <li>Travel (local flight) to the assignment site Kombolcha, Amhara region,</li> <li>S/he will be introduced with the host and will be accommodated. If time permits,</li> </ul>	
	general orientation with the host will be pursued.	
Day 4	<ul> <li>Further assess skill and training gaps through visiting and discussing with students and faculty</li> <li>Based on information gathered and gaps identified, enrich the prepared training materials incorporating hands-on practices.</li> </ul>	
Day 5-7	Provide training and advice for students and faculty	
Day 8	Rest Day (Sunday)	
Day 9-12	Continue provision of trainings and technical assistances to students and faculty	
Day 13	Briefing / exit meeting with the host in the presence of CRS staff Volunteer travels back to Addis Ababa (in the afternoon flight)	

Day	Activity
Day 14	Debriefing with CRS staff and/or USAID Mission
	• Finalize reimbursement expenditures and liquidations (if any) with finance.
	• Finalizes his/her reporting and submit training M&E forms to CRS F2F staff. And
	depart for USA
TBD	Outreach event when back in the USA

# H. DESIRABLE VOLUNTEERS SKILLS

The volunteer will have the following qualifications and competencies:

- Experience in horticulture production and post-harvest management on horticultural crops
- Experience in in small-scale production of vegetable and fruits at community level.
- Demonstrative experience in agricultural education/learning institutes and/or universities in the US and/or other African agricultural universities.
- Experience in providing training to adults, community development workers or members of a community-based organization
- Good communication and interpersonal skills
- Willing to work under Ethiopian context

# I. ACCOMMODATION AND OTHER IN-COUNTRY LOGISTICS

- Before travelling to the assignment place, Kombolcha, the volunteer will stay in Addis Ababa at Saro Maria Hotel (mail: <u>reservation@saromariahotel.com</u>; <u>Phone</u>: <u>+251 11 667 2167</u>). The hotel has rooms that include services such as breakfast, wireless internet, etc. For any inconvenience, please call at <u>0911718450</u>, Biruk - F2F program manager.
- The hotel shuttle or CRS will arrange a vehicle for short travel from the hotel to CRS office and vice versa in Addis Ababa.
- While in the field, the volunteer will stay at a hotel in Kombolcha town (usually the hotel has breakfast, wireless internet and shuttle). The accommodation details will be confirmed prior to the volunteer's arrival in country. The afternoon temperature of Kombolcha is warm year-round.
- 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.
- 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

## J. RECOMMENDED ASSIGNMENT PREPARATIONS

- The target trainees are College students and staffs who hold at least first degree. 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 the assignment.
- Prior to travel, the volunteer is advised to prepare necessary training materials/handouts and demonstration aids, power point presentation. Electronic copies of the handouts and any other paper materials can be printed for immediate use at the CRS office in Addis Ababa. Translation of handouts to local languages can be done in the locality of the assignment, if needed.

- If required, simple training aids like flip charts, markers or tapes can be collected from the CRS office in Addis Ababa prior to travel to the assignment place. The volunteer can use a laptop and projector for power point presentations.
- F2F program recommends that the volunteer may read about ATVET system in Ethiopia
- The training will be conducted at Kombolcha town inside the college compound and for practical works there could be some travel outside the town. The afternoon temperature of Kombolcha where the volunteer stays is warm year-round.
- Generally, Ethiopia is under the tropical zone, 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.

## **K. 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.

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