

**Farmer-to-Farmer East Africa**

**Volunteer Assignment Scope of Work**

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| **Summary Information** |
| Assignment Code | ET-122 |
| Country | Ethiopia |
| Country Project | Grain Crops Production and Sector Support |
| Host Organization | Ardaita Agricultural, Technical and Vocational Education and Training (ATVET) College |
| Assignment Title | Grain post-harvest management focusing on wheat  |
| Assignment preferred dates | Nov – April (the ideal time is Nov) |
| Objective assignment | * Train and advise Ardaita ATVET Colleges and Ethiopian Seed Enterprise staffs on post-harvest loss minimization
* Train and advice smallholder farmers
* Develop guidelines or manual on grain post-harvest management
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| Desired volunteer skill/expertise | * Knowledge and demonstrated experience in grain post-harvest management especially on wheat
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1. **BACKGROUND**

The Farmer-to-Farmer (F2F) East Africa program 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.

Agriculture is the backbone of the Ethiopian economy. This particular sector determines the growth of all other sectors and consequently, the whole national economy. On average, crop production makes up 60 percent of the sector’s outputs, whereas livestock accounts for 27 percent and other areas contribute 13 percent of the total agricultural value added. The sector is dominated by small-scale farmers who practice rain-fed mixed farming by employing traditional technology, adopting a low input and low output production system. The land tilled by the Ethiopian small-scale farmer accounts for 95 percent of the total area under agricultural use and these farmers are responsible for more than 90 percent of the total agricultural output. Compared to all crops produced in Ethiopia, the grains had the greatest share in 2012/13 both in area coverage 91% and production share 79%. Teff is the most widely cultivated, followed by maize, sorghum and wheat in that order, but maize is the highest in volume of production. Pulses are also important in Ethiopian agriculture and food security, accounting for 15% of land coverage and 12% of production share.

Ardaita ATVET College is one of the several ATVET colleges established in Ethiopia. Like all ATVET colleges, the objective of Ardaita ATVET College is teaching agricultural students and producing technically equipped personnel. These agricultural students of the colleges are therefore, candidates CAs. The candidate CA[[1]](#footnote-1)s after graduation in Diploma level will mostly recruited by the regional Bureaus of Agriculture and Natural Resource, and will be assigned at kebele[[2]](#footnote-2) and/or cooperative levels to work for the grassroots’ farming communities. CAs are also responsible to administer certain agricultural institutions in the kebeles such as Farmers Training Centers (FTCs) and to support farmers’ organizations basically the farmers’ cooperatives (primary cooperatives and their unions) as well as integrations of community based organizations (CBOs).

The human elements of agriculture and cooperative development are linked with low number and quality skills of the human resources serving the smallholders farmers. Development Agents (DAs) and Cooperative Agents (CAs) are the major ones in supporting the large base (85%) of the smallholder farmers of the Ethiopian agriculture. Limited flows of the agricultural knowledge/skills and technologies in all aspects of agriculture including crop harvesting and post-harvest management techniques to the large domains of the farming communities are critical. Therefore, increasing the volume and quality of the skilled man power of candidate CAs in crop agronomy, harvest and post-harvest for improving the efficiency and quality of the learning and teaching environment in ATVET colleges such as the Ardaita ATVET would be vital.

1. **ISSUE DESCRIPTION**

Grain losses occur along the chain such as production, harvesting, transportation, storage, processing, packaging and marketing the likes. In Ethiopia estimates suggested that the magnitude of loss during production, harvesting and post-harvest is tremendous ranging from 5% to 26% for different crops. This amount is quite large especially for Ethiopia where a great majority of people are food insecure.

Grain losses could either be in terms of quantity damaged or in quality deteriorated. The magnitude of post-harvest grain losses, whether actual or expected, would influence farmers’ behaviors in marketplace; that is, in absence of a working insurance markets, the fear of running high risk of grain loss may induce farmers to dispose most of their produces immediately after harvest time and probably repurchase at some future date. Obviously, this would entail inter-seasonal price discrepancies, which would affect the level of farmers’ income and therefore access to food.

Ardaita College has more than 1100 hectare of land mainly used for wheat production. The college farm located adjacent to the Ethiopian Seed Enterprise farm which possesses more than 3000 hectares. This farm is also mainly used for wheat production. The College and the seed enterprise are working together in terms of crop protection and other. At both farms, most of the agricultural activities are undertaken by mechanization. However, there is a huge loss of grain during production, harvesting, transportation and storage. The College has two warehouses at two locations Assasa town and in the College. Each warehouse has the capacity of 3,500 tone and the college sometimes stores its grain for more than a year. So as the grain exposed for storage losses.

Generally, some of the major reasons for the grain loss along the chain includes:

* Weeds like chinopodium, avenafatual, oxalis etc.
* Disease mainly stem and leaf rust
* Moisture related,
* variety of the wheat (some shatters during harvesting)
* Storage pest mainly weevil

The host Ardaita ATVET College pursues three interrelated pillars: education/training; farmers’ cooperative assessment and on-farm demonstration; and farming community service. The farm is generally managed by thee on-farm demonstration section. Therefore, the College has requested for F2F volunteer assistance in addressing the grain losses caused by the aforementioned reasons. However, due to broadness of the subject matters and timeliness of the technical assistance need, the College wants the volunteer to focus on minimizing post-harvest losses of wheat and if time permits and the volunteer has experiences, she/he may touch the other bottlenecks mentioned above. The volunteer will improve the knowledge and skills of the agriculture section staffs of the College and some staffs of the Ethiopian Seed Enterprise. The major modalities of such assistances are on-farm/site based practical demonstrations and advice to the staffs and if time allowed to subsistence smallholder farmers who live around the College.

1. **OBJECTIVES OF THE ASSIGNMENT**

The objective of this assignment is to improve the harvesting, post-harvest handling and storage of wheat. The assignment is scheduled to share experiences and train on post-harvest management techniques to the agriculture staff of Ardaita ATVET College, the Ethiopian Seed Enterprise staffs, and to adjacent smallholder farmers.

The specific objectives of this volunteer assignment, therefore, include:

* Improving harvesting and post-harvest technologies (on harvesting, threshing/shelling, handling, storage, management of wheat and stalks/straws, etc)
* Develop and submit simple guidelines on harvesting and post-harvest management of grains (wheat).

The total number of attendees of this volunteer assignment is expected to be 35 (11 farm staffs and 25 operators). If time permits, 10 to 15 adjacent farmers will be visited for training and technical assistances on wheat harvesting and post-harvest management.

**Host contribution** – The host, Ardaita ATVET College will select and determine the attendances of the said beneficiaries. Prior to the assistance, the College will consult the volunteer with the course topics and outlines where the volunteer will integrate into her/his prior prepared training materials from overseas. The college will also ensure that the necessary class rooms and local training aids and other teaching materials are in place. The host will also provide the volunteer with guesthouse (subsidized fee, if requested, it is going to be covered by CRS) and facilitate the volunteer for meal services. The college will also assign a focal person who can guide and facilitate the volunteer specialist during the assignment period. The host will also provide office space and arrange vehicle if any assignment related travel is required. If the host requested, fuel costs incurred for the volunteer assignment can be reimbursed against receipts as per CRS’s financial procedure.

1. **ANTICIPATED RESULTS FROM THE ASSIGNMENT**

As a result of the volunteer technical assistance, it is anticipated that the attendees understand better way of harvesting and threshing techniques, post-harvest handling and wheat storage management. Thereby reduce losses. In addition, farmers will handle their produce with care and avoid any uncertainties such as physical damage and off types.

Specific outputs from this assignment include but not limited to the following:

* + Improved harvesting, post-harvest handling and storage methods,
	+ Warehouse pest management and quality assurance methods,
	+ Simple guidelines on modern harvesting and post-harvest management techniques,

The anticipated deliverables by the volunteer include:

* + Initial presentation done (outlines of topics of the course, plan, approach, etc.)
	+ If time permits, post-harvest management modules/ handouts/ materials prepared and submitted
	+ Field report with recommendation
	+ Power Point Presentation to CRS staff and/or USAID,
	+ Outreach events conducted in the US.
1. **SCHEDULE OF VOLUNTEER ACTIVITIES IN ETHIOPIA**

| **Day** | **Activity** |
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| Day 1  | Arrival to Ethiopia. The volunteer will be met at Bole Airport by CRS’s client hotel Saro Maria (mail: reservation@saromariahotel.com; [**Phone**](https://www.google.com/search?rlz=1C1GGRV_enET751ET751&q=saro-maria+hotel+phone&sa=X&ved=0ahUKEwie4JH0gNfWAhXFOBoKHS8rB1sQ6BMIwwEwEA)**:**+251 11 667 2167) or another client hotel with a placard bearing “CRS logo and volunteer name”.  |
| Day 2 | Rest Day |
| Day 3 | * Briefing meeting at CRS office with CRS F2F staff, briefing on logistics and itinerary of the trip and discuss anticipated outcomes and work plan;
* Meet with Ministry of Agriculture (General Manager Office of the ATVET colleges) for introduction and expectations
* Travel to Ardaita College (290 km to the south-east of Addis Ababa)
* Setup with guesthouse and other logistics
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| Days 4 | * First hand briefing on outlines of topics of the course, plan, approach, etc, and adjust the topics as required.
* Work planning discussion with the staff of the College
* Acquainted with the existing curriculum and course topics of the department and the instructing modalities of the College through integrating volunteer prepared course and lesson plans.
* Prepare course/training and plan with the local associate of the college to proceed with the assignment (lecturing, seminar, workshops, advising, etc.).
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| Day 5-7 | Conduct the assignment according to an agreed schedules and modality of lecturing, advising, seminar, etc.  |
| **Day 8** | **Rest day** |
| Days 9-14 | Continue conducting the assignment (training/academic and practical) |
| **Days 15** | **Rest day** |
| Day 16 | * Wrap up sessions that emphasize key concepts of the assignment: the college evaluates the assignment and discusses final report recommendations with the volunteer.
* Group presentation to the host in the presence of CRS F2F staff
* Travel back to Addis Ababa
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| Day 17 | * Debriefing at CRS office with USAID Mission and CRS staffs.
* Submit all reports, return logistic items and complete all required activities

Depart for USA (**evening hours**) |
| TBD | Conduct outreach activity when back in the US |

1. **DESIRABLE VOLUNTEERS SKILLS**

The volunteer should have the following qualifications and competencies:

* Knowledge and demonstrated experience in harvesting and post-harvest management practices
* Good knowledge and experience in rain fed agriculture and integrative knowledge and experience on construction of local and up-to-date storage facilities at small scale level,
* Ability and preparedness to use relevant teaching aids and audiovisuals,
* Demonstrated experience in advisory work /provision of training/ on community driven development
* Good communication and interpersonal skills
* Respect the culture and willing to work under rural Ethiopian context
1. **ACCOMMODATION AND OTHER IN-COUNTRY LOGISTICS**
* Before travelling to the host at the assignment place, the volunteer will stay in Addis Ababa at one of the CRS’s client hotels 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.
* 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, 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 service and accompany the volunteer to the place of assignment.
* During her/his assignment period, the volunteer will stay at the guesthouse in the College.
* CRS Ethiopia will cover the lodging cost (if the College requested).
* CRS HQ will provide the volunteer with a per-diem advance to cater meals.
* 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**
* Although CRS F2F has developed such hinting SOW, the volunteer can fine-tune through her/his professional qualifications to successfully carry out this leadership skills transfer.
* 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 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 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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1. CAa: Cooperative Agents [↑](#footnote-ref-1)
2. *Kebele is the lowest administrative structure of Ethiopia, below district or woreda level.* [↑](#footnote-ref-2)