

**Farmer-to-Farmer East Africa**

**Volunteer Assignment Scope of Work**

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| **Summary Information** | |
| Assignment Code | ET-74 |
| Country | Ethiopia |
| Country Project | Grain Crops Production and Sector Support |
| Host Organization | Agarfa Agricultural, Technical and Vocational Education and Training (ATVET) College |
| Host Partner | Ministry of Agriculture, ATVET Coordination office |
| Assignment Title | Educating/training/advising on Integrated Soil Fertility Management (ISFM) |
| Assignment preferred dates | March – Mid-June 2018 (land preparation season) |
| Objective assignment | * Provide training and advice on soil fertility management to college staffs and students who are responsible in managing the farm existed in the college compound. * Develop TOT guidelines or manual/ hand out on soil fertility management |
| Desired volunteer skill/expertise | * Graduate knowledge/skills and experience in soil science and soil fertility management * If possible, experiences in agricultural learning institutes. |

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.

Most farmers in Ethiopia are smallholder farmers whose average land holding is less than a hectare per household. From the crop production sector, grain crops production is the most important integral component of agriculture and food security in Ethiopia. To support the development of agriculture in the country different institution train agricultural professionals on diversified fields.

ATVET colleges in Ethiopia are sources of knowledge and skills to enhance agricultural productivity and transfer technologies among the subsistent farmers. Agarfa ATVET College is one of the institutions which is providing technical trainings for students who will become potential development agents (DAs). Majority of the students after completing their study will be hired by Ministry of Agriculture and Natural Resources (MoANR) to work at ‘kebele’ level where they would directly live and work with small holder farmers at grass root level.

Agarfa Agricultural TVET College is one of the oldest agricultural education institutions in the country. It is located in Oromia Regional State in Bale Zone, 458 kilometers Southeast of Addis Ababa. The average altitude of the college is 2330 meters above sea level with mild and moderate climate. The annual average rain fall in the college is 830 mm and the annual average temperature is 15.2 0c. The soil type is sandy clay loam. The college owns a total of 4,224 hectares of land and out of which 2,140 hectares is allocated for crop production mainly wheat and barley. This farmland is also serving as practical training site for the students and for the surrounding community. However, the college faces diversified challenges to improve productivity of the farm land and be a model for others. Among the nay challenges, soil fertility management is the one that the College needs to address.

1. **ISSUE DESCRIPTION**

Soil fertility management, limited use of agricultural inputs and knowledge on soil fertility management principles and practices contribute to yields that are lower than would otherwise be expected. In many parts of Ethiopia, agriculture faces a wide set of soil fertility issues that require approaches that go beyond the application of fertilizers. Core constraints include top soil erosion; acidity affected soils, significantly depleted organic matter due to widespread use of biomass as fuel, depleted macro and micro-nutrients, depletion of soil physical properties and limited or no crop rotation practices.

In addition to the above problem, the Agarfa College has been practicing burning of crop residue (stubble burning) for clearing of the farm land from weed and soil-born disease while the practice destroy the soil organic matter. As a result productivity declining from time to time and the application of fertilizer is increasing. The most common fertilizers used in Ethiopia in general and at the college are di-ammonium phosphate (DAP) and urea. Even these chemical fertilizers also faces significant constraints in low availability and limited reach of distribution networks in contexts where appropriate application can enhance yields. Thus, farming carried on without replenishing nutrients over time due to continuous cropping of cereals, burning of crop residues, and also lack of local specific fertilizer recommendation.

Though the College has graduated staffs in agriculture, it specifically lacks both theoretical and technical capacity on soil fertility management. The College identified this limited skills and knowledge on integrated soil fertility management as contributing significantly to the low yields among other challenges accruing from organic matter depletion and nutrient recycling. So that the mitigation of soil fertility depletion is currently a pressing issue and becomes a major concern.

Therefore, the host Agarfa ATVET College requested a volunteer assistance and skill transfer on integrated soil fertility management (ISFM) that helps to replenish soil nutrient pools and improve land productivity while maintaining or enhancing soil fertility. Therefore in order to reduce and gradually alleviate the challenge, this knowledge-based intervention by volunteer will introduce ISFM techniques through provision of training and practical field assistance to the targeted College staffs, students and farm technicians as well as adjacent smallholder farmers (if time permits) on soil fertility management techniques and practices.

1. **OBJECTIVES OF THE ASSIGNMENT**

The objective of this particular volunteer assignment is to train and/or technically assist the targeted beneficiaries (52% female and 48% male) on soil fertility management techniques for improved and sustainable production of crops. So that the participants clearly understand, the application of soil fertility management practices, and the knowledge to adopt these to local conditions, which maximize fertilizer and organic resource use efficiency and crop productivity.

The assignment is scheduled to educate and/or transfer soil fertility management knowledge and skills to junior instructors, agricultural students/candidate DAs of Agarfa ATVET College and farm technicians. The modality will be in the form of lecturing, advising, workshop, seminar, practical field work or whatever modalities and sessions that the college and the volunteer feel better way of learning process.

The beneficiaries or attendees of this assignment will be expected to be 70. If time permits, adjacent farmers will be visited for training and technical assistances on soil fertility management.

Anticipated training topics include but are not limited to the following;

* Importance of soil and the bases of soil science,
* Factors influencing soil fertility and its management,
* Organic manures, natural and chemical fertilizers,
* Nutrient requirements for agricultural crops,
* Nutrient deficiency symptoms and suitable corrective measures,
* Timing of manure and fertilizer applications,
* The relationship between soil and water,
* Crop rotation,
* Compost preparation and recommended application, etc.

**Host contribution** – The Agarfa ATVET College will select and determine the attendances of the said junior lecturers and agricultural students/candidate and farm technicians. Prior to lecturing hours, the College will provide the volunteer with the course topics and outlines where the volunteer will integrate into her/his prior prepared training and advising 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) 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 office furniture as well as vehicle if any travel is required during the assignment duration. Fuel and any other essential costs of this assignment incurred for the volunteer can be reimbursed against receipts and financial procedure of CRS.

At CRS Addis Ababa, the volunteer can take the soil test kit to check NPK and PH level of the soil in the college.

1. **ANTICIPATED RESULTS FROM THE ASSIGNMENT**

It is anticipated that the volunteer transferred up-to-dated technologies and overseas’ experience to the junior lecturers and students/candidate DAs in a forms of lecture, workshop, seminars, and/or practical means including lab and fieldworks.

The anticipated deliverables that can be accomplished by the volunteers can also include:

* Initial presentation done (outlines of topics of the course, plan, approach, etc),
* If time permits, soil fertility management training modules or handouts prepared and submitted
* Reports with recommendation submitted;
* Presentation to CRS staff and 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 Churchill (**churchillhotel@ethionet.et / info@churchillhoteladdis; phone # 0111111212**) or another client hotel with a placard bearing “CRS logo and volunteer name”. |
| Day 2 | * Briefing meeting at CRS office with CRS F2F staff, briefing on security, MEAL, logistics and itinerary of the trip and discuss anticipated outcomes and work plan; * Meet with director of the ATVET Coordination office, at Ministry of Agriculture for introduction |
| Day 3 | * Travel to Agarfa ATVET College (458 kilometers Southeast of Addis Ababa) * Setup with guesthouse and other logistics |
| 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) |
| 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 16-21 | Continue conducting the assignment (training/academic and practical) |
| **Day 22** | **Rest day** |
| Day 23-24 | Continue conducting the assignment (training/academic and practical) |
| Day 25 | * 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 |
| Day 26 | Travel back to Addis Ababa |
| Day 27 | * Debriefing at CRS office with CRS staffs or with USAID Mission at US Embassy. * Submit all reports, return logistic items and complete all required activities * Depart for USA |
| TBD | Conduct outreach activity when back in the US |

1. **DESIRABLE VOLUNTEERS SKILLS**

* Graduate in soil science or soil fertility management, or related fields and experience in educating and farming
* Demonstrative experience in agricultural education/learning institutes and/or universities in the US and/or other African agricultural universities,
* Ability and preparedness to use relevant teaching aids and audiovisuals,
* Demonstrated experience in advisory, research and laboratory work, emphasizing agribusiness development
* Good communicator and interpersonal skills

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

* Before travelling to the host at the assignment place, the volunteer will stay in Addis Ababa at Churchill hotel (**churchillhotel@ethionet.et / info@churchillhoteladdis; phone # 0111111212**) or another client 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 (up on request), 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 be booked and stay in the guesthouse of the host.
* CRS Ethiopia will cover the lodging bills against receipts.
* CRS HQ will provide the volunteer with a per-diem advance to cater meals.
* 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**

* 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 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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