



To express interest in this assignment please email maria.figueroa@crs.org

**CRS Farmer to Farmer Program
Volunteer Assignment Scope of Work**

Summary Information	
Assignment code	ET220
Country	Ethiopia
Country Project	Livestock
Host Organization	Salale University (SIU), College of Agriculture and Natural Resource
Assignment Title	Training on selected topics in Econometrics
Assignment Preferred Dates	June 2019
Assignment Objectives	<ul style="list-style-type: none"> ▪ Provide training on selected topics in Econometrics to third year students and key staffs at the Agricultural Economics Department of SIU¹, ▪ Demonstrate Econometrics modelling ▪ Establish linkages between SIU and Universities in the US for future collaboration
Desired Volunteer ¹ Skill/Expertise	<ul style="list-style-type: none"> ▪ Advanced university degree in Econometrics or related area. ▪ Extensive Experience in the quantitative application of statistical and mathematical models using data to develop theories or test existing hypotheses in economics and to forecast future trends.
Type of Volunteer Assistance	Technology Transfer = T
Type of Value Chain Activity	Information and Input Support Services (S)
PERSUAP Classification	Type III

A. BACKGROUND

CRS Farmer -to-Farmer program (F2F) is a USAID funded program that will be implemented for five years (2019- 2023) with a primary goal of reducing hunger, malnutrition, and poverty across six countries: Benin, East Timor, Ethiopia, Nepal, Rwanda and Uganda. The program aims at achieving this goal through advancing inclusive and sustainable agriculture led growth aimed at generating sustainable, broad-based economic growth in the agricultural sector. The program’s

¹ SIU: Salale University



secondary goal is to increase US public understanding of international development issues and programs and share the knowledge back in the US. To achieve its goals, F2F program provides volunteer technical assistance to farmers and farmer groups (associations and cooperatives), private agribusinesses, agriculture education institutions in developing countries like Ethiopia to address host identified technical needs in selected agricultural value chains. F2F volunteers are pooled from a broad range of US agricultural expertise, from private farmers with varied experience, University professors, bankers/certified accountants, animal health and nutrition specialists, soil scientists, agronomists who support local host organizations. F2F program introduces innovation and develops local organizations capacity for more productive, profitable, sustainable and equitable agricultural systems while providing an opportunity for people-to-people interactions within the agricultural sector. In Ethiopia, F2F program focuses technical interventions in the livestock and grain value chains.

Agriculture is a dominant sector in Ethiopia. Despite its significance and the country's rich and diversified climate, altitude, soil and water resources agriculture remain undeveloped. It is characterized by low productivity, smallholder subsistence farming and instability of production. As a result, the country has witnessed recurrent poverty and persistent food insecurity. The low economic performance of the agricultural sector is partly attributed to factors such as failure of different economic policy makers to understand the real issues affecting the different agricultural value chains in order to develop effective policy solutions to the problems. For example, agricultural economists in Ethiopia have often attempted to estimate the parameters of behavioral equations which derive from economic theory, such as demand, supply, and investment functions using econometric models. These estimates are thought to be useful for a wide range of problems such as analysis of socio-economic problems, evaluation of impacts of program interventions, forecasting, and improved understanding of the economy and its dynamics. For the past two decades, the Federal Republic of Ethiopia has been giving emphasis to human resource development in area of agriculture and value chain management. The aim is to combat the prevailing issues of poverty and food insecurity in the country using trained professionals. The capacity to conduct in-depth economic analysis and modelling of agricultural value chains in order to generate feasible alternatives and come up with the most appropriate solution for their effective management is however limited among key actors in the sector.

B. ISSUE DESCRIPTION

Salale University is one of the key actors in agricultural value chains development. It has 5 colleges with 30 undergraduate programs. One of the largest colleges in this university is the College of Agriculture and Natural Resource. The university is located in Fiche town in central Ethiopia. The town of Fitcha is located about 114KM from the capital Addis Ababa towards the north along Addis Ababa to Bahir dar road. Fitcha is situated in the highland, an elevation between 2,738 and 2,782 meters above sea level and latitude and longitude of 9°48'N 38°44'E respectively. Due to this elevation, the climate tends to be more temperate.



The university is relatively new and started its operation in 2017. It has 5 colleges with 30 undergraduate programs. This college has seven departments; Horticulture, Plant science, Animal science, Agricultural Economics, Natural resource management, Water resource and irrigation management and Rural development and agricultural extension.

Salale University is one of the new institutions of higher learning established by the government of Ethiopia under its growth and transformation plan 2015-2020. The main objective of the education sector development plan is to ensure effective and efficient education and training system that enhance quality, relevance, equity and access at all levels. In line with this plan, the University Department of Agricultural Economics has given attention to initiate quality and relevant training in agricultural economics and value chain management. The objective is to produce Agricultural economics graduates who are able to identify economic and value chain management problems and offer critical thinking and analysis, generate feasible alternatives and come up with the most appropriate solutions and to serve the nation. Key university staff and instructors however lack adequate knowledge and skills to effectively train these future agricultural economists in the subject. In addition, as a center of excellence, it has limited capacity to effectively give technical support to other stakeholders in the agricultural economics sector. This has led to limited capacity of the university to contribute to developing required human resources and to take its position as a thought leader in the subject matter. To effectively develop new knowledge through research and develop high skilled professionals in the subject the university requires good professional human resource, with adequate knowledge and skills in in econometrics and econometric modelling. It is anticipated that this volunteer technical support will contribute towards these efforts and result into longer term collaboration between Salale University and other universities in developing the University's Capacity to train and research in in econometrics and Econometric modelling.

C. OBJECTIVES OF THE ASSIGNMENT

The objective of this assignment is to transfer theoretical knowledge and skills in econometrics and different econometrics models to a total of 29 3rd year students, 9 instructors and two experts each from zonal and district level in the department of agricultural economics in the ministry of Agriculture and Natural Resources. The specific objectives of this volunteer assignment, therefore, include providing training and advice the following areas:

- Estimation, testing and interpretation, multiple linear regression and multiple-equation models
- Analyzing and interpretation censored, truncated, and interval data with sample-selection bias
- Modeling, analyzing and interpreting nominal, ordinal, and count data
- Organizing, analyzing and interpreting time series
- Organizing, analyzing, and interpreting panel data with linear and nonlinear pane data estimators



- Conducting efficiency and productivity analysis using parametric and nonparametric methods and interpret the results
- Evaluating impacts of program interventions with standard techniques of impact evaluation
- The other objective of this assignment is to create partnership between SIU and Purdue University and ensure continuity of the course.

D. ANTICIPATED RESULTS FROM THE ASSIGNMENT

It is anticipated that through F2F volunteer technical support, participants will be equipped with knowledge and skills to:

- Provide effective training coaching and mentorship on Econometrics to staffs and students of SLU, college of agriculture and Natural Resource
- Contribute to strengthening of econometrics modelling in the country by equipping selected participants from the Ministry of Agriculture and Natural Resources-department in the department of agricultural economics.
- Understand theories concerning applied econometrics analysis in the Agricultural economics and value chain management to help them initiate research in topics related to the Agricultural economics and value chain management.

E. HOST CONTRIBUTION

The host has committed to mobilize the staff, stakeholders, students, and local farmers to receive the volunteer's technical and practical assistance. The host will also avail key personnel to work closely with the volunteer, assisting her/him during training and practical demonstration sessions, ensuring translation to the local language and advising on the culture of the area. CRS will cover lodging costs against receipts and other related costs. In coordination with the host and the volunteer, CRS will also arrange and pay for transport services for daily use to and from the University.

F. ASSIGNMENT DELIVERABLES

The major anticipated outputs of this assignment include, but not limited to:

- Work plan and training materials in appropriate formats in collaboration with the host and training participants
- Training lists with people trained and subject areas as per the training reporting formats
- Volunteer end of assignment report with recommendations to the host organization action plan and recommendations to CRS
- A bibliography or a list of key resources in the subject matter
- Conduct a final debriefing (PowerPoint presentation) with the host organization (plus key stakeholders) and CRS/USAID
- Conduct outreach events upon return to the US



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G. SCHEDULE OF VOLUNTEER ACTIVITIES IN ETHIOPIA

Day	Activity
Day 1	Arrival in Addis at Bole Airport. The volunteer will be met by CRS's client hotel Eliana Hotel (https://www.booking.com/hotel/et/eliana ; Phone: +25111 126 2600). The volunteer will locate the hotel kiosk and use pre-arranged shuttle
Day 2	Rest Day (Sunday)
Day 3	<ul style="list-style-type: none"> • Take hotel shuttle to come to CRS office (CRS working days are Monday to Friday from 8:00AM to 5:00 PM East Africa Time) • Welcoming by CRS, and briefing meeting on security, general orientation, MEAL (attendance sheet, reporting and PPT templates), and logistic. • Discuss anticipated outcomes and work plan • Car travel to the assignment site (Fitcha town, 114km outside of Addis Ababa). S/he will be introduced to the host and accommodated in Fitcha town. • General orientation with the host, first-hand briefing on the main objectives and modality of the assignment and adjustment of the agenda for the coming days (work planning session).
Day 4	<ul style="list-style-type: none"> • Conduct further assessment of skills and knowledge gaps with training participants • Based on information gathered and gaps identified, enrich the prepared training materials incorporating hands-on practices. • Develop 10 days (2 weeks training) curriculum covering key knowledge and skills Gaps
Day 5-19	<p>Train participants on among other topics</p> <ul style="list-style-type: none"> • Estimation, testing and interpretation multiple linear regression and multiple-equation models • Analyzing and interpretation censored, truncated, and interval data with sample-selection bias • Modeling, analyzing and interpreting nominal, ordinal, and count data; • Organizing, analyzing and interpreting time series • Organizing, analyzing, and interpreting panel data with linear and nonlinear pane data estimators • Conducting efficiency and productivity analysis using parametric and nonparametric methods and interpret the results • Options for collaboration with advanced universities in the subject area to ensure development of the course at the university
Day 20	<ul style="list-style-type: none"> • Briefing / exit meeting with the host in the presence of CRS staff • Volunteer travels back to Addis Ababa
Day 15	<ul style="list-style-type: none"> • Debriefing with CRS staff and/or USAID Mission



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Day	Activity
	<ul style="list-style-type: none"> Finalize reimbursement expenditures and liquidations (if any) with finance. Submit volunteer reports, training attendance sheet, assignment report, PPT presentation and any reference materials to CRS F2F team. Depart for USA
TBD	Outreach event when back in the USA

H. DESIRABLE VOLUNTEER SKILLS

The volunteer will have the following skills, qualifications and competencies:

- Advanced university degree in econometrics or related area (Preferably PHD).
- Extensive Experience in the quantitative application of statistical and mathematical models using data to develop theories or test existing hypotheses in economics and to forecast future trends
- Experience in teaching students at a university level preferably master’s or PhD holders
- Skills and experience in TOT training in econometrics modelling or related subject
- Good communicator and interpersonal skills
- Willingness and flexibility to train and technically assist University staff whenever required
- Respect for the cultural and religious norms of the rural people.

I. ACCOMMODATION AND ANOTHER IN-COUNTRY LOGISTICS

- Before travelling to the assignment place, the volunteer will stay in Addis Ababa at one of the CRS’s client hotels, Eliana or another hotel that will be booked and confirmed before the volunteer arrival date. The hotel will have 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 provided to the volunteer. CRS Ethiopia will provide the volunteer with a laptop computer (if s/he needs), local internet dongle and mobile phone with a 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 stay at C-Lale Resort Hotel/Girum Hotel, Fitch town.
- 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 incidentals.
- CRS Ethiopia will also reimburse the volunteer with laundry costs against receipts.
- For more information, please refer to country information that will be provided.



J. 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 assignment.
- Although the assignment place Fitcha is a highland where malaria may not be a problem, 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.
- 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 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 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.

K. KEY CONTACTS

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