TERMS OF REFERENCE FOR

TRAINER (S) TO PROVIDE TRAINING ON AGRICULTURAL EXTENSION FOR AGRICULTURAL TUTORS FROM 29 AGRICULTURAL TRAINING INSTITUTES

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SUSTAINABLE AGRICULTURE TANZANIA

P.O. BOX 6369, MOROGORO-TANZANIA

Website: www.kilimo.org.

1.0. Overview

Sustainable Agriculture Tanzania (SAT) is seeking to hire a Trainer(s) to conduct a Project planning and management training for tutors from 29 Agricultural Training Institutes. The trainer (s) is free to use any workable methodologies that will be used in the training. These Terms of Reference (ToR) serve as a request for proposals from individual consultants/firms interested in conducting this training.

2.0. About Sustainable Agriculture Tanzania (SAT)

SAT is a local organization that was registered in June 2011 and complying with the NGOs Act 2002 as amended in 2019 with registration number 00NGO/R/833. SAT's vision is that "the majority of farmers are using acknowledged agroecological methods to improve their livelihoods, conserve the environment, and reduce pressure on natural resources". SAT collaborates with other stakeholders including farmers, Ministry of Agriculture (MoA), universities, organizations, companies and government extension officers to be involved in activities that are carried out by SAT. This holistic approach establishes an Innovation Platform, where dissemination, research, application and marketing and networking build the main pillars. SAT headquarters are in Morogoro with branch offices in 4 regions and operates all over Tanzania. SAT runs its operations through a number of donor-funded projects and the CISTI project is one of them.

3.0. About CISTI project

SAT in collaboration with the Division of Training, Extension Services and Research (DTER) of the Ministry of Agriculture and with the support of LED started implementing the CISTI project in 2019 with the major aim of supporting the production of competent technical personnel who work effectively to meet the demand of Tanzania's agriculture sector, increasing climate resilience and strengthening livelihoods of smallholder farmers, thus alleviating poverty and food insecurity for sustainable development.

4.0. Objective of the assignment

The main objective of Agricultural Extension training is to equip 29 agricultural tutors with knowledge and skills on agricultural extension. Training of tutors responsible to train students on Agricultural Extension is an important step towards enabling effective delivery of the curriculum. After the training, the tutors are expected to work together to prepare a draft compendium/training manual on Agricultural Extension. The developed compendium will be used as a teaching and learning resource to both tutors and students.

5.0. Scope of Agricultural Extension Training

The facilitator may navigate in length, width and depth regarding the field of agricultural extension, but they should focus on the following aspects below, as they are reflected in the curricula to be implemented in Agricultural Training Institutes (ATIs). Agricultural Extension will be offered to certificate and diploma students. The aim of offering this training to students is to enable them to apply extension methods and techniques in disseminating agricultural technologies.

5.1 Summary of learning outcomes

5.1.1 Principal Learning Outcomes

Students who will be trained on agricultural extension are expected to be able to apply extension methods and techniques in disseminating agricultural technologies.

5.1.2 Enabling Learning Outcomes

Under this module, there are six enabling outcomes as stipulated in the different curricula, at the end of training on Agricultural extension module, students should be able to:

- Apply psychology, sociology and adult learning techniques in provision of extension services
- Apply administration concepts for supervision of extension programs
- Apply principles of extension to disseminate agricultural technologies
- Apply multimedia approaches to enhance efficacy of agricultural technology dissemination
- Apply extension approaches in planning and implementing agricultural related activities.
- Employ basic statistical methods to process agricultural data and give recommendations from the inferences

5.1.3. Sub-Enabling Outcomes

Under this module, there are twenty-nine (29) major sub-enabling outcomes. These are the major areas that students will be required to gain knowledge and skills from through theoretical and practical learning. These sub-enabling outcomes are expounded further through their related tasks as will be indicated in the table that follows this section.

- Use psychology and sociology concepts to facilitate the of use technologies in agricultural related fields stakeholders
- Use the knowledge of agricultural extension to describe group mobilization technique for interaction in the community
- Apply guidance and counselling techniques in extension training
- Explain the concept of adult learning
- Use learning domain in training adults
- Apply extension techniques in creating awareness of effect of child labor to the agricultural related activities
- Explain the concept of organization and management
- Describe resources mobilization, organization and management
- Use the knowledge of agricultural extension to explain the concept of organization management in extension
- Use the knowledge of agricultural extension to describe extension organizational structure in monitoring the role of extension officers at different levels
- Apply principles of extension to describe extension approaches
- Integrate group participatory techniques with information technology to improve adoption of new agricultural technologies
- Use extension knowledge to describe teaching aids for disseminate agricultural technologies
- Employ agricultural extension participatory approach to disseminate agricultural technologies to farmers
- Explain the purpose of agricultural extension to facilitate agricultural technology transfer
- Apply individual, group and mass methods in agricultural technologies dissemination
- Use emerging extension methods of communication to disseminate agricultural technologies to stakeholders
- Apply extension teaching aids to facilitate agricultural technology transfer
- Integrated group participatory techniques with information techniques to improve adoption of agricultural techniques
- Apply Microsoft PowerPoint program to prepare and present food and nutrition information

- Use audio-visual to prepare and disseminate agricultural related information
- Use newspapers and social media to disseminate agricultural relate information
- Apply computer program skills to prepare and present agricultural extension information
- Use the knowledge of agricultural extension to describe demographic information in planning agricultural related programs
- Use extension program plan to implement agricultural related activities
- Use appropriate statistical methods to collect agricultural data
- Use appropriate statistical techniques to organize agricultural data
- Apply statistical methods to analyse agricultural data
- Use analytical results to recommend action to be taken

The table below gives more details of these sub-enabling outcomes by breaking them down into related tasks. Related tasks are the more refined content areas that are derived from each subenabling outcome.

Table 1: Sub-enabling Learning Outcomes and their related tasks

Sub-enabling learning outcomes	Related tasks
1.1 Use psychology and sociology concepts to facilitate the of use technologies in agricultural related fields stakeholders	a. Define psychology, Anthropology, sociology, rural sociology, social system, culture, social structure, society, attitudes, value, customs, norms, socialization, adult Learning, and Personality b. Explain the importance of psychology c. List branches of psychology d. Explain the application of psychology in Agriculture e. Explain methods used in studying farmers behavior f. Explain Merits and demerits of each approach/method g. Explain factors affecting human behavior h. Describe stages of learning process i. State the principles of learning process j. State theories of personality
Use the knowledge of agricultural extension to describe group mobilization technique for interaction in the community	a. Define group b. Outline characteristics of a group c. Describe steps of group formation d. Explain the importance of group formation e. Explain the roles of groups in disseminating agricultural technology f. List different types of social conflict g. Explain factors causing social conflicts and their managing procedures
Apply guidance and counseling techniques in extension training	a. Explain the meaning of guidance and counseling b. Explain the importance of guidance and counseling c. List steps involved in guidance and counseling d. Prepare extension training program using guidance and counseling techniques e. Implement training program
Explain the concept of adult learning	a. Explain the characteristics of an adult learner (Physical, Psychological sociological, economic) b. Describe the conditions under which adults learn better

	c. List qualities of an adult learner (Knowledge of subject matter code of professional conduct Flexibility and adaptability Confidence Personality)
Use learning domain in training adults	a. Define training/ learning domains b. List in a hierarchy the domains of learning/training psychomotor, cognitive, affective, social ethical) c. Use psychomotor, cognitive, affective, social and ethical domains of learning/training in adult learning/training
Use the knowledge of agricultural extension to describe demographic information in planning agricultural related programs	a. Define terms related to population growth (Population, migration, immigration, food security and environment) b. Explain demographic variables and how they affect agricultural development c. Explain causes of rapid population growth in Tanzania d. Explain the interaction between population environment and food security e. Explain the effect of rural migration
Explain the concept of organization and management	a. Define terms related to organization and management b. Explain organization and management c. Explain the role of supervision in management
Describe resources mobilization, organization and management	a. Define management b. Outline resources of management c. Describe the management process
Use the knowledge of agricultural extension to explain the concept of organization management in extension	a. Define organization management and structure b. Explain the organization functions c. Explain the management functions
Use the knowledge of agricultural extension to describe extension organizational structure in monitoring the role of extension officers at different levels	a. Define agricultural extension b. Explain the purpose of agricultural extension services in agricultural development c. Describe the organization structure of extension in Tanzania d. Explain the influence and limitation of organization structure in the performance of extension services e. Describe the role of extension workers at different levels f. Explain the qualities of good extension workers
Apply principles of extension to describe extension approaches	a. Define: general extension, commodity-based extension, FFS, farmer to farmer, project approach, farming system approach and educational approaches b. Describe approaches (transfer of technology, target group approaches and participatory approaches) c. Discuss advantages and disadvantages of the different extension approaches
Integrate group participatory techniques with information technology to improve adoption of	a. Define group participatory approaches b. List group participatory approaches c. Describe group participatory approaches (contact farmers, farming system, farmer field schools) d. Describe stages of adoption e. Measure adoption impact of emerged technologies

new agricultural technologies	
Use extension knowledge to describe teaching aids for disseminate agricultural technologies	a. Define the term teaching aids b. List different types of teaching aids c. Explain importance of teaching aids in dissemination of agricultural technologies d. Describe different teaching aids in agricultural technology dissemination
Apply extension techniques in creating awareness of effect of child labor to the agricultural related activities	a. Define child labor and child work concept b. Outline worst forms of child labor use in agricultural activities c. List causes of child labor in agricultural activities d. Explain the effects of child labor in agriculture e. Explain international and national strategies for elimination of child labor in agriculture f. Conduct field survey to evaluate child labor awareness
Employ agriculturry extension participat to approach disseminate agricultural to technologies farmers	a. Define the extension approach b. Explain advantages and disadvantages of participatory approach Use c. participatory approach to facilitate the dissemination of agricultural technologies to farmers
Explain the purpose of agricultural extension to facilitate agricultural technology transfer	a. Define the term: extension, agricultural extension, agricultural extension work) b. Explain the purpose of extension work c. Describe principles of agricultural extension
Apply individual, group and mass methods in agricultural technologies dissemination	a. Define individual group and mass method b. Describe individual, extension methods 9farm visits, home visits and consultation) to disseminate technologies c. Describe group extension methods (group discussions, meetings, field day tours, seminars and result demonstration) to disseminate technology
Use emerging extension methods of communication to disseminate agricultural technologies to stakeholders	a. Define evolving/emerging methods b. Explain evolving/emerging methods for technology dissemination (eg email, internet, faxing conferencing, video phones, DC's, DVD's, VCD's and social media c. Explain merits and demerits of evolving/emerging methods d. Demonstrate use of emerging extension methods
Apply extension teaching aids to facilitate agricultural technology transfer	a. Define terms related to extension teaching aids (posters, charts ect) b. Outline extension teaching aids (projected, non-projected, visual, audio visual) c. Explain merits and demerits of extension teaching aids d. Prepare extension teaching aids e. Demonstrate use of extension teaching aids
Apply Microsoft PowerPoint program to prepare and present food and nutrition information	a) Define Ms Power Point b) Outline the basic parts of Power point c) Prepare agricultural related information Power Point slides d) Present agricultural related information by Power Point Projector

Use audio-visual to prepare and disseminate agricultural related information	a) Define audio -visual, audio-visual aids b) List audio-visual tools/aids (radio, tv) c) Prepare television and radio programs to disseminate agricultural related information d) Prepare Television and radio programs to disseminate agricultural relate information
Use newspapers and social media to disseminate disseminate agricultural relate information	a) Define social Media, digital Newspaper b) List social media (E-mail, whatsapp. Twitter, TikTok, Viber, YouTube, Facebook, Blogs, Skype, Zoom, Meet, Online Tvs) for agricultural relate information dissemination c) Circulate agricultural related information using social media and digital newspapers d) Prepare poster, leaflet and brochures
Apply computer program skills to prepare and present agricultural extension information	a) Format texts (select texts using different methods, format, fonts cut, copy and paste, check spelling and grammar) b) Create format tables (create table columns and rows, merge and split) c) Insert symbols, pictures, files and charts in a document (insert symbols and special characters, insert and format pictures and clipart, draw and format shapes, create indexes and table of contents) d) In Microsoft word page perform the following tasks (insert page and page break, set up pages, set up print options, print different documents) e) Enter date and apply formulae (explain formulae characteristics, calculate data using different functions, format cells) f) Create charts (create different charts using wizards, format charts g) Sort and filter data (sort data. Filter data, create pivot table) h) Print a workbook (set print options, set page number and enter page numbers, print data and charts)
Integrate group participatory techniques with information techniques to improve adoption of agricultural techniques	a) Define terms (Group, participatory, adoption, agricultural technology b) List different group participatory techniques (Discussion, meeting, SWOC, SMART, FFS) c) Explain different integrated group participatory techniques d) Describe the adoption process of agricultural techniques e) Describe the categories of adopters in agriculture technology transfer
Use extension program plan to implement agricultural related activities	a) Define planning, program and program planning b) Explain the importance of program planning in extension c) Outline the steps involved in the planning process (collection of facts/ analysis of facts, problem identification, priotization of the problem, objective setting, plan of work, implementation, monitoring and evaluation d) Plan an extension program e) Prepare calendar of work f) Prepare a report
Use appropriate statistical methods to collect agricultural data	a) Define data, raw data, array, classified data, class interval, class mark, class limits, class boundaries ARDS, and related terms List b) sources of data c) Outline data collection methods (questionnaire, interview, direct observation, experimentation) d) Collect data using questionnaire e) Collect data using interview method f) Collect data using direct observation

	g) Collect data using experimentation
Use appropriate statistical techniques to organize agricultural data	a) Identify methods of data presentation (tables, graphs, pie chart, pictorial, text) b) Describe the types of distribution (normal and skewed distribution) c) Determine measures of central tendency (mean, median, mode) d) Determine measures of dispersion (range, variance, standard deviation, coefficient of variation) e) Organize agricultural data using ARDS software
Apply statistical methods to analyse agricultural data	a) Define null and alternative hypotheses b) Explain tests of significance (t-test, chi-square, F-test, ANOVA) Calculate c) confidence intervals d) Calculate values of the of the significance tests
Use analytical results to recommend action to be taken	a) Define level of significance b) determine appropriate tabulated critical values of tests of hypotheses c) check for significance of results d) Make conclusions and recommend accordingly

6.0. Methodology

The facilitator is at liberty to use any workable methodologies based on his/her experiences in facilitating and teaching agricultural extension to mid-cadre professionals. The bottom line is that, whatever techniques that will be used, the trainees should get the most out of the contents to be delivered by the facilitator/trainer.

7.0. Expected deliverables

The following deliverables are expected from the facilitator/trainer.

i. Inception report indicating the detailed training methodologies, training contents, sources, five-day training program and training materials will be discussed and approved by SAT team before training starts.

ii. Carry out face-to-face training to trainees for 5 days

iii. Comprehensive training report of the training assignment

iv. Deliver notes which may be shared in soft or hard copy materials

v. An electronic copy of all training materials and contents including presentations, videos and other resource relevant materials agricultural extension.

vi. Technical advice on Agricultural Extension compendium development to SAT management and the task team. vii. Proof-reading of the draft compendium on Agricultural Extension once developed by the Task Team **Note:**

The training report will be produced after one week from the date of the training closure. Training notes and other resource materials should be provided during or at the end of the training.

8.0. Time span of the training

This training is expected to be carried out for a period of 5 days (from 25th July to 29th 2022).

9.0. Profile/Consultancy requirements
  - At least a master's degree in the areas of Agricultural Extension based on areas shown in the *objective and the scope of the assignment (item 4.0 and 5.0* or any relevant field)*;*

- Excellent knowledge of agriculture programme planning and management and its application in running agricultural programmes and proficiency in adult learning principles;
- Demonstrated experience and proven records in undertaking similar assignments;
- Minimum 10 years' experience in agriculture programme planning and management consultancies;
- Have experience in the field of facilitation of training and especially agricultural extension programme planning and management;
- Excellent analytical, interpersonal, communication, reporting and facilitation skills, including working in multi-cultural settings;
- Evidence of having undertaken similar assignments, at least 3 references of clients, and
- Working experience with senior officials within the government and non-government organizations

10.0 Proposed modality of payment

Upon signing of the contract before the start of the assignment, a first instalment of 50% of the agreed sum amount will be paid. and then 50% after finishing the entire assignment and handing over the reports for the assignment.

11.0. Points for consideration in evaluating expression of interests

- Demonstration of clear understanding of the scope of the assignment
- Demonstration of the trainer's expertise, capacity and capability to undertake the assignment
- Clear budget cost for the entire assignment
- Evidence of past similar works done through samples and references
- Demonstration of innovative approaches/methodologies of undertaking the assignment
- Timely submission of the Expression of Interest (EOI)
- Clear proposed plan/timetable of the assignment

12.0. Application and Documentation

Interested qualified trainers are invited to submit their applications. Trainers who meet the requirements should submit the following; application letter (EOI), Curriculum Vitae, conceptual inception report showing how you intend to achieve the stated objectives, previous experience (sample work and references), proposed five days training program and budget for undertaking the assignment. Please send your application electronically via consultancy@kilimo.org by **23th June 2022** with the subject line of email **Agricultural Extension Training.** Review of proposals will be done on the **24th June 2022**. Award giving of the assignment to the suitable trainer will be on **24th June 2022. NB**: Deadline for submission of EOI will be on **23th June 2022 at 1700hrs East African Time.** Late EOIs and portions of EOI, shall not be accepted for evaluation irrespective of the circumstances. Only awarded consultant(s) will be contacted.