



TERMS OF REFERENCE FOR

SCIENTIFIC WRITER TO EDIT THE e-LEARNING PROGRAMME ON CSA AND NRM

1. Introduction

The Agricultural Research Council (ARC) has a project funded by GIZ to develop an e-learning programme on Climate Smart Agriculture (CSA) and climate-resilient Natural Resource Management (NRM). The project aims to build the capacity of extension practitioners, farmers, and agriculture students in the SADC region to respond to the impact of climate change and sustainably continue production while preserving natural resources, biodiversity, and life-supporting ecosystems.

Researchers and agricultural educators from South Africa, Zambia, and Eswatini collaborated to develop online training modules on various aspects of CSA and NRM. The e-learning programme consists of several modules and each module weighs 12 credits. Each module is designed to provide learners with a substantial learning experience and a comprehensive understanding of the subject matter covered. It encompasses a range of learning activities, including reading materials, watching instructional videos, interacting with multimedia content, engaging in online discussions or group projects, and completing assignments or assessments. The online delivery format should allow learners to access course materials and participate in learning activities at their convenience, provided they meet any specified deadlines or participation requirements.

A scientific editor is needed to consolidate the training manuals into a single e-learning manual, as per the specifications below.

2. Specifications for scientific editing

- i. Edit, improve, and compile an e-learning manual on CSA and NRM for Extension practitioners and agricultural students in the SADC region for readability and consistency. The manual is to be then reformatted into an eBook (see Section 3).
- ii. Ensure the scientific rigour of the content of the e-Learning modules.
- iii. As a point of departure, six training modules dealing with CSA and NRM will be provided. The already compiled individual modules, will be provided as MS Word documents. These training modules contain text, tables, figures, and visuals. These modules need to be used to prepare one comprehensive and consolidated e-learning manual. The respective modules focus on:
 - a. Foundation for CSA and climate-sensitive NRM
 - b. Climate-smart crop production
 - c. Climate-smart livestock production
 - d. Climate-sensitive Water Resource management
 - e. Climate-sensitive Land Management
 - f. Risk management for Agriculture and Natural Resources
- iv. The e-Learning manual needs to provide information on the application on CSA practices and NRM in the SADC region.
- v. Extension practitioners, students, and other relevant stakeholders need to be able to utilize the e-learning manual as a learning tool to equip them with knowledge of CSA and NRM and how it applies to the farming communities they serve.

- vi. The content of the e-learning manual should be of high scientific standard, to get it accredited as a formal academic qualification at a higher institution of learning.
- vii. The individual modules provided were compiled by various authors using different styles and formats. The integrated e-learning manual should be uniform using the same scientific style and consistency throughout the manual. For example, one standardized definition for CSA should be used throughout the manual.
- viii. Although the manual will consist of various modules, it should have an overarching focus on CSA and NRM, especially for small-scale farming in the SADC region.
- ix. There should be a reference to other topics in the e-learning programme, encouraging the learner to further engage with other modules within the programme.
- x. After the Title page there should be a Table of contents with links to the various sections within each module for easy reference.
- xi. Grammar and scientific writing format should be of a high quality. The correct scientific style for Tables, Figures, References, Units of measure, Numbers and Percentages, etc. should be used.
- xii. There should be no repetition between the various modules. Each module should flow well and must be easy to read with a clear message on CSA and NRM flowing through.
- xiii. There should be a good balance between the respective modules where each module corresponds to 120 notional hours (12 credits).
- xiv. Each module should contain:
 - a. Introduction and Course Overview (including module aim, objectives & learning outcome)
 - b. Topic content
 - c. Practical activities
 - d. Tutorials / Assessments
 - e. Revision
 - f. Icons that serve as indicators or guides that tell what the learner should do.
- xv. The science writer should produce an eBook, needed to consolidate the training modules into a single e-Learning book. The e-Book should follow the specifications outlined below.

3. Specification for the eBook

- i. Compile an eBook that is informative, engaging, and accessible for an e-Learning programme on CSA and NRM for Extension practitioners and agricultural students in the SADC region.
- ii. The eBook should be available in PDF, EPUB, and MOBI formats to ensure compatibility with various e-readers and devices.
- iii. An interactive HTML5 version for web-based viewing is essential.
- iv. Each module should have a professional '*look and feel*' with easily readable, colourful pages, embedded multimedia interactive features such as video, audio, images, assignment widgets, and more.
- v. The cover should have a professional design that reflects the theme of sustainability and agriculture.
- vi. High-quality images, infographics, and charts should be used to illustrate key points.
 - i. Consistent formatting with headers, sub-headers, and bullet points for easy navigation is needed.
 - ii. Use colour schemes that are easy on the eyes and align with the theme of nature (greens, browns, blues).
- iii. A legible serif font for the body text (e.g., Times New Roman, Georgia) and a sans-serif font for headings (e.g., Arial, Helvetica) should be used. A font size of 11-12pt for body text and 14-16pt for headings is advisable.
- iv. The eBook should be visually attractive.
- v. The length of each module is about 100 pages.

- vi. Although the various modules within the e-Learning programme should be linked and cross-referenced, they should also have the flexibility to be accessed as loose-standing and downloadable modules, allowing for offline reading.
- vii. To ensure accessibility the text should be selectable and searchable.
- viii. A responsive design for mobile and tablet compatibility should be used.
- i. A dedicated project management team will be available to assist with any queries.

4. Requirements for Science Writer:

- i. Doctoral Degree in Agriculture or related field.
- ii. Experience in scientific writing and editing
- iii. Knowledge of agricultural production systems and climate change and variability.
- iv. Strong research and analytical skills.
- v. Excellent writing and communication skills.
- vi. Ability to work independently and meet deadlines.

5. Determination of Competence in Performance of The Task

Some stipulations are recommended to ensure quality and to guide service provision.

- 4.1. Individuals seeking to bid for this Task should prove competence through providing the following:
 - 4.1.1. Proof of documented evidence in science writing consisting of letters of recommendations and three traceable references for services rendered from past clients, within the last 24 months.
 - 4.1.2. Track record of conducting similar work through a Curriculum Vitae
- 4.2. An example/sample of a well written or co-authored work, e.g. articles, etc.
- 4.3. Short listed organization/individuals are asked to prepare a detailed programme stipulating how they propose to deliver on the task.

The scientific editing of the consolidated modules and creation of an eBook should be completed by 22 August 2024.