

# A VIRTUAL WORKSHOP ON THE USEFULNESS OF AgMOOCs FOR CAPACITY

## BUILDING OF SUB-SAHARAN AFRICA AGRICULTURE

### DRAFT CONCEPT NOTE

Prepared by RUFORUM

13 April 2021

#### 1. Background

Several efforts have been made to build the capacity of Sub-Saharan Africa (SSA) agriculture by different actors over time. However, these are yet to meet the projected number and caliber of trained graduates. SSA is weak and uncompetitive for lack of capacity in terms of infrastructure, skills, and policy environment, among others. One of the approaches being pursued by the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) is to adopt the use of Information and Communication Technology (ICT) by universities in the delivery of agricultural teaching and learning in the form of Agricultural Massive Open Online Courses (AgMOOCs).

To tap into the potential usefulness of AgMOOCs, RUFORUM in collaboration with the Commonwealth of Learning (COL), is organizing a capacity building virtual workshop on capacity building on AgMOOCs for sub-Saharan Africa agriculture. This will be a 2 hour virtual workshop targeting important groups of RUFORUM stakeholders to discuss the development and implementation of AgMOOCs. The output from the workshop is expected to be **a report containing a proposal for the process of developing and delivering AgMOOCs in SSA region**

This capacity building workshop is organized by RUFORUM meant to supplement the efforts made by COL, which jointly with its partners, has been implementing the AgMOOCs project since 2015. Significant experiences and lessons have been generated from deployment of ideas and practices. More than thirty (30) AgMOOCs have been offered to 150,000 learners at the level of advanced undergraduate students, incumbent faculty, extension practitioners, and researchers under the umbrella of AgMOOCs. Through its programme of Lifelong Learning for Farmers (L3F) COL used the experiences to keep the doors of learning open during the first phase of the COVID-19 lockdown (April-June, 2020). During that period, COL's three AgMOOCs attracted nearly 32,000 learners, the majority from poor social and economic backgrounds. An independent evaluation of the AgMOOCs project in 2019 showed that diverse topics can meaningfully be covered offering reasonably good rates of success to learners. COL is partnering with RUFORUM to address the problem.

## **2. Justification for development of AgMOOCs for SSA**

The joint initiative between RUFORUM and COL will include holding a virtual workshop, targeting development of AgMOOCs for SSA agriculture. This is necessitated by the challenges of conventional teaching and learning given the magnitude of disruptions caused by emergencies such as COVID-19. There are a number of opportunities provided by AgMOOCs, which makes it a suitable approach for today's education.

### **2.1 Challenges of conventional teaching and learning**

African universities have been discussing the challenges of conventional teaching and learning while proposing much greater uptake of online learning more than two decades ago, when the first on-line university in Africa was founded. Even as the quality, accessibility and affordability have improved in the past decade, there was still reluctance to adopt online learning. Perceived threats to jobs, lack of skills and exposure and traditional perceptions of the role of a lecturer as the best mechanism for knowledge sharing and facilitating learning were some of the factors discouraging uptake. This was compounded by the lack of investment by universities in providing the infrastructure, policies and the training necessary to support online learning.

The COVID-19, has changed these perceptions. It has revolutionized thinking on the higher education space in SSA and indeed worldwide. Universities across the continent have been finding ways to keep their students learning despite the closure of campuses. This has, of course, been made very difficult by lack of access to equipment and reliable internet, especially in remote areas. Few universities have established Learning Management Systems, but with the newly available tools (e.g. Microsoft Teams, Zoom, and improved Skype, Google Classroom and Google Hangouts, among others), proving that it is possible for any university lecturer to reach students who have access to a computer and to internet; the paradigm is shifting in favor of more online teaching and learning while still maintaining some opportunities for physical contact. Where computers are scarce, much can even be achieved with smart phones and WhatsApp. But there remains the issue of the "last mile"; majority of students have no access to internet signal, or no computer or smart phone. With this threat of COVID-19, these students require more traditional support of distance learning in the face of measures to combat COVID-19.

COVID-19 has underlined the limitation of conventional teaching and learning whilst highlighting the importance of online teaching and learning. Most Universities in SSA have had to go to extraordinary lengths to ensure that their students, especially those living in remote areas, are able to access materials online which would not otherwise be done through conventional teaching and learning. Many institutions in SSA are still in partial close-down and the normal pre-COVID-19 state of affairs is likely to take a long time to be realised. This has further worsened the situation affecting rapid skilling of students, employed professionals as well as aspiring farmers. According [the IMF World Economic Outlook \(October 2020\)](#), easing the lockdowns can lead to partial recovery but economic activity is likely to remain subdued until health risks abate. With the pertaining situation, the limitation of the conventional teaching and learning approach

becomes clear and the need for online teaching and learning is crucial. Moreover, it has emerged that partnership and sharing of resources is important for success since no university is self-sufficient in view of the COVID-19 generated challenges.

## **2.2 Opportunities provided by AgMOOCs**

Online teaching and learning provides great opportunities for education in terms of access and quality. To meet the projected target of graduates and postgraduates in agriculture, the use of technology is critical. AgMOOCs could provide excellent opportunity to obtain knowledge in very different ways, while extending agricultural education to masses in a self-directed learning manner. AgMOOCs have the potential for; increased university visibility, increased access to lifelong learning, international trend, free education to all, improved learning outcomes for students, development of new teaching strategies, and development of new technologies for learning. The collaboration between RUFORUM and COL on AgMOOCs will offer a number of opportunities to the beneficiaries including the following:

- Ease of access to learning platform, providing free or low-cost content of scalable Agricultural courses;
- Access to high-quality agricultural education to students, even in the most underserved regions of the continent;
- Expertise in online agricultural course development management including assessment and certification system (microcredentials including those issued using the Blockchain);
- Pedagogical expertise for staff training and to provide executive level engagement on sensitisation; and
- Collaborative learning and experiences sharing.

The COVID-19 pandemic and associated lockdown has negatively impacted food and agriculture in SSA which has had some weaknesses in recent times- This work is planned to help University experts and partners to appreciate the opportunities AgMOOCs can potentially change the way agricultural education is delivered and how university can be mobilized to effectively adopt AgMOOCs and Lifelong Learning for Farmers in general.

## **3. Approach to the workshop**

The virtual workshop is to discuss the development and implementation of AgMOOCs. The coalition of partners will provide inputs in developing solutions to the challenges of conventional teaching and learning while exploring the Opportunities provided by AgMOOCs. As an output of the workshop, a proposal for the process of developing and delivering AgMOOCs in SSA region will be developed.

A virtual workshop will have three of sessions with important groups of stakeholders of RUFORUM to discuss the development and implementation of AgMOOCs in SSA. It will be a

platform for raising awareness and facilitating joint learning of opportunities and challenges of AgMOOCs based multi-level capacity building. It will also provide input into the detailed planning for delivery of courses for capacity building of SSA agriculture. The workshop will enable participants to provide input into the next phase of the programme, focusing on skills enhancement for staff and students.

The plan is to hold a two (2) hour practice oriented workshop, consisting of three sessions.

**SESSION 1: Sharing insights from the AgMOOCs by COL**

This session will focus on presenting insights from implementing AgMOOCs over the last six years while comparing other relevant online learning technologies and to evolve a delivery strategy that includes online with offline mentoring. The session will also consider how the marginalized can be reached without internet and/or with a basic phone.

**SESSION 2: Role of faculty and leadership of academia in advancing scalable online courses**

This session will focus on discussing the role of academic staff in promoting online learning. This is a paradigm shift which requires appreciation of the central role of faculty in the success of this online learning. The discussion will include identifying capacity building and training needs of academic staff to offer online learning. This session will explore best practices and needed support systems for successful implementation of AgMOOCs.

**SESSION 3: Certification and outcome for learners**

This session will be dedicated to exploring the ongoing shift towards cross-border certification. Participants will be taken through the issue of micro qualifications and -how aggregation of certificates can lead to crossing national borders micro-qualifications and other related issues.

## Proposed Workshop Programme

<b>VIRTUAL WORKSHOP ON CAPACITY BUILDING OF SUB-SAHARAN AFRICA AGRICULTURE IN THE EDUCATION CONTEXT</b> <b>ZOOM SESSION (DATE 13<sup>TH</sup> MAY 2021) to be facilitated by Dr. Hlami Ngwenya, University of Free State, South Africa</b> <b>(2 hours 30 min)</b>		
<b>Time ( GMT)</b>	<b>Activity</b>	<b>Responsible person</b>
<b>Session 1</b>		
<b>14:00-14:15</b> <b>(15')</b>	<b>PART 1: Introduction to the workshop (15')</b> <i>This session will cover the background to this joint initiative started by COL and RUFORUM and serve as an invitation to the network members and partners to join the initiative</i>	
	<ol style="list-style-type: none"> <li>1. Welcoming remarks by COL</li> <li>2. Setting the scene by RUFORUM</li> <li>3. Self-introduction of participants on Chat</li> </ol>	<ol style="list-style-type: none"> <li>1. Dr Venkataraman Balaji, Vice President, COL</li> <li>2. Prof. Adipala Ekwamu, Executive Secretary, RUFORUM</li> <li>3. Individual participants</li> </ol>
<b>14:15-14:30</b> <b>(15')</b>	<b>PART 2: Sharing insights from the AgMOOCs by COL (15')</b> <i>This session will focus on presenting insights from implementing AgMOOCs over the last six years while comparing relevant other online learning technologies and to evolve a delivery strategy that includes online with offline mentoring.</i>	
	Presentation by COL using the document “Making Sense of MOOCs: a guide on policy options for developing countries” as the reference <ol style="list-style-type: none"> <li>1. Definition of MOOCs</li> <li>2. Policy take-aways from the document (usually at the start of each chapter)</li> <li>3. Experiences of COL so far with AgMOOCs</li> <li>4. How COVID 19 has accentuated the situation</li> </ol>	Dr. Moses M. Tenywa Education Specialist for Agriculture & Livelihoods, COL
<b>14:30-14:40</b> <b>(10')</b>	<b>Reactions (10')</b> Q&A session	

	<b>Expected outcome:</b> Reflections on feasibility of MOOCs Seeking documentation of experiences as evidence		
<b>Session 2</b>			
<b>14:40-15:15 (35')</b>	<b>PART 3: Role of faculty and leadership contextualizing current skills sets ( 25')</b> <i>The focus is on ensuring skills amongst faculty. Some need to be further trained while initial capacity building is necessary. What are the good practices in achieving these under the current development context in SSA?</i>		
	<b>Presentation by an online learning expert</b> on <i>capacity building and training needs of academic staff to offer online learning and feasibility of AgMOOCs for capacity building of SSA agriculture (15')</i>	Prof. Paul Birevu Muyinda. Professor of Open, Distance and eLearning, Makerere University, Uganda	
	<b>Discussant 1:</b> The role of academic staff in promoting online learning <b>(10')</b>	Prof. Joseph Wafula, Professor and Director, ICT Centre of Excellence and Open Data iCEOD at Jomo Kenyatta University of Agriculture and Technology, Kenya	
	<b>Discussant 2:</b> Best practices, common skills required and needed support systems for education, research and extension with regards to development and implementation of AgMOOCs <b>(10')</b>	Prof. Jude Lubega Deputy Vice Chancellor, Nkumba University, Uganda	
<b>15:15-15:50 (40')</b>	<b>PART 4: Discussion session on prospects for advancing scalable online courses in education (40')</b>		
	<b>Parallel breakout session (30')</b>		
	Competencies required by different practitioners beyond what was learnt at University relevant to scaling		
	Competencies required by research practitioners (e.g. formulation of research problem and research questions)	Competencies of the extension practioners (e.g. implementation context and skills and experience sharing for scaling)	Competencies in education/academia (i.e. capacity building)
Plenary presentation from the three groups <b>(10 min)</b>			

### Session 3

15:50-16:20  <b>(30')</b>	<p><b>PART 5 Experiences on certification and outcome for learners (30 minutes)</b></p> <p><i>In these online course-based learning processes, how can assessments be planned effectively? What support systems including certification are meaningful to learners? Can micro-learning be a solution to the modular approach, while also satisfying the 'right on time' approach to acquiring knowledge and skills? Experiences in aggregation of certificates lead to micro-qualifications across national borders?</i></p>	
	<p>Presentation on "Current practices in micro-qualifications" <b>(12' minutes)</b></p>	<p>Dr David Porter Senior Adviser: Higher Education, COL</p>
	<p><b>Discussant 1:</b> Experience on online learning assessment and certification <b>(8' minutes)</b></p>	<p>Dr Precious Muni-Wathu Gawanani, Director of Open and Distance Learning, Lilongwe University of Agriculture &amp; Natural Resources, Malawi</p>
	<p><b>Discussant 2:</b> Feasibility and acceptability of micro-learning in SSA <b>(8' minutes)</b></p>	<p>Prof. Jean Jacques Mbonigaba Muhinda Executive Director, ASARECA</p>
16:20-16:30  <b>(10')</b>	<p><b>PART 6: Concluding remarks ( 10 minutes)</b></p> <p><i>By COL – appreciation of the process which has been started, and expectations of RUFORUM leadership on the follow-up</i></p>	
	<p>1. Dr Venkataraman Balaji, Vice President, COL 2. Dr Florence Nakayiwa, Deputy Executive Secretary, RUFORUM</p>	

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