MAKERERE UNIVERSITY

COLLEGE OF AGRICULTURAL AND ENVIRONMENTAL SCIENCES

MAKERERE UNIVERSITY CENTRE FOR CLIMATE CHANGE RESEARCH AND INNOVATIONS (MUCCRI)

SHORT COURSE ON 'ADDRESSING *CLIMATE CHANGE IN AGRICULTURAL DEVELOPMENT'*

Addressing climate change is one of the defining challenge of the 21st century. The IPCC Fifth Assessment Report (IPCC AR5) observes that since the mid-19th Century, world average temperatures have increased by about one degree (0.85^0C), and continue to rise, as a result of increased Greenhouse gas (GhG) emissions from human activities. Since the 1950's the rate of global warming has been unprecedented compared to previous decades and millennia. It is generally agreed that we will experience considerable and increasing human-caused climate changes in the years to come and that the impact will affect all countries through more extreme weather conditions, such as longer periods of drought, floods, or storms. The countries whose economies are rooted in climate sensitive sectors like agriculture are expected to be hardest hit. Therefore, there is need for strengthening institutional and farm/household level climate change human responsive capacity at local, national and regional levels to support agriculture development.

Climate change has added a new complexity to agricultural development. The impacts of climate change and extreme weather events negatively affect all aspects of agricultural development as well as food and nutritional security and poverty eradication in many developing countries. Without appropriate responses, climate change is likely to constrain economic development and poverty reducation efforts and exacerbate already pressing difficulties, particularly where its impacts are compounded by other factors or where existing poverty and hunger make it particularly difficult to cope with its impacts. Consequently, national and global targets as reflected in the Sustainable Development Goals will be more difficult to reach.

Agriculture is key in achieving sustainable development in Uganda because it is currently the main economic activity and main source of livelihood for the rural population who account for more than 80% of the country's population. Agricultural development processes will, thus, have to take into account the vulnerabilities and risks posed by climate change. In Uganda, there is often limited knowledge and understanding of climate change and how to increase the resilience of agriculture to a changing climate at both the national and local levels. Climate smart agriculture is a rather new phenomena and has not been grasped by policymakers and practitioners. In addition, the capacities for adaptive planning, informed policy development and climate proof programming are still weak.

This course provides an introduction on how to address climate change in agricultural development. The short learning programme such as this one will not turn participants into

climate change experts; however, it will provide an informed platform for promoting climate smart agriculture through concrete activities in respective organisations. The course highlights the background of climate change, as well as focuses on vulnerability, impact and adaptation of agriculture to a changing climate and looks to the future. The course will introduce common and individual responsibilities and opportunities, and presents tools and mechanisms for enhancing climate smart agriculture.

Course Objectives

The *overall objective* of the course is that climate smart considerations are effectively integrated into agricultural development policy, programmes, projects and other farmer focused climate change response actions.

The *immediate objective* is that all course participants are equipped to effectively address climate change in the framework of agricultural development through their jobs.

Couse outcome

This course will enable the participants to:

1. understand the background for climate change globally and locally
2. identify links between climate change, agricultural development and poverty reduction
3. identify good practices for climate smart agriculture
4. effectively and meaningfully contribute to the debate on climate smart agriculture, either in the policy process and/or in providing knowledge to the policy process and support climate change adaptation and mitigation actionable efforts in the agriculture sector
5. explore own job functions and role in relation to climate smart agriculture and find ways of integrating climate change response actions.

Couse duration:

One week – 25-30 July 2016

Learning approach

The learning process will require active involvement of all participants before, during and after the course. The process will involve the following learning approaches:

- Flipped classroom and e-learning activities at your organization before meeting at Makerere University. This will involve online presentations, which provide important introductions to climate change and climate smart agriculture. This will allow for more efficient use of time during stay at Makerere University for debates, exercises and excursions, while still building a solid climate change knowledge platform.
- Class activities (presentations, exercises, debates), excursions, and case-based group work during the study at Makerere University, adding further knowledge and insight to the learning started in participants' organisations, and participant work with organisational Climate Change Action Plan. Before arriving at Makerere University,

participants will follow an e-learning course in action planning, and will identify a suitable theme for the action plan in close coordination and agreement with their organisations and the course organisers. The aim of the action plan is to strengthen climate change aspects in the work of particpants' organisations.

In addition, this will promote an environment for acquiring, analysing, sharing and actively use knowledge of climate change to plan and implement concrete climate change response actions. The e-learning activities in combination with class activities will lay the foundation through an introduction to the newest knowledge. The field excursions will expose the participants to examples of climate smart agriculture challenges and solutions. In the group work the participants will work with real-life cases and experiences.

Couse modules/topics

A. Introduction to climate change globally and locally
B. Vulnerability of agriculture to a changing climate
C. Agriculture focused climate change mitigation and adaptation as a sustainable development process
D. Climate Smart Agriculture – concepts and technologies
E. Building climate resilience among smallholder farmers
F. Integrating climate change in food and nutritional security programmes and projects
G. Towards low carbon agricultural development

Couse Funding:

The fee for this short course is USD 500. This course is funded under a scholarship by a USAID supported project entitled the *USAID/Uganda Education and Research to Improve Climate Change Adaptation* (ERICCA) Activity. ERICCA is designed to help establish the Makerere University Centre for Climate Change Research and Innovations (MUCCRI) as a recognized national and regional hub of academic, professional development and research excellence in climate science, research, climate adaptation, and related disciplines. MUCCRI will charge ERICCA a non-refundable amount of USD 500 per participant for the entire duration of the course. The finding includes study fees, course materials, one field excursion, lunch and refreshments. As way of co-funding, the participants are responsible for providing for their daily transport to commute to and from Makerere University.

Place of Study:

Makerere University, College of Agricultural and Environmental Sciences.

Targeted group

The course targets participants working in the agriculture sector, programmes and projects. The aim is to create awareness and knowledge of current changes in climate among practitioners

working in agriculture related sectors and to present practical tools and ideas for action. To that end, the participants may come from different organisations and can be policy and decision makers, academicians and researchers or civil servants in the central or local governments or they may work for NGOs or private companies. Good working knowledge of English is required as well as commitment to participate actively in learning activities before, during, and after the course. The participants must have access to internet in order to participate in the e-learning activities prior to the main course at Makerere University. If possible, we welcome two to three participants from each organisation, as it facilitates the work with the action plan and strengthens the learning process during the work back at the organization.

Application and Registration

To register for a course please download and fill the application form found at www.muccri.mak.ac.ug and send a scanned copy of the filled form to the MUCCRI **Secretariat** at the following e-mail address muccri@caes.mak.ac.ug copy to Jackline Ainembabazi at JAinembabazi@fhi360.org.

For futher inquiries please contact the MUCCRI Coordinator - Dr. Revocatus Twinomuhangi at rtwinomuhangi@gmail.com.