

MAKERERE

P.O. Box 7062, Kampala, Uganda
Email: principal@caes.mak.ac.ug



UNIVERSITY

Phone: +256 414 542277
Web: <http://caes.mak.ac.ug>

COLLEGE OF AGRICULTURAL AND ENVIRONMENTAL SCIENCES

Office of the Principal

PRESS RELEASE

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Makerere University wins a \$6 million USD World Bank Grant for the Centre of Excellence in Crop Improvement (MaRCCI) - Launch is set for November 13, 2017.

This grant will support the establishment of the **Makerere University Regional Centre for Crop Improvement (MaRCCI)** within the College of Agricultural and Environmental Sciences. MaRCCI is an expansion of current activities of the Makerere University Regional Graduate Programme in Plant Breeding. The main goals will be to strengthen the programme's PhD in Plant Breeding in Biotechnology, the MSc in Plant Breeding and Seed Systems, applied research in various crops, and outreach activities. These will contribute to improving Ugandan agriculture through enhancing the skills of public and private personnel who support crop breeding and production activities. The grant provides for additional scientific and support staff as well as for enhancement of facilities and equipment, with the goal of modernizing and expanding the teaching, research and service activities of MaRCCI in a sustainable manner.

The Center's general management will be administered through the College of Agricultural and Environmental Sciences (CAES) at Makerere University. The Principal of (CAES) will provide overall oversight to MaRCCI activities, while day-to-day operations will be managed by Dr. Richard Edema, the Project Manager (PI) and the Center Director (CD), assisted by Deputy Director, Prof. Paul Gibson, and the entire MaRCCI team.

The African Centre of Excellence grant to MaRCCI is part of a larger World Bank initiative that supports the development of Centres of Excellence (ACEs) for higher education in Eastern and Southern Africa. Their purpose is to promote regional specialization among participating universities in areas that address particular challenges in regional development, and strengthen the capacities of these universities to deliver high quality training and applied research.

The World Bank team plans an implementation support mission and project launch on 13th-16th November 2017. The mission will be led by Xiaoyan Liang (Task Team Leader for regional ACE II and Skills project) and Kirill Vasiliev (Task Team Leader for Uganda ACE II project).

The main objective of the overall ACE project is to meet the demand for skills required for Africa's development in areas such as agriculture, energy, extractive industries, while strengthening the innovative capacity of the best African institutions for higher education in science, technology, engineering, mathematics (STEM), and other relevant disciplines.

A call for proposals made on 31st July, 2015 attracted participation from ten countries in the Eastern and Southern African Higher Education African Centers of Excellence (ACE II) Project. A total of 108 proposals were received from the ACE II participating countries namely: Ethiopia (20), Kenya (20), Malawi (4), Mozambique (5), Rwanda (6), Tanzania (18), Uganda (19), Zambia (3), and Zimbabwe (13).

Among the 11 proposals from Makerere University, two were finally approved: “*Establishment of an East African Center for Crop Improvement at Makerere University (MaRCCI)* and *MAPRONANO*.”

The overarching goal of MaRCCI is to expand, strengthen and transform the PhD Plant Breeding program following the pattern of the highly successful MSc in Plant Breeding and Seed Systems. Thus, the centre will provide the nations of Eastern and Southern Africa (ESA) with industry-ready plant breeders who are equipped to use cutting edge science to develop and deliver new varieties of food crops. These breeders are urgently needed in order to improve food security, nutrition, and rural incomes, and to address poverty and economic development throughout this region.

Specifically, MaRCCI will:

- (1) Strengthen the training and research capacity in plant breeding and biotechnology within the region, and enhance regional and international collaboration.
- (2) Improve the content and delivery of the curriculum, in order to provide a strong theoretical and scientific foundation with an applied focus on delivery of better crop varieties. The curriculum will serve both the private and public sectors of Eastern and Southern Africa. International accreditation will be sought to ensure quality and further establish global credibility of the program.
- (3) Increase the capacity and sustainability of Makerere University's regional program in plant breeding in order to bring expertise together in one place. This will transform the program into the premier post graduate training center for crop improvement in Africa.
- (4) Train 30 new PhD and 40 MSc level plant breeders from the region of Eastern and Southern Africa. A few students will be selected for full funding, with others enrolling with part or all of their own funding.
- (5) Attract additional grant resources to Makerere University, based on the visibility and status of the Centre of Excellence.
- (6) Strengthen linkages with the private and public seed sectors, locally and globally, along with increased ties to other related industries (eg. food processing).

- (7) Enhance global cooperation, already established with many cooperators, including:
- a. Iowa State University (USA),
 - b. North Carolina State University (USA),
 - c. Regional Universities (Universities of Zambia and Juba);
 - d. Rwanda Agricultural Board (RAB)
 - e. National Agricultural Research Institute in DR-Congo (INERA),
 - f. National Agricultural Research Organization in Uganda (Namulonge (NaCRRI) & Serere (NaSARRI, and others)
 - g. The World Vegetable Center –Arusha Tanzania (AVRDC)
 - h. NASECO (Uganda) and Seed Co Seed (Zimbabwe) companies

Basic training and teaching infrastructure exist at the project location at the Makerere University's Agricultural Research Institute at Kabanyolo (MUARIK). However, these need to be expanded and/or renovated to better support teaching and research excellence.

Facilities identified for renovation and rehabilitation

1. Addition of a wing to the classroom and office building which is currently under construction at MUARIK through an African Development Bank grant.
2. Renovation of buildings to accommodate students and visiting staff.
3. Renovate current facilities to create a laboratory for seed quality and plant diagnostics.
4. Improve facilities and equipment at the existing Molecular Biology & Microbial laboratories, including an enhanced Bioinformatics Training Facility.
5. Construction of greenhouse, seed store, and seed handling facilities, and improvement of field facilities (eg. Irrigation systems) to contribute to the teaching and research programs.
6. Development of video-conferencing capabilities to contribute to the distance-learning component of course delivery and to enhance guidance of student research through engagement of global expertise.

FOR ADDITIONAL DETAILS CONTACT:

1. **Dr. Richard Edema,**
Principal Investigator (PI) and Director, MaRCCI
Call: +256 772314511 or +256 793529838
Email:redema@caes.mak.ac.ug

2. **Prof. Bernard Bashaasha,**
Principal, College of Agricultural & Environmental Sciences
Call: +256 772 627249
Email: principal@caes.mak.ac.ug.