THEME

"INNOVATIONS FOR ENHANCING PRODUCTIVITY, AND AGRO-INDUSTRIALIZATION"

It is noteworthy that the economies of many African countries are still driven by the agricultural sector amidst its underperformance. Current efforts toward modernizing the sector are geared towards ensuring that agricultural products are competitive in the developing global markets while effectively supporting the budding agro-industry. Successful agro-industrialization starts with enhancement of productivity, where labour, time and land resources are optimally deployed to provide the volumes and quality of raw materials needed to sufficiently feed into the value chain.

Agricultural production will only be sustained if the natural resources are managed to service both the present and the future generations. Being one of the major global impediments to development, climate change calls for undivided attention of all stakeholders in the agricultural and environment-based benefits. The need to feed the world's increasing population with minimal pressure on the ecosystem brings to the forefront the critical role of innovation across the entire value chain.

Increased productivity is insufficient without an efficient value chain to move produce from the farm to the fork. Efficient value chains need to be supported by innovations along the pipeline. Critical among them include appropriate seed systems, production practices, post-harvest management and value addition to improve marketability. Important too are functional institutions that can effectively link up all aspects that lead to availability and utilisation of good quality products for well-being of society. Innovations, therefore, present an opportunity to increase input use efficiency to facilitate production intensification while preserving ecosystems, providing competitive products in the developing market and ensuring a vibrant agro-industry.

The functioning of agricultural value chains can be greatly improved through use of Information and Communication Technologies (ICT) systems. The importance of ICT is pronounced by its role in reducing transaction costs at all levels in the agricultural sector. Specifically, a functional ICT can solve problems of missing markets and lack of farmer integration into markets. Ability of farmers to access services from financial institutions, input providers and agricultural product buyers can all be enhanced by ICT[1].

In all the above highlighted aspects of agricultural value chains, a lot of knowledge has been generated, and with potential to provide solutions for transformation of agriculture sector through age-industrialisation. Most of such knowledge however is not adequately and effectively shared for

[1]Food and Agriculture Organization of the United Nations (FAO) (2017) Information and Communication Technology (ICT) in Agriculture A Report to the G20 Agricultural Deputies. http://www.fao.org/3/a-i7961e.pdf.

subsequent utilisation. On the other hand, it is through sharing the known that gaps are identified and strategies formulated to address them.

About the Conference

Makerere University and National Agricultural Research Organization (NARO) have organized a conference to promote dialogue on the practical issues in agriculture, with special focus on innovations for agro-industrialization. The conference additionally provides opportunity for participants to show-case advances in research and innovation that can contribute to development and transformation of the agricultural sector. This conference therefore seeks to engage stakeholders in agriculture and related sectors such as health, environment, trade and industry, to mention but a few. Participation is expected from government ministries, departments and agencies; research and innovation systems; and development partners; policy makers; private sector players and many others, at global level. The overall aim of os to jointly establish appropriate and viable strategies towards accelerated agro-industrialization, with focus on the African continent.

Objectives of the Conference

The conference objectives include:

1. To bring to the forefront, cutting edge innovations and opportunities supportive to Africa's agro-industrialization drive
2. To provide a platform for establishment of viable networks and collaborations that will catalyze agro-industrialization
3. To stimulate generation of new knowledge to address emerging challenges

Conference Theme

The theme of the conference is ***"Innovations for Enhancing Productivity and Agro-Industrialization"***

Conference Sub-Themes

The conference theme will be conveyed through the following sub-themes. Under each, the cross-cross-cutting aspects such as gender and equity, HiV Aids, contribution of public and private partnerships and applications of solar technology in agriculture, is expected to be clearly brought out.

Sub-theme 1: Challenges and Opportunities in Mechanization and Agro-Industrialization

Most levels of farming and processing need to be mechanized to improve productivity of land and labour, timeliness of operations and access to markets. In Africa at large and Uganda in particular, fortunes of achieving inclusive and equitable economic growth and an expansion of job market lie in development of small- and medium-scale agro-industrial firms. This Conference will front recent advances and identify research gaps in mechanization and agro-industry aimed at effectively contributing to accelerated economic development in Africa.

Sub-theme 2: Modernizing Post-harvest Management and Food Safety Systems

Both domestic and regional demand for Africa's agriculture commodities is on a rapid rise. The increasing population of urban dwellers demand high quality food and nutrient-rich diets. This has consequently spurred the need for agribusiness dynamism, shifting the agriculture sector from low-value smallholder farming system to a higher value-added agri-food sector while enhancing employment opportunities for youth along the value chain. This sub-theme will cover innovations food systems with emphasis in post-harvest handling, packaging, processing, nutrition, food safety, food control, food waste management, food policy and food biotechnology. The sub-theme will therefore explore modern postharvest management and food safety practices that effectively service the developing trend in the food sub-sector.

Sub-theme 3: Intensification of Crop Productivity and Seed Systems

Over the past 50 years, there have been attempts to increase production by increasing the acreage under cultivation to meet the escalating food demands from a high population growth rate. This is, however, not sustainable since the available arable land area is finite. Intensive approaches that ensure high output per unit land and labour, are needed to close the yield gap that is characteristic of most major crops in sub-Saharan Africa. Areas of agricultural technology generation and uptake systems that impact productivity will be addressed under this sub-theme. Specifically, discussions will revolve around agronomy, crop protection, seed systems, breeding and biotechnology for sustainable systems for crops and agroforestry.

Sub-theme 4: Accelerating Development of the Animal Resources-based Industry

Income growth in both the urban and rural residents is resulting in dietary shifts, leading to an increased demand for high quality animal products. Consequently, the demand for meat, fish, eggs and milk is rising rapidly. The sub-theme will highlight advances in livestock and fish production and value addition technologies considering that the above trends are likely to intensify in future. Focus will include aspects of disease and pest control, feeds and feed management, water management, biotechnology, extension and marketing, livestock and fisheries economics, and animal resources "seed" systems.

Sub-theme 5: Managing Interactions among Agriculture, Fragile Ecosystems and Changing Environment

Africa's industrial drive will only benefit for present and future generations if there is systemic change that ensures a resilient, productive and healthy environment. The sub-theme will address aspects on conservation, judicial utilization and restoration of our treasured natural resources including but not limited to land, soil, water, forests and wetlands. Key aspects to be covered include; climate change research and innovation, climate adaptation and resilience strategies in agricultural value chains, payments for ecosystem services, climate smart agriculture, risk management, infrastructure and bioenergy.

Sub-theme 6: Embracing ICT-based Innovations for Agricultural Transformation

Information and Communication Technology (ICT) can revolutionize the farming sector and can benefit all farmers including small land holders. The challenges of the traditional agriculture are addressed significantly by using ICT to provide improved technologies, access to markets, banking and

financial services. The sub-theme will address aspects of information communication technology infrastructure and other initiatives on ICT in agriculture and natural resource systems. Aspects of ICT policies, Geo-informatics, GIS applications big data applications, and Artificial Intelligence applications, among others, will be considered.

Conference Registration Fees

Registration fee of US$200 or its equivalent in Uganda Shillings will be charged for each participant and US$150 for students to cover the conference materials and meals during conference sessions. These rates are for early bird registration. Late registration rates for all participants will be US$250.

Refund of Registration Fee

Any cancellation or alteration of one's paid-up registration must be notified in writing by email to naromakconference@caes.mak.ac.ug. Refund of registration fee will be subject to the following conditions.

1. Cancellation received by 1st August 2020; the fee will be refunded less by 30% administrative fee.
2. Cancellation received from 2nd August 2020 onwards, no refund will be granted.
3. No refund will be made for no-show at the conference.

Course of Events

The 4-day conference will consist of keynote addresses, plenary sessions, thematic panel, group discussions, parallel break-out sessions and exhibitions.

For more information, contact naromakconference@caes.mak.ac.ug or visit www.naromakconference.org

Important Conference Dates

24th February 2020	Registration forms uploaded
28th February 2020	Call for abstracts
07th May 2020	Deadline for submission of abstracts
30th June 2020	Deadline for submission of full papers
30th July 2020	Deadline for booking space for exhibition
30th September 2020	Deadline for “early bird” registration fee payment
31st October 2020	Deadline for late registration fee payment
10th November 2020	Conference opens
13th November 2020	Conference closes