



MAKERERE UNIVERSITY



MINISTRY OF WATER AND ENVIRONMENT

1st Great Lakes and Catchment Management Conference

1st GLACAM CONFERENCE SECRETARIAT

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THE CONCEPT

Conference theme:

“Protecting water and land resources in Africa for climate change adaptation and improved livelihoods

5th-7th June 2019

Water Resources Institute, Entebbe, Uganda

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INTRODUCTION

Water remains a vital resource for sustenance of life, agriculture production, industrial processes but also for sustainable development in Africa. Effective management of water resources has several benefits including poverty reduction, economic growth and environmental sustainability. However, the state of water resources in the Great Lakes region is appalling. The critical drivers of water resources degradation are mainly as a result of mismanagement of catchments. Declining water quality and quantity is evidently becoming a major threat to energy, food, income, environment and social security in the Great Lakes of Africa. Most of the water resources are highly polluted with high evidences of sedimentation, weed invasion, and toxic substances. The increasing human population, the impacts of climate change and unsustainable practices have orchestrated these impacts. Global efforts are aware of such threats and considered the sixth Sustainable Development Goal (SDG 6) to addresses the water challenge. The SDG 6 aims at “ensuring availability and sustainable management of water and sanitation for all”.

The main cause of decline in water quality and quantity is attributed to poor catchment management, also referred as watershed management and climate change uncertainty. Over grazing, deforestation, bush burning, inappropriate agricultural practices, over application of chemicals and many human induced land use measures have led to loss of productive soil and land resources through erosion, increased siltation of the water systems and pollution. This has increasing production risks, reduced hydropower production potential, sky-rocketed maintenance costs of hydropower installations, dredged cost of irrigation infrastructure, reduced storage capacity of dams and increasing water treatment costs. These effects are consequently impacting on the livelihoods of millions of people in the great lakes region.

Different research interventions and case studies have been conducted in different countries in Africa to understand measures that can improve water management on the different landscapes and communities. However, there has been limited opportunities to interface with research experts on the continent to share watershed management challenges and promising technologies for conservation of water and land resources to adapt to climate change and improve livelihoods. The research outputs from different scientists, academicians, practitioners and policy makers ought to be shared on a common platform.

Overall theme of GLACAM

The overall theme for 1st Great Lakes and Catchment Management (GLACAM) is *Protecting water and land resources in Africa for climate change adaptation and improved livelihoods*. The 1st GLACAM has been organised for the first time in Africa to discuss issues on water and land resources protection. GLACAM will provide a platform to water and land use researchers, practitioners, users and policy makers to evaluate the inextricable link between water and environment resources as well as reflect on strategic options for achieving SDG 6. Water and environment stakeholders hope to utilize data and research findings to raise the profile of water and land resources and explore existing technologies, innovations for improved management of these resources.

OBJECTIVES

- ✓ Share the emerging and most promising catchment management technologies for water and land resources protection for climate change adaptation and improved livelihoods
- ✓ Showcase the latest innovations, technologies and developments in the water and soil discipline for increased environmental protection and sustainability
- ✓ Build partnerships among water resource users on the continent for joint water and land resources research and management
- ✓ Develop a long-term shared future strategy for conservation of water and land resources in the Great Lakes region of Africa

THEMATIC AREAS

The conference will focus on five themes and will characterise panel discussions, key note paper presentations, oral presentations from the abstracts accepted:

1. CLIMATE CHANGE AND DISASTER RISK management

This theme will focus on climate variability and climate change and how these dynamics compromise ecological integrity and absorptive capacity of ecosystems and physiological processes. Global temperatures have risen rapidly in the past few decades and there are reports of increasing occurrences of melting of mountain snow caps, increase or reduction in water level levels in oceans and seas, rapid expansion of arid and semi-arid area and drought stress in the production chain. Consequently, we have frequent occurrence of disasters such as floods, storms, famine, loss of livelihoods, pest and disease out breaks. This theme will make an attempt to explore measures which can be put in place by communities, governments and development partners to manage, control, adapt and/or mitigate against disasters associated with climate change. One major output is a declaration on state of climate change and disasters in the region, and the appropriate response measures that can be recommended.

2. WATER-ENERGY-FOOD NEXUS

This theme will focus on the inseparable link among security of water, energy and food which fortifies values, norms, and human well-being of the society. The theme attempts to explore means of addressing concerns about the access, security, distribution and availability of food, energy and water and consequently the impact on the control and utilization of these resources on resilience to water catchment. Special attention will be given to key cross-sectorial issues of policy formulation, synergies between water, food and energy, conflicts and conflict management, water security and scarcity. Integrated assessment approaches to understand the sustainability of the nexus will be discussed

3. POLLUTION CONTROL AND MANAGEMENT

This theme will attempt to interrogate the point and non-point sources of pollution in water bodies, and identify strategies for addressing them and developing mechanisms of utilising grey water or dirty water in a bid to increase water use

efficiency. Special attention will be given to trans-boundary management of pollution control, policy formulation, impact of pollution on water transport and sustenance of aquatic life, innovative and technological methods of water treatment, recycling of grey water, and cost benefit analysis of grey water recycling.

4. LAND USE, TECHNOLOGIES & INNOVATIONS on soil, crop, animal, forestry, hydrology and catchment management

This theme will focus on the link between land use practices, hydrology, technologies and innovations, and how they affect ecosystem health of soil, crops, animals, forests and the water catchment at large. The water catchment is a collection of ecosystems such as forests, soils, energy, agriculture systems, and people. A range of technologies, practices and innovations are being applied to these ecosystems to facilitate production processes. There are several advances in technologies such as use of sensors, UAVs, digital appliances and many other technologies to advance the science of water and land management. This theme will attempt to understand how hydrology, soils, forests, agriculture systems or other land uses are responding to these innovations and/or technologies in terms of ecological equilibrium, species diversity, carrying capacity or other ecological variables that are critical for sustenance of these ecosystems. In order to give this theme the attention it deserves, engagement will be done at cross-sectoral and multidisciplinary level to clearly bring out the social, economic and environmental outputs that could potentially be realised as a result of interactions among forestry, soil, agriculture and hydrology and technology and/or innovations.

5. SOCIAL, INSTITUTIONAL AND FINANCIAL approaches for lake and catchment management

This theme will focus on discussing the participatory Catchment Management approach with an appropriate management structure for managing the watershed, mapping out of the stakeholders, the activities they are undertaking and to what extent each of those activities impacts resilience of watershed. It will also clearly address the roles of the stakeholders within the catchment, strategies for enhancing engagement by various stakeholders within the catchment, and the different dynamics within the catchment that can ensure success or failure in managing the catchment. Innovative financing options for managing the catchment, the roles of private sector, CSOs, policy makers and academia and policy makers will be discussed under this theme.

REGISTRATION

Participants are requested to start registering. Final registration is due when the conference fee payments are received through the available bank account below or at the arrival day at the conference venue. The conference registration fees will cover a conference bag, book of abstract, luncheons, teas and a gala dinner. These rates are inclusive of VAT but do not include transport and accommodation. Participants must organize their own accommodation directly with hotels or accommodation service providers.

Registration fee excludes bank transaction charges. Upon payment please, please send your pay slip from your bank for confirmation to greatlakescatchment2019@caes.mak.ac.ug

Category	Rates (USD)
Academic/institutions/NGOs	80
Industrial/private sector	120
Student	40

A refund of registration fees and other contributions to the conference may not be possible 60 days to the conference date.

Bank Account Details (USD Particulars)

Name/Account Title: **COLLEGE OF AGRICULTURAL AND ENVIRONMENTAL SCIENCES, MAKERERE UNIVERSITY**

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