



MAKERERE UNIVERSITY

**COLLEGE OF AGRICULTURAL & ENVIRONMENTAL
SCIENCES (CAES)**

20TH PRINCIPAL'S QUARTERLYREPORT

JANUARY –MARCH 2019

VISION

To be a leading institution of academic excellence and innovations in Africa

MISSION

To advance training, knowledge generation and service delivery in order to enhance agricultural development, sustainable natural resource utilization and environmental management

Abbreviations

AfDB	African Development Bank
ARUA	African Universities Alliance
CAES	College of Agricultural and Environmental Sciences
DABE	Department of Agricultural and Bio systems engineering
DANRE	Department of Natural Resource Economics
DAP	Department of Agricultural Production
DEIS	Department of Extension and Innovation Studies
DEM	Department of Environmental Management
DEM	Department of Environmental Management
DFTHN	Department of Food Technology and Human Nutrition
DGGCS	Department of Geography, Geo-informatics and Climatic Sciences
DRGT	Directorate of Research and Graduate Training
FBT	Department of Forestry, Biodiversity and Tourism
FTBIC	Food Technology and Business Incubation Centre
MAK	Makerere University
MaRCCI	Makerere University Regional Centre for Crop Improvement
MUARIK	Makerere University Research Institute Kabanyolo
MUBFS	Makerere University Biological Field Station
NBDB	National Biodiversity Data Bank
NEF	Next Einstein Fellowship
NFC	Nyabyeya Forestry College
SAS	School of Agricultural Sciences
SFEGS	School of Forestry, Environmental and Geographical Sciences
SFTNB	School of Food Technology, Nutrition and Bioengineering
USAID	United States Agency for International Development
WSU	Western Sydney University

Foreword



Welcome to this 20th edition of the CAES Principal's Quarterly report for the period January-March 2019. On behalf of the CAES Management, I thank all staff, students and our different stakeholders for the milestones recorded in this period.

During the Mak 69th Graduation ceremony held in mid January 2019, the college presented over 600 graduates and the best science student from the School of Food Technology, Nutrition and Bio engineering..

In Research, the CAES in partnership with AATF, the Soybean Innovation Lab. through PASTTA Project conducted Field days in Kasese and Lira to evaluate 35 soybean varieties from Africa. The soybean breeders also released song on Soybean Production Guide for Acholi and Lango sub-region. This demonstrates how innovative our faculty is, turning to music as an outreach tool.

The college conducted a number of outreach activities including MaRCCI's Advisory meeting and exhibition during the parliamentary week and participation in the water and environment week by the foresters. Our students under their leadership held a community outreach in Arua district to sensitize farmers on Climate Smart Agriculture as the GREAT project completed the Second Phase of the Gender Responsive Legume Breeding Course for researchers from SSA.

Under the support environment, Dr. Fungo Robert was recognized for providing expert support to the government of Ethiopia to develop a nutrition training manual for grassroot Agriculture Extension Officers. This lifted the profile and visibility of Makerere University.

We also managed to nominate and conduct elections for school representatives in the university Senate. Prof. Noble Banadda and Assoc. Prof. Denis Mpairwe are in the Senate for the School of Food Technology, Nutrition and Bio engineering and the School of Agricultural Sciences respectively.

The Deans whose term of office expired handed over successfully. Dr. Abel Atukwase and Assoc. Professor Fred Babweteera are the new deans for the School of Food Technology, Nutrition and Bio engineering and the School of Forestry, Environmental and Geographical Sciences respectively.

On infrastructure development, the college received the Post Graduate Complex built under the AfDB-HEST Project from the contractor at MUARIK. One of the seminar rooms in this complex was furnished with students chairs for use by MaRCCI at a cost of shs.15.8 million .

The Centre for Soybean Improvement and Development with support from the Vegetable Oil Development Project (VODP phase II) of the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF). acquired a seed cleaner with a processing capacity of 3 tons per hour. The centre also remodelled the foundation seed facility that has a carrying capacity of 100 tons per year.

Management greatly appreciates Government of Uganda for the support in infrastructure development, research and innovation. We also thank our different development partners for the enduring support in various aspects of development-human, infrastructure and research.

Special thanks go to Makerere University top management for the support and conducive environment-without which, it would be impossible to undertake the core activities highlighted. As CAES, we are committed to undertaking our core mandate and strengthening our collaboration as we build for the future. I thank you.

Prof. Bernard Bashaasha,
PRINCIPAL

Table of Contents

VISION	i
MISSION	i
Abbreviations.....	ii
Foreword	iii
1.0: INTRODUCTION	1
1.1: College of Agricultural & Environmental Sciences (CAES).....	1
1.2: CAES Schools and departments	1
1.3: Research institutes	2
1.3.1: Makerere University Agricultural Research Institute Kabanyolo (MUARIK)	2
1.3.2: The Makerere University Biological Field Station (MUBFS).....	2
1.4: Research Centres.....	2
2.0: TEACHING AND LEARNING	3
2.1 Over 600 graduate with best overall science student from the School of Food Technology	3
3.0: RESEARCH AND INNOVATIONS	5
3.1 CAES in partnership with AATF, the Soybean Innovation Lab. through PASTTA Project conduct Field days to evaluate 35 soybean varieties from Africa	5
3.2: Soybean researchers/breeders turn to music as an outreach tool; Release song on Soybean Production Guide for Acholi and Lango sub-region.....	6
3.3: Blending Agricultural Sciences, Innovation & Entrepreneurship for Job Creation.....	7
4.0: KNOWLEDGE TRANSFER AND PARTNERSHIPS	8
4.1 MaRCCI Annual Advisory meeting held.....	8
4.2 School of Forestry, Environmental & Geographical Sciences (SFECS) Joins the Nation in Celebrating the “Water and Environment Week”	9
4.3 CAES students in a community outreach in Arua to sensitize farmers on Climate Smart Agriculture	10
4.4 Makerere and Cornell Universities award researcher’s certificates after completing the Second Phase of the Gender Responsive Legume Breeding Course under the GREAT project.....	11
4.5: MaRCCI represents Makerere University during the Third Parliamentary Week Exhibitions	12
5.0: SUPPORT ENVIRONMENT.....	14
5.1 Human resources.....	14

5.1:1 Election of SFTNB School Representative to Senate.....	14
5.1.2 Election of SAS representative to Senate.....	14
5.1.3 Prof. Mnason Tweheyo hands over office to new Dean, School of Forestry	15
5.1. 4 Prof. John Muyonga hands over office as Dean School of Food Technology	16
5.1.5 World Bank ACE II Project Communication officers undergo Training	17
5.2: Prizes, Awards and Recognitions	18
5.2.1 Dr. Robert Fungo recognised by the Federal Government of Ethiopia	18
6.0: PHYSICAL INFRASTRUCTURE AND EQUIPMENT ACQUIRED	20
6.1 MaRCCI Furnishes one of the seminar rooms in the Post Graduate and Research Facility at MUARIK	20
6.2 A Soybean cleaner & associated seed processing facilities Acquired: Maksoy 6N soybean variety, Soybean Research Highlight Report & a song that promotes good agronomic practices in soybean also launched.	21
6.3 State-of-the-Art Post Graduate Complex from the contractor AfDB-HEST Project at MUARIK Received.....	23

1.0: INTRODUCTION

1.1: College of Agricultural & Environmental Sciences (CAES)

CAES is one of the ten colleges of Makerere University located within the Western part of Makerere University. Its main administrative center is in the Agriculture building located just opposite the University Main Library entrance. CAES has three Schools: School of Agricultural Sciences (SAS), the School of Forestry, Environmental and Geographical Sciences (SFECS) and the School of Food Technology, Nutrition and Bioengineering (SFTNB).

The college has two institutes that handle research namely Makerere University Agricultural Research Institute Kabanyolo (MUARIK) and Makerere University Biology Field Station (MUBFS). The college has 14 centers serving as a base for knowledge transfer and partnerships. These are complemented by facilities located at Nyabyeya Forest College and Budongo Conservation Field Station that cater for Forestry students.

1.2: CAES Schools and departments

The School of Agricultural Sciences (SAS) is comprised of three Departments. The departments are: (i) Agricultural Production; (ii) Agribusiness and Natural Resource Economics; and (iii) Extension & Innovation Studies. These departments offer Undergraduate, Masters and PhD degrees in their respective disciplines.

The School of Forestry, Environmental and Geographical Sciences (SFECS) is composed of three departments (i) the Department of Forestry, Biodiversity and Tourism; (ii) the Department of Environmental Management and (iii) the Department of Geography, Geo Informatics and Climatic Sciences.

The School of Food Technology, Nutrition and Bioengineering (SFTNB) comprises two departments. (i) the Department of Agricultural and Bio systems Engineering and (ii) the Department of Food Technology and Human Nutrition. The SFTNB hosts an e- learning center (Telematics receiving studio) fully furnished with equipment. The SFTNB also hosts the Food Technology and Business incubation Centre (FTBIC).

1.3: Research institutes

1.3.1: Makerere University Agricultural Research Institute Kabanyolo (MUARIK)

MUARIK is a public institution and an arm of Makerere University that interfaces with the National Agricultural research system (NARS). Seated on 650 hectares of land it is being managed as a multi-disciplinary facility for training, research, outreach and production under the CAES. It is located 19 kilometers North-West of Kampala off Gayaza Township on the Kampala-Ziobwe Road. The institute houses the center for Continuing Agricultural Education Centre (CAEC), the undergraduate student hostel and facilities for over 30 graduate students under the regional programmes. The Tissue Culture, Animal Science and the Biotechnology laboratories are also located at MUARIK. Other facilities at MUARIK include CURAD, staff residences, poultry, dairy, and piggery units among others.

1.3.2: The Makerere University Biological Field Station (MUBFS)

MUBFS is located in Kibale National Park in Kibale district. It is mainly involved in research but it is increasingly hosting short international courses in Tropical Biology. Originally, most of the research at MUBFS was primatology but over the years, the research agenda has broadened to include ecological and behavioral research on taxonomy, and socio economic studies. There is adequate dormitory and guest house space for groups ranging between 10 and 60 and catering services. In collaboration with national institutions, the institute provides consultancy services to the government and other organizations in Uganda. Consultancy services include tailor made training in different fields of environment and natural resources, assessment and monitoring of environment and natural resources therein environmental impact assessments and audits, project monitoring and evaluation and facilitation.

1.4: Research Centres

Recognizing the importance of outreach, the college established a fully-fledged outreach facility called the Continuing Agricultural Education Centre (CAEC). Through CAEC, the College operates outreach programs for various stakeholders (farmers, policy makers, students etc). The presence of the CAEC therefore makes the College a key player in development-impact oriented training and research.

Other centres include the Plant Breeding, Biotechnology and Seed systems research center, the Remote Sensing and GIS Laboratory, the Molecular Biology Laboratory and the Water and Wetlands research Laboratory. Others are the National Biodiversity Data Bank (NDBD), the Food Technology and Business Incubation Center (FTBIC), the Makerere University Climate Change research and Innovations (MUCCRI), Centre for Waste Management, Centre for Mountain Resources and Disaster Management, Rangeland Resources Centre and the Agricultural Policy Analysis Centre. All these operate at different capacities.

2.0: TEACHING AND LEARNING

2.1 Over 600 graduate with best overall science student from the School of Food Technology



Makerere University 69th Graduation ceremony kicked off on Tuesday 15th January 2019 with CAES presenting over 600 graduands. Of these 79 were graduate and 533 were undergraduates.

Like the previous graduation, the CAES again presented the best and overall science student -Mr. Steven Galiwango from the School of Food Technology, Nutrition and Bio engineering.

CAES January 2019 Graduation statistics by school

School	Undergraduate students	Graduate		
		PhD	Masters	PGD
SFTNB	56	-	13	-
SAS	199	4	32	-

SFECS	280	4	34	9
Total	535	8	79	9



During the same ceremony, Makerere University awarded the President of the Republic of Uganda and Visitor, H.E. Yoweri Kaguta Museveni with her Outstanding Scholarly Authorship Award. CAES Prof. Elly N Sabiiti read the President's Citation. The award was handed over to him by the Makerere University Chancellor, Prof. Ezra Suruma. The President was recognized for his authorship of Katondoozi, the first ever Thesaurus in the sub-Saharan region.

Katondoozi is a Thesaurus of Runyankore-Rukiga written in an indigenous African language. It is a complete granary for the Runyankore-Rukiga, that shows the richness of a language by displaying a rich and unique vocabulary. The great and original publication was product of a team of scholarly co-authors, namely, Dr. Gilbert Gumoshabe, Prof. Manuel J.K. Muranga and Ms. Alice N. Muhoozi

3.0: RESEARCH AND INNOVATIONS

3.1 CAES in partnership with AATF, the Soybean Innovation Lab. through PASTTA Project conduct Field days to evaluate 35 soybean varieties from Africa



The CAES in partnership with the African Agricultural Technology Foundation (AATF) and the Soybean Innovation Lab. through the Partnerships for Seed Technology Transfer in Africa (PASTTA) project on 3rd and 5th January 2019 conducted soybean field days at Mubuku Irrigation Scheme in Kasese and Ngetta ZARDI in Lira respectively. A total of 35 soybean varieties from across Africa were being evaluated; dubbed Pan African Soybean trial. The evaluation trials were aimed at identification and release of new improved varieties.

PASTTA is a global development Alliance between USAID Feed the Future, Sygenta Foundation for Sustainable Agriculture, AATF and New Markets Lab.

The objectives of the field days were to expose stakeholders in soybean value chain to the performance of the 35 soybean varieties under evaluation, carry out participatory evaluation of the new soybean varieties in the research pipe line and to facilitate networking between the different stakeholders in the soybean value chain.

The 35 varieties were a collection from six African countries of Malawi, Zambia, Zimbabwe, Ethiopia, South Africa and Uganda. The trials included all the six Maksoy varieties; Maksoy 1N, 2N, 3N, 4N, 5N and 6N. The function attracted soybean farmers, processors, seed companies, local seed businesses, non-governmental organizations, researchers from government and private institutions and Local government district officials.

3.2: Soybean researchers/breeders turn to music as an outreach tool; Release song on Soybean Production Guide for Acholi and Lango sub-region.

CAES Plant breeder Prof. Phinehas Tukamuhabwa and Associate Plant Breeder Mr. Tonny Obua have released the Soybean Production Guide in form of a song. The Soybean Production Guide book was published by the duo from the Department of Agricultural Production, School of Agricultural Sciences, College of Agricultural and Environmental Sciences (CAES) in 2015.

The song was produced by local musician Jesper Ewanyi in Lira also known by his stage name as *Dealrafael JSP*. The song was sung in Luo and describes the varieties as the “golden beans” in the chorus. The song describes soybean as a miracle crop highlighting its importance, types, varieties and advantages. It gives hope to farmers that when they grow soybean, they become rich and advises farmers on the need for farmer-groups and bulky selling, good agronomic practices and post-harvest handling and storage.

Prof. Phinehas Tukamuhabwa has pioneered development of glyphosate tolerant soybeans in Africa, in containment at Makerere University. He has also spearheaded the development and release of eight soybean varieties (Nam2, Namsoy 3, Namsoy 4M, Maksoy 1N, Maksoy 2N, Maksoy 3N, Maksoy 4N, Maksoy 5N and Maksoy 6N) and the climbing bean varieties (Nabe 12C, Nabe 9C, Nabe 8C, Nabe 7C and Nabe 6C) all widely grown in Uganda and in the region at commercial level.

3.3: Blending Agricultural Sciences, Innovation & Entrepreneurship for Job Creation



Despite the known benefits of fodder conservation, which has been taught at Makerere University and other institutions of higher learning for over 50 years, there is scarcity of information on fodder value chain that is crucial in informing development and up scaling the technology of hay production as a business among the communities.

Prof. Kabi, an animal scientist from the CAES, innovated an alternative way of taking the university lecture room to the communities. Prof. Fred Kabi has rolled his sleeves and has dedicated his livestock science knowledge, skills and over 10 acres of land situated in Kapeka to production of *Chloris gayana* hay intercropped with *Centrosema pubescens* legume.

This could also be a driver for aspiring farmers to open up and learn a new approach to growing pastures and its conservation as hay for livestock feed as a way of diversifying enterprises at the farm. optimistic that within four years, he should open up about 40 acres populated with *Chloris gayana* and *Cencherus ciliaris* grasses together with *Desmodium* and *Stylosanthes guianensis* legumes all of which are drought tolerant pastures.

In his words, this action is intended to blunt the biting effect of drought among dairy and beef farmers most of who lose revenue during prolonged droughts when the milk prices are very high yet milk production drops low due to insufficient fodder availability.

4.0: KNOWLEDGE TRANSFER AND PARTNERSHIPS

4.1 MaRCCI Annual Advisory meeting held



A committee of the Advisory Board constituted of nine eminent scientists and business people from various institutions in and outside Africa on 11th - 15th March 2019 converged at Speke Resort Munyonyo in Kampala Uganda to assess the annual progress recorded by the Makerere University Regional Centre for Crop Improvement (MaRCCI).

This year, the major activities included; Curriculum planning/review, Informatory sessions and presentations on MaRCCI progress, Private sessions, Meeting with the University Management, a visit to the MaRCCI home and touring the facilities at the Makerere University Agricultural Research Institute Kabanyolo (MUARIK)

The officials presented what the center was able to do to in one year, challenges faced and some of the issues where they needed to adjust. This was to help the Advisory Board better understand how the center was doing and give appropriate advice.

“They listened to our presentations in terms of what we do in training, research, staffing, financials, our level of integration and institutionalization and internal issues. They also had an opportunity to interface with the Vice Chancellor (VC). They are happy with the progress and willing to keep going and to be associated with MaRCCI”, Centre Director Dr. Richard Edema.

The Board also presented its report on MaRCCI to the VC, detailing the accomplishments strengths and some of the areas for improvement. Key achievements include increased enrolment of graduate students, procurement of vehicles, initiation of two research programs on cowpea

and sorghum, furnishing of the one of the seminar rooms, and securing contract to build the center home at Kabanyolo.

4.2 School of Forestry, Environmental & Geographical Sciences (SFECS) Joins the Nation in Celebrating the “Water and Environment Week”

SFECS joined the rest of the country in the celebration of the water and environment week that took place between 18th -22nd March -2019 at the Water Resources Institute, Entebbe.

Prior to the actual week, the School participated in the pre-events such as planning and preparation as a member of the National Organising Committee, National Technical Committee and joining the “Walk for Zoka” forest.

The “Walk for Zoka” was an initiative by a group of conservationists aimed at raising Government and other actors’ awareness to take action to save Zoka forest reserve in Adjumani district whose 6, 145 hectares were under threat due to encroachment and illegal logging. The walk started on 4th March 2019 from the Headquarters of the Ministry of Water and Environment in Kampala.

Students and staff of SFECS joined the walkers at Kafu Bridge on the Kampala-Gulu highway and participated in the restoration activities of the Kafu catchment as a strategy to raise awareness on the importance of catchment forests on 8th March, 2019.

The School also conducted a training covering aspects of forestry entrepreneurship, nursery operations, silviculture and forest product and service development on 20th March 2019 at the Water Resources Institute, Entebbe. Participants showed a lot of enthusiasm on forest investment and requested trainers to have more frequent and regular trainings on grounds that forests are critical in this era of climate change and improvement of the wellbeing of the population.

The School conducted a training on 19th March,2019 at the same venue on the **iRain App**, a tool for global precipitation monitoring, whose user friendly interface is designed to facilitate stakeholder involvement in collecting data, as part of UNESCO-IHP’s efforts to put science into action through the use of citizen science.

21st March is the International Day of Forests which is celebrated annually in Uganda. The School in partnership with the Forestry Sector Support Department of the Ministry of Water and Environment organized a National Forestry Dialogue which was also held at the Water Resources Institute, Entebbe under the theme, **“Enhancing the contribution of Forests and Trees in attainment of Sustainable Development Goals in Uganda”**.

The overarching purpose of the dialogue was to provide a platform where stakeholders would freely engage, explore and generate strategies to address the historical and contemporary threats to forests in Uganda and explore mechanisms of increasing the contribution of forests to the attainment of the Sustainable Development Goals. The message from participants was “we have talked a lot, it is time for action”. They summarised their views in a communique that was presented to the Prime Minister.

4.3 CAES students in a community outreach in Arua to sensitize farmers on Climate Smart Agriculture



Over 30 students from CAES under the student leadership were on 21st February, 2019 flagged off to Arua district for an outreach program to sensitize and train farmers about modern technologies in Climate Smart Agriculture.

The students were flagged off by the Principal CAES Prof. Bernard Bashaasha, the College Registrar Mr. Obura Edward and the Team Leader Ms. Vianney Baguma for a three days activity (22nd-24th February, 2019).

The activity was sponsored by the CAES Students' Council and the college staff at an estimated budget of UGX 11 million.

The students President Ms. Hajara Nantume said, the overall objective of the outreach was to engage with community leaders on possible ways of establishing a university field center for dissemination of new, improved or modern agricultural techniques in Arua region.

The theme of this outreach was to sensitize and train farmers about modern in climate smart agriculture. In a bid to extend our knowledge to the people of Arua, groups of students from the

different courses worked on different subthemes to train farmers on Soil fertility management and organic farming, Agro forestry, Nutrition assessment and education, Post-harvest handling and value addition and marketing.

Arua is one of the rural areas in Uganda that is experiencing livelihood challenges of food insecurity, poverty and unemployment due to uncertain weather conditions, which has discouraged farming .

4.4 Makerere and Cornell Universities award researcher's certificates after completing the Second Phase of the Gender Responsive Legume Breeding Course under the GREAT project



Research teams from Sub-Saharan Africa were on 18th January 2019 awarded certificates of Attendance of Makerere and Cornell Universities after completing the second phase (week 2) of the Gender Responsive Legume Breeding Course “under the project titled, “Gender-responsive Researchers Equipped for Agricultural Transformation (GREAT).

GREAT is a 5 year (2015-2020) collaboration between Cornell University in Ithaca, New York and Makerere University in Kampala, Uganda supported by Bill and Melinda Gates Foundation. The five-day training (14th-18th January 2019) was jointly organized by Makerere University College of Agricultural and Environmental Sciences (CAES) and the School of Women and Gender Studies (SWGS).

The training was closed by the Vice Chancellor Makerere University represented by Prof. Bernard Bashaasha who is also Principal CAES on 18th January 2019 at Bukoto Forest Cottages in Kampala Uganda. Prof. Bashaasha thanked the two organizing universities for the job well done noting that progress was being made. He also thanked the Bill and Melinda Gates foundation for funding the training. Prof. Bashaasha further applauded the collaboration between CAES and SWG and for implementing the program. He also thanked the participants for accepting to come to Uganda and Makerere University in particular.

4.5: MaRCCI represents Makerere University during the Third Parliamentary Week Exhibitions



Makerere University Regional Centre of Excellence in Crop Improvement (MaRCCI) on 13-18th January 2019 represented Makerere University during the week long Parliamentary exhibitions. Parliament of Uganda hosted its third Parliamentary week under the theme, "Parliament and Service delivery".

The Exhibition which kicked off with a Fundraising Walk in support of people living with Albinism on 13 January 2019 was to showcase the service government institutions provide to the public. It was also aimed at providing a valuable opportunity for public interaction with government ministries, departments and agencies. Makerere University was represented by

Makerere University Regional Centre of Excellence in Crop Improvement (MaRCCI). The centre exhibited value added products from cow pea and sorghum.

MaRCCI has been involved in graduate training mainly MSc. Plant Breeding and Seed systems and PhD in Plant Breeding and Biotechnology since 2008. The program she said has trained over 181 graduates from over 20 countries in Africa.

Parliament week is a key activity aimed at promoting a better understanding of parliament's role as a public institution; enhancing public awareness about the work of parliament and encouraging the public participation in law making process. It is also aimed at making the precincts of parliament open to the public and giving the opportunity to the public to act as legislators for a day.

5.0: SUPPORT ENVIRONMENT

5.1 Human resources

5.1.1 Election of SFTNB School Representative to Senate.

On 22/3/2019, the School of Food Technology, Nutrition & Bio Engineering held the above meeting. The contestants were Prof. Charles Muyanja and Prof. Noble Banadda.

Votes obtained were as follows:

- 1) Prof Charles Muyanja got 06 votes
- 2) Prof Noble Banadda got 24 votes.

Total number of votes cast were 30

Total number of voters absent 4.

Eligible voters were 34

As per the results, Prof. Noble Banadda was declared the Elected school representative to Senate.

“I thank you for the kindness and confidence in me. I will serve the last term with dignity for my school and college. I pray for God's guidance as I tread this difficult journey. I pledge nothing but loyalty”, said Prof. Noble Banadda

5.1.2 Election of SAS representative to Senate

The Dean School of Agricultural Sciences (SAS) received three (3) nominations for the SAS Senate Representative. All the three nominators nominated Assoc. Prof. Denis Mpairwe. Since there was no other nominated candidate, Assoc. Prof. Denis Mpairwe was forwarded to the Academic Registrar for appointment as the School representative to Senate.

5.1.3 Prof. Mnason Tweheyo hands over office to new Dean, School of Forestry



Prof. Mnason Tweheyo transferred duties of Deanship, School of Forestry, Environmental and Geographical sciences (SFECS) after serving for two terms (2011 -2018) to Assoc. Prof. Fred Babweteera. Babweteera was appointed un-opposed.

The handover ceremony was presided over by the Principal College of Agricultural and Environmental Sciences (CAES) Prof. Bernard Bashaasha who declared the end of term and appointment of the new Dean on 11th January 2019 at the school's conference hall.

The ceremony was witnessed by Mr. Aggrey the auditor on behalf of the university, and staff from the school and the college.

Citing the Bible in Ecclesiastes 3:1, the outgoing Dean said, there is time for everything, and a season for every activity under heavens, and thus, this was the time to hand over the dean's office after eight years of service.

"To me, it is a day of joy and to some extent a new beginning and I greatly welcome it. There is no doubt that the last eight years as dean have had its ups and lows ranging from hard labor to times of joy.

To the new Dean, Assoc. Prof. Fred Babweteera, I wholeheartedly congratulate you and wish you the best in office, May the Lord give you wisdom and that you also yield to His wisdom as you manage the office of the Dean' Prof. Tweheyo stated.

Prof. Tweheyo appreciated the three heads of departments and the entire school staff for their support and for giving him an opportunity to serve as dean. Tweheyo also thanked the CAES Principal and management for the support and cooperation and the Makerere University for employing and developing him to almost what he is today, in terms career and administrative growth.

5.1. 4 Prof. John Muyonga hands over office as Dean School of Food Technology



Prof. John Muyonga handed over office to Dr. Abel Atukwase as new Dean elect School of Food Technology, Nutrition and Bio engineering. Prof. Muyonga had served as dean for two terms since the university turned collegiate in 2011. His term expired on 31st December 2018.

The handover ceremony was held on 17th January 2019 at the schools Conference hall. Presiding over the function, the Principal CAES, Prof. Bernard Bashaasha commended Prof. Muyonga for running the school for eight years and doubling the graduate programmes in terms of curriculum design.

“In terms of research, your school has the second chunk of research resources in the college and some outstanding infrastructure. The FTBIC is one of the flagship at Makerere university and East African region”, The Principal said.

The Principal congratulated the incoming Dean Dr. Abel Atukwase upon his victory adding that he has some work to do in terms of harmonizing the school.

Outgoing Dean, Prof John Muyonga described the handover as a happy moment and thanked staff, college and university management for being supportive. He highlighted the achievements

under his tenure including; increased number of courses, acquisition of additional building and equipment and upgrading of the engineering workshop at MUARIK. Other achievements according to Prof. Muyonga include, enhanced collaborations with national and international partners, improvement in research and acquisition of three motor vehicles.

Some of the challenges he said include limited space for lecturer rooms and staff offices. He highlighted areas that the new dean needs to look into including follow up with NCHE on the new courses, renovations, letters of staff appointment, FTBIC contract staff, staffing gaps, evening programs for MSc and incubation programs and improving the level of laboratory productivity among others.

The incoming dean, Dr. Abel Atukwase referred to the election process and hand over as great days and slightly new age for the school. He thanked the staff for zeroing down to him as dean and the Principal for facilitating all the processes in school. Dr. Abel also appreciated the outgoing dean for steering the team for the past 13 years as head of department and dean.

5.1.5 World Bank ACE II Project Communication officers undergo Training



Over 20 communication experts working with the Eastern and Southern Africa Higher Education African Centers of Excellence (ACE II) Project underwent training in communication to equip them with skills and knowledge to improve the communication function in their respective centers.

The one-week training started on 18th-23rd March, 2019 and was officially opened and closed by Deputy Secretary, the Inter University Council for East Africa (IUCEA) Prof. Mike Kuria at Hilton Hotel Nairobi who implored participants to utilize the knowledge and skills gained to transform their communication function.

The training was organized and funded by the Inter University Council of East Africa (IUCEA) supported by the country ACEs. The IUCEA Project Communication Officer Ms. Agnes Asimwe said the objective of the training was to discuss the ACE II project objectives and how to effectively communicate the project results.

The training attracted leading Communication, Public Relations (PR) and ICT experts from the region including the Lead Trainer and Facilitator from Capital One Group Paul Mwirigi Muriungi, Ann Gichuhi and Bernard Khatukhira.

Key topics delivered included, Introduction to Public Relations and Public Relations Strategy; Planning and Managing PR Campaigns; Strategic Communications; Monitoring and Evaluation, in Communication; Digital Communication and Social Media Management; Integrated Marketing and Communication; Corporate Social Responsibility; Internal Communications; Media Relations and Crisis Communications, Written, Photo and Video Content Management.

The World Bank is supporting 24 African Centers of Excellence to meet the demand for skills required for Africa's development in areas such as agriculture, energy, extractive industries, etc while strengthening the innovation capacity of the best African higher education institutions in science, technology, engineering, and mathematics (STEM), and other relevant disciplines.

Project benefitting countries including, Ethiopia, Kenya, Malawi, Mozambique, Rwanda, Tanzania, Uganda, and Zambia among others. Makerere University Regional Centre of Excellence in Crop Improvement (MaRCCI) and MAPRONANO were among the Centers of Excellence that were represented by Ms. Jane Anyango and Betty Kyakuwa.

5.2: Prizes, Awards and Recognitions

5.2.1 Dr. Robert Fungo recognised by the Federal Government of Ethiopia



Dr. Robert Fungo on 26th March, 2019 received a Certificate of Appreciation from the Ethiopian Government through the Federal Minister of Agriculture. Dr. Fungo was recognized for providing expert support to the government of Ethiopia to develop a nutrition training manual for grassroot Agriculture Extension Officers.

“The Ethiopian Government through the Federal Ministry of Agriculture and Natural Resources has recognized you for your significant contribution in the development of the training manual of Kebele Agriculture Extension Workers. Your expertise in how to integrate nutrition indicators

and activities in the training manual is appreciated by the government”. Part of the message sent by Tamene Taye read.

Tamene Taye is a Senior nutrition expert, professional educator and advisor on nutrition to the Ethiopian Ministry of Agriculture.

Dr. Fungo thanked his lecturers for the mentorship.

“The Ethiopians, who I supported to develop nutrition-sensitive agriculture training guidelines for Extension workers and the Nutrition Sensitive Agriculture Strategy, have recognized my efforts. I thank Prof. Muyonga who mentored me.” Dr. Fungo said.

Dr. Robert Fungo is a Lecturer at the Department of Food Technology and Human Nutrition Makerere University School of Food Technology, Nutrition & Bio-Engineering. His Teaching, Research and Community Outreach is in the Field of Applied Human Nutrition, Food Science and Food Technology. As a Nutritionist & Food Technologist, he is interested in understanding the influence of agriculture and food systems on the nutrition and food security of women and children in low and middle-income African countries (LMIACs).

6.0: PHYSICAL INFRASTRUCTURE AND EQUIPMENT ACQUIRED

6.1 MaRCCI Furnishes one of the seminar rooms in the Post Graduate and Research Facility at MUARIK



While the AfDB facilities are ready for use, the college has been struggling with limited lecture facilities due to the ever increasing number of students. The University Management allowed MaRCCI to furnish the seminar rooms and use them to train students.

“Using our resources we bought 40 students’ chairs with flip able tables at UGX15,812,000. The reason we are doing this, is that MaRCCI is looking forward to integrating its programs with sister programs like joint taught programs, so the facility will be very useful starting next semester.” The centre Director Dr. Richard Edema reported

6.2 A Soybean cleaner & associated seed processing facilities Acquired: Maksoy 6N soybean variety, Soybean Research Highlight Report&a song that promotes good agronomic practices in soybean also launched.



Makerere University Centre for Soybean Improvement and Development acquired a seed cleaner with a processing capacity of 3 tons per hour. The centre also remodelled the foundation seed facility that has a carrying capacity of 100 tons per year. The Principal Investigator and Plant Breeder Prof.. Phinehas Tukamuhabwa said the centre used to employ 20 women who would take two months to sort 25tons of the foundation seed but this machines will only take one week to process that seed.

The machine (seed cleaner) and the associated seed processing facilities were procured with support from the Vegetable Oil Development Project (VODP phase II) of the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF).

The seed cleaner and associated seed processing facilities in addition to the Maksoy 6N soybean variety, Soybean Research Highlight Report and a song that promotes good agronomic practices in soybean were launched by the Minister of Agriculture, Animal Industry and Fisheries, Hon Vincent Bamulangaki Ssempijja on 22nd February, 2019 at the Makerere University Agricultural Research Institute Kabanyolo (MUARIK).

The function was also graced by the Vice Chancellor Makerere University represented by Director, Directorate of Research and Graduate Training (DRGT) Prof. Mukadasi Buyinza, Principal CAES Prof. Bernard Bashaasha, Representatives from the VODP, Soybean processors and Local Seed distributors and staff from Makerere university.



6.3 State-of-the-Art Post Graduate Complex from the contractor AfDB-HEST Project at MUARIK Received



The college received the State-of-the-Art Graduate Training and Research laboratory facility from the contractor under the African Development Bank (AfDB)-HEST project. The facility estimated at a cost of \$ 1.2million is a single-storied block with research laboratories, the library, offices, training rooms and other amenities.

The facility was received by the Principal CAES Prof. Bernard Bashaasha accompanied by the Ag. Director Makerere University Agricultural Research Institute (MUARIK) Dr. Alice Turinawe, the Farm Manager, Mr. Chrysostom Tweyambe and other university staff on Monday 11th February 2019.

The handover was attended by officials from Arch Designs Ltd. represented by Eng. Florence Lunyoro and Architect Dickson Wetala. The ceremony was also witnessed by officials from Excel Construction Company Ltd. including Mr. Mayale Musitafa (Electrician), Ms. Turyasingula Dorcas (Electrician) and Mr. Bayi David (Administrator).

Speaking on behalf of the Project Manager, Eng. Florence Lunyoro said they were handing over the initial facility for Kabanyolo consisting of the post graduate training research laboratories that took roughly 12 months from start to finishing. The site was handed over to Excel Construction Company Ltd on 10th August, 2017 at MUARIK.

“It has four laboratories, three training rooms, offices and scenery facilities. The structure is planned for extension so that you can have extensions done for future use. It has its own sewage treatment plant and refuse collection from loo water,” Lunyoro explained.

The Principal CAES Prof. Bernard Bashaasha appreciated the facility.

“The construction works was done to the standard required. We have inspected the labs, lecture rooms, the toilets and other facilities and are up to standard and I think the contractor did a good job,” The Principal noted.

He appreciated that the furniture has delayed but the college was to make arrangements to provide temporary facilities so the graduate students start having classes in the structure.

“I promise to maintain it as much as possible. We have already secured security to ensure that the facility is not vandalized and we plan to procure cleaning services to ensure the facility is kept to the standard for staff and students”, Prof. Bashaasha pledged.

Bashaasha also appreciated the space for the library where he said the college would furnish.

“We intend to make it the first National Agricultural Library in the country. God willing we shall be seeking for support from both NARO and Makerere University.”.

The Principal also said the structure has good facilities to anchor the university research and outreach.

“We have the biotechnology, Animal science, soil science and crop science laboratories and once we get the lab equipment that we need to get them fully functional, they will be some of the best laboratories in the country and this will go a long way in strengthening our research capacity and capability to contribute to the national goals of Agriculture”, He added.

The Principal thanked the Government of Uganda and the Ministry of Education and Sports for financing the project. He also extended his appreciation to the Vice Chancellor and the entire Management team of Makerere University for the support pledging to put the facility to good use.

6.4 A consignment of the Biotechnology Laboratory equipment under the AfDB- HEST Project delivered



The CAES on 11th February 2019 received a consignment of the Biotechnology Laboratory equipment as part of the package for the university under the AfDB- HEST 5year (2013-2018) Government secured loan.

The Ministry of Education and Sports is the coordinating unit for the AfDB- HEST project and the contracting authority and importer. The contract is titled, “Lot. 1.03 the supply, delivery, installation and commissioning of equipment and accessories for Agriculture and Biotechnology Laboratories”.

The Contractor, consignor, is the *Globe Corporations BV* of the Netherlands. The consignment had over 140 items (see a list of items and suppliers attached).

The consignment was delivered at the School of Agricultural Sciences (SAS) and received by the Head, Department of Agricultural Production Associate Professor Denis Mpairwe.

Government of Uganda through the African Development Bank secured a loan of US\$100 million to improve science and technology in Higher Education Institutions (AfDB-HEST programme).

Makerere University was allocated US\$29.2 million in respect of infrastructure rehabilitation, refurbishment of laboratories, merit based scholarships at PhD, Masters and Undergraduate level, and refresher courses for middle management staff among others.

Under the AfDB –HEST Project, the CAES has acquired an initial building- the Post Graduate Training and Research Laboratory that was constructed in 2018 and handed over at Makerere University Agricultural Research Institute (MUARIK) in February, 2019. Pending item is the supply of the laboratory equipment.

The rehabilitation of the MUARIK Dairy Unit as a university facility to generate money for the University and incubate students was completed in 2016.

The other benefit from the project was the renovation of two CAES laboratories namely the Biotechnology and East laboratories in the second phase (July-December, 2016).

The Biotechnology laboratory has now been equipped with modern instruction facilities as listed below.

List of items received for the Biotechnology lab

Lot	Item	No. Pcs	Description	Supplier
3C	1.3C.01	1	Water distiller/deionizer	Bibby Scientific Ltd
3C	1.3C.02	2	Refrigerator(-4 degC)	Accurate Scientific Instruments
3C	1.3C.03	2	Benchtop Microscope	Olympus
3C	1.3C.04	4	Stereo Microscope	United Scope LLC
3C	1.3C.05	1	Fluorescent Microscope	United Scope LLC
3C	1.3C.06	1	Sperm vision Microscope	MOFA Global
3C	1.3C.07	1	Trinocular microscope	United Scope LLC
3C	1.3C.08	2	Research Microscope	United Scope LLC
3C	1.3C.09	2	Oven	Genlab Limited
3C	1.3C.10	1	Freeze dryer	Zirbus Technology GmbH
3C	1.3C.11	1	Fume Hood	DeFSec Global Limited (FumeCare Ltd.)
3C	1.3C.12	4	Plant Growth Chamber	CARON Products & Services, Inc.
3C	1.3C.13	1	Autoclave	Astell Scientific Ltd & The Microbiological Supply Company
3C	1.3C.14	1	Centrifuge with temperature control	Eppendorf AG
3C	1.3C.15	2	Analytical balance	Kern & Sohn GmbH
3C	1.3C.16	4	Water bath	Grant Instruments Ltd
3C	1.3C.17	1	Miller	FOSS Analytical
3C	1.3C.18	1	Spectrophotometer	Cole Parmer (Bibby Scientific Ltd)
3C	1.3C.19	1	Incubator	Memmert GmbH + Co. KG
3C	1.3C.20	2	Liquid Nitrogen tank	Thermo Fisher Scientific
3C	1.3C.21	3	Liquid Nitrogen tank	Thermo Fisher Scientific
3C	1.3C.22	1	Nitrogen distillation unit	FOSS Analytical

3C	1.3C.23	1	Kjeldhal digestion block	FOSS Analytical
3C	1.3C.24	1	Bomb Calorimeter	IKA®-Werke GmbH & Co. KG
3C	1.3C.25	1	Flame Photometer	Cole Parmer (Bibby Scientific Ltd)
3C	1.3C.26	1	Furnace	Nabertherm GmbH
3C	1.3C.27	1	Markham distillation Unit	SciLabware Limited
3C	1.3C.28	1	Plant Canopy Analyzer	Virtual Electronics Company
3C	1.3C.29	2	Crude fibre Analyzer	Labconco Corporation
3C	1.3C.30	1	Fibre Analyzer	FOSS Analytical
3C	1.3C.31	1	Mineral Analyzer	HTDS (PerkinElmer Inc.)
3C	1.3C.32	2	Freezer(-20degC)	Thermo Fisher Scientific
3C	1.3C.33	2	Deep freezer (-80deg c)	B Medical Systems S.a.r.l.
3C	1.3C.34	1	Laminal Flow Cabinet	Faster S.r.l.
3C	1.3C.35	2	Micropipettes	VWR International
3C	1.3C.36	2	Multichannel Pipette	VWR International
3C	1.3C.37	1	Desktop centrifuge	Thermo Fisher Scientific
3C	1.3C.38	1	Real-time PCR machine	Axygen, Inc.
3C	1.3C.39	2	Vortex mixer	Labnet International, Inc.
3C	1.3C.40	1	Heamocytometer	Brand GmbH + Co KG
3C	1.3C.41	1	Ultrasound machine	BMV Technology Co., Ltd.
3C	1.3C.42	1	Doppler Pregnancy detector	MS Schippers (Ultrasound Technologies Ltd.)
3C	1.3C.43	3	Bovine Embryo transfer Kit	Agtech, Inc. USA
3C	1.3C.44	1	Electro Ejaculator - cattle	Standard Precision Electronics
3C	1.3C.45	1	Electro Ejaculator - goats	Bio-Genics, LLC
3C	1.3C.46	1	Electro Ejaculator - sheep	Western Instrument
3C	1.3C.47	1	Artificial Vagina- cattle	NIFA Group (IMV Technologies France)
3C	1.3C.48	1	AI Kit Cattle	All Veterinary Supply Inc.
3C	1.3C.49	1	Ice maker	Porkka Finland Oy
3C	1.3C.50	1	Slide Warmer	C & A Scientific Co.,
3C	1.3C.51	2	Magnetic stirrer	IKA®-Werke GmbH & Co. KG
3C	1.3C.52	1	Deep freezer	B Medical Systems S.a.r.l.
3C	1.3C.53	1	Ice maker	Porkka Finland Oy
3C	1.3C.54	1	Carbon dioxide Incubator	Thermo Fisher Scientific
3C	1.3C.55	2	Micro centrifuge	Andreas Hettich GmbH & Co. KG
3C	1.3C.56	1	Weighing balance	A&D Instruments Ltd
3C	1.3C.57	2	Analytical balance	Mettler-Toledo B.V.
3C	1.3C.58	1	Lamina Flow Cabinet	Azbil Telstar Technologies, S.L.
3C	1.3C.60	1	Conductivity meter	Hanna Instruments

3C	1.3C.61	1	Programmable embryo freezer	Minitube GmbH
3C	1.3C.62	1	Back fat probe	Nasco
3C	1.3C.63	1	pH meter	Hanna Instruments
3C	1.3C.64	1	High Performance Computers	Hewlett-Packard
3C	1.3C.65	1	Elisa Micro plate reader	Molecular Devices, LLC.
3C	1.3C.66	3	PCR Thermocycler	Africa Biosystems (Applied Biosystems)
3C	1.3C.67	2	Refrigerated Benchtop centrifuge	Eppendorf AG
3C	1.3C.68	1	Molecular Imager (Gel Documentation) System	Bio-Rad Laboratories, Inc.
3C	1.3C.69	1	Ultrapure Water purification system	Merck Pty Ltd
3C	1.3C.70	3	Electrophoresis power supply	GE Healthcare Europe GmbH
3C	1.3C.71	2	Midi Horizontal Agarose Electrophoresis Apparatus	Analytik Jena AG
3C	1.3C.72	2	Mini Horizontal Agarose Electrophoresis Apparatus	Analytik Jena AG
3C	1.3C.73	4	Mini Submarine Electrophoresis unit	Amersham BioSciences
3C	1.3C.74	4	Mini Submarine Electrophoresis unit	Amersham BioSciences
3C	1.3C.75	4	Mini Vertical protein electrophoresis unit	Bio-Rad Laboratories, Inc.
3C	1.3C.76	2	Spectrophotometer	Biochrom Ltd.,
3C	1.3C.77	20	Anti- UV Face shield for blocking eye wear	Vilber Lourmat
3C	1.3C.78	2	Benchtop colorimeter	Hanna Instruments
3C	1.3C.79	2	UVISAVE system	UVItec Ltd

FOR THESE AND MORE

CONTACT:

The Principal

Makerere University College of Agricultural & Environmental Sciences (CAES)

P.O. Box 7062, Kampala – Uganda

Tel: 0414 542277

Email: principal@caes.mak.ac.ug/pr@caes.mak.ac.ug

Website: www.caes.mak.ac.ug