

## **Regional Universities Forum for Capacity Building in Agriculture Secretariat Quarterly Report**

**1<sup>st</sup> July- 30<sup>th</sup> September 2021**

### **Summary**

This report highlights key achievements and progress made during the period 1<sup>st</sup> July-30<sup>th</sup> September 2021 (the first quarter of the Financial Year 2021/2022, the fourth year of implementing the [operational plan-2018-2022](#) of RUFORUM [Vision 2030](#)). The Operational Plan is designed around four (4) flagship programmes underpinned by activities to support regional collective action and learning to give stimulus to achieving the RUFORUM vision for *vibrant transformative universities catalysing inclusive agricultural development to feed and create prosperity for Africa*. The four flagship programmes are:

- Transforming African Agricultural Universities to meaningfully contribute to Africa's Growth and Development (TAGDev) seeks to transform African agricultural universities and their graduates to better respond to developmental challenges through enhanced application of science, technology, business and innovation for rural agricultural transformation. This flagship programme is largely supported by the Mastercard Foundation;
- Cultivating Research and Teaching Excellence (CREATE) seeks to realign universities' research and teaching functions into a more integrated model with a focus on problem solving and enhancing the capacity of the entire university academic practice and outreach system mainly;
- Regional Anchor Universities for Higher Agricultural Education (RANCH) seeks to escalate the setting up of a network of linked universities as African anchor universities/African centres of excellence and academic leadership in agricultural higher education and learning; and,
- Knowledge Hub for University Networking, Partnership and Advocacy (K-Hub) builds on RUFORUM's convening power and facilitates the creation, capture, organising, sharing and refining of information and content across teams and geographic locations – thus increasing access to latest evidence based information and knowledge.

#### **Below are highlights of progress during the quarter:**

1. The Republic of Sudan signed the RUFORUM Charter becoming the 11<sup>th</sup> African Country to recognise RUFORUM's continental role in Higher Agricultural Education, Science, Technology and Innovation;
2. RUFORUM network received a follow-on grant for early-career fellowships of US\$ 1.5 million from the Carnegie Corporation of New York;
3. RUFORUM recruited an additional fifty three (53) youth from Africa to undertake Master's degree studies in Egerton and Gulu Universities under the TAGDev programme supported by the Mastercard Foundation;
4. RUFORUM has finalised the selection process for 22 young innovators/ entrepreneurs to be recognized as part of 7<sup>th</sup> African Higher Education Week and RUFORUM Triennial Conference; and,
5. RUFORUM Secretariat finalized the development of the Tertiary Agricultural Education (TAE) Book titled "Transforming Tertiary Agricultural Education in Africa". The book documents successful approaches to TAE in Africa.

## **INTRODUCTION:**

The narrative below expounds the achievements made during the period 1<sup>st</sup> July-30<sup>th</sup> September 2021, the first quarter of the financial year 2020/2021. The report is arranged by Flagship Programmes of the RUFORUM [Vision 2030](#).

### **Flagship programme: TAGDev-Transforming African Agricultural Universities for Africa's Growth and Development**

#### **a) Digitize course content at Gulu University and Egerton University**

Following the digitization of courses at Gulu and Egerton Universities in Uganda and Kenya respectively, Universities subsequently adopted online learning and examination. The Secretariat undertook a study to establish the relevance of online course delivery. This study results indicated that 85% of the students accessed online learning mainly through zoom platform in form of live classes. While this ensured continuity of education, it has been challenged by poor internet connectivity and electricity especially for students in rural areas.

#### **b) Recruit students to complete graduate studies in agricultural sciences in Gulu University, Uganda and Egerton University, Kenya**

With support from the Mastercard Foundation, RUFORUM [awarded](#) scholarships to 53 applicants from eight countries (Ethiopia, Ghana, Kenya, Lesotho, Malawi, Nigeria, Rwanda, and Uganda). These were selected from among 458 applicants from 22 African countries. This brings the total to 508 students (261 male, 247 female) supported under the MCF@RUFORUM scholarship out of which 97 have completed their studies. A tracer study undertaken established that 49 % of the respondents (45% of graduates) are gainfully employed, 24 % are self-employed, 4% are pursuing further studies (PhD) and 11 % are pursuing internships with various agencies across the continent including: International Institute of Tropical Agriculture (IITA), International Maize and Wheat Improvement Centre (CIMMYT), and Bioversity International.

#### **c) Support students and faculty research teams to engage with communities and strengthen commodity value chains for smallholder farmers**

The Research teams have innovatively engaged communities through online communication platforms and individual farmers through community knowledge workers. In Botswana, the Safflower CARP+ project has trained 50 women in commercial safflower vegetable supply for sale and to meet household food needs as one of the initiatives to curb increased gender-based violence among the farmer households. Further, the Safflower CARP+ project is innovating with local farmers to produce safflower products including cooking oil, seed, cake meal (after oil extraction and important as a livestock feed), and cut flowers.

The community engagement initiatives at member Universities during the quarter were downsized due to the effects imposed by COVID-19.



The wool CARP in the Free State Province of South Africa has empowered smallholder wool farmers to produce [value added wool products](#).



*An assortment of wool value - added products made by community wool producers in Free State, South Africa*

**d) Support the development, scaling-up and documentation of commercialisable innovations emerging from agribusiness incubation centres**

During the quarter, RUFORUM awarded 20 Innovations, Products to Market Field Attachment Programme Awards (IPM-FAPAs) to students to advance their experiential learning by accelerating their enterprises outside the university campuses. These enterprises including; [poultry feeds and unique formulae](#), [processing and value addition of groundnuts](#), [milk and milk products processing](#), [fish breeding in cages in open waters](#),

and [delivery of extension services and trainings for farmers](#) have generated 160 jobs (89 full time jobs; and, 71 part time jobs).



**QUALITY THAT SETS US APART**

Raw milk is collected daily from our registered farmers who are also trained in dairy husbandry practices by Comrade Dairy. This ensures consistent supply of very good quality milk for production thus high quality yoghurt that sets us apart from other brands.

**GET STARTED**

[Comrade Dairy Enterprises](#) products and their business model of direct engagement with farmers for milk sourcing.

Following the development and launch of the RUFORUM [SME-Hub](#) to promote young entrepreneurs' networking and mentorship, the platform attracted 1,375 users with 414 businesses registered through the platform with guidance from designated mentors.

**e) Field attachment to communities and mentorship undergraduate and Masters Student**

Field attachment remains integral to experiential learning within RUFORUM's programming. Eleven students that undertook field attachment engaged 652 farmers (Male: 391 & Females 261) in Kenya, Uganda and Ghana. Further, students enrolled at Egerton University and Gulu University in Kenya and Uganda respectively are currently running 80 social enterprises (61 individual, 7 group based and 12 are family based) and employing 230 people with an investment of US\$145,576 but require a capital investment of US\$ \$420,259 to scale-up their business operations.



*Ms. Lily (right hand side) and Mr. Korir (Soil Science Ph.D. student) preparing peat moss and*

*Ms. Lily's newly acquired rabbits*



**f) Establish and operationalize the TAGDev and the wider RUFORUM Alumni Network**

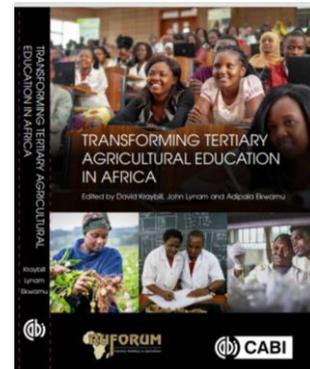
With support from InHive Global and funding from the Mastercard Foundation, a scoping study on the existing eco-system for RUFORUM to launch an operational Alumni Network was finalised. Key recommendations included inclusive visioning process with the Alumni, dedicated personnel at the RUFORUM Secretariat to coordinate Alumni activities, establishment of an Ambassadors' committee to mobilise the Alumni, formation of an Alumni Steering Committee, and organising the inaugural RUFORUM Alumni Week.

**g) Document emerging lessons from TAGDev students**

Communicating programme level outcomes to the wider network remains central within RUFORUM Secretariat. In this quarter, 11 news articles sharing student individual life experiences transformational journey and the spirit of community give-back from were published in the RUFORUM blog. For example, Ms. Mahoussi Simone established a [social enterprise to produce and smoke fish](#) in Benin; and, Ms. Marveen Nafula [established a veterinary drug shop](#) to provide veterinary services to communities through advisory services and retailing of veterinary drugs in Uganda.

**h) Finalize a book on Tertiary Agricultural Education in Africa**

Over the course of the last three years, the drafting, review and editing of the Agricultural Tertiary Education book has been accomplished. The book is ready for publishing by the Centre for Agriculture and Bioscience International (CABI). The book emphasizes best practices within Africa rather than theories or models from outside. It promotes adaptive organizational learning strategies rather than blueprints; collaboration and networking for cross learning and leveraging of resources; and, features practical examples and case studies.



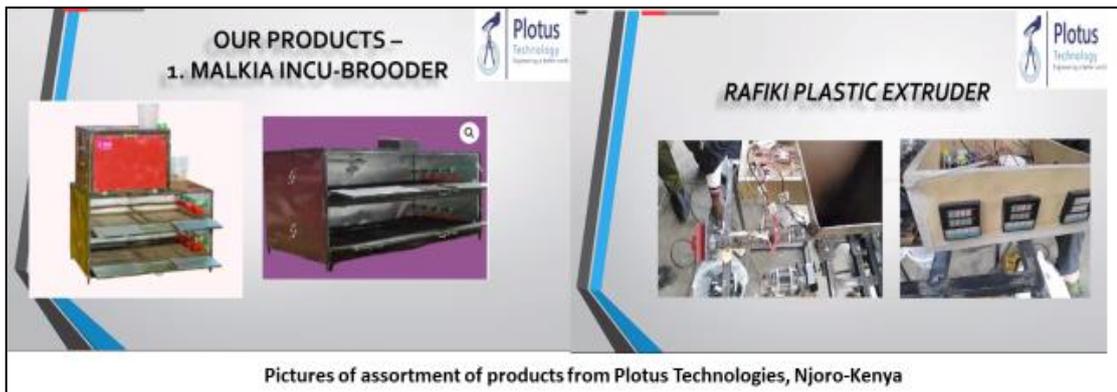
The book will be launched during the 7<sup>th</sup> African Higher Education Week and Triennial Conference in Benin, December 2021

**i) Finalise the Feasibility Study and Proposal for Youth Entrepreneurship and Employability in the Agricultural Sector (YEED)**

RUFORUM Secretariat in partnership with the Uganda Ministry of Science, Technology and Innovation (now under the Office of the President) have successfully coordinated the finalisation of Proposal for the Youth Entrepreneurship and Employability Development in Agricultural Sector (YEED). The proposal development is a follow-up task after successful completion of the Feasibility Study. The feasibility study and proposal developed with support from Arab Bank for Economic Development in Africa (BADEA) seeks to initiate dialogue with the Government of Uganda to operationalise the YEED framework with the objective of fostering a conducive entrepreneurship ecosystem, credit worthiness and productivity of Ugandan youth to become prominent players in the national economy. The proposal strategically responds to Uganda's National Development priorities as espoused in its Vision 2040.

**j) Undertake TVET engagement and dissemination of evidence from the TAGDev Programme**

RUFORUM Secretariat hosted a webinar under the theme “[Accelerating youth employment through the TVET Sector](#)” to share lessons and experiences based on the implementation of the TAGDev activities and other partner’s programming. Experiences were shared by the Mastercard Foundation, African Development Bank (AfDB), Private Sector Foundation Uganda, International Centre for Development Oriented Research in Agriculture (ICRA-Netherlands), Gulu University, University of Free State, young innovators and entrepreneurs, and Baraka Agricultural College and Bukalasa Agricultural College (TVETs participating in the RUFORUM TAGDev Programme in Kenya and Uganda respectively).



Webinar participants agreed that the TVET sector has a pivotal role to play in addressing the middle level skills and creating more jobs. The sector can be improved by developing short courses for the TVET sector; and, establishing an apex body across the continent to bring them together to share lessons, build consensus, co-create and co-innovate programmes to strengthen the role and place of the TVET sector in development.

**Key lessons**

- Research teams need to inculcate a business-like attitude unto the students to enable them engage in competitive funds to scale up innovations developed.
- Students need to be linked to available training opportunities to enable them translate their ideas from ideation to actual business enterprises.
- Community incubation needs to be strengthened to ensure growth of the local industry. This will strengthen the knowledge translation ability of universities into real enterprises.
- The TVET sector can be improved and made attractive through, reshaping the attitude of the public and indeed the youth to appreciate the value of the TVETs as a viable skills based learning approach.

## **Flagship programme: RANCH: Regional Anchor Universities for Higher Agricultural Education**

### **Building partnerships for developing Centres of Excellence and universities transformation in Africa**

RUFORUM is exploring options for establishing Centres of Excellence to support agricultural transformation. Dialogue continues with partners including the Mastercard Foundation, EARTH University, World Bank, African Development Bank and Mohamed VI Polytechnique University (UM6P) to design transformational learning institutions and approaches.

Further, RUFORUM Secretariat has engaged with Global Consortium for Higher Education and Research in Agriculture (GCHERA) through the [Transforming Higher Education](#) project supported by Kellogg Foundation to advance the transformation of higher education institutions within Africa. Currently, University of Bamenda (Cameron); Haramaya University (Ethiopia); Egerton University (Kenya); University of Liberia (Liberia); University of Gezira (Sudan); and, Bugema University, Gulu University, Muni University (Uganda) are part of the collaborative initiative. The initiative builds on the lessons and experiences in the implementation of the Transforming Higher Education project in American University of Beirut (Lebanon), EARTH University (Costa Rica), Haiti and Mexico.

## **Flagship programme: CREATE-Cultivating Research and Teaching Excellence**

### **a) Facilitate Academic Staff Development (ASD) through the Graduate Teaching Assistantship (GTA) programme**

The Secretariat facilitated placement of 11 additional PhD students under the Graduate Teaching Assistantship (GTA) programme bringing to total 185 placements to-date with 24 completions. Some of the knowledge products generated included: *Climate Variability and Change Affect Crops Yield under Rain fed Conditions: A Case Study in Gedaref State, Sudan* and *Effect of Inclusion Levels of Maize Bran in Pig Diets on Daily Production, Biochemical Composition and Microbial Quality of Pig Manure*

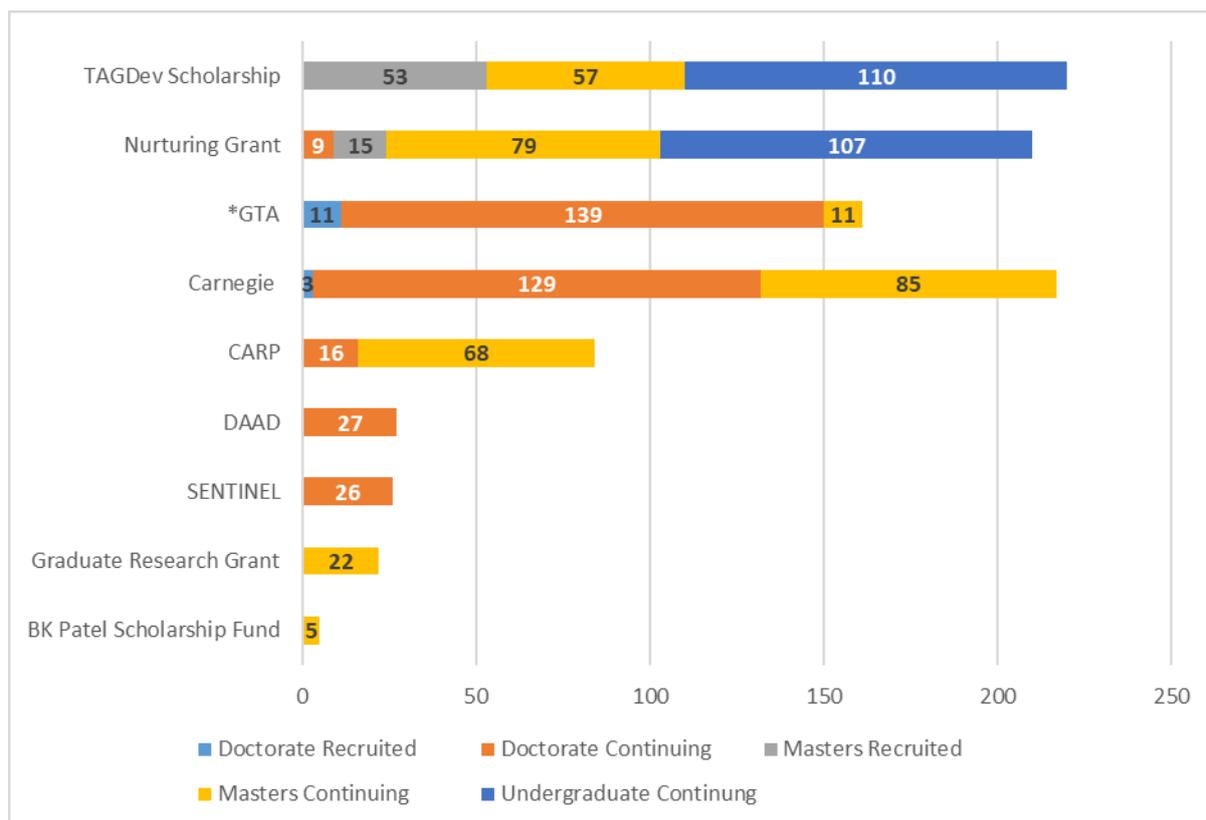
### **b) Support participation of women in science and technology-related training and research activities in all institutions benefiting from RUFORUM**

RUFORUM continued to advocate for increased enrolment of women into higher education. During the quarter, out of the 82 masters and PhD students recruited, 80 % are female resulting into a cumulative percentage of 46% female students supported at both Masters and PhD levels.

### **c) Provide opportunities for Doctoral training to increase the pool of science, technology and innovation (ST&I) leaders in Africa**

During the quarter, RUFORUM Recruited 14 additional students for support under the Graduate Teaching Assistantship and the Carnegie Corporation of New York, bringing to total 641 PhD students supported to-date with 41 % female. As part of maintaining the education pipeline, 68 Masters Students were recruited with support from the Mastercard Foundation and RUFORUM Nurturing Grants.

In response to the COVID-19 effects on the higher education sector, the Secretariat undertook a study to assess student satisfaction with RUFORUM support services. The study established that satisfaction with own performance was at 63%, 72 % were satisfied with training and curriculum delivery and 71 % with academic support services. Students expressed gratitude for the extra support provided by RUFORUM especially internet bundles to enable them undertake online classes.



*Continuing and recruited students supported by RUFORUM*

**d) Support post graduate training and research for small and fragile states**

Student recruitment under the MCF@RUFORUM, Carnegie Corporation of New York Post Doctoral Fellowships, RUFORUM nurturing support and the Graduate Teaching Assistantship programme includes 28 students from six [fragile and small states](#) of the Democratic Republic of Congo, Ethiopia, Nigeria, South Sudan, Sudan and Zimbabwe, bringing to total 253 continuing students from 12 fragile and small states.

**e) Support students share research findings, obtain mentorship support and skills enhancement**

During the quarter, the Secretariat coordinated three network-level online skills enhancement trainings focusing on scientific data management, interdisciplinary training and social media training amongst several others that attracted 33,000 participants from various countries as indicated in the figure below:

1	 Uganda	31605
2	 Kenya	6839
3	 Benin	5596
4	 United States	4029
5	 Germany	1641
6	 France	1548
7	 Nigeria	1464
8	 Burundi	1181
9	 Malawi	995
10	 Zambia	976

Further, students developed several publications focusing on climate change, toxicity and crop breeding including: *breeding potential of lablab [Lablab purpureus (L.) Sweet]: a review on characterization and bruchid studies towards improved production and utilization in Africa; Climate Variability and Change Affect Crop Yield under Rain fed Conditions: A Case Study in Gedaref State, Sudan; and, Assessment of arsenic status and distribution in Usangu agro-ecosystem-Tanzania* among others.

**f) Support RUFORUM Post- Doctoral Fellows undertake thematic research to strengthen agri-food systems, inclusivity and environmental sustainability**

RUFORUM continues to support the implementation of the Post-Doctoral fellowships programme, with 85 Masters and 53 PhD students still undertaking studies in 16 universities across the African continent. The Carnegie Corporation of New York supported programme that commenced in January 2018 aims at increasing and ensuring retention of qualified and skilled graduates in Africa and to strengthen African universities and research institutions to meet the growing demand for creating knowledge and prosperity on the continent.

*Storyline from a Post-doctoral Fellow*

“These 2 years’ postdoctoral fellowship increased my research and mentorship skills and ensured my retention rate through interacting with several postgraduate students and researchers and therefore strengthened both my home and host institutions. Moreover, this opportunity helped me to improve not only my way of teaching (especially coming from a French speaking country to an English host speaking institution, which is the University of Nairobi), research but also the leadership skills through supervision of postgraduate students”.

**g) Expand and scale out the partnership with CGIAR for joint capacity building and research in agriculture and related sciences**

RUFORUM as one of the partners under the Accelerating the Impact of CGIAR Climate Research for Africa (AICCRA) project, undertook initial reach out engagements with universities in Ethiopia, Zambia & Kenya, West African Science Service Centre on Climate Change and Adapted Land Use (WASCAL) and Southern African Science Service Centre for Climate Change and Adaptive Land Management (SASSCAL). The project is implemented as a CGIAR partnership for Climate Smart Agriculture and Climate Information Systems supported by the World Bank.

### **Emerging issues and lessons**

Capacity development to increase the pool of scientists on the African Continent is a continuous process and it is important to explore all potential avenues and multi-sector and inter-disciplinary partnerships towards this end.

### **Flagship programme: K-HUB-Knowledge hub for university networking, partnership and advocacy**

**a) Develop, host, maintain and integrate the RUFORUM online and offline ICT platforms to facilitate and enhance systematic access to information**

To enhance systematic access to information by the network, RUFORUM developed and updated several websites including the RUFORUM Triennial 2021 [website](#) RUFORUM main website, MCF@RUFORUM website and the [adocafog website](#), a TAGDev supported project for strengthening agripreneurship development among rural smallholder farmers in Eastern Uganda.

**b) Strengthen knowledge use through development and dissemination of knowledge products and services, providing easy-to-access on-time information and using specific feedback mechanisms to gauge client satisfaction**

RUFORUM published 11 issues of [RUFORUM Weekly](#); [thought pieces](#) on the United Nations Food System Summit; [press releases](#); [stories from RUFORUM Alumni](#); and, [media monitoring extracts](#). Fifty-six (56) publications were added to the RUFORUM institutional repository, which continues to attract global coverage. Users by country was as indicated in the figure below;



*Global distribution of users of the RUFORUM Institutional Repository*

**c) Convene the RUFORUM Triennial Conference to showcase research and training outputs, discuss strategies to enhance the use of university-generated research and evidence, influence public policies, support stakeholders' feedback mechanisms, and enhance demand for HAE products and services**

The preparation of the RUFORUM Triennial to be hosted by the RUFORUM member universities in Benin in partnership with Government of Benin has been accelerated at both the Secretariat and Local Organizing Committee level. Several pre-conference events have already been convened including Board Executive Committee meeting; Scientific Data Management For Post-Graduate Students Using R Programming Language, Social Media

Training, Interdisciplinary Training For Early Career Scientists, Measuring Food Insecurity In The Sustainable Development Goals era hosted in partnership with the Food and Agricultural Organisation of the United Nations, Principals and Deans subcommittee meeting among others. Relevant information about the Conference is available on the Conference website <https://www.ruforum.org/Triennial2021/>.

**d) Facilitate engagement for broader support to the activities of the Network**

During this quarter, meetings were held with the Ministry of Higher Education and Scientific Research, and Ministry of Agriculture of Benin to solicit support for the various activities in Benin and the continent. Further engagement during the quarter was with Ministers in the Republic of Sudan. Where the RUFORUM Charter was signed by Minister of Higher Education and Scientific Research.

**e) Facilitate engagement with RUFORUM Alumni**

As part of the RUFORUM Triennial Conference 2021, the Alumni Week was held to enable Alumni share stories on how RUFORUM has shaped their career journey. Alumni were exposed to senior researchers and entrepreneurs in the disciplines of choice for mentorship. Specific discussions focused on major challenges, opportunities and cutting-edge technologies and approaches in agri-entrepreneurship, natural resources management and climate change, extension and rural innovation, and digital technologies in agriculture. Stories profiling Alumni experiences were published and included: [My Academic Journey](#); [If you can DREAM it, you can DO it](#); [From public tax collection to scientific data collection](#); [Staying True to my Call: My Progressive Career Journey as a RUFORUM Alumnus](#); [How RUFORUM Transformed My Life](#); [I owe my career journey and progression to RUFORUM](#); [The Progressive Career Journey of Ben Sorowen as a RUFORUM Alumnus](#); [From dream to Reality: My Academic Journey with RUFORUM support](#) ; and, [A Life Changing Journey: From Training to Practice](#)

**Testimony from a RUFORUM Alumnus**

*“I owe a lot to RUFORUM. When I go home and see the transformation from house structures to everything am always blessing the minds and hands behind MCF, RUFORUM and TAGDev. We have really come from far. Sometimes, I don’t believe it’s our home”*

**f) Resource Mobilization with research proposals or concepts developed**

During the quarter, RUFORUM submitted proposals to several agencies to enhance an Open Regional E-learning Platform (ORE Platform); and, to support faculty capacity building in offering open online courses.

**Emerging issues and lessons**

With the COVID-19 pandemic, ICT and e-learning are emerging as a key resource in Higher Agricultural Education. RUFORUM and member universities should explore potential partnerships to develop and implement e-learning initiatives.

## **Flagship programme: PROGRAMME SUPPORT – Technical, administrative and logistical support**

### **a) Undertake annual internal and external audits**

The external audit for financial year 2020/2021 commenced in September 2021 by PKF Uganda. The audit process is still ongoing and the final audit report will be presented to the Annual General Meeting in December 2021. Visits to the five selected member Universities could not be undertaken due to COVID-19 restrictions. The annual internal Audit Plan for the financial year 2020/2021 was prepared pending the Audit Committee approval.

### **b) Recurrent Secretariat operations while mainstreaming operations in line with COVID-19**

The Secretariat operations have been undertaken through a mix of working from office and home to curb further spread of COVID-19 across staff and their families.

### **Emerging issues and lessons**

Innovations and coping strategies are required at individual programme, institution and network level to ensure effective continuation of the different initiatives, most especially to mitigate the interruptions occasioned by the COVID-19 pandemic.

### **Planned activities for the period October-December 2021**

1. Finalise the 2020/2021 internal and external audits
2. Convene the 7<sup>th</sup> African Higher Education Week and RUFORUM Triennial Conference. The Conference will be held at Palais des Congres de Cotonou, Benin under the theme: *“Operationalising Higher Education for Innovation, Industrialisation, Inclusion and Sustainable Economic Development in Africa: A Call for Action”*. The Triennial Conference responds to the urgent needs for the African governments, development partners, private sector and citizenry to take actions to invest in higher education. This Triennial conference is convened with the following objectives:
  - a. Catalyse investment in higher education for human capital development in Africa;
  - b. Promote international linkages and partnerships for excellence in Higher Education;
  - c. Strengthen collaboration and mutual learning to spur innovation and industrialization for economic transformation in Africa;
  - d. Promote youth employment and skills acquisition for development; and,
  - e. Strengthen University-Private sector business linkages.

Key events hosted by member universities in Benin in partnership with the Government of Benin will include Private Sector–Universities Business Forum; and, the Symposium: Promoting Intra-Africa and Global Partnership for Higher Education in Africa among other events.