The Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) Secretariat Quarterly Report

1st July- 30th September 2019

Summary

This report is a synthesis of key achievements and progress made during the period 1st July - 30th September 2019 (the first quarter of the Financial Year 2019/20, and the second 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 impetus to achieving the RUFORUM vision for vibrant transformative universities catalyzing inclusive agricultural development to feed and create prosperity for Africa. The four flagship programmes include:

- 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.
- 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.
- 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 the latest, up-to-the-minute, evidence based information and knowledge.

Below are the highlights of progress made:

i. RUFORUM continued to implement the rigorous student recruitment protocol for identifying and placing bright but disadvantaged youth from Africa into university education with support from Mastercard Foundation. The protocol has further been exploited to identify and place 102 students (82 undergraduate, 20 masters) from twelve (12) African nations including Benin (2), Burundi (1), Cameroon (6), Ethiopia (1), Kenya (23), Liberia (2), Malawi (3), Namibia (1), Nigeria (1), Rwanda (5), Tanzania (1) and Uganda (56) for study at Gulu University, Egerton university and Ndejje University.

ii. RUFORUM launched the 2019 Young African Entrepreneurs Competition (RUYAEC) targeting West Africa countries with focus on food and agribusiness, incubations, ICT, health, engineering, natural resources, and meteorology among others. The awards will be announced during the 15th RUFORUM Annual General meeting convening 2-6 December, 2019 at the University of Cape Coast, Ghana.

iii. RUFORUM in collaboration with the Arab Organisation for Agricultural Development (AOAD) and Arab Bank for Economic Development (BADEA) convened a Development Partners meeting (30 September-1October 2019) in Kampala, Uganda to provide a platform for dialogue between the African tertiary education sector and the global and African
development partners to chat a way forward for promoting equal opportunity in youth employability and entrepreneurship in Africa. The meeting generated proposals on areas of synergy, implementation and coordination mechanisms for equal opportunity in youth employability and entrepreneurship in Africa.

iv. RUFORUM competitively awarded eight (8) Field Attachment Programme Awards (FAPA) to Gulu University in Uganda with support from the Mastercard Foundation to disseminate technologies and innovations from their research and further support the delivery of complementary extension services to over 1,590 households. RUFORUM further supported 302 students at Egerton University (148) and Gulu University (154) to undertake farm attachment.

v. RUFORUM continued to provide opportunities for increasing the participation of women in science and technology-related training and research by developing the *Regional Initiative to strengthen staff capacity and Increase the pool of Women Scientists in African Universities* (RISSCAW) as well as submitting a proposal to the IDRC with focus on *Reducing Systemic Barriers of Women participation in Science, Technology, Engineering and Mathematics* (ReSSTEM).

### INTRODUCTION:

The narrative below shows details of RUFORUM Secretariat’s progress and achievements made during the period 1 July-30 September 2019, the first quarter of the financial year 2019/20. 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. **Deliver four (4) short courses to strengthen agribusiness training in TVET institutions in partnership with the Universities**

During the quarter, four trainings were delivered in two universities and one TVET institution to strengthen transformative learning experience and skills enhancement. These included;

i. Entrepreneurship and business development training of 77 students both at masters and undergraduate level at Gulu and Egerton universities, delivered during the orientation training at Egerton University.

ii. Proposal development and scientific data management training for 37 graduate students at Egerton University and fifty four (54) at Gulu University.

iii. Communication, networking and advocacy training of 18 staff (5 female, 13 male) from Baraka Agricultural College, Kenya.

This brings the total number of beneficiaries of the short skills enhancement training programmes supported by the Mastercard Foundation funding through the TAGDev project to 277.

b. **Recruit students (PhD, MSc, BSc and TVET students) to create Africa’s new age of development practitioners and cadres**

The Secretariat recruited 102 students (82 undergraduate, 20 masters) from twelve (12) African nations including Benin (2), Burundi (1), Cameroon (6), Ethiopia (1), Kenya (23), Liberia (2), Malawi (3), Namibia (1), Nigeria (1), Rwanda (5), Tanzania (1) and Uganda (56) to undertake their studies in Kenya and Uganda with support from the Mastercard Foundation. An additional 17 students were recruited through the previously awarded Community Action Research Projects at University of Free State, South Africa (05 students); Botswana University of Agriculture and Natural Resources, Botswana (03 students); University of Nairobi, Kenya (02 students); Egerton University (06 students); and, University of Abomey Calavi (01). The total number of students recruited in this reporting period to undertake their studies with
support through the TAGDev project totalled 119, and a cumulative total of 248 students (46% female; 54% male) facilitated to undertake studies with support from Mastercard Foundation.

c. Scale-out agribusiness incubation centers and accelerators (at least 11 new Agribusiness incubation hubs) at selected BTYET institutions, universities and communities to engage Africa’s youth in innovation and investments in agriculture

RUFORUM continued to support implementation of the twenty (20) business incubation centres currently operational in Benin (01), Burundi (1), Democratic Republic of Congo (01), Ethiopia (01), Ghana (01), Kenya (02), Senegal (01), Uganda (09), South Sudan (1), Swaziland (01), and Zimbabwe (01). Cumulatively, the entrepreneurship efforts to transform graduates into entrepreneurs through practical skills delivery as well as business startups has yielded a total of 90 business start-ups to date. Of these, 30 businesses (from Gulu University (08), Bishop Stuart University (04), Uganda Christian University (03), Abomey Calavi University (10), and Catholic University of Bukavu (05)) have graduated to operate outside the university following one full year of incubation within the university campus environment. Sixty (60) other businesses are still under incubation and are run by students on campus from Gulu University (08), Egerton University (11), Northern Uganda Youth Development Centre (13), Bishop Stuart University (08), University of Abomey Calavi (08) and Busitema University (07). Competitively, these student enterprises have mobilised a total of US$31,400 in capital financing in their businesses leveraging funds from Tony Elumelu Foundation (US$20,000), Social Entrepreneurship Fund-Mastercard Foundation (US$10,000), Agripreneurship Alliance (US$1,000) and CEED Uganda (US$1,400). A total of 381 youths have to-date been trained in entrepreneurship and growing agribusiness enterprises.

d. Support field attachment of students (both MSc and BSc) to communities for experiential learning and further enhance the delivery of complimentary agricultural advisory services through Field Attachment Program Awards (FAPA)

During the quarter, three hundred and two (302) students at Egerton University (148) and Gulu University (154) were supported to undertake field/farm attachment for a period of 10-12 weeks, providing an equivalent of 38,660 days and 309,280 hours of service to communities. They worked with at least 5,500 smallholder farmers, 58 institutions and farmer groups in Kenya and Uganda alone. Further, a competitive call for Field Attachment Programme Awards was advertised resulting into receipt of eight (8) proposals from Gulu University. The awarded projects will be working with an estimated 1,590 households over the next 4-6 months of their community field attachment experience disseminating technologies and innovations from their research as well as supporting the delivery of complementary extension services to farmers and rural based entrepreneurs.

e. Support the integration of University teams in interdisciplinary and multi-agency research through Community Action Research to strengthen commodity value chains for smallholder farmers and agribusinesses

Sixteen (16) Community Action Research Programmes (CARPs) in various agricultural value chains are being implemented and include: pineapples (Ghana), Baobab (Benin), Potatoes (Uganda and Kenya), Cassava (Kenya x2), Rainwater harvesting (Zimbabwe), Safflower (Botswana), Wool (South Africa), Encroacher bushes (Namibia), Bees and Honey, Vegetables, Natural Resources Management-Millet, Drought-famine (Sudan), Rice (Uganda) and Pigs (Uganda). These projects have continued to engage with communities demonstrating the openness of universities to contribute to socio-economic development of societies as well as continued shift in how universities handle research and engagement. In Ghana for example, the pineapple value chain project is experimenting the use of the drone technology and mobile phones to improve livelihood outcomes of smallholder farmers along the in the Central Region of Ghana. The drones are being used to undertake plant counting, plant health analysis,
crop stress analysis, crop loss/damage analysis, and yield estimation. Collectively in this reporting period, the CARP projects have worked directly with 4,150 smallholder farmer households within Africa.

Participatory variety selection under the Rice CARP+ at Gulu University

f. Synthesize and publish lessons emerging out of the implementation of CARP+ and RECAP
Efforts to document the lessons emerging from the implementation of various activities on-going has been undertaken. Two issues of the Voices from the Field have been released including Insights from research-development: labs to markets documenting experiences and lessons from the Baobab value chain in Benin implemented by University of Abomey-Calavi. The other publication of voices from the field; “Enhancing Potato and Cassava value chains performance” provides an illustrious example of how Egerton University has been able to work with Government through the County Government to deliver a County Government Policy on Potato and provides insight on how the university is stimulating cassava producers to link directly with the breweries for commercial cassava production.

g. Develop the professional capacity of university and TVET staff to implement new and revised curricula and education models
During the quarter, forty-two (42) academic and non-academic staff of Egerton University received training in personal finance, entrepreneurship and preparation for retirement to inculcate an entrepreneurial mindset. In addition, 40 instructors from Northern Uganda Youth Development Centre (19) and Baraka Agricultural College (21) institution were trained as trainers of trainers to facilitate entrepreneurship-embedded training in their respective institutions.

At Baraka Agricultural College in Kenya, a National level 4 and 5 Competency Based Curriculum in Piggery is being developed. The previously developed Occupational Standards have been translated into a fully-fledged curriculum. This will be the first official curriculum in piggery in Kenya in any TVET institution. Through this curriculum, RUFORUM under the TAGDev flagship is catalyzing transformation in the pig-value chain in Kenya through the output of qualified practical TVET graduates

A total of 1,317 beneficiaries (700 male, 617 female) have so far been trained through the university-TVET engagement. Of these, 40 are TVET instructors (25 male, 15 female) from Baraka agricultural college (18) and Northern Uganda Youth Development (22) trained in communication and report writing; and, community engagement and experiential learning respectively.

h. Finalize a book on agricultural tertiary education in Africa
The development of the Tertiary Agricultural Education in Africa book has continued. The editors are currently reviewing the revised manuscripts received from the authors prior to submission to the copy
The book will inform policy and decision leaders of the nature of adjustments and investments needed within Africa’s agriculture, including reforms in the tertiary agricultural education (TAE) space.

1. **Explore opportunities for targeted support to strengthen lower levels of education value chains and for increasing youth employability**

   In working with three TVET institutions in Uganda; Bobi Community Polytechnic, Northern Uganda Youth Development Centre and Institute for Agricultural Knowledge for Practice; a total of 927 out of school youth (488 female, 439 male) have been trained in agripreneurship and high value agricultural crops production in particular horticultural crops and rice. Such innovative skills trainings and delivery approaches are critical in helping transform Youth into agripreneurs.

j. **Organize the third Young African Innovators competition**

As part of strengthening the recognition of entrepreneurship and innovation among African youth, the third RUFORUM Young African Entrepreneurs competition was launched. The competition is open to all African youths from West Africa below the age of 35 years to compete for 20 awards that showcase their innovations, enterprises, business concepts and propositions. This competition has so far attracted 362 applications from 12 West Africa countries. Successful competitors will be awarded during the 15th RUFORUM Annual General Meeting, 2-6 December, 2019, University of Cape Coast, Ghana.

**Emerging lessons and issues**

1. Universities and TVETs can work closely together to deliver qualified and skilled graduates
2. TVETs offer a great opportunity to engage farmers directly and deliver extension services at low cost as well as deliver applicable technologies and practical skills to farmers.

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

2.1 **Identify African universities to serve as Centers of excellence for leadership in strategic thematic areas to transform teaching, research and outreach for greater relevance**

   The Secretariat continued to engage with the World Bank to identify workable solutions for the implementation of the Strengthening Higher Agricultural Education in Africa (SHAEA) initiative, part of the World Bank Group Board’s significant reinvestment in higher education in Africa with a regional emphasis that complements the African Higher Education Centers of Excellence (ACE) projects as well as the regional agricultural projects. There is ongoing dialogue to with the World Bank on how best to move the process forward.

   The Secretariat continued with dialogue for the support towards the Strengthening Africa’s Science, Technology, Innovation and Entrepreneurship Capacity for Agricultural and Economic Development (SASTIE). Draft concept notes that will establish regional centres have been developed for consideration by different funding agencies. Two other regional initiatives namely: the Building Africa’s Science, Technology and Innovation Capacity (BASTIC) and the Regional Initiative to Strengthen Staff Capacity and Increase the Pool of Women Scientists in African Universities (RISSCAW) have been developed as frameworks for discussion between the member university countries, RUFORUM and funding agencies.

2.2 **Support Universities to pursue partnerships with industry to spin out start-ups based on commercializable research outputs and knowledge products**

   RUFORUM in partnership with EuroLinks in the Netherlands are exploring a partnership with the European Investment Bank with focus on translating Africa’s agricultural opportunities into meaningful gains for rural transformation and regional development through a commodity value chains based
development approach coupled with capacity development. Further, in partnership with the Food and Agriculture Organization of the United Nations (FAO), RUFORUM is undertaking a sub-regional Food and Nutrition Security analysis for the Horn of Africa. This will provide relevant information to the Eastern Africa Parliamentary Alliance For Food Security and Nutrition (EAPA FSN) Forum that is championing food and nutrition drive within the region’s parliaments.

Emerging lessons and issues

1. Continent-wide initiatives including Building Africa’s Science, Technology and Innovation Capacity (BASTIC) and Strengthening Africa’s Science, Technology, Innovation and Entrepreneurship Capacity for Economic Development (SASTIE) are vital springboards for increasing capacity of especially women scientists in Africa. Support from national governments is however critical for the successful implementation of these initiatives.

2. There is need for funding support to strengthen Regional Training Centres for human capital development and transformation in Africa. The Secretariat will give this focused attention in the coming periods.

Flagship programme: CREATE-Cultivating Research and Teaching Excellence

a. Facilitate Academic Staff Development (ASD) through the Regional Academic Mobility (RAM) and Graduate Teaching Assistantship (GTA) programs

The RUFORUM Graduate Teaching Assistantship Programme (GTA) is an initiative by African University Vice Chancellors to increase the pool of PhD trained faculty in their universities. Under this programme each university may send 10 or more faculty staff for PhD training in other member universities. The member universities providing PhD training waive fees and provide accommodation for the staff under training while sending universities pay for upkeep and research costs for their staff. During the quarter, twenty two (22) additional Graduate Teaching Assistantships (GTA) (13 Male, 9 Female) were recruited, making a total of 112 GTA placements to-date. The sending universities included Bugema University (1), Busitema University (2), Kyambogo University (2), Lupane State University (1), Makerere University (1), Mbarara University of Science and technology (1), Njala University (3), Uganda Christian University (1), University of Liberia (2), Peace University (1), University of Namibia (2), University of Nigeria Nsukka (2), University of Port Harcourt (1) and Université Evangelique en Afrique (2).

Further additional 151 University Staff have applied for admission under GTA to different universities including University of Pretoria (25), Jomo Kenyatta University of Science and Technology (24), Kenyatta University (10), Lilongwe University of Agriculture and Natural Resources (12), Makerere University (16), Stellenbosch University (10), University of Cape Coast (10), University of Botswana (12), University of Nairobi (15), University of Zambia (12) and University of Gezira (5). The Secretariat is working on placement of these new staff.

b. Support establishment of RUFORUM Academic and Research Chairs (RARC) to train the next generation of science leaders for the agricultural and other sectors and enhance the competitiveness of African universities

Effort is underway to operationalize the first RUFORUM research chairs through several interventions including benchmarking from the University of Pretoria based on their experience with the execution of various research chairs. Further, with possible targeted support to Uganda; conceptualization of the initial research chairs at Makerere University (Natural Resources and Disaster Risk Reduction) and Gulu University (Community engagement) have been initiated.
c. Develop mechanisms for increasing the participation of Women in science, technology and innovation (STI) interventions in RUFORUM member universities

During the quarter, several interventions were undertaken to increase the participation of women in science and technology-related training and research. This includes development of a *Regional Initiative to strengthen staff capacity and Increase the pool of Women Scientists in African Universities* (RISSCAW). The objective of this initiative is to develop the capacity of universities in Africa to enhance knowledge generation and improvement of livelihoods through high level graduate training at Masters and PhD level. This initiative will contribute towards increasing the participation of women in higher education Science Technology and Innovations.

d. Escalate doctoral training to increase the pool of science leaders in Africa

During the quarter, the Secretariat recruited three additional PhD students under the community actions research programme (CARP+) arrangement to undertake studies at the University of Free State (Male), Botswana University of Agriculture and Natural Resources (Female), and University of Abomey Calavi (Male). The Secretariat continued engaging the Global Research Alliance (GRA) with possible funding from the New Zealand Ministry of Primary Industries to support six Graduate Research Grants (GRGs) in the field of livestock research and Greenhouse gas emissions.

Further, a joint proposal between Uganda-Russia research scientists in the area of agricultural research and innovation was submitted by Makerere University and Moscow State University with support from RUFORUM. This partnership establishment has been on-going since 2016 following the opening of relations with the Moscow State University, RUFORUM and latter a MoU was signed between Moscow State University and Makerere University in 2019 to strengthen teaching, research and community engagement as well as Faculty and student exchange.

e. Provide opportunities for postgraduate training for students from fragile States and other disadvantaged communities

As part of strengthening capacity for small and fragile States, several students from disadvantaged States have been provided opportunity to undertake postgraduate training under the RUFORUM Graduate Teaching Assistantship Programme (GTA). Students supported originate from several African states including Liberia (5), Sierra Leone (3), Sudan (1), Zimbabwe (1) and Democratic Republic of Congo (2).

f. Provide opportunities for Masters and PhD graduate students to share research findings, to obtain mentorship support, skills enhancement and to engage with scientists in the agricultural and education space

As part of facilitating universities, stakeholders and key partners to synthesize emerging lessons and best practices, and to document and disseminate information, knowledge and innovations, RUFORUM Secretariat published a call for extended abstracts and poster presentations for the 15th RUFORUM Annual General Meeting (AGM) to take place 2-6 December 2019 in Ghana. To date, 103 extended abstracts and 17 poster presentations have been received.

g. Support the implementation of RUFORUM Post-Doctoral Fellowship Programme

RUFORUM continued to implement the 19 post-doctoral fellowships supported by the Carnegie Corporation of New York. To-date of the 137 students (PhD 42; MSc 70 and BSc 25) supported, 22 have completed studies (12 PhDs, 4 Masters and 6 Undergraduates). Several publications have been developed including

ii. Projected water resource dynamics in the sub-humid Upper Nile Water Management Zone of Uganda, East Africa. Egeru et al.,

iii. Embracing disciplinarities scholarship in research pursuit. Egeru et al., and


Emerging lessons and issues

1. RUFORUM engagement with African institutions that have been successful in the Research Chairs initiative is vital for successful engagement of the RUFORUM Network in this field.

2. RUFORUM Secretariat needs to work with the Member Universities to improve the implementation of the Graduate Teaching Assistant Programme, and to absorb the remaining 215 staff nominated for PhD training under the GTA arrangement.

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

a. Review RUFORUM National Forums guidelines to align to the OP 2018-2022 and convene four forums to provide a platform for stakeholders to articulate demands for university services, advocate for change, and provide feedback on the utility of university services

National Forums for policy engagement, and university stakeholder advisory groups for community engagement along education and agricultural value chains were hosted in Mali (9-14 September 2019) and Zambia (23-25 September 2019). The Mali and Zambia forums included the higher education day that link higher education institutions to the different actors in the sector. The forums/higher education days brought together policy makers, the private sector and higher education institutions for the development of higher agricultural education. The meeting in Mali recommended key strategies for the transformation of Malian agriculture including science technology and innovation (STI), financing scientific research and technology, increasing the participation of women in Higher Education and scientific research, participation of private sector actors for development of STI, and participation of disadvantaged but academically deserving students in Higher Education.

b. Widen and enhance online and offline Information Technology (IT) platforms to facilitate and enhance systematic access to information through continuous analysis of user requirements

To transfer university research findings for use by stakeholders and establish a long-term sustainable coordinating mechanism, the Secretariat continued to update the RUFORUM website and blog and other platforms including the online impact platform. The Secretariat also developed several platforms including a platform to allow Young Innovators and Young Scientists submit their applications for the 15th RUFORUM Annual General Meeting 2019 calls.

The Secretariat developed additional modules for the RUFORUM Information Management System to align its functionality with the RUFORUM vision 2030. The module completed so far is the scholarship module to capture student applications and tracking progress of students.

The Secretariat supported the training of seven (7) staff in the Public Relations Office and the Web Team at Kyambogo University on Web 2.0 and Social Media. Staff attained skills in communicating on behalf of the University, media relations, marketing and advocacy of the University Programs, and content generation for the various publications from the University.

The intensification of RUFORUM social media engagements continued to vary as follows; Facebook: 22,353 followers; Blog: 10,301 followers and 605, 725 hits, and Twitter: 6,809 followers. The RUFORUM website registered 219 new visitors mainly from USA – 121; Japan-15; Uganda – 15; France – 12; and, Germany – 10 as indicated in the figure below;
c. Facilitate universities to deliver relevant and practical training exploiting the latest electronic means to deliver and enhance the student learning experience

The Secretariat issued an **ICT capacity and knowledge priorities study** to establish capacity gaps in the member institutions and will be used to provide technical support to universities in establishing e-learning infrastructure and the information generated will guide training support on basic ICT skills and e-learning platforms. Through RUFORUM weekly, several webinars have been advertised in several cross cutting fields including:

- WISER Webinar: [Ten principles for good co-production in African weather and climate services](#)
- AFAAS Webinar: [Opportunities for financing postharvest management investments](#)
- Agrilinks Webinar: [Strengthening private sector extension and advisory services](#)
- GODAN Webinar: [Turning Data into Insight](#)
- Agrilinks Webinar: “[Strengthening private sector extension and advisory services”](#)
- Africa Lead webinar: “[Youth & CAADP: The Next Generation of Food Security Leaders,”](#)
- GCAN webinar: [Linking climate change, gender and nutrition – Approaches, highlights and the way forward](#)
- [Ask Me Anything Call on Data Management and Data Planning](#)
- GCRF-AFRICAP Webinar: [Researching climate-smart agriculture in Malawi, Tanzania and Zambia](#)
- ECR Webinar: [Make it or break it: how to succeed in science start-ups](#)
- Virtual Conference on Open Access

**Country** | **Users** | **% Users**
--- | --- | ---
1. United States | 121 | 55.00%
2. Japan | 15 | 6.82%
3. Uganda | 15 | 6.82%
4. France | 12 | 5.45%
5. Germany | 10 | 4.55%
6. United Kingdom | 9 | 4.09%
7. Canada | 7 | 3.18%
8. Austria | 6 | 2.73%
9. India | 5 | 2.27%
10. China | 3 | 1.36%

**d. Provide training on the merits of Open source software to facilitate universities in the use of Open Access software to provide complimentary agricultural extension and advisory services**

In collaboration with Global Open Data For Agriculture And Nutrition (GODAN), efforts are being made to facilitate at least two trainings to university staff and other stakeholders in Open access technologies during the 15th RUFORUM Annual General Meeting, 2-6 December, 2019, University of Cape Coast, Ghana. We also agreed with FAO to publicize their open access policy and the open access e-learning courses.
e. Promote publication of Africa’s research outputs in the African Journal of Rural Development and other related publications
Published volume 3 (issue 4) of the African Journal of Rural Development (AFRD) with 10 articles focusing on i) biotechnology, ii) extension and rural innovation, iii) agronomy, iv) policy and v) pollution-environmental science. Further published Volume 2 of Voices from the field highlighting efforts undertaken by Egerton university research teams in facilitating quality seed potato production and increasing its uptake among smallholder farmers, as well as processes and engagements undertaken in catalyzing cassava seed bulking and increasing farmer skills within Nakuru County.

f. Develop a dynamic database of technologies emerging from RUFORUM supported research grants and other initiatives
The Secretariat engaged a consultant to document concise but detailed information about the results (Technologies, Innovations and Management Practices - TIMPs, knowledge and skills) achieved and impacts envisaged or realized from research projects undertaken/implemented/sub-granted by RUFORUM and package them into a publishable compendium. The consultant developed the inception report highlighting the list of Donor Project Grants to RUFORUM and Member Universities; list of Grants awarded by RUFORUM; and sample profiles of RUFORUM Programmes as well as specific projects.

Emerging lessons and issues
1. Establishing collaborations with renown knowledge management institutions has potential to increase reach and further enhance the tracking of knowledge products emerging from the RUFORUM Network
2. RUFORUM as a network could play a brokerage role of enabling universities establish Moodle Platforms with organizations highly experienced in applying this technology in the field of higher education.

Flagship programme: PROGRAM SUPPORT – Technical, administrative and logistical support
a. Convene the 15th RUFORUM Annual General Meeting (AGM), meetings of the Board and its committees- the Finance and Administration Committee, International Advisory Panel (IAP), Technical Committee (TC) and the Committee of Principals and Deans to guide the network to fulfil its corporate mission

During the period, the meeting of the Finance and Administration Committee and the Board Executive committee meetings took place on 24th September, 2019 in Lusaka, Zambia. During the meetings, the financial report for 2018/19, budget proposal for 2019/20, external audit report for 2018/19 and resource mobilization programs were presented and recommended for approval during the 15th RUFORUM Annual General Meeting, 2-6 December 2019 in Ghana.

Preparations are ongoing for the convening of the 15th Annual General Meeting scheduled for 2nd -6th December 2019, University of Cape Coast, Ghana. Concurrent meeting for the Board and its committees-the Finance and Administration Committee, International Advisory Panel (IAP), Technical Committee (TC) and the Committee of Principals and Deans will be held.

b. Convene at least one meeting of high net-worth individuals to deliberate on support and investment for higher agricultural education, science, technology and innovation in Africa
A meeting of RUFORUM partners under the theme Promoting Equal Opportunity In Youth Employability And Entrepreneurship In Africa was held 30 September- 1 October 2019. The meeting aimed at exploring
opportunities of synergy and partnerships for youth in agriculture and was attended by 51 participants from several agencies including Development Banks (Islamic Development Bank, African Development Bank, Arab Bank for Economic Development in Africa, Trade and Development Bank), private sector (OCP-Group), Research Institution (Arab Organization for Agricultural Development, International Crops Research Institute for Semi Arad Tropics), policy makers (African Union Commission and Government of the Republic of Uganda), Ambassadors in Uganda (Embassy of the Republic of Sudan, Royal Embassy of the Kingdom of Saudi Arabia, and Embassy of United Arab Emirates), Farmers and non-governmental organizations supporting education and agriculture in Uganda. The meeting provided a platform for open sharing of experiences, lessons and emerging issues related to promoting equal opportunity in youth employability and entrepreneurship in Africa; and generated proposals on areas of synergy, implementation and coordination mechanisms for equal opportunity in youth employability and entrepreneurship in Africa.

c. Support hosting of the 3rd Meeting of the Forum for Women Vice Chancellors in Africa (FAWoVC)
Preparations are ongoing to host the 3rd meeting of the Forum for Women Vice Chancellors in Africa (FAWoVC) during the 15th Annual General Meeting scheduled for 2nd-6th December 2019 in Ghana. The meeting will include a symposium on enhancing women participation and leadership role in Africa’s universities agenda for higher agricultural education, science, technology and innovation (AHESTI). This will also be in part supported by a project implemented by Busitema University, with funding from the Islamic Development Bank (IsDB). The convening will also include a session dedicated for country case studies on STI and implication for gender inclusiveness in STI; mentorship of emerging female scientists; and, an interactive session for selected women leaders with emerging female scientists.

d. Hold high level dialogues with senior policy leaders in Ghana, Mali, Sierra Leone, Uganda and Zambia
The Secretariat held high level dialogue as part of the National Forums hosted in Mali (9-14 September 2019) and Zambia (23-25 September 2019). These brought together policy makers, the private sector and higher education institutions for the development of higher agricultural education.

e. Establish strategic partnerships - strategic alliances with other organizations to create a sense of common values and mission
During the quarter, the Secretariat explored partnerships with the following organizations;

i. Global Open Data in Agriculture and Nutrition (GODAN) to support training and provision of open source geospatial data analysis software, use of ICTs for learning and research, sensitization on open data and open access publishing. Partnership with GODAN will also include support in youth entrepreneurship and engagement in agriculture, data science, competence based curriculum, vocational training in agriculture and policy engagement in open data.

ii. Education Sub Saharan Africa (ESSA) with focus on generation of data, knowledge and development of electronic platforms to guide decision making for research in and by higher agriculture, science, technology and engineering and engage policy makers across Africa to implement reforms based on the data, knowledge and innovations developed.

iii. Formalized partnership with Uganda’s Ministry of Science, Technology and Innovation through Memorandum of Understanding to strengthen partnership to support efforts to enhance use of ST&I to support development processes in Uganda.

iv. Research and Education Agency to jointly conduct research with rural communities, support attachment of graduate students to rural communities and provide feedback to Ugandan universities on the quality of their training.
f. Recruit a team of managers and program leadership professionals in line with the approved functional analysis so as to support delivery of the Vision RUFORUM 2030

During the quarter, the Secretariat advertised for the positions of **Technical Specialist, Research and Development** as well as **Technical Specialist, Knowledge Management** in line with the approved functional analysis to support delivery of the RUFORUM Vision 2030. The recruitment process is ongoing.

g. Undertake Annual internal and external audits

The external audit for year ending 30 June 2019 was finalized and the draft report and management letter were presented to the Board Executive Committee on 24th September, 2019 in Lusaka, Zambia. The External Auditor visited six universities including Busitema University (Uganda); Gulu University (Uganda); Egerton University and University of Nairobi (Kenya); University of Cape Coast (Ghana); and, Bindura University of Science Education (Zimbabwe). The audit reports were shared with the respective member universities for their actions. The External Auditor recommended following up with universities with outstanding accountabilities, and sending reminders to member universities with membership subscription arrears.

h. Support University research teams to prepare and submit at least 30 proposals to support university-level activities

RUFORUM partner universities – Gulu University, University of Zambia and Mulungushi University in partnership with Hame University of Life Sciences received a grant of Euro One million from the European Commission under Erasmus+ programme. The RUFORUM Secretariat supported the development of the awarded proposal through a proposal development writeshop.

i. Prepare and submit at least 10 proposals to support implementation of the RUFORUM Vision 2030

During the period, RUFORUM Secretariat developed and submitted four proposals as lead applicant to the Carnegie Cooperation of New York, Dubai Cares, International Development Research Center and the International Fund for Agricultural Development to support doctoral and postdoctoral education, science education at lower levels of training, women in science technology and youth entrepreneurship respectively.

The Secretariat also submitted a proposal to the Arab Bank for Economic Development in Africa (BADEA) to establish Regional Training Centers (RTCs) for developing human resources and innovations to respond to the agricultural sector needs for transformation in Africa.

j. Undertake STI country case studies in six countries: Liberia, Mali, Sierra Leone, Mozambique, Sudan and Uganda

Science, Technology and Innovation (STI) country case studies are ongoing in six countries: Liberia, Mali, Sierra Leone, Mozambique, Sudan and Uganda. Preliminary findings were presented during the Mali higher education day, and preliminary findings for the Uganda STI country study are expected to be validated during the month of October 2019. All studies have a gender focus and will be presented during the 15th RUFORUM Annual General Meeting and Forum for Women Vice Chancellors in Africa side meeting 2-3rd December 2019 in Ghana.

**Emerging lessons and issues**

RUFORUM engagement with African governments can be achieved through mainstreaming into government processes as a pathway for RUFORUM to work closely with the governments. The framework of collaborating with the government needs to be developed.

**Planned activities for the period October-December 2019**
TAGDev: Transforming African Agricultural Universities for Africa’s Growth and Development
1. Deliver 4 short courses to strengthen agribusiness training in TVET institutions in partnership with the Universities with emphasis on soft skills
2. Scale-out agribusiness incubation centers and accelerators at selected BTVET institutions, universities and communities to engage Africa’s college educated youth in innovation and investments in agriculture
3. Support the integration of University teams in interdisciplinary and multi-agency research through Community Action Research to strengthen commodity value chains for smallholder farmers and agribusinesses
4. Synthesize and publish lessons emerging out of the delivery implementation of CARP+ and RECAP
5. Develop the professional capacity of university and TVET staff to implement new and revised curricula and education models
6. Finalize a book on agricultural tertiary education in Africa
7. Organize the third Young African Innovators competition

RANCH: Regional Anchor Universities for Higher Agricultural Education.
1. Identify African universities to serve as Centres of excellence for leadership in strategic thematic areas in line with the RUFORUM Vision 2030 Strategy
2. Support Universities to pursue partnerships with industry to spin out start-ups based on commercialisable research outputs and knowledge products.

CREATE: Cultivating Research and Teaching Excellence
1. Support establishment of RUFORUM Academic and Research Chairs (RARC) to train the next generation of science leaders for the agricultural sector and enhance the competitiveness of African nations.
2. Develop mechanisms for increasing the participation of women in science, technology and innovation (STI) interventions in RUFORUM member universities.
3. Escalate doctoral training to increase the pool of science leaders in Africa
4. Provide opportunities for postgraduate training for students from fragile States and other disadvantaged communities
5. Provide opportunities for Masters and PhD graduate students to share research findings, to obtain mentorship support, skills enhancement and to engage with scientists in the agricultural and education space
6. Support the implementation of RUFORUM Post-Doctoral Fellowship Programme

K-Hub: Knowledge Hub for University Networking, Partnership and Advocacy
1. Review RUFORUM National Forums guidelines to align to the Operational Plan 2018-2022 and convene at least two National Forums to provide a platform for stakeholders to articulate demands for university services, advocate for change, and provide feedback on the utility of university services
2. Widen and enhance online and offline Information Technology (IT) platforms to facilitate and enhance systematic access to information through continuous analysis of user requirements
3. Provide training on the merits of Open source software to facilitate universities in the use of Open Access software to provide complimentary agricultural extension and advisory services.
4. Promote publication of Africa’s research outputs in the African Journal of Rural Development and other related publications
5. Develop a dynamic database of technologies emerging from RUFORUM supported research grants and other initiatives
6. Examine the knowledge priorities of the network stakeholders and the extent to which the RUFORUM knowledge products and services meet the objectives of the relevant RUFORUM strategies

PROGRAM SUPPORT – Technical, administrative and logistical support
1. Convene the 15th RUFORUM Annual General Meeting (AGM), meetings of the Board and its committees, the International Advisory Panel (IAP), Technical Committee (TC) and the Committee of Principals and Deans to guide the network to fulfil its corporate mission
2. Convene at least one meeting of high net-worth individuals to deliberate on support and investment for higher agricultural, science, technology and innovation in Africa
3. Support hosting of the 3rd Meeting of the Forum for Women Vice Chancellors in Africa (FAWoVC)
4. Hold high level dialogues with senior policy leaders in Ghana and Uganda
5. Prepare and submit at least 10 proposals to support implementation of the RUFORUM Vision 2030
6. Finalize the second RUFORUM tracer study