



Regional Universities Forum for Capacity Building in Agriculture

RUFORUM Annual General Meeting 2019: Joint Meeting of Ministers Responsible for Agriculture, Education & Training, Science, Technology and Innovation and Development Partners, Cape Coast, Ghana, December 05, 2019



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Executive Summary

The Joint Meeting of Ministers Responsible for Agriculture, Education & Training, Science, Technology and Innovation from the African countries in which RUFORUM operates started way back in October 2016 in Cape Town, South Africa, followed with the second meeting in October 2018 in Nairobi, Kenya. The 2019 meeting in Cape Coast, Ghana, was convened to present progress that RUFORUM had made in integrating the needs and challenges captured in the Cape Town and Nairobi meetings, and also consider those from the new RUFORUM members. The meeting served as a high-level platform for the RUFORUM Network to receive national level perspectives of policy makers that should be addressed by African universities. This would help in targeting programming so that interventions fit within existing national policy frameworks, avoid duplication and create synergy.

The meeting was attended and received statements from 17 Countries: Angola, Benin, Burundi, Cameroon, eSwatini, Ghana, Lesotho, Malawi, Mali, Mozambique, Namibia, Sierra Leone, South Sudan, Sudan, Uganda, Zambia and Zimbabwe.

RUFORUM, as a network of 125 universities, assured the ministers during the Vice-Chancellors – Ministers' dialogue of the resolve of the universities to mobilise themselves and more strongly commit to re-engineering their activities to provide technical support in research to develop new knowledge, technologies and innovation, human capital, entrepreneurial capacity that facilitate development of community transformation as part of university contribution to achievement of Africa's and global development goals in line with the Development Sustainable Goals and Africa Union Agenda 2063.

In their declaration, the Ministers **URGED**:

- 1. Member States to endorse the RUFORUM Charter through their respective procedures; engage RUFORUM as technical advisory agency in the design and implementation of Higher Agricultural Education, Science, Technology and Innovation Initiatives; and, support the strengthening of TVET systems and educational value chains in Africa;
- **2.** African Union Commission to reach out to African Development Bank and other Funding Agencies to finance the Five Continental Initiatives and a Regional Academic Mobility Programme; and to request from MULTI LATERAL AGENCIES to include RUFORUM in funding support to Africa. The African Governments and the African Union Commission should table the above recommendations through the African Union Commission Specialized Committee on Human Resource and Science and Technology, to the African
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Heads of State and Government during their AU Heads of State January-February 2020 Summit.

The Ministers also strongly recommended and requested:

- 1. Member States that committed to participation in the Strengthening Higher Agricultural Education in Africa (SHAEA) program and the African Union Commission engage the World Bank to execute the funding arrangements for full implementation of the SHAEA program and the Sub-Regional Agricultural Productivity Programmes;
- **2.** The Islamic Development Bank (IsDB) to support the BASTIC initiative
- **3.** The Arab Bank for Economic Development in Africa (BADEA) to support SASTIE Initiative and bring on board other Partners as needed
- **4.** The African Development Bank (AfDB) to support in particular RISSCAW, and also aspects of SASTIE and BASTIC and to mobilize other partners to support African Universities Agenda for Higher Agricultural Education, Science, Technology and Innovation (AHESTI).
- 5. The Mastercard Foundation to scale up the reach of the 'Young Africa Works'
- **6.** The OCP Group to support RUFORUM activities including Academic Exchange programmes across Africa, and Community engagement programmes

The Ministers tasked the Government of Ghana to communicate the recommendations of the Ministerial Round Table to the African Union Commission.



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List of Acronyms

AfDB AfriDAP	African Development Bank African Digital Agriculture Programme
AGRA	Alliance for a Green Revolution in Africa
AHESTI	Agricultural Higher Education, Science, Technology and Innovation
AU	African Union
AUC	African Union Commission
AU-C10	African Union Committee of Ten Heads of State Championing
	Education, Science, Technology and Innovation
BADEA	Arab Bank for Economic Development in Africa
BASTIC	Building Africa's Science, Technology and Innovation Capacity
CAADP	Comprehensive Africa Agricultural Development Programme
CESA	Continental Education Strategy for Africa
CoE	Centre(s) of Excellence
IsDB	Islamic Development Bank
MCF	Mastercard Foundation
RISSCAW	Regional Initiative to Strengthen Staff Capacity and Increase the Pool
DUBODUN	of Women Scientists in African Universities
	Regional Universities Forum for Capacity Building in Agriculture
S3A	Science Agenda for Agriculture in Africa
SASTIE	Strengthening Africa's Science, Technology, Innovation and
	Entrepreneurship
SHAEA	Strengthening Higher Agricultural Education in Africa
STISA	Science, Technology and Innovation Strategy for Africa
TVET	Technical, Vocational Education and Training
UM6P	University Mohammed 6 Polytechnique



Background to the Ministerial meeting

The Regional Universities Forum for Capacity Building in Agriculture (RUFORUM), as a network of African universities, believes and ensures that all its interventions - through training of entrepreneurial and innovative human resources, development of technologies and innovations, creation of enterprises and jobs and community outreach - must respond to needs and challenges presented by end-users of its services, who are ultimately rural agricultural communities, private sector, research institutions, government and non-government organisations. RUFORUM is also a technical implementing partner of four key African continental development frameworks; the Comprehensive Africa Agricultural Development Programme (CAADP), The Science Agenda for African Agriculture (S3A), Science, Technology and Innovation Strategy for Africa (STISA), the Continental Education Strategy for Africa (CESA), and the Action Plan of the Declaration of the Committee of Ten African Heads of State Championing Education, Science, Technology and Innovation and the Action Plan of Agenda 2063.

The Joint Meeting of Ministers Responsible for Agriculture, Education & Training, Science, Technology and Innovation from the African countries in which RUFORUM operates started way back in October 2016 in Cape Town, South Africa, followed with the second meeting in October 2018 in Nairobi, Kenya. The Cape Town and Nairobi meetings presented a set of needs, challenges, and proposed interventions that RUFORUM could champion. The 2019 meeting was convened to present progress that RUFORUM had made in integrating these earlier needs and challenges, and also consider those from the new members, and recommend appropriate strategies and regional programmes which the RUFORUM Network can lead.

The 2019 Ministerial Round Table that took place on 5th December 2019 at University of Cape Coast, Ghana prior to the RUFORUM 15th Annual General Meeting that took place on 6th December 2019 was premised on three main principles that guide RUFORUM work; i) relevance to community and national development agenda and policy; ii) relevance to continental development aspirations and frameworks; and, iii) pan-African partnership in addressing agriculture, higher education, science, technology and innovation issues. The meeting was a platform for the RUFORUM Network to receive national level perspectives of policy makers that should be addressed by African universities. In the same context, RUFORUM sought to know existing policies and strategies, and programmes and projects in each of the 38 African countries where it has its membership. This would help in targeting programming so that interventions fit within existing national policy frameworks, avoid duplication and create synergy.



The ultimate output was to develop consensus on Regional/Continental initiatives that engage higher agricultural education institutions across Africa to deploy science, technology and innovation to produce quality human resources, technologies and innovations, and enterprises to address national development challenges and ultimately contribute to Africa's continental development Agenda 2063.

Objectives of the meeting

The Ministerial Round Table was convened to provide an update on what RUFORUM has achieved in implementation of continental frameworks and actions agreed in previous meetings, reach consensus on what more needed to be done and how to achieve what has not been done and ensure that Regional/Continental Initiatives developed directly respond to these continental development frameworks.

Core to RUFORUM's *modus operandi* is cementing technical partnership and collaboration among African countries and higher education institutions to create a united Africa where its citizens and institutions view one another as close partners. As a technical institution implementing programmes and development frameworks of the African Union, RUFORUM has a responsibility of creating a platform for African institutions to come together in one place, discuss their needs, challenges and develop solutions as African institutions. RUFORUM has over the last 15 years done this successfully for its 125 members where they come together and discuss in an open forum, their needs and challenges, and propose solutions which they can work on as African institutions. The Ministerial Round Table is the platform for policy makers supported by their technical teams.

Recognising that funding will be required to implement the Regional/Continental Initiatives recommended by the Ministers, RUFORUM invited Development Partners with active operations in Africa with interest to support the initiatives proposed in the Cape Town and Nairobi Ministerial Meetings, as observers in the meeting. The aim was to enable them hear first-hand the African needs, challenges and strategies from the perspectives of policy makers and allow them share their current and future strategies to gain areas of synergy. RUFORUM would then seek support from development partners to operationalise the regional initiatives in the pipeline.

The meeting which brought together African Ministers of Agriculture, Higher Education, Science, Technology and Innovation, and Finance; Technocrats from the respective Ministries; Development Partners; and RUFORUM Board of Trustees had as its main objective - the promotion of Africa-wide cooperation and



collaboration in the field of Agriculture, Higher Education, Science, Technology and Innovation for advancement of economic development and improvement in the livelihood of the African people. Specifically, the meeting was organized to:

- 1. Receive country statements by Ministers and Heads of delegation on the status of Agriculture, Higher Education & Training, Science, Technology & Innovation and key areas for cross-country cooperation;
- 2. Receive and discuss statements by development partners on the funding opportunities to support Africa wide Cooperation in the field of Agriculture, Higher Education & Training, Science, Technology & Innovation;
- 3. Receive and consider update on RUFORUM's implementation of the Science, Technology and Innovation Strategy for Africa (STISA 2024) and the Action Plan for the African Union Committee of Ten Heads of State Championing Education, Science, Technology and Innovation;
- 4. Receive and review a report from Technical Experts Meeting of 4th December 2019 on the five continental initiatives and other issues affecting agriculture, higher education science and technology in Africa; and'
- 5. Agree on Key recommendations for actions to be included in the Cape Coast Ministerial Communiqué, 2019.

Meeting Approach

The Round Table Dialogue was chaired by Prof. Kwabena Frimpong Boateng, Minister of Environment, Science, Technology and Innovation, Government of Ghana. The meeting began with a welcome address from the Vice Chancellor of the University of Cape Coast. The Executive Secretary of RUFORUM gave the background and context for the dialogue. The Key Note address was made by the Chief Minister (Prime Minister) of the Republic of Ghana, Yaw Osafo-Marfo. Representatives from African Development Bank, Mastercard Foundation, Arab Bank for Economic Development in Africa, BRIDGIN Foundation and the OCP Group made statements. Country team leaders made statements on the Status of Agriculture, Tertiary & Higher Education, and Science, Technology and Innovation and key areas for cross-country cooperation from the respective institutions.

A brief discussion was held on statements made by the Ministers especially on needs and challenges of consensus, policies of interest in selected countries, areas of interventions to be pursued in the short, medium and long run, and engagement with development partners. A report from Technical Experts Meeting of 4th



December 2019 was presented and adopted with minor corrections as the Cape Coast Ministerial Communique.

Key Messages from the Presentations and Statements

Welcome and context of the meeting

The Vice Chancellor of the University of Cape Coast and the Executive Secretary echoed one message – *RUFORUM* as a network of 125 universities have mobilised themselves, pledged and committed to re-engineer their activities to provide technical support in research to develop new knowledge, technologies and innovation, human capacity development, entrepreneurship capacity development and job creation, development of community transformation as part of university contribution to achievement of Africa's and global development goals in line with the Development Sustainable Goals and Africa Union Agenda 2063. As RUFORUM Network, the Executive Secretary and the Vice Chancellor of University of Cape Coast stressed that the Universities recognise that there has been a gap between universities and the national and continental level strategies yet universities have all the required expertise. The Ministerial Round Table was therefore convened to provide a platform for African policy makers to inform African Universities on what they need done to address the continent's critical challenges and give the universities opportunity to design and implement these interventions.

Hon. Yaw Osafo-Marfo, Senior Minister, Ghana

To train and equip young people to enable them to be part of the agenda to industrialise Africa, we need strong agriculture-industry-finance linkages, yet most African countries do not have these linkages institutionalised. Binding these two linkages is research, a role universities play. There is need for additional investment in research. Ghana is also investing in agricultural transportation and logistics and in a long term investing in large scale agricultural processing with a factory per district for 260 districts with initial investment of US\$ 30 million. In the Ghana agricultural investment plan special focus is on providing food, jobs, exports from agriculture, rural development. Agriculture remains a critical sector for all African countries. We are all products of farmers and we must invest and deliberately strengthen this sector.

The 2018 Alliance for Green Revolution in Africa (AGRA) report, reaffirms 80% of business in Africa is agricultural based and engaging the private sector as part of agricultural transformation is key. Africa is also going through rapid urbanisation and the consequence is that more infrastructure, financing and development of food products that meet the demands of the increasing urban population.



Universities should reorient themselves to produce products and services that meet the increasing demand of the urban centres especially in agriculture. University curricula should be adapted to fit the emerging needs across the continent and universities must link with the industry to be more relevant.

African universities should stop relying on aid but focus on partnership with private sector. Ghana has a national strategy entitled - "Ghana beyond aid" and universities are invited to take part in implementation of this strategy. All African countries need to think beyond aid, determine the kind of investments required to enable Africa make the big leap forward. Africans should be at the driving seat of their development. The challenge, however is that agriculture, research and academia receive little support. Also despite the proliferation of universities in Africa, little has been achieved, there is little influence of universities in national and continental development. There is very little influence of university work in real practice because very little of the research work makes it to the market. The expectation from this meeting is that we shall generate ideas on how African universities will intensify their contribution to national and continental development agenda.

African Development Bank

Dr. Doroba Hendrina Chalwe, Manager AHHD1, Education and Skills Development Division, reiterated that African Development Bank (AfDB) acknowledges the crucial role that human capital development, particularly in the agriculture sector, plays in promoting socio-economic transformation of Africa and should be considered a priority by all if the continent is serious about actualizing the UN Sustainable Development Goals and the AU Agenda 2063. The lack of adequate quality human capital in Africa remains one biggest impediment to the continents inclusive growth and sustainable development. Minimal investment in human capital has resulted to poor level of skills and institutional development common in all African countries. This has led to adverse impact on the region's competitiveness and productivity particularly in agriculture and natural resource management. Yet, human capital development is a strategic driver towards the implementation of the Agenda 2063 given Africa's abundant potential workforce. The continent is home to more than one billion people, most of whom are youth but the population exhibits undeveloped capacities which have led to continued importation of expertise from other regions.

The African Union (AU) has underscored the fact that "human capital development is critical to deliver on Agenda 2063 vision of an integrated, prosperous and peaceful continent. For this to happen, there is a "need for expanded investments in people, as recognition of the dire importance of human development, one of the



most important resources of Africa", crucial for accelerating the implementation of past and existing continental initiatives for sustainable development. This will enable African countries to harness skills, knowledge, and innovation to grow their economies and improve the well-being of their citizens. To address the challenge of human capital development in the continent, a number of approaches and mechanisms have been put in place in various countries, including policies enactment and more resources allocation. Yet, despite the efforts, discouragingly, the state of human resources capacity is quite weak and of low quality. To address this gap, it is critical to reframe policy ecosystems guiding human capital development, especially in skills development, increase human capital investment, and expand partnerships.

The African Development Bank is at the forefront in enhancing human capital development in Africa to catalyze sustainable economic development and social progress in Regional Member Countries under its Ten Year Strategy (2013-2022). The Strategy reflects the continent's socio-economic transformation aspirations, to improve the quality of Africa's growth - through inclusive growth and development. The Strategy's core objectives are (i) achieve growth that is more inclusive, leading not just to equality of treatment and opportunity but to deep reductions in poverty and a correspondingly large increase in jobs, and (ii) to ensure that inclusive growth is sustainable, by helping Africa gradually transition to "green growth" that will protect livelihoods, improve water, energy and food security, promote the sustainable use of natural resources and spur innovation, job creation and economic development. To accelerate the implementation of the Strategy, the Bank set five development priority areas namely, the High 5s. Which are: Light up and Power Africa; Feed Africa; Industrialize Africa; Integrate Africa; and Improve the Quality of Life for the People of Africa. These focus areas are essential in transforming the lives of the African people and consistent with other global development perspectives. The Banks work on human development is placed under "Improve the Quality of Life for the People of Africa" priority area through human capital development whose goal is to create 25 million jobs for the youth, promote education and critical skills, strengthen health systems and improve access to water & sanitation.

Under human capital development, the Bank puts attention to skills development health, nutrition and social protection. Education and skills development interventions generally aim to contribute to the development of manpower needed by the productive sectors of the economy of our member countries. The Higher Education Science and Technology (2008- 2013) (HEST) Strategy and the Human Capital Strategy – 2014 -2018 (HCS) have guided the Bank's work in human capital and social development over the last 10 years. The vision of the Human Capital Strategy is "to harness the potential of one billion people by building skills



and promoting technologies to provide better jobs, ensure equal opportunities and increase workforce competitiveness", thus creating one billion opportunities.

The African Development Bank addresses agriculture related issues mainly through two of its five corporate priorities, which are: (i) Feed Africa; and (i) Improve the quality of life for the people of Africa. The Bank's Feed Africa Strategy aims to eliminate the current massive importation of food and transform Africa's economies by targeting agriculture as a major source of economic diversification and wealth, as well as a powerful engine for job creation. Under improving the quality of life for the people of Africa, the Bank has two strategies, the Human Capital Strategy focusing on building skills for jobs and competitiveness; and the Jobs for Youth Strategy, aiming at creating 25 million jobs for the youth by 2025 mainly in agriculture, industrialization and ICT. The strategy also aims at empowering 50 million youth with appropriate skills for employment or selfemployment.

Since 2005, the Bank had invested US\$260 million in 16 national or regional centres of excellence (CoE) in 11 countries in various fields including Agriculture and Nutrition.

- One example is the Pan African University, a US\$41 million funded project approved in 2013, which includes support to Agriculture science (through the Jomo Kenyatta University of Agriculture Sciences).
- Another one is the support to a US\$8.2 million regional CoE in nutrition science in Burundi which was approved in 2019.

The Bank had organized a series of Ministerial Forum on Science, Technology and Innovation (STI). Nutrition was one of the five thematic focus of the fourth Africa STI Forum (Cairo, Egypt, February 2019). RUFORUM led and moderated the special session on Nutrition during that Forum.

The RUFORUM Network is well placed to support the transformation of agriculture in Africa and support the work of the African Development Bank. RUFORM, and the African Development Bank, through the Fund for Korea-Africa Economic Cooperation, have signed a US\$525,000 Grant Agreement in March 2019 to support a project on "Sharing Innovations and Experiences from Korea for Higher Education Transformation in Africa". The overall aim of the project is to improve the quality of higher education in Africa and its contribution to development by sharing lessons and expertise from the Republic of Korea. The project has three specific objectives:



- i). To share higher education best practices from Korea with African universities;
- ii). To strengthen entrepreneurship education and small enterprise incubation at African universities; and
- iii). To document and share lessons and experiences from the Project with key stakeholders.

The Bank is already working with RUFORUM to successfully implement this project.

Developing human capital in agriculture and other sectors is critical for building value chains and supporting inclusive growth and sustainable development in line with Agenda 2063. The Bank is keen to expand its investment to strengthen human capital development institutions, enhance partnerships with academia and the private sector, boost knowledge production and management to inform policy, and take advantage of the benefits created by the fourth industrial revolution. The Bank stands ready to continue its collaboration with RUFORUM to foster higher agricultural education for Youth employability, Job creation and Africa's economic transformation.

Mastercard Foundation

Shona Bezanson, Head of Scholars Program: The Mastercard Foundation is a private philanthropic organization established in 2006 through the generosity of Mastercard Corporate. It is independent from Mastercard, and has its own Board, leadership and management structure. The Mastercard Foundation (MCF) operates in four regional hubs: Accra, Nairobi, Kigali, and Toronto Canada.

MCF's vision is the opportunity for all to learn and to prosper and specifically focuses on answering the most important question - how will the 100 million young people in Africa, poised to enter the labour market in the coming years, find meaningful work? Through its new Strategy called Young Africa Works, and the goal is 30 million young people, particularly young women, in dignified and fulfilling work, by 2030. This goal will be achieved through partnerships, like the one we have with RUFORUM. Partnerships to MCF means that we design programs together towards a common vision, develop integrated approaches, learn together and adjust as necessary and co-create.

Together with partners, MCF, over the next 10 years, aims to:



- Implement 10 country-specific programs that strengthen education and training systems; grow small businesses and entrepreneurship; and connect job seekers to employers,
- Implement regional programs to drive education, entrepreneurship, and digital innovation to improve financial inclusion,
- Empower young women,
- Use technology to drive impact and scale,
- Build and share evidence of what works.

Agriculture is, and will continue to be a key area of focus for Young Africa Works. Agriculture is at the heart of Africa's economic transformation and will profoundly impact the future of work by providing opportunities for young people in production, and processing, financing, packaging, and marketing. Young people are seeing these opportunities, and are creating work in these areas for themselves and others. For example, together with RUFORUM, young entrepreneurs at Egerton University have created incubators for baby chicks to decrease loss, in Cape Coast students are deploying drones to collect data on the chlorophyll level of plants, to determine when and how much fertilizer they need and through other programmes, MCF has accompanied young entrepreneurs to develop new drying systems to decrease wastage; to expand vertical farming; to farm using hydroponics hence creating dignified and fulfilling work where it may not have existed before.

Higher education institutions play a critical role in transforming in agriculture and addressing the youth unemployment challenge. They play an important role in nurturing and supporting young entrepreneurs through imparting knowledge, skills and mind-sets of young people required to become successful agricultural entrepreneurs. To do this better, universities need to:

- a) Offer more opportunities for bright young people who are traditionally excluded from higher education, to get into the classroom, and specific supports to help them succeed. Rural youth, women, young people with disabilities, refugees and displaced youth. These young people have insight and experience that add value to classrooms. The diversity they bring is a spark for innovation,
- b) Re-orient curriculum and teaching, so that learning becomes more experiential, more project-based, and more team-focused so that students

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learn essential leadership and life skills that will enable them to thrive in a changing world,

- c) Take science, technology and innovation out of the lab and into the community so that students can understand and solve local challenges,
- d) Break through their traditional comfort zones and connect with different stakeholders, like local TVETs. We've seen through the RUFORUM partnership how these kinds of partnerships can dramatically increase outputs and scale impact,
- e) Connect with businesses, private sector, local employers. Universities can include members of this community on their Board and Advisory Groups. They can ask them to curriculum, engage in classroom discussions. This is important to ensure that what students learn is relevant to the changing labour market and,
- f) Transform the way they think about and advance the inclusion of women. I have been to many panels and discussions this week with not a single woman on stage. Gender equality is important and necessary for transformation and the future of work, and it has to be more than just lip service. Kindly allow me to use my platform today to celebrate and encourage the Forum for Women Vice Chancellors that met at the beginning of this week. A formidable group their voices should be mainstreamed into this dialogue.

While transformation takes time, it is possible. But it requires intent, vision, planning and partnership. It requires the ministers of education, higher education and science and technology to believe and engage. Start small with; little things in classrooms, in departments, in administrative units; recognize and learn from the small things that are working, think about how to incentivize more small wins, reward the outcomes that are important to you and seek partnerships to help you scale them up. With the leadership of African Ministers of Agriculture, Education, Science and Technology, MCF believes that a future where all young people can attain dignified and fulfilling work is possible.

Arab Bank for Economic Development in Africa

Arab Bank for Economic Development in Africa (BADEA) was established to focus on Arab-Africa cooperation and has since its founding transferred over six (6) billion United States Dollars to African since its founding in 1975. BADEA recently developed a Strategy which will focus on Small and Medium Enterprises (SME)



development, agricultural value chain development, infrastructure development, trade and private sector development. BADEA gives mainly low interest/no interest loans and grants to only countries through their governments.

BADEA started partnership with RUFORUM in April 2019 with a focus on entrepreneurship capacity building. BADEA requested RUFORUM to mobilise countries to participate in the project – Strengthening Africa's Science, Technology, Innovation and Entrepreneurship (SASTIE) which was presented in the meeting held in Kampala. The Kampala meeting which attracted several other development partners, saw interest of the Government of Uganda to participate in the project by submitting a solicitation letter seeking financial support for a feasibility study to inform detailed project implementation. The SASTIE Programme will likely start with Uganda with a possibility of other countries joining.

The partnership with BADEA is an important avenue for RUFORUM and other African universities to link to the Arab Coordination Group comprising of the Abu Dhabi Fund for Development, the Arab Bank for Economic Development in Africa, the Arab Fund for Economic and Social Development, the Arab Gulf Programme for Development, the Arab Monetary Fund, the Islamic Development Bank, the Kuwait Fund for Arab Economic Development, OFID, the Qatar Development Fund and the Saudi Fund for Development.

The OCP Group

OCP and UM6P are committed to strengthening their collaboration ties with the Ghanaian Ministry of Food & Agriculture as well as Ghanaian Academic & Research institutions. OCP Foundation and OCP Africa will follow-up with the outcomes of the delegation from Mohammed 6 Polytechnic University (UM6P) discussion with Ghanaian Academic and research institutions which includes Cape Coast University together exploring collaboration opportunities that could be pursued in education, research, innovation and entrepreneurial opportunities.

OCP and UM6P are indeed delighted to join RUFORUM, a prestigious and very active network that several achievements and impactful actions have been undertaken. RUFORUM and OCP Group have organized several meetings to both parties to define collaborative projects /Activities:

1. One of the programs agreed is the launch of the Africa **Transformers Emerging** Programs that is dedicated to policy makers supported by ICABR which includes various committed actions including:



- a) Establishing curriculum development for a pilot PhD Program for Africa that will draw in support from around the world;
- b) Establishing a parallel Policy dimension program targeting policy makers, short term policy capacity development program disaggregated by policy frameworks- Low income and medium income countries – As an executive platform with modules to be tested

Both programs will be replicated in the network of RUFORUM as we wish to extend all initiatives that are relevant to the various sister institutions network.

- 2. UM6P hosted the RUFORUM Consultative Forum under the theme and focus "Building Africa's agricultural science, technology and innovation capacity for accelerated, sustainable and inclusive development" in March 2019
- 3. RUFORUM was associated to the creation of a special group "Agricultural Scientists for Africa" based in North America to bring the best NA technologies to Africa in November 2019 under the tri-society banner (American Society of Agronomy, Crop Science Society of America and the Soil Science Society of America)/RUFORUM was invited to join this group During the annual meeting in November (10-15th) at San Antonio, Texas OCP is going to devote a special introductory session for the group "Agricultural Scientists for Africa"
- 4. RUFORUM was associated to the creation of Africa Plant Nutrition Institute (APNI) with its three branches in North ,East & West Africa & participate actively with the international & African partners to setup the APNI Strategy
- 5. RUFORUM was associated to the reflection of the Policy of New South with its active participation to it during last 2 years in Marrakech.

To further continue working towards our goals with regards to this very strong collaboration and as well all aim to continue working towards developing our beloved continent Africa and allow it to reach its true agricultural and educational potential, OCP/UM6P will continue working with all member institutions to support with concrete initiatives during next 5 years. Such initiatives include but are not limited to the following:

1. Train and develop African visionary Next Generation of policy, science and technology leaders and change enablers. Leverage on the current initiative by RUFORUM, OCP/UM6P, UNESCO including Graduate Teaching Assistantship to increase staff capacities in African universities



- 2. Build Digital Platforms for knowledge sharing and learning across African Universities for example Data Science, Foresight, E-learning (3 On line courses platforms will be developed within RUFORUM Network)
- 3. Strengthen Research and Innovation initiatives in Africa. Including SHAEA, BASTIC, Regional Academic Mobility and Research Chairs and build Foresight Capacity for Africa in link with public policy unit at UM6P
- 4. Leverage technological and infrastructure capacity at RUFORUM network: Living labs, Agriculture platforms, Data Center, Value chains to address country specific needs e.g. Alliance between Rwanda OCP and MIT
- 5. Support RUFORUM Secretariat to strengthen coordination role and serve as a catalyst to attract private sector support

All participants are invited to the 2020 RUFORUM Annual General Meeting to be held in November 2020 taking place in Benguerir & Marrakech, Morocco.

BRIDGIN Foundation

Ghana was the first country for BRIDGIN Foundation to start collaborating with and BRIDGIN Foundation is glad to build on the progress made. It is important for African leaders to know that Africa is rich with resources and human capital. It only lacks cash money to purchase technology and innovation to exploit its vast natural resources. BRIDGIN Foundation provides funding ranging from US\$ 100 million and above for countries to fund projects of their own choice in the three areas of priority by the BRIDGIN Foundation;

- Provide the financial, technological and cognitive (experts) resources needed for the implementation of Programmes and Projects as prioritized by the Governments themselves.
- Education: transfer of knowledge, know-how and technologies to the local workforce through universities (and their "spin-offs", defined as profitenterprises), as well as to research centres, local businesses, small and medium enterprises
- Culture: transform the cultural differences of all participants into results and added value. Reduce the environmental footprint of the Programme and projects that are being implemented. Promote abroad the local artists, fashion designers, talented and/or professional sportsmen.



BRIDGIN Foundation does not provide aid or free money to countries but rather provides conditional grants where countries are expected to guarantee that the projects will generate resources invested in the project. 90% of the revenue generated will be invested into the economy and 10% will be used for project administration by the BRIDGIN Foundation and other support institutions. Technical support of projects will be provided by institutions jointly agreed upon by the country and BRIDGIN Foundation.

Highlights of Country Statements and Key Areas for Cross-country Cooperation

To ensure RUFORUM programming alignment to individual country aspirations and priorities, each Member State participating in the Ministerial dialogue presented a short synopsis highlighting the national priorities for the development of the Agricultural sector, ST&I and other related sectors including efforts to strengthen Higher Education. They also outlined some key initiatives on-going in their countries and indicated possible interest to participate in one or more of the proposed RUFORUM regional initiatives (see Figure 1), and to suggest any other initiative (s) that they think are important for the Continent especially in terms of the role of Higher Education in Africa. The summary of the highlights from each country are summarised in Annex 1.

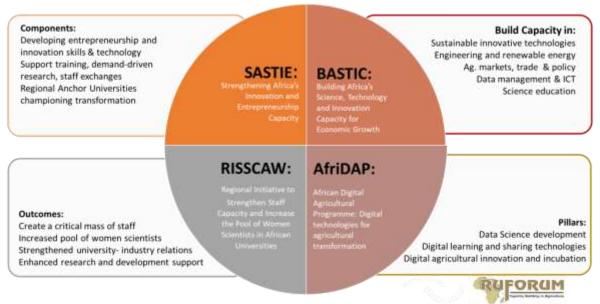


Figure 1: Four initiatives for strengthening higher education and ST&I in Africa



Conclusions and Recommendations

RUFORUM was commended for taking leadership in changing current practice of universities to respond more to national development priorities. The agricultural research and training agenda being followed by RUFORUM should not only focus on Zero hunger but also on responsible consumption to create sustainable transformation of the complex African food system. RUFORUM and its members will also have to contend with the exponential rise of universities and enrolments against disproportionate staff:student ratios which are creating quality concerns. Africa should not be producing a second-rate degree graduate!

The proposed RUFORUM Regional Initiatives were presented to a meeting of Technical Experts from the Member States on 4th December 2019. Based on these, the Technical Experts prepared recommendations for consideration by the Ministers and Heads of country delegations. The Ministers adopted the Cape Coast Ministerial Dialogue Communiqué, 2019 (Annex 2). In the communiqué, the Ministers strongly recommended and requested that:

- 1) World Bank to actualize implementation of the SHAEA initiative
- 2) IsDB to support the BASTIC initiative
- 3) BADEA to support SASTIE Initiative and bring on board other Partners as needed
- 4) AfDB to support in particular RISSCAW, and also aspects of SASTIE and BASTIC and to mobilize other partners to support Africa's Universities Agenda for Higher Agricultural Education, Science, Technology and Innovation (AHESTI)
- 5) Mastercard Foundation to scale up the reach of the 'Young Africa Works'
- 6) OCP Group to support RUFORUM Activities including Academic Exchange programmes across Africa, and Community engagement programmes
- 7) The Government of Ghana communicates the outcomes of the Cape Coast Ministerial deliberations to the African Union Commission

Follow-up Actions

RUFORUM to prepare report and circulate to the participating countries. In particular, RUFORUM should take note of the commitments to cooperation



indicated by the various Development Partners and engage interested countries to participate in the proposed continental initiatives.

RUFORUM to report on progress in a follow up Ministerial Meeting to be held 2021/2022.



Annex 1- Table 1: Highlights of Country Statements and key areas for cross-country cooperation

Country	National development strategies and priorities	Initiatives to align national priorities to Continental aspirations	Priority Actions needed to strengthen AHESTI	Interest in the Regional/ Continental initiatives	Other suggested areas of FOCUS for RUFORUM
Angola	 The National Development Plan 2018-2022 which is a follow up to the NDP 2013-2017 which aims at the promotion of socio-economic development of the country. It is underpinned by the Angolan Vision 2025 The NDP 2018-2022 has four strategic thrusts; Industrial development Infrastructural development to support regional integration Cooperation in peace and security Strengthening human development and other programmes especially health and work 	 strengthen infrastructure and market linkages Programmes for industrialization. Programmes for integration of ST&I in development processes Programmes for strengthening human capital development and 	 Establishment of leading research and training nodes across Africa Mobilizing private sector engagement Promoting academic mobility across Africa Strategic engagement with other higher education and science networks Close alignment to policy frameworks especially STISA-2024 	Africa's Innovation and Entrepreneurship Capacity (SASTIE)	 Involvement of Angolan Universities in Regional initiatives coordinated/supported by RUFORUM
Benin	The Government's Action Programme known as PAG 2016- 2021 was launched in	• To support the PAG, the Government is implementing a large- scale infrastructure	• Establishment of higher education regional training centers across Africa responding to	 Strengthening Africa's Science, Technology, Innovation and 	• Work with RUFORUM to host the 2021 Triennial Conference in Benin



December 2016. It serves as the single reference framework for the Government's action, and aims at achieving an average growth rate of at least 6.5% over the five-year period. The programme comprises three pillars:	 investment programme in three priority sectors: transport, energy and ICTs The Country is strengthening its role as a regional Hub for Higher Education in West Africa including hosting an African Higher Education Center of Excellence in STEM 	 capacity and joint research collaboration across Member States Promoting academic exchanges across the Continent Strengthening engagement of Women in R&D activities including in ST&I 	Science, Technology and Innovation Capacity for Economic Growth (BASTIC)	 Host the next Ministerial Meeting in Benin at the sidelines of the 2021 Triennial Conference Host RUFORUM Regional Node for West Africa
 Pillar 1: Consolidate democracy, the rule of law and good governance Pillar 2: Initiate the structural transformation of the economy Pillar 3: Improve the living conditions of the people The Government is 		 Twinning institutions across Africa to build capacity in priority gap areas including strengthening capacity for fragile States and disadvantaged communities 	 Regional Initiative to Strengthen Staff Capacity and Increase the Pool of Women Scientists in African Universities (RISSCAW) and National Research Institutions University Engagement to support Human Capital Development, Youth Employability and Entrepreneurship for Agricultural 	• Participate in RUFORUM initiatives to increase access to education for disadvantaged communities and fragile states
focusing on four major areas to revitalize and ensure the structural transformation of the economy: o Agriculture, stockbreeding and fisheries; o Tourism and			 Transformation in Africa (HEEAT), Strengthening Higher Agricultural Education in Africa (SHAEA) 	



Burundi	culture; o Digital economy, telecommunications and ICTs; o Processing industry, handicraft and trade. Burundi National	• Human Capital	 Strengthening human 	Strengthening	• Support to strengthen
	Development Plan to tackle the problem of poverty	development in line with	 and institutional development in African Universities Promoting inter-University collaboration in higher education, science, technology and innovation 	Africa's Science, Technology, Innovation and Entrepreneurship Capacity for Agricultural and Economic Development (SASTIE) • Building Africa's Science, Technology and Innovation Capacity for Economic Growth (BASTIC)	doctoral training at the University of Burundi



Cameroon	 Cameroon Vision 2035 which emphasizes: Macro-economic stability Diversification of the economy Revitalizing the private sector's ability to deliver social services Developing basic infrastructure and natural resources, while protecting the 	 minimal levels in line with CAADP goals Strengthening ST&I in line with STISA 2024 	 of Excellence in higher education, science, technology and innovation Establishment of Research Chairs in strategic areas including sustainable energy use Strengthening digital learning and sharing across Africa Strengthening Staff and student exchanges across 	 Higher Agricultural Education in Africa (SHAEA). Building Africa's Science Technology and Innovation Capacity (BASTIC) Strengthening Africa's Innovation and Entrepreneurship Capacity (SASTIE) The Regional 	 Work towards actualizing the SHAEA initiative and initiate establishment of regional training centers Supporting Staff development through the RUFORUM Graduate Teaching Assistantship Programme Providing education to disadvantaged students in Cameroon
	 environment Creating closer ties with neighboring countries in respect of trade, finance, transport, forestry, education and tourism Strengthening human resources and the social services, and integrating vulnerable groups into the economy Promotion of good governance. 		the Continent • Strengthening the coordination role of RUFORUM	Strengthen Staff Capacity in African Universities and Increase the Pool of Women Scientists (RISSCAW) • The African Digital Program (AfriDAP)	and other African Countries • Establishment of Research Chair on Sustainable Energy Resource Use
eSwatini	 eSwatini National Development Strategy (2016) The Kingdom of 	Programmes in Agriculture, education and ICT	• Facilitate greater national engagement in the agricultural education, science, technology and	• Strengthening Africa's Science, Technology, Innovation and	• Encourage greater interaction and collaboration among African higher



Eswatini Strategic	innovation. Among the Entrepreneurship	education institutions
Road Map (2019-	host of policy changes Capacity for	for quality teaching
2023)	that would likely improve Agricultural and	and research that will,
National Education	outcomes of engagement Economic	among others, attract
and Training	in Agricultural Education, Development	African students and
Improvement Plan	Science, Technology and (SASTIE)	others to undertake
• eSwatini National	Innovation (AESTI) would • Building Africa's	studies in Africa
Agriculture	be budget-neutral options Science, Technology	• Build capacity of
Improvement Plan	involving national and Innovation	UNESWA through
	entities. Capacity for	partnerships with
	National Policy Economic Growth	stronger academic
	Framework for Science, (BASTIC)	institutions
	Technology and • Regional Initiative to	• Provide opportunities
	Innovation (ST&I) is Strengthen Staff	for Masters and
	needed which will Capacity and	doctoral research that
	attempt to specifically Increase the Pool of	will contribute more
	guide the country's policy Women Scientists in	directly to national and
	and decision-makers on African Universities	regional development
	building ST&I capacity to (RISSCAW)	priorities
	meet the pressing new • University	Information and
	demands of the Engagement to	Communication
	knowledge-driven era. support Human	Technology and
	• Financial and other Capital	entrepreneurial skills.
	support for research and Development, Youth	• Larger commitment of
	development (R&D), such Employability and	Research &
	as will attract and help to Entrepreneurship for	Development resources
	retain internationally Agricultural	and improved
	recognized researchers Transformation in	interagency
	• Development of Africa (HEEAT),	collaboration for
	integrated curricula	research purposes.
	relevant to both the needs	Improved data capture
	of the individual and the	and sharing tools
	socio-economic demands	across agencies which
	of society.	could better reveal and
	• Improve the teaching of	leverage cross-agency
	agricultural science to	complementarities in
	inspire more young	food and agriculture
	scientists to work in this	related Research &
		icialeu Researcii &



		field and to promote it as	
		field, and to promote it as an attractive career option.Development.• Enhance staff capacity development and increase the proportion of academic staff and researchers with PhD qualifications in Agricultural sciencesDevelop a national Intellectual and Industrial Property Rights (IIPR) policy framework to facilitate and promote the stimulation of creativity and innovationDevelop a national intraining to respond to hunger and inclusivity.	
		development as key to the ensuring employability of	
		the youth and old people.	
Stability Inflation Current Afforda Energy Land Ru Nationa and Civ Street House I Targete Sector	y - Low h, Stable cy, and ble Credit Sufficiency eforms l Identification ril Registration Naming and Numbering - Low Ghana Design an Manufacturing Cent (GDMC) - The Government Ghana is active collaborating with oth African states to promo the tenets of Agence 2063 - Formalizing the	Intreand technology application at the centre of development is to ensure that ST&I is mainstreamed in all socio- economic activities. To this end, all ministries will be required to collaborate with the byEducation in Africa (SHAEA) initiativeimplementation SHAEA initiati to Strengthening Africa's Innovation and Entrepreneurship Capacity (SASTIE)implementation SHAEA initiati to seek supp the Foundation higher educati in Ghanathe byScience, Technology andFoundation the Strengthen StaffWork with R to strengthen Staff	actualize in of the ive UFORUM port from BRIDGIN for the ion sector UFORUM en the Graduate



Administration; and ,HLabourMarketInformation SystemTImprovingtheBusinessGEnvironment-TaxTaxSIncentives, Review ofi	ensure employability to help drive the economic transformation agenda. To this end, the Government is establishing 32 new state-of-the- art TVET institutions across the country	Government policies, programmes and projects. Significant investment will be made towards research and development to ensure that researchers are motivated to find local solutions to the nation's problems. An appropriate environment will be created to promote formation of strong partnerships with research institutions, academia and industry, to ensure that research outputs are turned into industrial applications. This will ultimately lead to a reduction in imports, increase in exports, and serve as a catalyst for job creation and economic growth.	 Women Scientists (RISSCAW) Building Africa's Science Technology and Innovation Capacity (BASTIC) The African Digital Program (AfriDAP 	 promoting Pan- Africanism Expand Membership of Ghana universities in RUFORUM Work with RUFORUM and the Network Universities in joint resource mobilization efforts Convey recommendations of the Cape Coast Ministerial Meeting to African Union Commission
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	Development; Agricultural Inputs, including Equipment; "Water for All" Projects; and Sanitation Projects. Zongo Development Fund Free Public Senior High School Transforming Agriculture Establishment of Airport Free Zone Financial Stability Council Ghana Infrastructure Investment Fund (GIIF)				
Lesotho	National Strategic Development Plan 2018-2023 to support economic and Institutional transformation for private sector led job creation and inclusive economic growth	 Investment climate reforms, mining and financial sector development Enhancing inclusive and sustainable economic growth and private sector-led development that encompasses aspects of CAADP Creative industry development 	 collaboration in training and research across Africa Mobilizing policy and development partner support for AHESTI 	Africa's Science, Technology, Innovation and Entrepreneurship Capacity for Agricultural and Economic Development (SASTIE) • Develop relevant ST&I capacity for deployment in Agricultural and Environmental sectors through the	 Development of initiatives to enhance natural resource use Participation in Regional Academic Mobility Programmes Participation in collaborative research undertakings



Liberia	Pro-Poor Agenda for Prosperity and Development 2018 to	Liberia Agricultural Sector Investment Program (LASIP-2 for inclusive and quaticable corrivations)	 capacity for Africa Build the Capacity of Young Liberians at all levels in STEM, especially at PhD level 		 Staff Development for Liberians at Masters and PhDs levels Partnership to seek
	2023 (PAPD)	sustainable agricultural transformation which in line with the Malabo CAADP Declaration	 Strengthen Agricultural Training Institutions (at TVET and Higher Education level Strengthen Agricultural Research Institutions 	• AIRIDAP	• Partnership to seek funding for the 4 Priority Programs
Malawi	The Malawi Growth and Development Strategy (MGDS) III (2017-2022) aims at building a productive, competitive and resilient nation. It	The Government has designed and is implementing programs in line with the five thrusts including focus on:	 Development of demand- driven programmes to strengthen agri-food systems Development of strong regional collaborative 	Higher Agricultural Education in Africa (SHAEA).	Seeking support from African Union Commission and Development Partners for the five Continental initiatives



thrusts in line with SDGs, Agenda 2063 and Malawi's economic and development needs; • Agriculture, water development and climate change management; • Education and skills development; • Energy, industry and tourism development; • Transport and ICT infrastructure; and, • Health and population	development and generating innovations Strengthening advancement in use of ICTs to support training, agriculture, and health sectors.	 programmes Greater focus on human capital development especially for TVET and higher education Greater focus on Youth skill development and entrepreneurship Strengthening and scaling up RUFORUM Community Action Research Programme 	Initiative to Strengthen Staff Capacity in African Universities and Increase the Pool of Women Scientists (RISSCAW)	• RUFORUM to serve as an implementation agency in the implementation of the C10 tasks and other regional initiatives in higher education, science, technology and innovation
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					sectors in Malawi
Mali	 Mali national strategy focuses on; Creating fiscal space to safeguard priority social and infrastructure spending, while accommodating necessary security expenditures and preserving macroeconomic stability; Reforming the energy sector; and; Supporting reforms to improve governance and transparency. 	 Mali is implementing programmes along its strategic thrusts and include aspects of; Enhancing food and nutritional security in line with the CAADP Malabo declaration Strengthening research infrastructure that includes state-of-the art facilities such as for management of Transboundary animal diseases Strengthening the TVET sector in line with the African Union TVET strategy 	 Rebuilding and strengthening human and institutional capacity in different African Universities and Research Institutions Promoting joint training and research across Africa Special programmes to increase participation of Women in Science, Technology and Innovation 	 Strengthening Africa's Science, Technology, Innovation and Entrepreneurship Capacity for Agricultural and Economic Development (SASTIE) Building Africa's Science, Technology and Innovation Capacity for Economic Growth (BASTIC) University Engagement to support Human Capital Development, Youth Employability and Entrepreneurship for Agricultural Transformation in Africa (HEEAT), 	• Increasing participation of Mali Universities in RUFORUM
Mozambiqu e	• National priorities of the Government of Mozambique focuses on; Agricultural development as the key pillar for economic transformation and livelihoods	 Institutional reforms to strengthen the system of science, technology and innovation, provide superior teaching and technical expertise Mozambique has established the strategic plan for the development of the agricultural sector includes plan for 	 Investment in ST&I infrastructure Establishment of centers of excellence and parks of science and technology Regional and international collaboration Use of digital and emerging technologies 	 Mozambique is interested in participating in all the five initiatives proposed, giving attention to national policies and synergies with other similar initiatives	• Focus attention be given to supporting effort to support countries prepare for industrial revolution thus giving particular attention to the areas of information and communication technologies (artificial intelligence, big data, etc) and setting up a



Namibia	National Science,	 investments in the agricultural sector, provision of superior teaching, establishment of national system of evaluation and accreditation The strategy for science, technology and innovation of Mozambique which lines well with STISA-2024 Technology transfer Development of projects in line with STISA 2024, CAADP and CESA 2016-2025; Strengthening higher agricultural education for agri-food system transformation in Africa (SHAEA); Partnerships in applied science, engineering and technology (PASET); Investigation and transfer of technology for the increase of the productivity of rice, Maize, wheat, higher education science technology and innovation project 	• Establishment of regional		 strong center to support collation of data on higher education status across countries in both agriculture and ST&I Establishment of centers of excellence and centers of reference across the Continent Support in development and dissemination of technologies for the modernization and digital transformation for the process of teaching and apprenticeship, investigation and production in the agriculture sector Resource mobilization for regional and country-specific Programmes such as from the Islamic Development Bank The Government of
	5				
	(2019-2030)	vocational and higher	2024 and CAADP	Innovation and	support RUFORUM
Namibia	 National Science, Technology and Innovation Policy 	technology and innovation project	 Establishment of regional initiatives at University level to implement STISA- 	 Strengthening Africa's Science, Technology, 	 The Government of Namibia urges African Union Commission to



	 National Intellectual Property Policy and Strategy (2019- 2024) Sierra Leone's medium- 	 ongoing to strengthen the national innovation system. Namibia is working with other SADC countries to build centers of excellence in higher education in line with STISA 2024 	 research and training initiatives Focused attention to strengthen TVET ecosystem and integration with higher education Focused attention to increase Staff capacities in African Universities Focused attention to increase access to higher education for Women and Women participation in ST&I. Give greater focus to basic science education level Promoting and rewarding excellence at various levels including Youth and farmer innovation, excellence in science and leadership and contribution to Society Strong engagement with policy, private sector, and other higher education actors 	 ST&I capacity for deployment in Agricultural and Environmental sectors through the Building Africa's Science, Technology and Innovation Capacity for Economic Growth (BASTIC) Regional Initiative to Strengthen Staff Capacity and Increase the Pool of Women Scientists in African Universities (RISSCAW) Holding the BASTIC Summit 	Government of Ghana to Communicate the recommendation of this Ministerial meeting to the African Union Commission
Sierra Leone	Sierra Leone's medium- term National Development Plan 2019–2023- Education for Development: A New Direction for Improving People's Lives through Education,	 There are ongoing programmes in line with CAADP to strengthen the agricultural sector. Strengthening TVET education initiatives are ongoing. The Country seeks to 	institutional development	Africa's Innovation and Entrepreneurship Capacity (SASTIE)	 Support Staff development under the RUFORUM Graduate Teaching Assistantship Programme Support strengthening TVET training and institutional



	 Inclusive Growth, and Building a Resilient Economy. There are four major thrusts/clusters of the Strategy; Cluster 1: Human capital development; Cluster 2: Diversifying the economy and promoting growth; Cluster 3: Infrastructure and economic competitiveness; and, Cluster 4: Governance and accountability for results 	 participate in the Strengthening Higher Agricultural Education in Africa initiative (SHAEA) The Ministry of Education and Sports is working with RUFORUM to support training of Sierra Leone Students in different African Universities. 	 science, technology and innovation Establishment of regional training hubs in strategic areas across Africa Increasing participation of Women in Research and Development Special programmes to strengthen capacity in fragile states and to disadvantaged groups 	Science Technology and Innovation Capacity (BASTIC)	 Leone Higher and Technical Education day in 2020 Support Community engagement and Entrepreneurial skills development in Sierra Leone
South Sudan	South Sudan's Vision 2040	 The Comprehensive Agriculture Master Plan (CAMP) Students welfare fund 	• Building of human capital by imparting skills and cultivating a culture that values hard work and rewards innovation. By working in partnership with the private sector, the government aims to facilitate the creation of an environment that supports and encourages business entrepreneurial	Africa's Innovation and Entrepreneurship Capacity (SASTIE)	 Support and participation in the Graduate Teaching Assistantship Endorse the RUFORUM Charter Endorse RUFORUM as a continental implementation Agency for facilitating Higher Education and Research in



			 activities, Investing in agriculture, industry, mining and tourism, and service sectors while striving to enhance the role of women in socioeconomic development of the country, Promotion of application of science and technology, Promotion of private sector through smart public-private sector through smart public-private sector partnership and shift away from dependency on oil sector and move the country towards the diversification of the economy Improving nation's tax base and improving efficiency of Public Sector Development of Comprehensive Agriculture Master Plan (CAMP), and Irrigation 	Science Technology and Innovation Capacity (BASTIC) • The African Digital Program (AfriDAP)	Agricultural related fields, Science, Technology and Innovation • RUFORUM to develop special programmes for needy countries such as South Sudan and to mobilize resources to train students from such disadvantaged countries
Sudan	Utilizing	The Gum-Arabic Board		0 0	Facilitate Regional
	investments in Petroleum in Agriculture • Revitalization and strengthening education to guide	 initiated Biotechnological institutes to serve and supply the Gulf States with agriculture products 	s natural resource	Africa's Innovation and Entrepreneurship Capacity (SASTIE)	 Academic Mobility RUFORUM to Coordinate the BASTIC Initiative



	 national development Revitalization and strengthening the Gum-Arabic sector Internationalization of Higher Education Equity and access to Higher Education Development of Human resources to guide the developmental processes 	 Linking Higher Education to Economic development in Africa (Banks) Transformational Partnerships Staff and Student Mobility across the content 	 a water resource use management, irrigation, fertilizer use and agricultural mechanization a Strengthen research capacities in universities and research institutions Strengthen human capital base across the education value chain with focus on ST&I Member States to support regional initiatives such as RUFORUM 	Science Technology and Innovation Capacity (BASTIC) • The African Digital Program (AfriDAP)	 funding from the Arab World RUFORUM to serve as an Implementing Agency in Agriculture & ST&I initiatives in Sudan and other African Initiatives such as under AUC
Uganda	• Vision 2040 Pursue policies aimed at leapfrogging especially in the areas of Science, Technology, innovation, and engineering; human resource development; public sector management; and private sector development.	 excellence focusing on crop improvement and plant breeding, nanotechnology, pharmbiotics and Agro- ecology were designated Pursuing establishment of four additional African Higher Education Centres of Excellence as recommended by the World Bank 	 d universities and most especially women scientists to address gender specific issues e Retooling the university subsector, improving the infrastructure and ensuring that the pedagogical practices are s designed to meet the 	Africa's Science, Technology, Innovation and Entrepreneurship Capacity for Agricultural and Economic Development (SASTIE)	 Urge all countries to sign the RUFORUM Charter Link RUFORUM to different funding agencies with specific reference to access to funding opportunities under the African Union Commission – Education Science Technology (EST) directorate
	Accelerate government reforms in the education system and the curriculum to obtain a globally competitive human re- source with skills	participate in the , Strengthening Higher Agricultural Education for Africa (SHAEA) and sub-regional agricultural productivity programme	, the private and industrial er sectors most especially to address the relevance of university education, improving out of school	sectors through the Building Africa's Science, Technology and Innovation Capacity for	 Supporting RUFORUM will save time and resources and exploit all the opportunities to promote AHESTI The Graduate Teaching Assistant (GTA)



relevant to the development paradigm. • National Development Plan III	Hosts the Secretariat of RUFORUM	 contribution to the national development sector and for competitiveness Positioning science, technology and innovations as economic development drivers that have to be nurtured within the higher education and research sectors. The need to resource our higher education institutions cannot be over emphasized. 	Strengthen Staff Capacity and Increase the Pool of Women Scientists in African Universities (RISSCAW)	 regional level to facilitate the regional mobility of staff and students Supporting construction of RUFORUM Headquarters facilities including Office space, Conference Centre, and Training Centre
Zambia • Zambia's Vision 2030 • Seventh National Development Plan (7NDP)	 National for Science and Technology Council. Development of technology, innovation and skills Policy Introduction of Technical schools and Universities that focus on Science and Mathematics Curriculum review that focuses on, apprenticeship and industrial attachments and improved linkages between Government, Private sector, Industry 	• Build human capital through training in updated and relevant curricula at university and TVET levels and exchange programmes with other countries	ST&I capacity for deployment in Agricultural and Environmental sectors through the	 RUFORUM plays the continental coordinating role of harmonization of curriculum development and delivery, teaching and training, regional academic staff mobilities, the establishment of Centers of Excellence and regional anchor universities, resource mobilization, advocacy, brokerage AUC and agencies such as AfDB, BADEA, IsDB, Mastercard Foundation, OCP



		and laboratory facilities for research and development	•	dedicated innovation policy and mechanisms for continuous production of information on ST &I Promote smart partnerships, networks and linkages among ST&I stakeholders in the public sector, the business community and academia to encourage their collaboration in R&D Promote the concept of innovation to SMEs; establish technology parks and incubation facilities Develop an integration policy to promote creation of industry and technology transfer; provide for technology transfer in HEI and public research institutions Develop a cluster policy and an implementation plan to foster regional sector based networks of innovation	Strengthen Staff Capacity and Increase the Pool of Women Scientists in African Universities (RISSCAW) University Engagement to support Human Capital Development, Youth Employability and Entrepreneurship for Agricultural Transformation in Africa (HEEAT),	•	Group, and others to support implementation of the continental initiatives proposed by RUFORUM Government of Ghana, to raise these issues during the AUC Special Committee on Human Resources and S&I, due in Addis, Ethiopia 10-13 December 2019
Zimbabwe	Vision 2030	 Transformation of education to make it play a part in national development -Education 5.0 Improving access to education from Primary 	•	Education 5.0: Teaching, Research, Community Service, Innovation and industrialization. Government has set Funds aside for building innovation Hubs and	SASTIE BASTIC RISSCAW & AfriDAP	•	Joint Research and supervision of M.Phil and D.Phil. students. Zimbabwe is prepared to co-fund under the "Study in Zimbabwe Programme"



	 to Higher and Tertiary education Improvement of TVET and Higher Education Links through Zimbabwe National Qualifications Framework. Exploiting of ICTs in broadening access to education by Improving access to broadband for improved communication through exploitation of existing under-sea Cables. Improving Zimbabwe's ability to harness and use of outer space technologies to bolster development in agriculture, natural resources monitoring, disaster preparedness, remote sensing, climate forecast. Setting up of ZINGSA Strengthening of Cyber Security Building innovation Hubs and industrial parks as part of the transformation 	 Industrial Parks. Setting aside of 1% of GDP for Research to support research in National Priority Programmes. Improvement of tertiary education Provision of grants for MPhil and DPhil programmes. 		 Zimbabwe seeks to host the 2022 Annual General Meeting of RUFORUM Staff development for Zimbabwe Universities and research institutions
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Annex 2: The Cape Coast Ministerial Communiqué, 2019

The Commissioner for Higher Education from Uganda presented the draft Communique from the Technical Experts in Higher Education, Agriculture, Science, Technology and Innovation highlighting the emerging areas of importance for intervention by universities and the proposed initiatives to address the challenges around the areas of importance. The communiqué as adopted is reproduced below:

We, the Ministers and Senior Leaders of Agriculture, Higher Education and Training, Science, Technology and Innovations, and Finance assembled at the Ministerial Roundtable meeting on Higher Agricultural Education, Science, Technology and Innovation held at the University of Cape Coast, Ghana on 5th December 2019;

- 1. **NOTING WITH CONCERN** the underperformance of African countries in capacities to generate knowledge, technologies, and innovations to drive economic development in the continent;
- 2. **NOTING** the decisions of the **FIRST SUMMIT OF THE COMMITTEE OF TEN HEADS OF STATE** championing Education, Science, Technology and Innovation held in Lilongwe 2018, that identified key actions to be undertaken by Member States and African Universities to address the gaps;
- 3. **RECALLING** that the Africa's Ministerial meetings held in 2016 in Cape Town, 2017 in Lilongwe, and 2018 in Nairobi called for continental initiatives to Strengthen Higher Agricultural Education in Africa (SHAEA), Build Africa's Science, Technology and Innovation Capacity (BASTIC), Strengthen Africa's Innovation and Entrepreneurship Capacity (SASTIE), Escalate Postgraduate Training in Africa, and increase staffing capacities and the pool of Women Scientists in African Universities (RISSCAW), and Support Human Capital Development, Youth Employability and Entrepreneurship for Agricultural Transformation in Africa (HEEAT);
- 4. **NOTING THAT** African Union Commission signed an MoU with RUFORUM in 2014 for the implementation of Science, Technology, Innovation Strategy for Africa (STISA) 2024 PRIORITY Area 1 on reducing poverty and enhancing food and nutrition security;
- 5. **NOTING WITH APPRECIATION** the efforts by African Universities to support Africa's development through the Africa's Universities Agenda for Agricultural Higher Education, Science, Technology and Innovation Strategy for Africa;



- **6. NOTING** the need to strengthen Technical and Vocational Education and Training (TVET) systems and enhance educational value chains in Africa;
- 7. **NOTING** the disproportionate low female participation in Higher Agricultural Education, Science, Technology and Innovation;
- 8. **NOTING** the significant expansion within the Higher Education sector and the spiralling intake of undergraduate students without parallel expansion in resources including funding, infrastructure, equipment, and staff at African universities;
- 9. FURTHER NOTING THAT there are several opportunities for strengthening the Higher Education sector in Africa, especially: (i) increased importance of human capital as a basis for strong knowledge-based economies; (ii) Youth demographic dividend requires an urgent and sustained intervention from a multiplicity of stakeholders (public, private, community and partners); (iii) Technical Skills at various levels will be a key pathway to accelerating innovation and expanding employment opportunities; iv) Techno-Entrepreneurship holds the promise for translating the diverse natural resources and tapping into youth potential to develop products that create wealth and meet societal needs; and, v) The Fourth Industrial Revolution is shaping advances in artificial intelligence and deployment of digital tools for agricultural transformation;
- 10. **RECOGNISING** the importance of Higher Education as a key mechanism to ensure the attainment of the Sustainable Development Goals (SDGs) and Agenda 2063 '*The Africa We Want*';
- 11. **RECALLING** that Africa's Ministerial meeting held on 23 October 2018 in Nairobi, Kenya called on Member States to ratify the RUFORUM Charter following each country's specific procedures.

WE HEREBY ENDORSE

The Five Continental Initiatives for strengthening Africa Innovation Capacity, increasing its competitiveness, enhancing youth employability and entrepreneurship;

AND AGREE TO

1. COMMIT to put in place mechanisms including continental collaborative programmes for strengthening staff capacities and increasing the pool of women scientists in African Universities and other research and development institutions;



- **2. UNDERTAKE** strategic interventions to catalyse graduate and postdoctoral training to bolster the capacity of universities to generate the requisite knowledge, skills and innovations;
- **3. INVEST** in youth programs that advance requisite technical skills, entrepreneurship and uptake of digital solutions to expand innovation and employability;
- **4. ESTABLISH** Higher Education Centres of Excellence for Building Africa's Science, Technology and Innovation Capacity

WE FURTHER

- **7. URGE** the Member States to endorse the RUFORUM Charter through their respective procedures;
- **8. URGE** the Member States that committed to participation in the Strengthening Higher Agricultural Education in Africa (SHAEA) program and the African Union Commission to engage the World Bank to execute the funding arrangements for full implementation of the SHAEA program and the Sub-Regional Agricultural Productivity Programmes;
- **9. URGE** the Member States to support the strengthening of TVET systems and educational value chains in Africa;
- **10. URGE** the Member States to engage RUFORUM as technical advisory agency in the design and implementation of Higher Agricultural Education, Science, Technology and Innovation Initiatives;
- **11. URGE** the African Union Commission to reach out to African Development Bank and other Funding Agencies to finance the Five Continental Initiatives and a Regional Academic Mobility Programme;
- **12. URGE** the African Union Commission to request from MULTI LATERAL AGENCIES to include RUFORUM in funding support to Africa; and
- **13. URGE** the African Governments and the African Union Commission to table the above recommendations through the African Union Commission Specialized Committee on Human Resource and Science and Technology, to the African Heads of State and Government during their AU Heads of State January-February 2020 Summit.



Signed by:

Name	Designation	Country
Hon. Dr Mathew Opoku Prempeh	Minister	Ministry of Education, GHANA
H.E Eugénio Adolfo Alves da Silva	State Secretary	Ministry Higher Education, ANGOLA
Hon. Pr. Eleonore Ladekan Yayi	Minister	Ministry of Higher Education and Scientific Research, BENIN
Hon. Prof. Gaspard Banyankimbona	Minister	Ministry of Higher Education and Scientific Research, BURUNDI
Hon. Lady Howard Mabuza	Minister	Ministry of Education and Training, ESWATINI
Hon. Diholo Kotiti Lawson	Deputy Minister	Ministry of Education and Training, LESOTHO
Hon. Prof. Ansu Dao Sonii, Sr	Minister	Ministry of Education, LIBERIA
Hon. Prof. Mahamoudou Famanta	Minister	Ministry of Higher Education and Scientific Research, MALI
Hon. Dr William Susuwele Banda	Minister	Ministry of Education, Science and Technology, MALAWI
Hon. Dr. Becky Ndjoze-Ojo	Deputy Minister	Minister of Higher Education, Training and Innovation, NAMIBIA
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