

RUFORUM WEBINAR SERIES-2020

Global university partnerships for addressing emerging development

Challenges

Webinar 13 Synthesis Report

Introduction:

Universities worldwide are charged with the mandate of training human resources who are the next generation of leaders and policy makers, researchers and innovations, and entrepreneurs. They conduct research, produce knowledge and innovate to solve societal challenges and provide policy guidance. While universities have continuously provided such support at their national level, there is a recognition that alliances and partnerships are important in the higher education sector. The world has become a global village, connected either physically by fast means of transportation or virtually through social media platforms, professional research network platforms, among others. Therefore, labour force, technologies and innovations easily find themselves across oceans and seas, which was not the case 30 to 50 years ago. The need for knowledge, technologies, labour force, infrastructure and other resources sharing become even more important in times of emergencies such as the COVID-19 Pandemic. Because of the functionality of networks and effective sharing of resources, countries have been able to mitigate the “would be worse” consequences of the COVID-19 Pandemic.

The Context:

The Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) recognizes that for universities in Africa to confront the challenges that Africa faces especially in agriculture, the most important sector in the continent, partnership with other university networks is vital. African universities will benefit from the vast experience of countries and continents where universities have played a critical role in driving technology and innovation for social transformation and economic growth. Partnerships and alliances among universities across the globe would reduce reinventing approaches by adaptation of what has worked elsewhere. With this in mind, RUFORUM organized a global partnership for higher agricultural education and research on 2nd December, 2019 in Cape Coast, Ghana which explored different approaches to training agricultural graduates and production of impact oriented technologies and innovations. Models for higher agricultural education across the globe were explored, with a selection of those, which could be adapted to Africa’s context. However, it emerged that there was a need for a functional way of engagement across continents in agricultural higher education and research to operationalize the adaptation of emerging best practices across the continents and maximize positive outcomes of alliances and partnerships.

This report covers points of action and emerging issues from Webinar 13 organized by RUFORUM on Global university partnerships for addressing emerging development challenges held on 7th October, 2020.

Webinar Objectives:

The Webinar on *Global university partnerships for addressing emerging development Challenges* focused on the following:

1. Emerging higher agricultural education, research and innovation models;
2. Possible programmes between Africa and each of the continents represented; and
3. Avenues for financing partnership programmes in higher agricultural education, research and innovation.

This Webinar was moderated by **Dr. Pauline Essah, Head of Research and Insight, Education Sub Saharan Africa**. The presentations and discussions were given by:

1. **Prof Carolyn Glynn**, President for European Alliance on Agricultural knowledge for Development (AGRINATURA)
2. **Mr. Bernie Burrola**, Vice President for International Programmes, Association of Public and Land Grant Universities (APLU)
3. **Prof R.P. Singh**, Executive Secretary, Indian Agricultural Universities Association (IAUA)
4. **Prof Ki Hee Ryu**, Institute of Green Bio Science and Technology, Seoul National University, Korea
5. **Prof Coumba Toure Kane**, Association for the Development of Education in Africa (ADEA)
6. **Dr. Tang Ying**, Deputy Director International Office, China Agricultural University (CAU)
7. **Prof. Etienne E. Ehile**, Secretary General, Association of African Universities (AAU)
8. **Prof. José Zaglul**, President, Global Confederation of Higher Education Associations for Agricultural and Life Sciences (GCHERA)

Key Learning and Action Points:

The following are the perspectives, action points and key messages of the different presenters with respect to *'Global university partnerships for addressing emerging development Challenges'*:

1. Prof Carolyn Glynn, President for European Alliance on Agricultural knowledge for Development (AGRINATURA)

- Researchers and teachers possess tools of thought that are passed on to the next generation. Therefore, shaping the future of research requires good connection between researchers and teachers in the field as they have a good understanding of the research and innovation context;
- The model of education, research and innovation by life science universities in Europe is not based on aid but rather work to improve people's lives through education and research partnerships of mutual benefit in collaboration with governments, businesses and development organisations. For example, through participatory action research in which university researchers and students work closely with farmers and communities to find solutions to some of the most pressing development challenges;

- European universities are working to tackle global grand challenges such as climate change, biodiversity loss among others, which are causing serious changes in food production and food security which is internally linked to migrations. Now with the advent of COVID-19, issues around agro-food systems such as food production, transportation and marketing have become even more relevant, and agriculture is now high on the global development agenda. For instance, the European Green Deal and in particular, the Farm-to-Fork initiative, focuses on production of safe and high quality food with reduced impact on the natural environment. African universities have the opportunity participate in the Green Deal initiative through partnership with European universities and institutions;
- Universities need to approach policy makers jointly as networks/association when striving to influence policy direction on research, education and innovation. For instance, the European Commission is keen to work with Agrinatura network of universities to guide its policy direction because of their strong collective voice. African universities should “take a leaf” from their European counterparts and engage various policy makers in a collective manner.

2. Mr. Bernie Burrola, Vice President for International Programmes. Association of Public and Land Grant Universities (APLU)

- The Cooperative Extension Model implemented by the American Public and Land Grant universities has played a big part in bringing science and research from the universities to the communities to solve problems. This kind of action requires universities to form strong partnerships with local governments and communities;
- COVID-19 has caused disruptions to universities and educational institutions such as the abrupt shift to online learning, budget cuts in universities, adjustments of university research budgets by federal governments to fund COVID-19 related programmes, and hindrance to mobility of students and scholars to engage face-to-face. However, COVID-19 has brought some positive outcomes such as accelerated change in acceptance of using digital platforms for instruction and greater potential for increased broadband access and internet infrastructure leading to increasing flexibility of students to learn and engage with others across continents;
- The COVID-19 Pandemic has instilled new possibilities for increased global collaborations in research on issues related to climate change, food security, public health, to mention a few;
- American universities are increasingly aligning their institutional international strategies around Sustainable Development Goals (SDGs) and this provides opportunity to look for potential funding and organise partnerships to solve problems related to SDGs. Public-private agencies and foundations including USAID, United States Department of Agriculture, State departments, private companies and foundations support most of these partnerships;
- There are many collaborations between American Universities and African partners. These partnerships now emphasise training of trainers and sandwich programmes for PhD training of scientists in their own countries. These are cost effective partnerships given the prevailing economic recession and budget cuts caused by COVID pandemic taking advantage of online technology.

3. Prof R.P. Singh, Executive Secretary, Indian Agricultural Universities Association (IAUA)

- Agricultural intensification has played a key part in developing India's green revolution through underground water use for irrigation, high yielding plant varieties and use of fertilisers;
- In order to reduce the impact of agriculture on the environment, there is increased application of green technologies in India such as solar power and conservation agriculture technologies;
- There have been critical reforms in India's agricultural education since independence such as the establishment of rural universities, introduction of the United States land grant model and the establishment of specialised agricultural universities, which was followed by ardent reforms in the curricula;
- Increased empowerment of women in higher agricultural education system at all levels which is translating to successful enterprises, rural prosperity and nutritional security in India;
- There are lot of opportunities for partnerships between India and Africa supported through the Indian Ministry of External Affairs providing fellowships for Masters and PhD students.

4. Prof Ki Hee Ryu, Institute of Green Bio Science and Technology, Seoul National University, Korea

- Seoul National University (SNU) collaboration model involving university, research institutes and industry linkages has increased competitiveness of the agribusiness sector and strengthened agricultural value chains in Korea. This model could be replicated by RUFORUM by strengthening linkages with the private sector.
- There are existing opportunities for partnership with Korean Universities such as through the World Bank funded Partnership for Skills in Applied Sciences, Engineering and Technology (PASET) programme which supports a sandwich programme in which African PhD students visit Korea for two (2) years and use high tech facilities for research in various fields including food security and agribusiness;
- Seoul National University is currently supporting the establishment of a Biotechnology Center in Uruguay, which will host joint exchange programmes. RUFORUM could also explore establishing a Green Biotechnology Center through IDA funding from the Korean Government to support capacity building. This requires RUFORUM to speak to African governments working in partnership with multi-lateral organisations such as World Bank and African Development Bank to invest in biotechnology, agribusiness and value chain development in Africa.

5. Prof Coumba Toure Kane, Association for the Development of Education in Africa (ADEA)

- There is a need to support establishment of a Continental Education Platform and Country-Based Advisory and Enforcement Support Services in order develop education systems, advance higher education and quality research to support socio-economic transformation in

Africa. These are critical pillars for the Association for the Development of Education in Africa (ADEA) strategy;

- Africa still faces serious challenges such as poor access and quality of training. Making headway requires facilitating access to financing for education institutions through collaboration with development partners and networking;
- The challenge of food and nutritional security especially in West Africa can be improved by quality training and involving all actors in the agricultural value chain through technology transfer, inclusive and participatory approaches. However, strong political will to support higher education, training and research is required;
- There are opportunities for training at the African Centre of Excellence at Université du Sine Saloum El-Hâdj Ibrahima NIASS (USSEIN) in terms of PhD, masters, bachelors and professional courses. This is contributing to a highly skilled labour force that is currently in short supply to support agricultural transformation, increased empowerment of women in research for development and promotion, formulation and implementation of agriculture and food security policies.

6. Dr. Tang Ying, Deputy Director International Office, China Agricultural University (CAU)

- The Belt and Road/South-South Cooperation Agricultural Education, Science and Technology Innovation League (BRSSCAL), which is a 74-member league of universities including 34 universities from outside China is providing unique models of agricultural education in China that are being shared with partners outside China including Africa;
- BRSSCAL has a pool of experts who act as the research Think Tank for the League and are collaborating with various institutions such as the Food and Agriculture Organization of the United Nations (FAO) to produce joint publications in topics related to agriculture;
- There are ongoing projects in Africa supported by BRSSCAL such as China-Africa Simple Technology Big Harvest Project operating in Morogoro, Tanzania, which uses a unique networking model through WeChat mobile application with the aim of increasing agricultural productivity even under COVID-19 lockdown. Meanwhile the China-African Science and Technology Backyard (STB) Programme tackles first hand agricultural related problems using research data. STB is already involving 34 international students from Africa in research where students are attached to the so-called Professor Stations in rural areas.

7. Prof. Etienne E. Ehile, Secretary General, Association of African Universities (AAU)

- Association of African Universities (AAU) founded in 1967 in Rabat, Morocco and hosted permanently in Ghana since 1971 has a mandate of advocacy, coordination and supervision for, of and on behalf of higher education in Africa;
- The models deployed by AAU to promote higher education, research and innovation in Africa include African Centers of Excellence; academic mobility and diaspora engagement; and policy engagement with Governments, university leaders and national councils of higher education. Capacity building focusses on skills development for university leaders, academics, researchers and students to mention a few; research dissemination; and creation of

communities or networks. Capacity building also encompasses increasing access to research infrastructure for students and researchers, building capacity of national science granting councils to play essential roles in research, knowledge and innovation;

- The African Centers of Excellence projects (ACE I, II and ACE Impact) funded by the World Bank was initiated to promote regional specialization and strengthen capacities to deliver high quality training and applied research in Africa. The scope of ACE has expanded from the initial focus on science, technology, engineering, mathematics (STEM), agriculture, environment and health to include energy, mining, water, transport, ICT and digital development. The ACE model promotes research and innovation including establishment of multi-disciplinary and trans-disciplinary programmes, engagement of the private sector, job creation through entrepreneurship development, skills development, business incubation and internships, promotion of thematic regional networks of universities and institutional impact mechanisms to strengthen central management systems to build resilience;
- The academic mobility and diaspora engagement model includes elements such as scholarships, small grants for research theses and dissertation, staff exchange and linking with diaspora to strengthen the capacity of African universities;
- In terms of policy advocacy, AAU uses its various platforms for policy engagement such as its General Conference, Biannual Conference of Rectors, Vice Chancellors and Presidents of African Universities (COREVIP), Annual African University Week, to mention a few and Participation in African continental strategies such as CESA, STISA, Pan African University among others;
- AAU is providing opportunities for partnership through joint advocacy, joint resource mobilisation, continental research collaborations, scaling up and replicating the RUFORUM Graduate Teaching Assistantship (GTA) programme;
- In terms of funding strategies, some key ways of mobilizing resources recommended are joint approach to African Governments, Continental Entrepreneurship and Business Development Initiatives and joint response to calls for proposals.

8. Prof. José Zaglul, President, Global Confederation of Higher Education Associations for Agricultural and Life Sciences (GCHERA)

- Universities and academic institutions are a gateway for changing the world faster because most leaders in world, private sector, public sector, associations and non-profit organisations are usually university graduates;
- Academic institutions should go beyond just providing knowledge about science, technology and society but also equip the graduates with ethics and leadership skills to improve the conditions of the world;
- Global Confederation of Higher Education Associations for Agricultural and Life Sciences (GCHERA is currently implementing the transforming higher education project in partnership with American University of Beirut and Earth University with funding from the W.K Kellogg Foundation. The key elements of focus are experiential learning and participatory learning where the student is at the centre of the education process, university engagement with

communities, social entrepreneurship training and business development, problem solving and conflict resolution through dialogue, ethical and value-based leadership;

- Universities and partners can contribute to innovative, holistic, values-based and student-centred educational systems through developing new curricula, enabling policies, culture and attitudinal shifts, structural changes, enabling resources and new pedagogy.

Conclusion and way forward

From the discussions, it emerged that different networks (continents) are deploying several models for training, research, innovation, entrepreneurship and capacity development. All the models underscore the need for research, innovation and community engagement to focus on the challenges faced by communities with universities working with them to jointly identify and solve these problems in a participatory way. African universities could learn from the cooperative extension model at the Public and Land Grant Universities, participatory action research in Europe, applied environmentally friendly technologies in India, Science and Technology Backyard (STB) and Simple Technology Big Harvest models deployed in China to transform African communities and economies. University-research institutes-industry linkages model demonstrated in Korea has enhanced competitiveness of the agribusiness sector and Africa could borrow from this. African Centers of Excellence, African Diaspora Programme and leadership and management training and transformation are models that have worked and need scaling out across Africa with support from Association of African Universities (AAU). Working with policy makers as a network and not as individual universities, and development of a Continental Education Platform and Country-Based Advisory and Enforcement Support Services in order develop education systems provide a stronger force to work with policy makers in Africa to advance higher education and quality research to support socio-economic transformation in Africa. Africa has an opportunity to partner with Europe the Horizon 2020 and Horizon Europe's programme implementing the Green Deal and Farm to Fork Strategy, and participate in implementing research and training on issues related to climate change, food security, public health training of trainers and sandwich programmes for PhD training of scientists in their own countries. African universities, could take advantage of fellowships for Masters and PhD students being provided by the Indian Ministry of External Affairs and the World Bank funded Partnership for Skills in Applied Sciences, Engineering and Technology (PASET) programme. RUFORUM could also explore establishing a Green Biotechnology Center through IDA funding from the Korean Government to support capacity building. This requires RUFORUM to speak to African governments working in partnership with multi-lateral organisations such as World Bank and African Development Bank to invest in biotechnology, agribusiness and value chain development in Africa.

RUFORUM Secretariat