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REGIONAL FEATURE

Gender Equity in Agricultural
Research and Development



INTERVIEWS

Charles Ocici
Norah Asio Ebukalin

AFRICA HIGHER EDUCATION INSIGHTS

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AFRICA ON THE MOVE:

THE ROLE OF UNIVERSITIES IN TRANSFORMING AFRICA'S AGRICULTURAL SECTOR

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Capacity Building in Agriculture



Our Vision

A vibrant agricultural sector linked to African universities that can produce high-performing graduates and high-quality research, responsive to the demands of Africa's farmers for innovations, and able to generate sustainable livelihoods and national economic development.



Our Mission

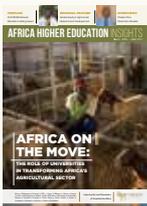
To strengthen the capacities of Universities to foster innovations responsive to the demands of smallholder farmers and value chains through the training of high quality researchers, the output of impact-oriented research, and the maintenance of collaborative working relations among researchers, farmers, market actors, national agricultural research and advocacy institutions, and governments.



Our Motivation

"Transforming agriculture in Africa requires innovative scientific research, educational and training approaches. The education sector needs to be more connected to the new challenges facing rural communities and needs to build capacity of young people to be part of the transformation of the agricultural sector". Reinforced by the Science Agenda for Agriculture in Africa.





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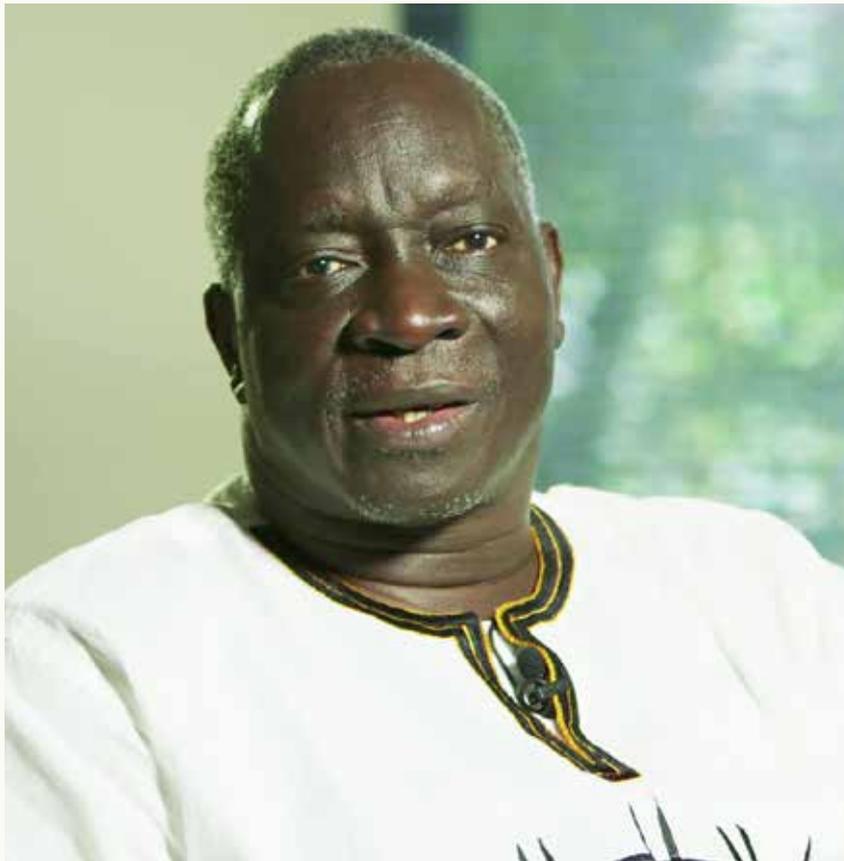
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Training for impact



universities as a way of creating impact; perspectives from a national institution that has supported development of youth enterprises for the last 10 years; reflections from a farmer; as well as the gender dimension of agricultural research and development.

“How can universities claim to be relevant if they cannot impact the communities around them?”

We hope you enjoy reading this issue. Do send us your feedback to let us know what you liked, and suggestions on what you would like to see in future editions.

Prof Adipala Ekwamu
Executive Secretary, RUFORUM



Regional Universities Forum for
Capacity Building in Agriculture
Plot 151/155 Garden Hill,
Makerere University Main Campus
P.O. Box 16811 Kampala, Uganda,
Tel: +256 417 713300
(Office) | Fax: +256 414 534153
Email: secretariat@ruforum.org
Website: www.ruforum.org,
<http://respository.ruforum.org>



Welcome to the inaugural issue of *African Higher Education Insights*, a quarterly newsletter from the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) that aims to share insights on developments in the higher education and agriculture sectors in Africa.

The focus of this issue is “**impact of agricultural higher education**”. More and more, development funders are demanding to see the impact of their investments and rightfully so because after decades and millions of dollars have been invested in several sectors including higher education, what is there to show for it?

How has investment in higher education in Africa positively changed the lives of the common man or woman seeking an exit from poverty, for example? As one university

researcher once said, and I tend to agree, “How can universities claim to be relevant if they cannot impact the communities around them?”

Is the seemingly invisible impact a confirmation that higher education has indeed had little impact? Are we just failing to document the impact of our work, or are we at the beginning where we are not too sure what impact is? These are pertinent questions that we try to shed some light on in this edition of the newsletter.

Our feature article, “Africa on the move” highlights the role of universities in transforming the continent’s agricultural sector and discusses issues around demonstrating the contribution of universities to national and regional development. We also bring you an analysis of community engagement approaches used by various



COVER STORY

AFRICA ON THE MOVE:

The role of universities in transforming Africa's agricultural sector

By Charles Owuor, Manager Planning Monitoring Evaluation and Learning, RUFORUM



According to Brookings foresight for Africa's agriculture, food production in Sub-Saharan Africa needs to increase by 60% in the next 15 years to adequately meet the future demands of the continent's skyrocketing population. To achieve this feat, there is growing consensus that investments should be made in strategic sectoral areas to create synergy and cause major technological breakthroughs and transformation of the agricultural sector.

Secondly, African national governments and Regional Economic Communities should implement sound policies that not only address short-term political gains, but stimulate genuine and positive long term structural changes. At the minimum, there should be facilitated platforms for collective action to address the underlying causes of the dismal performance of the agriculture sector among different actors to share knowledge and initiate collective action.

At the core of this major thrust is the need to develop human capacity to innovate and manage food systems for greater resilience and achieve the much needed nutritional improvements for a healthy continent. This space, presents opportunities for African Universities to build the optimal capacities to address the skills gap, develop Africa-relevant and home grown technologies,

interrogate and engage in and increasingly more dynamic policy environment.

Despite the current massification of higher education across the continent, less than 8% of higher education graduates study science-based disciplines of which approximately a paltry 4% study agriculture and science related disciplines. Yet the demands of a smallholder-anchored farming system in Africa demands for new skill sets, mental orientation of graduates and appropriate technologies that deliver high yields and are resilient to the uncertainties caused by vagaries of climate change. But is the current agriculture higher education system well positioned to meet these evolving demands?

The neglect of agricultural higher education sector, as has been the rest of the higher education sector, has no doubt impacted negatively on other human development dimensions. Higher education institutions potentially provide specialised training in agriculture and related subjects, produce qualified and capable graduates to meet the skills requirements for an innovative agricultural sector leading to the structural transformation of the economy. Tragically, the sub-Saharan region is witnessing escalating food imports estimated at USD 50 billion annually and this demand is predicted to rise threefold in the next decade.

This demand will not be met by an agricultural sector as it stands now due to superior global competition in terms of price, quality, reliability and uniformity which all demand for an innovative stock of human capital to catalyse the much needed transformation. In the private sector, there is already an outcry from multinational agricultural companies on the lack of skilled labour to man investments.

This has to a great extent impeded the "Africanisation", the inclusion of local content and expansion of the strategic agro-processing sector to support rural income and economic development. Throughout the value chain, there is shortage of agribusiness specialists/managers, veterinarians, agronomists, water and irrigation engineers, and food preservation and processing specialists. This trend needs to be urgently reversed if Africa is to benefit from the dividends of science and technology, and play a central role in a knowledge based economy. Existing evidence indicates that there is slow adoption of new technologies in geographical regions with skills shortages. Therefore, to cause the required major transformations in Africa's agriculture sector to achieve and sustain higher growth rates and reduce the technological frontier gap, there is an urgent need to build a critical mass of skilled labour force with tertiary education system.

Despite the above realities, emerging public financing models demanding for stringent accountability and demonstration of value for money have left very many higher education actors, including universities, hard-pressed to demonstrate their relevance in national development processes. The challenge is compounded by the fact that whereas investments in physical infrastructure such as roads and government buildings are relatively easy to evaluate and appraise their impact, it is relatively inappropriate to apply the same evaluation instruments and models to appraise "soft" infrastructure such as human capital development, innovation support, research and development. Secondly the current evaluation instruments for appraising innovation capacity and innovation are less suited for development

context of developing countries. The sectoral budgeting and public financing strategies that seek to demonstrate results at policy goal levels and are forward-looking, are diluting universities' role into the sectoral crowd of priorities. The need to reinforce sectoral complementarity and mutually reinforcing impacts of public investments further fizzles the university clout and clouds its contribution to national development.

Therefore African universities need to master the art of generating evidence of their contribution to national and regional development processes to attract the necessary financing beyond the national subventions. The hard evidence-based data of universities' outputs, articulation of outcomes and visualisation of impact are critical, but African universities have been slow to this reality, yet it is the mundane for western universities. It is imperative that reliable data is a building block of successful knowledge economies. Critical decisions that drive global processes be it in business or politics are supported by evidence-based data that is routinely collected on parameters of interest and analysed for further interpretation. In virtually all sectors of the economy, data collection and management has become a strategic

African universities need to master the art of generating evidence of their contribution to national and regional development processes

business operating procedure motivating investments in data management ventures in both public and private sector. Despite the fact that universities are at the core of national science and innovation systems and they contribute to key functions of knowledge production, transmission and transfer, data on their performance is very scanty.

The scarcity of data transcends the universities to higher education sector as whole. Analytics on parameters such as student load, completion rate over time,



Charles Owuor is the Manager Planning, Monitoring, Evaluation and Learning at the RUFORUM Secretariat.

relevancy of academic programmes, performance of faculties, student liability status, numbers and characteristics of staff, investments, and research activity are largely non-existent and difficult to obtain from even well-established African Universities. At national level, this is the mandate of the respective national councils' of higher education that are unfortunately faced with numerous problems such as lack of strategic planning and vision, limited financing and poor ICT infrastructure.

It is therefore not surprising that where data is available, it is extremely limited to support any strategic decision making, let alone inform higher education investment choices. The respective national bureaus of statistics have also not done much on this front either, as they only seem to concentrate on collecting data to explain and project economic scenarios, and higher education is distantly considered. In some of the annual statistical abstracts, there are some muted lines on higher education.

One of the major barriers to analytics in higher education is cost. Many universities and other tertiary institutions view analytics as an expensive endeavour rather than as

an investment with much of the concern centred around the affordability of data collection tools and methods. Other barriers include inadequate and inappropriate resources to build information capabilities, limited ICT infrastructure and out-of-date information resources. And yet this is what African universities need to invest and be able to demonstrate their relevance in concrete terms.

Once this is done, it has potential to lead to more effective advocacy for funding from governments, new partnerships, opportunities for investment, improved operational efficiencies, competitive advantage over other academic institutions and in, broad terms, support universities to achieve their strategic benefits. African Universities need substantial efforts in funding, human resource planning, tracking research investments, demonstrating effectiveness and efficiency as well as gauging performance of faculty. With many voices saying that "Africa is on the move", universities need to reclaim their centre apolitical stage, generating capable human capital, relevant knowledge and appropriate technologies. Demonstrating their innovation and performance capacities based on well-tested metrics and indices is thus critical. ●

NORAH ASIO EBUKALIN

Popular Knowledge Women's Initiative (P'KWI)

Norah Asio Ebukalin is the Executive Director Popular Knowledge Women's Initiative (P'KWI) in Eastern Uganda.

An illustrious farmer and community mobilizer, she has impacted the lives of over 15,000 individuals by catalyzing change. She shared her reflections on university engagement with local farming communities for impact.



Why should universities focus on impact rather than output when carrying out their work—teaching, research and outreach?

Focusing on the desired impact right from the start of their activities will enable them to work backwards and tailor their activities to those that are relevant and will make a difference on the ground. It also helps them learn better from previous experiences and map out an appropriate course of action.

How can universities know that their interventions have had an impact in the community?

Impact may not be immediate or always visible. If for example a university has carried out a training, the impact will take a while to be realized, but the mere fact that the farmers accept to take part in the training is an indication of possible positive future impact. Perhaps the easiest impact to observe is the case where a university is promoting a new variety. In this case, one can simply check the fields and see whether the farmers have planted it. We also should not forget that farmers adopt at different rates. Some are early adopters while others only adopt after seeing the early adopters succeed.

Is there a role for universities once adoption has taken place?

Definitely. Sometimes, adopted technologies deteriorate and need intervention from universities. For example, issues may arise with the new varieties that the local communities cannot address alone using their local knowledge. Addressing these emerging issues then requires collaborative research between the universities and communities in order to be effectively resolved.

Are there cases where good innovations have had low impact?

Yes. There was a project that introduced the use of ICTs to facilitate information sharing among farmers. Farmers were given mobile phones to take photos of problems in their fields e.g. diseases and send them to the university support team for advice. This promising initiative, however hit a snag when a student who was supposed to train a local Data Assistant to process the data before sending it to the University mishandled the training. The student arrived late for the training and delivered what should have taken at least a day, in less than one hour. Obviously the Assistant did not learn much. This action has cost the research team goodwill from the farmers who are now questioning the university team's motives and implementation of the programme is under threat.

But with the mobile phones already in the community, are farmers not using alternatives like WhatsApp for problem solving?

They are. In fact farmers are taking initiative. Whenever they see a strange problem in their garden, they take a picture and send it to their farmer organisations who then convene a meeting to discuss. For example the recent outbreak of the fall army worm was discovered by farmers through WhatsApp before it was declared in the media. Through WhatsApp, farmers were able to identify the worm, differentiate it from other pests like the maize stalk borer that was also attacking crops at the time, and also discover which areas had been affected. We wish the research organisations had intervened sooner because maybe the problem would have been solved faster since we detected the worm as early as February this year when our maize germinated.



Photo: Peter Karanja, CABI Africa

to happen and briefing them in case of any changes during implementation.

Secondly, they should build the capacity of communities so that whatever intervention is made can be sustained. Impact is seen and measured at community level so if the farmers cannot carry on with an intervention, one is as good as wasting time.

Thirdly, universities should work with NGOs, the private sector and other actors in the community so that they have a harmonized agenda. Lack of coordination among the different actors who sometimes have competing agendas causes confusion among the farmers. For example, a university may introduce a particular variety of cassava and shortly after a different variety is brought from another institute. Which one should the farmer then choose? Usually they choose neither and say, "Let them first resolve their issues."

What role can RUFORUM play in order to ensure that there is impact on the ground?

Achieving impact on the ground does not necessarily require RUFORUM to interface with farmers directly. Once students are sufficiently empowered, they can in turn empower communities. This is possible especially where students have a heart for community development and are not only interested in doing the bare minimum to graduate from university, as is the case sometimes. In fact where students are committed, working with farmers presents them an opportunity to learn from farmers and better understand the context in which they operate.

However, much as RUFORUM may not be involved in direct implementation, it should play an active role in monitoring what is happening on the ground in case any corrective actions need to be taken.

The fall army worm leaves destruction in its path: Timely access to information can save a crop

How best can universities make use of such communication channels such as WhatsApp to reach farmers?

In farming communities, there are "think tanks" or groups that are looked up to as a source of information, especially groups that have been in existence for long or those that have connections to researchers. P'KWI is one of these groups. When we identified the army worm, we notified the other farmer groups, but our local solutions were not effective as this time the worm was more destructive than what we were used to handling. In such instances, a direct link between universities and farmer organisations would have helped to alert the researchers early and provide a channel through which a solution could quickly be communicated to farmers.

How can universities ensure that their activities create impact on the ground?

Firstly, universities should work together with communities and treat them as equal partners. The two should seek to understand each other as low understanding is one of the major causes of low impact. This includes holding inception meetings before the start of an activity in order to align the community with what is going

POPULAR KNOWLEDGE WOMEN'S INITIATIVE (P'KWI)

The Popular Knowledge Women's Initiative (P'KWI) is a farmers' cooperative society formed in 1993 by women from traumatized and impoverished families in the Teso region in Eastern Uganda after the insurgency. The membership base is at over 2,500 households with a focus on farming and community empowerment.

 norahasio@gmail.com



Differentiated community engagement approaches but same mission: University outreach programs in Africa

By Paul Nampala, Ronald Kityo and Adipala Ekwamu, RUFORUM Secretariat

Universities and Higher Education Institutions (HEIs) have three main responsibilities including; teaching, research and community outreach. Of the three, community outreach is traditionally the least served. This justifies current effort by African Universities slowly committing to community outreach programs as a way to connect to their communities. They recognize that in order to increase opportunities for students to engage in their various communities in academically-grounded ways that emphasize experiential learning and thereby benefit them (students), the institutions themselves and the communities; they must have strong external and internal infrastructure that supports such activities and relationships.

One of the ways universities can demonstrate the value of community engagement to internal and external contingencies is to work these mechanisms into already-existing structures that will support tracking in higher degree training programmes. To actualize that capacity, universities must make their internal audiences aware of outreach opportunities, best practices in outreach, resources for outreach, and other growth-oriented information. This builds interest and knowledge first internally, and then employs that knowledge and activity externally to larger communities.

The approach connects with transformational education, as outreach is a

form of experiential learning a high impact practice which benefits students by providing applied skills necessary for essential learning goals and future employment. As a best practice, it is important to have institutional accountability when it comes to recognizing the work of outreach in university policies and procedures. It is also important to note that outreach increases the profile of the university within the community by putting students into real-world situations in which they can apply knowledge gained in the classroom and illustrate the value of that knowledge through civic and professional action in the community. In fact, some African universities have a track record of providing quality education to a variety of students and expose many of them to high impact practice through independent research, experiential learning activities like internships, and field attachments.

Evidence of integrating experiential learning into curricula to support community engagement programs

Experiential learning is a high-impact

practice that benefits students by providing applied skills necessary for essential learning goals and future employment. It also raises the profile of the university within the community, serving a secondary goal of outreach and engagement. Experiential learning also demonstrates the value of university education, by putting students into real-world situations where they can apply knowledge gained in the lecture theatre. Many African universities are now making efforts to produce “fit-for-purpose” graduates that the development industry and, most importantly, the agricultural sector expects. It is assumed that a well-designed community engagement program should deliver on this expectation.

University community engagement and outreach programs stimulate students' perspectives to develop the interdisciplinary skills that will make them better problem solvers and creative thinkers. Many

A complimentary practical approach of Supervised Student Enterprise Project (SSEP) is designed so that students develop and present business plans while still on study programs at the University.

contemporary problems require the knowledge and approach of multiple disciplines, enabling students to work effectively with others whose disciplinary approach and skill set differs are currently in demand and will continue to be well into the future. These skills prepare students for a lifetime of learning, and are among the most valued in future employment. Generally, higher education institutions can be a place for all students to have transformative educational experiences and should therefore, promote transformational education.

Most universities in Africa, unlike the Land Grant Universities, use the “University-Farm Model” which entails an effort to impart skills at a farm established and managed by the

concerned university. However, evidence indicates that owing to lack of contextualized scenarios, the “University farm model” of practical training is inappropriate for training professionals who are expected to work with smallholder farmers. This is because smallholder farmers' farms, especially in Africa barely mirror the University farm set up. In addition, the “University farm model” does not provide opportunity for students to access ecological knowledge to complement what is conventionally imparted to them (students) at the university. Ecological knowledge represents a body of “native science” acquired by communities over hundreds or thousands of years through direct contact with the environment.

It has been observed that people in a community who are closely connected to the local surroundings are often the first to notice environmental change. This is

because their knowledge is derived from long-term observational data maintained through oral tradition. It is for this reason that the knowledge held by the community needs to be reflected in local classrooms. The continued failure to recognize this fact is probably part of the reason why development and adoption of otherwise

best-bet technologies remains elusive. This underscores the importance of contextualizing training programs as a way of equipping HEIs to produce graduates that are responsive to smallholder settings.

There is evidence that many African universities are increasingly seeking ways of remodelling curricula to provide entrepreneurial and agribusiness skills to their students while at the same time reinforcing outreach. Approaches vary, but all aim at fulfilling the mission of university-community engagement that involves the sharing of knowledge generated with communities. Practical training for students is increasingly being used as a means to deliver innovations to communities as well as articulate research problems.

Community outreach approaches in selected Higher Education Institutions in Africa

Gulu University Student-Centred Outreach & the Supervised Student Enterprise Project:

The novelty of the Student Centred Outreach Model lies in the placement of undergraduate students to work with supervised student smallholder farmers within a 10 km radius of the university, for a period of up to one year. A complimentary practical approach of Supervised Student Enterprise Project (SSEP) is designed so that students develop and present business plans while still on study programs at the University. The most innovative and economically feasible business plans are then provided with start-up capital so that they are actualized. Upon implementation for one year, the students pay back the start-up capital with a modest interest for purposes of continuity

Egerton University Farm attachment program:

In this program, students are attached to the same farm(s) continuously for at least three consecutive years. Each cohort of students builds on and follows up on the recommendations of the previous group.

Polytechnic of Namibia Participatory Rapid Appraisal (PRA), and Participatory Learning and Action Research (PLAR).

This Polytechnic's approach is to combine student training, action research and community service. The PRA and PLAR present an approach for community university partnerships to foster and maximize the rewards of university engagement with communities for collaborative research and problem solving.

University of Venda Institutionalized community engagement streamlined in training programs:

The University of Venda established a Community Engagement Directorate which provides intellectual and community informed leadership on community engagement programmes in schools and centres. The directorate mobilizes, organizes and interacts with staff, students, rural communities and other stakeholders for



responsive teaching and learning, research and social responsibility projects. It also serves as a nerve centre for engagement on issues of community interest such as water, health, local economic development, social development, and facilitates knowledge co-creation and development. Additionally, it facilitates the creation of platforms and opportunities for work-based learning, service learning and other forms of experiential learning for students at various schools. Community engagement activities rest with the schools and centres through individual staff members, deans and heads of department while the directorate provides support and coordination functions.

Zimbabwe Open Student Internship programmes:

The University engages students in service activities primarily for the purpose of providing them with hands-on experience that enhances their learning or understanding of issues relevant to a particular area of study. Internships are supervised, with students leaving their institutions and getting engaged in work related programmes. They are supervised by experienced job incumbents and reflect

actively on what they are learning throughout the period of attachment.

Student field attachments and internships have taken on an increasingly important role in higher education in recent years presenting students with many advantages, ranging from gaining experience to defining career direction, networking with students from other institutions as well as with supervisors at the organisation providing the internship and the general community in which the internships are conducted. The University offering the internship benefits through increased cooperation and rapport with the industry and local community.

The philosophy underpinning the community-connectedness orientation is premised on two key pillars: (i) the need for students to interact with outside stakeholders to enable them (students) understand and appreciate circumstances and challenges within the community that they would be expected to face upon graduation; and (ii) the need for outside stakeholders and graduate uptake market players to participate in producing graduates that are relevant to the labour

market. The benefit of combining student training, action research and community engagement is synergistic, because students learn more effectively through the stimulating experience. The community benefits through the participation of energetic students and the results of action research are owned and controlled by the community and are therefore more likely to be put to use. This model of learning therefore benefits students, farmers, as well as development organisations working with the farmers.

Thus, Higher Education Institutions and policy decision makers should consider strengthening and supporting the integration of field-based practical approaches of training. They need to integrate entrepreneurial practical approaches in their curricula to develop young people's creative thinking and innovation capacity to be able to build small scale businesses that enhance job creation.

Institutions in which such community engagement approaches are not yet employed in student training curriculum can pick lessons through experience sharing and cross-learning among African universities. One way to institutionalize university outreach programs is to have a central office that deals with community outreach, advocating for and promoting faculty and students with regards to the work being done in the community, assessing outreach practices and services.

This article has been adapted from the African Journal of Rural Development, Vol. 1(3): December 2016. The original version is available at <http://www.afjrd.org/jos/index.php/afjrd/article/view/216>

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Charles Ocici, Executive Director Enterprise Uganda

BUSINESS FOCUS

Entrepreneurship is a **MARATHON**, not a **SPRINT**

Three and a half years ago, Harriet Kayompatho was a jobless sociology graduate, restless with the ambition of owning a successful business and yet with little more than forty dollars to her name. Tired of being jobless for three years, she went to Enterprise Uganda in search of a solution. Her face brightened with relief when she was told that the 150,000 Uganda shillings (\$42) she had was enough to start up an enterprise. By the end of the 5-day training on business startup she had her business plan in place and immediately embarked on setting up her business in selling bottled water. Today, Harriet is one of the biggest distributors of soft drinks in her home town of Nebbi, in North Western Uganda, where she makes a daily profit of at least 450, 000 shillings (\$125). She has built a home, educated her siblings and now employs 10 youth. She has

also expanded her business ventures into the telecommunications and real estate sectors.

Harriet's story is only one of many success stories of young people who with just a little money, or none, and entrepreneurship skills have become successful business owners. We interviewed Mr. Charles Ocici, Executive Director of Enterprise Uganda, to gather his views and experiences in promoting youth entrepreneurship, one of the avenues of transforming youth livelihoods.

[What is the current landscape of opportunities for youth entrepreneurship in Uganda](#)

Youth entrepreneurship is currently a popular catch phrase in both government and non-governmental initiatives that seek to solve the growing problem of youth unemployment and, more painfully,

underemployment. There are a myriad of opportunities across sectors including agriculture, but these are not being fully exploited. For example, one can make over 100% profit from cassava in just 90 days, but this is not happening. However, in spite of the goodwill and investment towards youth entrepreneurship, this area of interest is riddled with misguided advice and approaches, most of which innocently given by people the youth look up-to and trust. Why, for example, should youth be given market stalls or told to set up agricultural enterprises as though these are the only viable entry points into business instead of guiding the youth on how to discover low hanging business opportunities in any sector around them? Over-prescriptive schemes that disregard background of targeted youth, their skills and interests could be counter-productive. It is no wonder that the beneficiaries often make mistakes and unfortunately get discouraged, thinking they are failures in life.

[What are some of the key indicators to look out for as measures of success in youth entrepreneurship?](#)

1. Youth seeing entrepreneurship as a calling where they are contented, have hope and determination, rather than as a temporary venture as they "wait for a real job";
2. An enterprise that is expanding non-stop with some support from internal resources;
3. Creation of jobs for others, a natural outcome of business expansion not the main target;
4. Payment of taxes by the enterprise;
5. Creation of vibrant economic value chains that are globally competitive.

[Are youth up to the task](#)

Youth need a mindset change on entrepreneurship. Many university graduates get frustrated looking for office jobs instead of exploiting opportunities around them. The few who go into entrepreneurship ventures look at them as temporary measures until an office job comes along. Opportunities in agriculture are particularly shunned because of wrong perceptions about the vocation. For many, the first thing that comes to their minds when agriculture is mentioned is the



The joy of success: Harriet Kayompatho outside her shop in Nebbi town

image of a poor, dirty farmer dressed in ragged clothes and toiling under the hot sun with a hand hoe. Few have seen successful farmers or think about other opportunities in the value chain like storage, transportation, input supply or professional consultancy services like extension.

How can universities and other tertiary institutions support creation of youth entrepreneurs

Firstly, university lecturers should change their mode of curriculum delivery and connect theory to the real world context. Secondly, internships should be reformed so that students can also engage in family enterprises as part of internship. Many times students get frustrated looking for internship placements in offices yet their own family enterprises like farms are fertile learning grounds. If students graduated with an entrepreneurial mindset already inculcated, initiatives like Enterprise Uganda would be able to deliver better as we would focus on providing business development support and enterprise acceleration.

What are the threats to building youth entrepreneurs

Excuses are the death of entrepreneurship, with money being the most believed excuse for not starting an enterprise. When you ask a young person why they cannot start,

“I have no capital” is the common song. Second to that is ego. Many people want the prestige that comes from holding an office job and will hold back on taking up entrepreneurship opportunities, but what is more prestigious than owning a successful business?

Even when youth have set up enterprises, not all is rosy. There can be problems. While there are external forces like unhealthy market competition, or internal events like fraud, the biggest threat to youth enterprises is the youth themselves if they fail to manage glory. Youth who stop listening to their customers or refreshing their businesses to keep up with changing trends because they are too busy celebrating their success often only realise their folly once customers have vanished.

What does it take for a young graduate to become an entrepreneur

The short answer would be independence, self-belief and a learning spirit. In reality however, entrepreneurship is sometimes over-simplified and made to look like one can acquire success overnight. Even with all the right ingredients in place, an enterprise needs at least seven years of support in order to stand on its own. The journey of entrepreneurship is not a sprint, but a marathon. One must be ready for the long journey otherwise they are setting themselves up for disaster. The seven-year support should cover the crucial stages of business take off; business formalisation; enterprise consolidation and growth; and brand establishment amidst stiff competition. Each of these enterprise evolution phases calls for appropriate structured advice, counsel and support.

For youth who want to become entrepreneurs, there are several avenues

to entrepreneurship, but the common ones are:

- Use your talent
- Build on your family background
- Use your acquired skills
- Make use of under-utilised resources around you for example idle family land
- Identify gaps in the market that you can fill
- Innovate by creating something new or give a new twist to an existing solution.

The last word

Youth entrepreneurship should be seen as a game with no end and entrepreneurs should be supported for at least seven years if it is to work otherwise any progress made today will be overturned tomorrow. A short-term quick fix approach to entrepreneurship will return to haunt nations as frustrated youth whose businesses collapse soon after inception will likely turn their anger and frustration onto their communities. As a growing number of development initiatives start to support youth entrepreneurship, it is also important for them to realise that one cannot own an entrepreneur. Sponsors should take pride in incubating and nurturing entrepreneurs into successful independent enterprise owners, rather than seeking to own them. Unless you have indoctrinated entrepreneurs, you do not own them, and in case you do, they will not be free thinkers any more, thus stifling their creative mind. Harriet’s story is only one of many success stories of young people who with just a little money, or none, and entrepreneurship skills have become successful business owners. We interviewed Dr. Martin Ocici, Executive Director of Enterprise Uganda, to gather his views and experiences in promoting youth entrepreneurship, one of the avenues of transforming youth livelihoods. ●

ENTERPRISE UGANDA

Enterprise Uganda is a public-private institution designed to support the Government of Uganda to promote the development of small and medium scale enterprises. It provides business development services to assist both start-ups and existing businesses to resolve their problems and prepare plans for growth using a hands-on approach.

charles.ocici@enterprise.co.ug



Photo: AWARD

SPOTLIGHT

Gender Equity in Agricultural Research and Development

Wanjiru Kamau-Rutenberg, Director African Women in Agricultural Research and Development (AWARD)

The Economist ran a cover story describing Africa as “The hopeless continent” in May, 2000. Just over a decade later, in December 2011, the same magazine ran a very different cover story titled “Africa rising”, in which it described the continent’s rapidly increasing prosperity and predicted another decade of strong growth. Africa is indeed rising, but we must both sustain growth rates and ensure that all Africans benefit from this trend. To achieve these and other social and economic goals, Africa needs to innovate in all spheres, public and private. We especially need “home-grown” innovations that mesh well with our unique social, environmental and economic realities.

We know that innovation thrives in healthy, diverse and resilient institutional environments, and for me, this is where gender issues come to the forefront.



Dr. Wanjiru Kamau-Rutenberg,
Executive Director, AWARD

African Women in Agricultural Research and Development (AWARD) is a career development programme that since 2008 has, through tailored fellowships equipped top women agricultural scientists across sub-Saharan Africa to accelerate agricultural gains by strengthening their science and leadership skills

However, gender equity issues in African agricultural research and development are not yet widely recognised, much less readily accepted as worthy of professional attention. The World Bank has cautioned “failure to recognise the different roles of men and women in agriculture is costly, resulting in misguided projects and programmes, forgone agricultural output and incomes, and food and nutrition insecurity.” This goes well beyond political correctness; incorporating gender issues systematically in agricultural research, development, and extension systems will contribute significantly to meeting the food needs of Africa’s growing population and ensure that productivity gains in food systems translate to improved welfare of the poor. African research institutions engaged in agricultural research and development will become much more successful if they create inclusive, diverse and gender-responsive working environments where the needs of both men and women researchers are fully integrated into decision-making at all stages of the research process.

To meet the innovation challenge, African universities, research institutions, and governments must work ever more closely with private sector partners to capitalise on Africa’s wealth of human resources. We have a young and vibrant population eager to build a better future for the continent, and we must invest in these young women and men to build their entrepreneurial talents and encourage innovation in all fields. This is especially true in agriculture, given the tremendous economic importance of the sector across the continent.

African research institutions engaged in agricultural research and development will become much more successful if they create inclusive, diverse and gender-responsive working environments

Since 2008, African Women in Agricultural Research and Development (AWARD) has been working to supply capable and confident African women scientists. We deliberately began our efforts by addressing the supply side of the equation in response to claims by agricultural research and development organisations that their staff were made up primarily of men simply because there were very few qualified women to hire. We have helped to change that, and are continuing to do so. Recently, however, we have started to strengthen the demand side of the equation. To achieve our vision of gender-responsive African agricultural R&D, we have realised that

strong partnerships with a range of African agricultural R&D institutions are needed, and especially with African universities, from which come the research leaders of the future.

Emboldened by the success of our long-standing Fellowship Programme and the various training courses we offer to our partners, we decided to ramp up AWARD efforts under our Phase III (2017-2022) strategy. Our strategy now focuses on three key components: empowering individuals, strengthening institutions, and building an enabling environment.

Under the new strategy, AWARD will continue to invest in the leadership, mentoring and scientific research skills of high-achieving African women scientists to ensure that capable, confident, and

influential African women scientists are available to lead critical advances and innovations in agricultural research and development for Africa. After seven rounds of Fellowships, AWARD’s impact is far-reaching. Since 2008, we have provided training to 1,466 researchers, advanced the careers of 1,158 agricultural scientists, and engaged with 334 institutions across sixteen countries. We look forward to deepening these partnerships and continuing to train and empower African women scientists.

The second part of the Phase III AWARD strategy focuses on partnering with selected institutions to grow their capacity for conducting gender-responsive agricultural research, i.e., working with them to ensure that the planning and implementation of their research programmes is done in ways that explicitly promote gender equity and take into consideration other gender issues specific to each institution. This involves leveraging the talents of gender-diverse research teams, and strengthening gender prioritisation in research design, implementation, and dissemination. By encouraging African agricultural research institutions to prioritise and embrace gender responsiveness, both in policy and practice, we are expanding the prospects for Africa’s

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Photo: AWARD

African Women in Agricultural Research and Development (AWARD)

future prosperity. We believe strengthening agricultural research institutions – especially universities – is the next step in promoting gender equity in African agriculture. By this we mean that research institutions must make sure that male and female agricultural scientists are treated fairly and equally, and that all points of view and/or priorities are equally represented in the research process and resulting products. Why? Because these institutions shape future generations of entrepreneurs and leaders – indeed, they provide a fertile breeding ground for future innovation.

To support this institutional role, AWARD is developing ways to work with selected institutions, including universities, to promote gender-responsive agricultural research and development (GRARD). One of the key aspects of our GRARD work is the Leadership for Professionals in Agricultural Research and Development course. Where we have partnered with institutions like RUFORUM to build capacity on the continent.

This intensive course is designed to strengthen the capacity of agricultural research and development institutions to provide role model leadership based on the

core values of inclusiveness, performance, transparency, integrity, and efficiency. Course participants include men and women working in agricultural research and development at various career levels. It is designed to help participants appreciate the differences between leadership and management, identify their personal leadership styles, and to understand the leadership styles of others. Participants also strengthen their effectiveness in leading more diverse teams.

AWARD is also building an enabling environment for gender responsiveness by empowering individual African women scientists and working with institutions to ensure that gender responsiveness becomes an embedded norm in the culture and practice of African agricultural research.

We focus on increasing the visibility of women scientists and leaders, generating and curating the evidence base on gender responsiveness in agricultural research, and working to transform the growing awareness of gender issues into policies, programmes, and accountability mechanisms.

AWARD is achieving these objectives by recommending and supporting needed policy changes, identifying gender

benchmarks that institutions can use to revise strategies for developing their human resources, and offering a wide variety of training courses to improve the skills, competence and confidence of young agricultural researchers.

AWARD is working towards inclusive, agriculture-driven prosperity for the African continent by strengthening the production and dissemination of gender-responsive agricultural research and innovations. We invest in African scientists, research institutions, and agribusinesses so that they can deliver agricultural innovations that better respond to the needs and priorities of women and men working across Africa's agricultural value chains.

We are about to officially launch our five-year strategy (2017-2022) for AWARD Phase III, which will involve significant collaboration with a select group of agricultural research institutions, including universities. However, we have yet to identify all the specific organisations in which we should invest, and we thus are asking institutions to let us know of their possible interest in partnering with AWARD in the coming years – but only those that are truly serious about improving the planning and implementation of their research by addressing the gender issues they face. ●

A close-up photograph of a person's hand holding a small, clear plastic container with a bright green lid. The container is filled with several white, oval-shaped capsules. A white label is wrapped around the middle of the container with the text "WHITE EMERGO" printed in black, bold, uppercase letters. The background is a plain, light-colored wall.

WHITE EMERGO

TRAINING AND RESEARCH FOR IMPACT:

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SUDAN

DR. MAYADA BESHIR

Developing disease resistant sorghum varieties

Mayada is a two time RUFORUM scholar, having merited scholarships for both her MSc and PhD at Makerere University in Uganda as part of capacity strengthening activities supported by RUFORUM in Sudan to rebuild agricultural science and human resource capacity. Her research work focused on strengthening breeding for dual resistance to anthracnose and turicum leaf blight, two important diseases that limit sorghum productivity in Sub-Saharan Africa. The immediate impact of her work has been to identify sorghum genotypes that had resistance to both diseases which information can be used in breeding for dual infection. Mayada is now back to her job at the Agricultural Research Corporation (ARC) in Sudan in the Biosafety and Biotechnology Research Centre where she joined in 2006.



MALAWI

CATHERINE MLOZA-BANDA

From graduate student to community change agent

For Catherine, the RUFORUM Scholarship for a Master's degree in Rural Development and Extension from Lilongwe University of Agricultural and Natural Resources came at the perfect time when she was seeking to establish a career as an agricultural communications specialist. Coupled with her previous training as a crop scientist she was now learned not only to generate scientific information, but also communicate it in an understandable manner to a wide range of audiences. Immediately upon completion of the course, she was offered an opportunity to work with Farm Radio Trust, a non-governmental organisation that aims to provide innovative agricultural extension and advisory services through radio and other ICTs. At Farm Radio Trust, she works as an Agricultural Value Chain Officer and is responsible for developing evidence based agricultural content for radio and ICT based agricultural extension and advisory services. She is living her dream while making a difference in the lives of farmers.

KENYA

NANCY CHEGE

Addressing capacity gaps in research methodology and data analysis

When Nancy left her job at a Technical and Vocational Education and Training institute to undertake a Master's in Research Methods at Jomo Kenyatta University of Agriculture and Technology, her statistical skills were minimal. Her greatest joy from this tailor-made course, developed through the support of RUFORUM, was that as her understanding of statistical concepts grew, she was able to complete another unfinished masters' degree in Agricultural Education that had seemed insurmountable. Upon graduation, the first beneficiaries of her new skills were her manager and his deputy who had been struggling to complete their own master's research. She helped them redesign their project proposals and develop a plan for data analysis. It is perhaps no wonder that when the deputy's term of service ended, she was nominated to replace him. Her teaching subjects were also expanded to include statistical and research methods. Nancy's skills are on high demand, with some research supervisors from universities referring their students to her for guidance or giving her part time teaching jobs. She has written two guidebooks on research and statistical methods, and actively participates in online communities where she assists scholars.





RWANDA

ATHANASE CYAMWESHI

Developing innovations to address challenges in the agricultural sector in Rwanda

As part of efforts to rebuild research capacity for Rwanda, RUFORUM, in collaboration with the Rwanda Government and other regional partners, supported training of 17 staff from the National University of Rwanda and the Rwanda Agricultural Board. Athanase undertook a Master's degree in Soil Science Makerere University and upon graduation joined the Rwanda Agriculture Board where he currently leads research on industrial crops (coffee and tea) and commercial insect research on apiculture and sericulture. He is also working to develop innovations for improving soil fertility as well as improving market access, increasing rural incomes, sustainable management of natural resources, and increasing the engagement of women.



BENIN

DR. FLORA CHADARE

Improving nutrition of women and children in Benin through food-to-food fortification

Dr Chadare, a lecturer in the Faculty of Agronomic Sciences, University of Abomey-Calavi is a Principal Investigator, leading a research team of a RUFORUM funded project that seeks to solve the problem of micronutrient malnutrition in Benin. Through exploiting the iconic baobab tree, the team aims to reverse malnutrition among women of reproductive age and children under 5 years. The baobab tree normally takes long to mature, but the research team have developed a solution that enables it to produce leaves within three months of planting for use as both food and fodder. Local communities in the research area are currently using the leaves to fortify their foods and the rate of malnutrition is steadily declining.

TANZANIA

ELIAFIE MWANGA

Tackling Tanzania's water for agriculture problem

Eliafie completed his Master's degree in Irrigation and Water Resources Engineering in 2015 from the University of Nairobi with funding from the Innovative Agricultural Research Initiative (iAGRI), a USAID Feed the Future Project. Upon completing his studies, Eliafie returned to Tanzania to work with the Ministry of Water and Irrigation as a civil engineer where he is providing technical support and oversight in construction of earth fill dams for irrigation. With him as technical leader, he assembled a team which has constructed a 6,600,000 m3 earth fill dam for sprinkler irrigation and domestic water supply in Sikonge District. This dam is meeting the water needs of the people in the district.

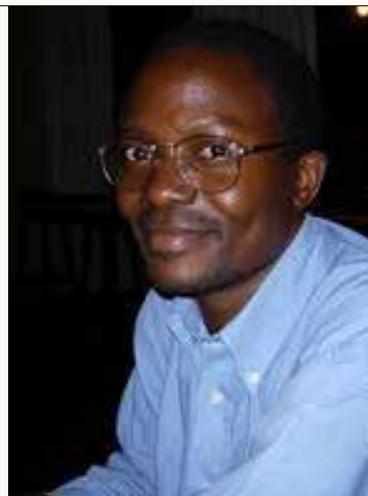


UGANDA

PROF. SETTUMBA MUKASA

Saving local cassava varieties to enhance food security in Uganda

Cassava is the most important root crop in Uganda, grown in most parts of the country because of its ability to survive in a wide range of soil and weather conditions. However, most local varieties which are preferred by farmers are susceptible to the cassava mosaic disease (CMD), which has caused them to be abandoned. In spite of their susceptibility to CMD, some local varieties like Bao and Ebwanaterak are still popular among farmers in most parts of Northern and Eastern Uganda respectively due to their good taste and mealiness. Farmers persistently grow them in preference to newer ones that are resistant, which poses a potential food security disaster. In order to avert this threat, the Cassava Community Action Research Project (CARP), funded by RUFORUM, seeks to avail clean planting materials to communities in the project area. So far, the project has identified and collected some farmer preferred varieties for laboratory cleaning with the purpose of re-introducing them to the farming communities as clean and healthy planting materials.



OPPORTUNITIES IN THE RUFORUM NETWORK



AWARDS:

IMPRESSA Awards 2017

RUFORUM award recognizing outstanding university scientists contributing to agricultural Research and Science for Development in Africa.

Deadline: 31 July 2017

SCHOLARSHIPS

- PhD Training Opportunities under the RUFORUM Graduate Teaching Assistantship Program. Applications will be accepted throughout the year
- Call for proposals for the RUFORUM Field Attachment Program Award (FAPA). Proposals will be accepted throughout 2017
- Call for Postdoctoral, PhD and MPhil/MSc research fellowships at SACIDS Africa Centre of Excellence for Infectious Diseases of Humans and Animals in Southern and Eastern Africa. Deadline: 28 July 2017
- Call for PhD Studies at the African Center of Excellence in Energy for Sustainable Development (ACEESD), University of Rwanda. Scholarships available. Deadline: 31 July 2017
- PhD scholarships at Centre for Research, Agricultural Advancement, Teaching Excellence and Sustainability in Food and Nutritional Security (CREATES), Tanzania. Applications will be received till slots are filled

Find these and more at <https://blog.ruforum.org>

CALLS FOR PAPERS:

Call for papers for special issue of African Journal of Rural Development: "Multi-stakeholder Research & Innovation Platforms in Agricultural Research for Development". Deadline: 15 July 2017

Call for manuscripts: African Journal for Rural Development. Regular articles, short communications and reviews accepted. Deadline: Open

JOBS

Manager Information & Technology at the RUFORUM Secretariat. Deadline: 31 August, 2017

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RUFORUM Updates

- Twenty-five RUFORUM Network Universities among top 100 ranked African Universities
June 30, 2017
- Africa agriculture pioneer wins 2017 World Food Prize
June 28, 2017

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