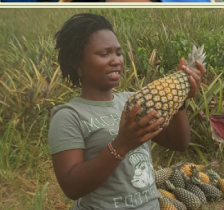




# EXECUTIVE SUMMARY

TRACER STUDY OF RUFORUM  
Graduates, 2004 - 2020



The Regional Universities Forum for Capacity Building in Agriculture





Training the Next Generation of Scientists for Africa

## RUFORUM IS CONTRIBUTING TO THE TRANSFORMATION OF AGRICULTURE IN AFRICA

### Who We Are

Founded as a Network in 2004, the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) is a consortium of 129 member universities in 38 African countries

### Why RUFORUM Exists

- Realize economies of scope and scale through academic exchanges including fostering regional centers of excellence to train the next generation of agricultural scientists
- Provide an effective platform for University support to smallholders farmers through linkages with national agricultural research systems, the private sector and rural communities
- To champion national and regional policies to support effective postgraduate agricultural training, research and outreach

### Our Operational Environment

- Serious lack of the skilled human resources needed to reach 6% agricultural growth and fulfill CAADP goals; Only 1 in 4 scientists are female
- Universities need to be better linked with National Agricultural Research Systems, Private Sector and National Policy
- Graduates need to be better adapted to employment opportunities
- Research needs to be more responsive to smallholder farmers and the rural poor
- Inadequate investment in higher education: poor remuneration, inadequate facilities, lack of funds for field research and few incentives for outreach and the uptake of research
- Limited collaboration and partnerships among African universities
- Most universities in Africa have closer relationships with Europe and the USA

As at August, 2020

**\$214.9m**

Mobilized by RUFORUM on behalf of member universities

**400**

Research grants awarded

**1958**

MSc graduates trained

**537**

Networking events held

**536**

PhD graduates trained

**195**

Undergraduates trained

**1046**

TVET students supported

52 PhDs, 73 MSc & 29 BSc supported through 29 Post-Doc Fellowships

**575**

Students supported under the RUFORUM Entrepreneurship Challenge Program (RECAP)

**45%**

Female Representation

**927**

Out of school Youth supported

**53%**

Alumni are on permanent or long-term contracts

**98%**

Alumni live and work in their country of origin

**51%**

Alumni found employment within 6 months of completion

**63%**

of alumni produced at least one paper in a refereed journal

**26%**

Alumni are in a position of influence at regional, national or local government levels



### Changes we want

- Proactive graduates who are innovative and with the skills and commitment to improved livelihoods in rural areas and able to lead the transformation of agriculture in their countries
- Universities working closely with all stakeholders along the value chain to address the problems identified by small farmers
- A closely integrated network of universities, faculty and students, sharing experiences, new technologies, approaches and resources
- Greater visibility of the network throughout Africa and beyond
- More investment in higher agricultural education from governments, regional bodies and partners
- Greater use of Science, Technology and Innovation (STI) to support agricultural transformation

### Our Partnership Strategy

We focus on mutually reinforcing partnerships with a Network of universities comprised of over 30,000 faculty and non-academic experts, non-governmental organizations, regional research and development agencies, bilateral and multilateral donors and a burgeoning private sector.

### How We See the Future

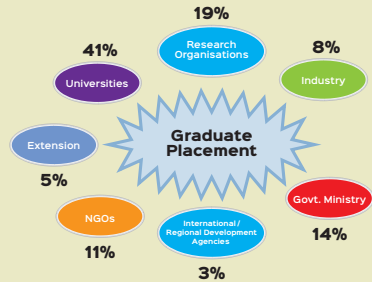
- Harnessing 4IR technologies to strengthen institutions and collaborations
- Integrating higher agricultural education with farmers' associations, National Agricultural Research Institutes, extension and development agencies, and the private sector.
- Investing further in regional MSc and PhD programs and scaling up research outputs and operational uptake.

### Enhancing regional collaboration and other science partnerships

- Forming scientific partnerships globally with the Consultative Group on International Agricultural Research, universities and research institutes in emerging and industrialized economies.
- Facilitating increased intra-African access to quality education across the continent.
- Supporting post-graduate higher education and establishing post-doctoral programs.

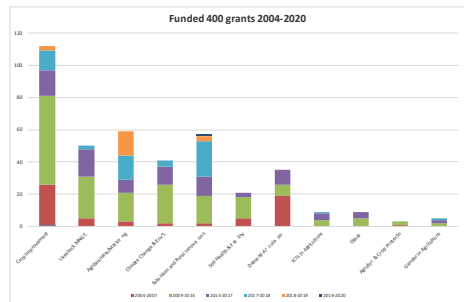
### Placement: Graduates fill a diverse set of national human capital needs

**Note:** Includes all MSc. and PhD graduates from 2004 to 2020 sourced from the RUFORUM Tracer Study, 2020.



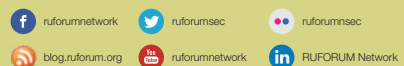
### Funding across a range of agricultural disciplines

**Note:** Includes all grants under the Competitive Grant System (CGS) and Nurturing Grants (NG)



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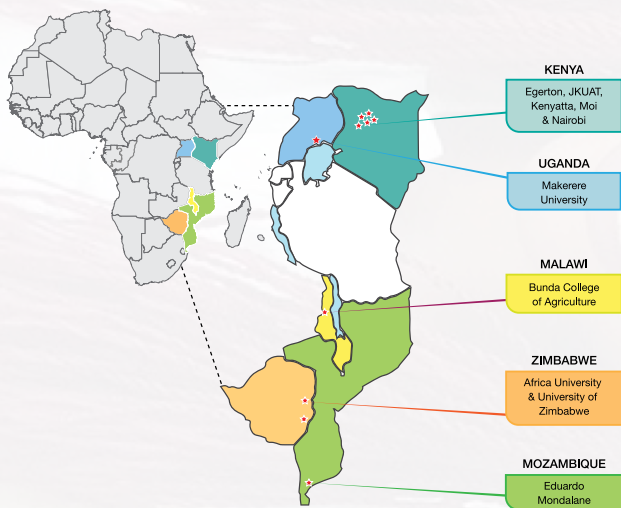
Connect with us:



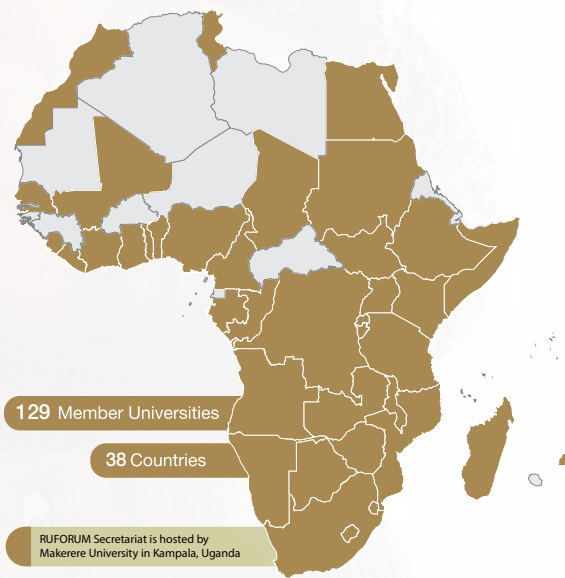
# Our Coverage

Expansion has been in Scope, Countries and within Countries

Phased Expansion 2004 - 2020



Present





### Our Vision

.....

Vibrant, transformative universities catalysing sustainable, inclusive agricultural development to feed and create prosperity for Africa

### 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

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*“Transforming agriculture in Africa requires innovative scientific research, education and outreach 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”.*

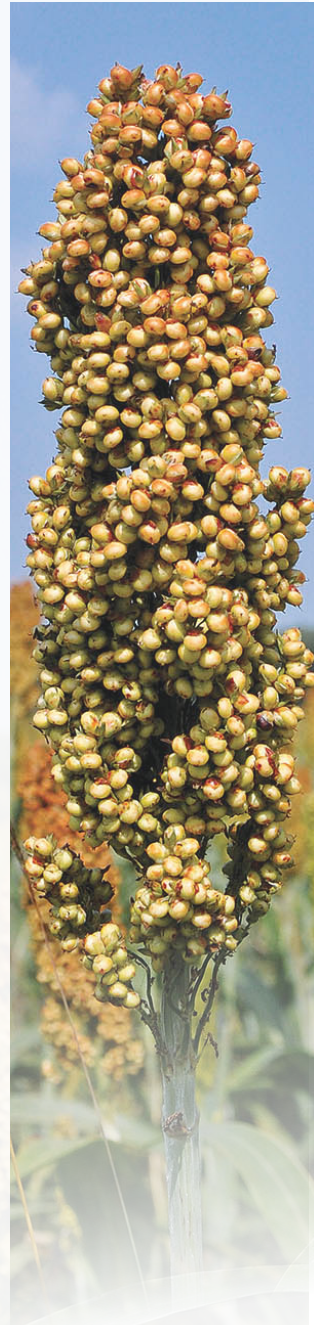
### Our Strategic Objectives

.....

Building synergy from networks of specialisation to develop quality human resources and capacity required to intensify and increase Africa’s agricultural productivity and competitiveness;

Ensuring the products, processes and knowledge developed through university research directly respond to and are used by value chain actors in the agri-food system to catalyse transformation; and,

Marshalling resources and strategically allocating them to enable African universities to transform into viable institutional entities responsive to national aspirations and conditions through intensive knowledge-sharing and collective action.





## Tracer study of RUFORUM Graduates, 2004 - 2020: Executive Summary

### Introduction

Graduate tracer studies (GTS) are instruments employed by many countries around the world to provide data to better understand the relevance of higher education to the labour market. The studies generate retrospective evaluations of the connection between higher education and work - in terms of graduate job placement profile and the usefulness, relevance, effectiveness and adequacy of the skills and competencies as well as work-related values to their job placement. Most studies also trace graduates that continue with education and some explore issues beyond these core elements, for example, graduates' satisfaction with their careers. To obtain a broader picture of the relevance of higher education in the graduates' careers, tracking studies look at graduates' labour market insertion and their progression later on. Most studies offer the possibility of comparing results by higher education institution (HEI) and discipline.

A variety of stakeholders can use GTS for different purposes. By looking at the actual employment situation of graduates, GTS can help to identify supply and demand issues as well as skills mismatches. Thus, governments and HEIs can use these studies to, for instance, assess the quality of the higher education sector and its institutions based on their ability to meet labour market demands. Both governments and HEIs can also, on the basis of GTS data, consider strategic changes or curriculum redesigns. Furthermore, HEIs' career services can use GTS data to fine-tune the advice and support they offer to students. Employers can use GTS for recruitment purposes. Prospective and current students can make better-informed decisions when selecting an academic program and institution and when considering future job options. Researchers, finally, can contribute



to expand the knowledge about the relationship between higher education and the world of work by conducting specific analyses using the data generated via GTS.

### Study Objectives

The issue of graduates' employability, career patterns, and progression in the labour market has gained particular importance on the higher education agenda for Africa. Enhancing labour and skills supply by addressing structural weaknesses in the higher agricultural education and training systems and by tackling youth and long-term unemployment has always been a guiding element for the design and implementation of the RUFORUM graduate funding support mechanisms. The aim of this tracer study was to update information about the experiences of graduates supported under various graduate study support programmes in the labour market after completing their studies; thereby, helping RUFORUM and its stakeholders in taking informed decisions in relation to the transition from education to employment. The study went beyond examining the formal qualifications graduates had obtained and inquired about their personal assessments, their satisfaction with their experiences on their job, and their judgement about the relevance of their qualification.

### Methodology

Through the use of an online questionnaire, the onetime cross-sectional study collected data about the graduates by different socioeconomic, study and employment related characteristics. The scope of variables and thematic blocs covered included: employment and income; details on study programs and context factors such as age, gender and civil status; further education and job prospects; details of the jobs and context factors such as family life and mobility; and alternative career paths and the perceptions of graduates of their achievements.

The initial target population was all students who completed their studies with RUFORUM support between the years 2004 and 2020. From a total population of 2,494 students in the RUFORUM Information Management System (RIMS) administrative data, of whom 1,885 had graduated, an effective sample of 1,310 respondents was obtained and served with the online questionnaire. The number that

responded was 490, giving a response rate of 37.4% - with good representation of cohort of admission/graduation, gender, institution of study and nationality. A response rate of 30-40% is regarded as credible to enable generalised conclusions.

## Key findings

### Socio-biographic characteristics of graduates

**Age structure:** The age group which had the highest participation in graduate academic education was that of graduates aged between 25 and 35 years. The age range of PhD graduate students below 30 years was considerably narrower than their counterparts on the MSc programmes. This gives a more diverse student population of those on MSc training when compared to the relatively homogeneous PhD student population. A higher proportion of females (67.0%) than males (49.7%) were admitted before the age of 30 years. The proportion of males in the higher age brackets was higher than for females – 71.6% of the females were below 40 years of age compared to 60.6% for males. A small proportion of the graduates - 9.4% of males and 8.9% of females - were above 50 years of age on admission.

**Civil status:** Most students (73%) were married during the time they were undertaking post graduate studies. The proportion of females taking their degree while still single was higher (34.0%) than for males (21.3%).

### Prior employment and time to completion

**Employment prior to enrolment:** Of all respondents indicating their job status before being admitted for study, 55.4% were employed - over 75% in the category enrolling for both the Regional Training Programmes and standard PhD, 55.5% for those enrolling for the MSc-RTP and 43.4% for the standard MSc programmes.

**Time to complete course:** 45.5% of students enrolled on the MSc programmes were able to complete and graduate within the stipulated 2 years course duration; and only 12.7% within the 3-year timeline for the PhD programmes. A significantly higher proportion of females reported taking more than double the time required to graduate (4-6 years for 31.6% of females and 4-9 years for 19.9% males on the MSc; 6-9





years for 44.5% of females and 13.8% of males), more so when married (4 years for 28.6% of single females, 4-5 years for 30% of single males, 4-6 years for 37.5% of married females and 4-8 years for 28.2% of married males on MSc; 6 years for 50% of single males, 6-7 years 75% of single females, and 6-8 years for 24% of married males and 49.9% of married females on PhD study).

### **Transition into the labour market**

**Graduate mobility after completion of studies:** The vast majority of graduates (97.6%) returned to their countries of origin/birth after completing their studies. A few later relocated to other countries within (2.8%) or outside (1.4%) Africa, while a small number (2.4%) opted to remain in the countries where they studied.

**Time to start employment:** When comparing the job start dates of the graduates who mentioned that they were employed; 51% of them, irrespective of gender, had retained the job they had before enrolling or obtained during their studies. Of those graduates, who took up their employment after graduation, 10% got a job on graduation or within one year of graduation, with a slightly higher proportion of males than females. The remaining had some delay in entering the workforce - 24% making it within 2-3 years with a slightly higher proportion of females. Slightly more males than females were still searching for jobs beyond 4 years after graduation – one person took up to 9 years before getting a job.

**Search for employment:** Irrespective of their employment situation, 14.8% of graduates declared to be searching for employment. Graduates most often search for employment by replying to job advertisements in print and electronic media (48.6%), by making spontaneous inquiries and applications to businesses (18.8%) or through personal contacts (16.3%). Only 6.5% indicated they received RUFORUM assistance and 5.3% capitalised on their association with RUFORUM training to secure a job.

**Difficulty finding employment:** The reason most frequently selected (41.7%) for difficulty in getting a job was the lack of jobs - limited demand in the major area of specialisation. Requirement to resign from job held before going for studies and

relocation to a different area were the other reasons given for creating the time gap between the time of graduation and securing employment.

### Study and work link

**Employment situation:** Only 2.7% of all graduates were not engaged in any employment and looking for a job at the time of the survey; 60.4% were in full-time salaried employment, 5.1% were self-employed, 6.2% were in part-time employment but seeking for full-time employment, and 16.8% enrolled immediately for further studies (PhD programme) without first going for work.

**Graduate employability and work experience:** The majority of graduates (44.1%) have been in employment for 1–5 years; 22.7% for 6-10 years; 17.9% for 11–15 years; 5.7% have not yet spent a year at their job; and 1.7% have worked for 30 years and above. About 55% of the graduates are still in active service, with 92.6% of the graduates in the cohorts that graduated more than 10 years ago (2009 and below) having been absorbed in employment, about one half of those graduating in the last ten (2010 – 2019) years and 32.5% of the recent 2020 graduates.

**Occupation:** More than half (53.8%) of the employed graduates were in mid-level occupations as professionals/lecturers with (17.3%) or without (36.5%) management responsibilities. Around 20% of them were junior level professionals (6.4%), entry-level staffers (5.2%) or trainees (8.8%). Only 3.3% of the employed graduates were working at executive and professor rank and 22.5% at senior level with (8.8%) or without (13.7%) management responsibilities.

**Relationship between studies and employment:** The link between studies and employment is supported by the positive assessment of graduates of the relationship between their studies and employment and the use of skills gained through their programme in their current job. **Over 80% of the graduates indicated that the degree earned was related to their current job function and provided the needed technical knowhow for the job; and 90% indicated that the knowledge and skills acquired during study were very useful for their job.** The higher enrolment (over 75%) into the PhD programme of employed graduates (mainly from universities and research institutions) by proxy indicates that their qualification was a requirement for their job.



**Sector of employment:** Majority of graduates were employed in academia - 35% in public and 6.1% in private universities - followed by research institutions both national (16.7%) and international (2.3%) and Government MDAs (ministries, departments and agencies). The majority of working graduates (86.7%) therefore focus on higher agricultural education, research and advisory services in their career service. Job opportunities in the academia have grown (largely due to expansion in number of HAE institutions), while in the mainstream public service (including agricultural research, extension and advisory services) as well as in the private sector and self-employment have shrunk when current situation is compared to 2014.

International and local NGOs employ 11.3% while private companies employ 8.1% of the graduates. A small proportion of the graduates are self-employed (1.8%) while the rest found employment with international/regional development agencies (2.9%) and local administrations (2.3%). The NGO sector has shown some growth as an area for new job creation for graduates – mainly because they are filling up a gap in rural/agricultural advisory services created by a scaling down of public services. Most of the graduates (79.7%) work in urban settings.

**Remuneration:** About 20% of the graduates earned below US\$ 500 per month and another 20% earned between US\$ 500 – US\$ 750. Those who had a monthly income of US\$ 751 – 1,000 were 16.7%, while 15% earned US\$ 1001 – US\$ 1250. Only 5% earned above US\$ 3,000 per month.

**Job satisfaction:** The vast majority of graduates rated their overall job satisfaction as high (43.1%) or moderate (42.7%). Respondents expressing desire to move from their current jobs mentioned mismatch between their level and field of education and their current employment, low remuneration, absence of opportunities for further training and poor working relations with or their work not being appreciated by supervisors.

### General conclusions and recommendations

**Future graduate tracer studies:** There is a need for regular graduate surveys



to allow for monitoring over time, especially with regard to graduates' transition into the labour market and their labour market outcomes. The success and impact in the use of graduate studies is highly dependent on the availability of accurate data on graduates along with their contact details to be able to invite them to participate in the research. In this regard, a strong cooperation with member universities and sponsored students/alumni in updating the RIMS administrative data is pivotal.

The GTS should preferably be embedded in the broader RUFORUM monitoring and evaluation system rather than being stand-alone studies. RUFORUM could consider having a Tracer Study feature in its website/online platforms as a renewed approach to monitoring and data management in respect of graduate tracking, informing students on future career choices, and providing services to different stakeholders mainly oriented to job placements. Different approaches and actions can be taken to achieve high numbers of responses - the importance of underscoring the association between the HEIs of the graduates and the survey; good questionnaire design, comprising the use of linked data to save time; the careful building of a complete and up-to-date RIMS database; the visibility of the data built on the numerous activities and services it offers and organises for stakeholders; as well as the linking of the questionnaires with the uploading of CVs.

**Time taken to complete studies:** The data indicated that the number of students completing their studies in the stipulated time is declining, more so for females especially those with family responsibility. On the average, however, the time to completion showed a rising trend for both MSc and PhD programmes between 2005 and 2012 but has been reducing since then. Attempt was made to disaggregate the data by institution and/or field of study – showing some differences, but the numbers of valid respondents became too little to make any general statements. The management of postgraduate training needs strengthening to ensure that supervision of the students is thorough and the support offered matches the diverse characteristics and needs of students to improve completion rates.

**Transition into employment:** The data indicated that although most graduates are in employment, the level of unemployment and the time taken to obtain a job is rising.



In view of the diverse expectations of agricultural graduates from different employers, it is desirable that agricultural training institutions equip students with generic skills throughout the study programme in preparation for employment after completion. Matching of graduates with jobs is crucial in decreasing the graduate unemployment. University-Industry/Employer links need to be strengthened through comprehensive supervised internship/apprenticeship/work placement programmes. These linkages will in turn support the integration of stakeholder expectations into the curriculum of the university. Most of the respondents acquired jobs through advertisements. Public and private sectors should be encouraged to advertise jobs in various media including the emerging social media.

**Mobility during and after studies:** Academic (staff and student) mobility during studies is a key feature of RUFORUM training programmes, while retention of graduates on the continent is a major selling point for the funding of the programmes. The fact that almost all graduates stay/return to their country of birth/origin after completing their studies is indeed critical for building the capacities of the higher agricultural education and research systems in Africa. RUFORUM ought to capitalise on this to attract more funding, more so from the national governments of member university countries.





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