

Summary Report

on Implementation of STISA 2024



PRIORITY AREA ONE:
Eradicating Hunger and Achieving Food and
Nutrition Security



Introduction

The Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) is a network of 161 universities in 40 African countries with 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, governments and industry’. The supply of agricultural scientists with quality postgraduate education, together with the skills and commitment to improve rural livelihoods, is a critical need that underpins the development of effective programmes, institutions and leadership across the agricultural sector. Entrepreneurial and problem solving human capital is central to RUFORUM’s agricultural development strategy. It goes beyond enhanced productivity through the results of solid research and development-to innovation and links to smallholder producers; expanded and improved functionality of commodity value chains; and, impact at scale through robust non-governmental organisation and private-sector growth. RUFORUM Members increase the contribution of universities to the productivity and profitability of small farmers through knowledge generation, knowledge-sharing and more effective policy formulation. In this way, RUFORUM responds to the demand for Science, Technology and Innovation to impact critical sectors including agriculture.

RUFORUM’s mandate is underpinned by a Memorandum of Understanding (MoU) with the African Union Commissioned signed in 2014 to support the implementation of the African Union Science, Technology and Innovation Strategy for Africa 2024 (STISA -2024), Priority One “**eradication of hunger and achieving food and nutrition security**”. This report presents a summary of progress, key achievements for the year 2021/2022

Strategic objective 1: *Enhance effectiveness of STI in addressing/ implementing priority areas [for STISA-P1 by aligning with and implementation to advance the CAADP targets and the Africa's Accelerated Agricultural Growth and Transformation agenda (3AGT)]*

Strategic Action 1.1: Set priorities, develop and implement prioritised multidisciplinary flagship programmes supported by efficient management to meet the needs of society within context of the Science Agenda for Agriculture in Africa

The process has been initiated for the flagship programme to strengthen linkages between universities in participating countries and regional agricultural sector needs through strengthening agri-food related education and training, enhanced with trans-disciplinary approaches and applied research. Four universities were competitively selected including: University of Eduardo Mondlane (Mozambique); and, Lilongwe University of Agriculture and Natural Resources, Mzuzu University and University of Malawi in Malawi. This programme is supported by the World Bank as Additional Financing to the Eastern and Southern Africa Higher Education Centres of Excellence Additional Financing (ACE II AF). The Inter-University Council of East Africa (IUCEA) is the Regional Facilitating Unit and RUFORUM is the technical advisory unit. This is an investment of US\$ 70 millions by the World Bank through IDA funding to Malawi and Mozambique.

Strategic objective 2: *Improve technical competencies and institutional capacity for STI development [for STISA-P1 – build and improve systemic capabilities at national level to a sufficient critical mass - human capital, technical competencies, infrastructure, enabling environment, innovation and entrepreneurial mind-set and institutional capacity]*

Strategic Action 2.1: *Support building, upgrading and/or enhancing quality of agricultural R&D and AET infrastructural assets core for scientific and technological developments to support Africa's agricultural growth and transformation, including access to their use by researchers and end users*

RUFORUM promoted resource sharing and financing across universities in the Network. The [Graduate Teaching Assistantship \(GTA\)](#) programme is designed as a staff capacity building programme where the costs are shared between the sending and receiving universities where the human resource is placed to undertake their advanced degree programmes. RUFORUM Secretariat facilitated

placement of 38 additional students bringing to total 212 university staff placed under the programme. To-date, forty (40) GTAs (9 female, 31 male) have completed their studies. This so far represents an investment of US\$ 12.5 millions by African Universities.

RUFORUM in collaboration with the Arab Bank for Economic Development in Africa (BADEA) developed and hosted the [Regional E-learning Platform](#) for open online teaching and learning for students and staff in RUFORUM member universities. This largely evolved as a response to the ICT infrastructure challenges following the COVID-19 pandemic lock downs.

Strategic Action 2.2: *Develop and connect human and institutional capacities – enhancing technical and professional competencies, response capacities and capabilities to manage and govern the advancement of STI, integrate and co-create new knowledge to drive Africa’s agricultural transformative agenda*

RUFORUM continued to strengthen ongoing training and retention in Africa of trained academics, agricultural scientists and researchers by supporting the training of additional 89 PhD and 120 Master students. This brings to total 2889 (2173 Masters and 716 PhD) students trained (45.8 % female) to enhance technical and professional capacity to advance use of ST&I to drive the agricultural transformation agenda.

RUFORUM supported Member Universities in the Democratic Republic of Congo, Sudan and South Sudan develop collaborative PhD training and education programs that respond to identified capacity building needs. These included: PhD in Agroecology and Climate Science, hosted at Université Evangélique en Afrique in the Democratic Republic of Congo; and, PhD in Natural Resource Management and Environment Studies hosted at Juba University, South Sudan, and, Peace University in Sudan, respectively.

Strategic Action 2.3: *Build systems for data collection and analysis, as well as sharing of information on progress towards major goals and implementation of activities*

In partnership with IFPRI/ASTI, RUFORUM continued to upgrade the Higher Agricultural Education Capacity Indicator (HAECI) platform for tracking university performance in Africa, with a wider coverage encompassing all RUFORUM Member Universities. A better understanding of the specifics of existing staffing and student capacities in the higher education sector will result in better policies addressing capacity issues in agricultural higher education, research, extension, and other areas.

Strategic objective 3: *Promote economic competitiveness through fostering innovation, value addition, industrial/ agribusiness development and entrepreneurship in synergy with other instruments*

Strategic Action 3.1: *Develop National and Regional innovation and knowledge systems that add value to and ensure optimal returns from investments in STI*

RUFORUM under the Transforming African Agricultural Universities to meaningfully contribute to Africa's growth and development (TAGDev) Flagship, continued to support 14 member universities offer trans-disciplinary scholarship to produce "development-oriented, scientifically literate and professionally competent students, through the [Community Action Research Programme](#) (CARP). The projects have supported 18 PhD and 99 Masters students to develop innovative solutions to local communities' challenges whilst engaging 78,499 smallholder farmers in collaborative research. The Cassava CARP at [Egerton University](#) and [University of Nairobi](#) in Kenya developed value added products along the cassava value chain while the Rice CARP at [Gulu University](#) in Uganda enhanced rice productivity of smallholder farmers in Northern Uganda.

The Community Action Research Projects have brought together value chain actors to strengthen the innovation ecosystem and knowledge management based on specific commodities. Commodities of focus in the respective countries include: in Benin (Baobab), Botswana (Safflower), Ghana (pineapples), Kenya ([Cassava](#) & [Potato](#)), Namibia (Encroacher bushes), Sudan (Bees and Honey; Vegetables; Natural Resources Management-Millet; and, famine crops), South Africa ([Wool](#)), Uganda ([rice](#), pig and potato) and Zimbabwe (Rainwater harvesting). Further, these CARPs have attracted national and regional resource that has enabled them to expand and operate in nine countries in Africa. The CARPs have generated additional investments indicating that the CARP+ model has potential for significant returns that provide a unique and responsive approach to community development needs.

Strategic Action 3.2: *Foster value addition, agribusiness and entrepreneurship to address and respond to African socio-economic challenges*

RUFORUM continued to implement the Entrepreneurship Challenge Program (RECAP) aimed at establishing agri-business incubation hubs to strengthen innovation and incubation of student enterprises. Agribusiness incubation hubs are operational in 17 universities in 11 African countries (Benin, Burundi,

Democratic Republic of Congo, eSwatini, Ethiopia, Ghana, Kenya, Mali, Senegal, South Sudan and Uganda). Students have been skilled and given opportunity to demonstrate their entrepreneurial acumen through developing agribusiness innovations. Amongst the innovations includes [egg incubators](#) based on locally available materials and solar energy in the Democratic Republic of Congo; [high quality skin care and other products](#) in Uganda; and, [commercial poultry](#) in the Democratic Republic of Congo. The incubation hubs have resulted into the creation of 225 enterprises and 1328 jobs in respective countries.

RUFORUM further strengthened outreach programmes to foster value addition in food production and processing through the Innovations, Products to Markets, Field Attachment and Mentorship Programme (IPM-FAPA). Through the programme, 43 students enterprises have been created and generated 289 jobs and developed brand infrastructure and certification of their products to meet the market quality standards.

Strategic objective 4: *Protect knowledge production (including inventions, and indigenous knowledge) by strengthening IPR and regulatory regimes at all levels*

Strategic Action 4.1: Transform and strengthen Africa's agricultural STI environment into an effective innovation system to meet Africa's socio-economic needs

RUFORUM continued to facilitate the development and application of harmonised mechanisms for protection and patenting of indigenous innovations and technologies by amongst several strategies facilitating the [United Nations Food Systems Summit 2021](#) (UNFSS) independent dialogues. The summit aimed at launching bold new actions, solutions, and strategies to deliver progress on all 17 Sustainable Development Goals (SDGs). Amongst several commitments, the UNFSS recommended to African Governments to strengthen production fundamentals such as research and innovation, to direct how production resources are leveraged, generate relevant technologies, test and incubate, and transfer and protect the Intellectual Property Rights (IPRs) of generated technologies.

Strategic objective 5: *Facilitate STI policy reforms, harmonization, science diplomacy and resource mobilization*

Strategic Action 5.1: *Effective policy practices provide an enabling policy and institutional environment for the sustainable application and performance of science - integrating STI in strategies, plans and programs at national and regional levels*

RUFORUM continued to foster effective partnerships and multistakeholder platforms for dialogue among partners and stakeholders at country, regional and continental levels by convening the Seventh African Higher Education Week and RUFORUM Triennial Conference, 6-10 December, 2021 in Benin. The Conference held under the theme 'Operationalising higher education for innovation, industrialisation, inclusion and sustainable economic development in Africa: A Call for Action,' recommended that African Governments facilitate the adoption of policies conducive to the development of science, technology and innovation (ST&I) whilst ensuring that talented Women Scientists are inspired and recognized.

Strategic Action 5.2: *Establish funds and financing mechanisms that promote national, regional and continental solidarity in agricultural STI*

As part of advocacy for a policy environment, RUFORUM hosted a [Joint Meeting of Permanent Secretaries responsible for Agriculture, Education & Training, Science, Technology and Innovation](#) during the [Sixth African Higher Education Week and RUFORUM Triennial Conference](#) held in December 2021 in Benin. The aim was to review progress on the commitments made to promote the development of agriculture, science, technology and innovations in Africa. This meeting recommended developing and/or adopting existing policies for university- private sector engagement, within a framework of Intellectual property and private sector contribution towards funding of research.

Looking ahead

African Youth are confronted with multiple challenges crucial among them inadequate decent jobs despite accelerating growth performance of many African countries. Investing in youth programs that advance requisite technical skills, entrepreneurship and uptake of digital solutions to expand innovation and employability will provide opportunity to reap the demographic dividend.



Regional Universities Forum for Capacity Building in Agriculture (RUFORUM)
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>