

Regional Universities Forum for Capacity Building in Agriculture

Coming of Age:

RUFORUM Strategic Business Plan 2015-2020

August 2015

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Foreword

In July 2014, we celebrated 10 years of our existence as a regional network of African Universities led by Vice Chancellors. At the celebration, we reflected on the road travelled guided by our 10 year Strategic Plan, 2006-2015 and two Business Plans, 2006-2010 and 2011-2016. We concluded that we had met the vision of the 10 founding Vice Chancellors, that there was great benefit for universities to collaborate, and to put in place a platform for catalyzing the close engagement of African Universities in Africa's development agenda. The regional Secretariat that we had established in 2004 to coordinate activities and provide support and guidance to the universities in terms of institutional reforms, particularly the institutionalization of participatory research processes and improved graduate training to serve smallholder agriculture had exceeded our expectations. This initiative was supported by the Rockefeller Foundation, and subsequently the Bill and Melinda Gates Foundation and other agencies.

After 10 years, we have been able to establish a dynamic regional platform that fosters collaboration, coordination and learning among the member Universities. We grew from a membership of 10 Universities in five countries in East and Southern Africa to today (August 2015) a membership of 46 Universities in 22 countries in sub-Saharan Africa. Today we are a voice for Higher Education in Agriculture, and indeed Science, Technology and Innovation, and we are emerging as a regional knowledge hub for Higher Education in Agriculture. A key lesson we learnt was that the strong ownership and engagement of our Universities, led by their Vice Chancellors, was key to our success. We also learnt that in whatsoever we did, we needed to link closely to the grassroots, especially in terms of addressing the needs of smallholder farmers, and this required strategic partnership with a diversity of actors, both within and outside Africa. Further, sustainability of the RUFORUM initiative would eventually hinge on securing funding support from African governments and regional bodies.

Looking ahead, we recognize that the landscape is changing with renewed interest in higher education in Africa. Moreover, the African Union sees higher education as critical for achieving its Africa Vision 2063. Further, food and nutrition security will remain a key challenge across the continent, especially with the intensification of climate changes and variability, rural –urban migration linked to a growing youth population, and their impact on human and environment health. We also have an emerging agribusiness sector and agro-industry, requiring new sets of skills and enterprising graduates. Fortunately, we have renewed commitment by African governments on sustaining the Comprehensive Africa Agriculture Development Programme (CAADP) momentum; and a Science Agenda for Agriculture in Africa (S3A) and the African Union Science, Technology and Innovation Strategy for Africa (STISA 2024) are in place. RUFORUM must position itself to respond to these opportunities, making clear the network's value to its different market segments. Our consultations with key stakeholders in and outside Africa confirm that our Strategic objectives are still valid, but operation modalities need to be refreshed to respond to the emerging landscape. This is the basis of our new five year Strategic Business Plan (2015-2020).

The Plan envisions a RUFORUM that is financially stable in 2020, with significant financial input from its members, African governments and reimbursement of services and operations. The Plan is adaptable, with a scheduled mid-term review in 2017-18.

Professor Levi Nyagura RUFORUM Board Chair

Acknowledgements

The RUFORUM Strategic Business Plan (2015-2020) builds on the previous RUFORUM Strategic Plan (2006-2015) and two Business Plans (2006-2010; 2011-2016). It brings within a single document RUFORUM's Strategy and Business Plan components for the period 2015-2020 with opportunity mid-way through the period to update the plan in a rolling fashion. The Plan benefits from a series of consultations with various stakeholders including from within RUFORUM (the Board of Trustees, International Advisory Panel, the Technical Committee and the Committee of Principals and Deans). Three consultations were held with RUFORUM Principals and Deans: Entebbe Uganda in March, 2014; Johannesburg, South Africa in November, 2014; Khartoum Sudan in June, 2015. A reflection meeting was held at the Stellenbosch Institute for Advanced Studies (STIAS) in April, 2015 with key stakeholders including the African Union Commission, and Development Partners including the World Bank and the Bill and Melinda Gates Foundation. A Technical Committee meeeting was held in Kampala in June 2015 to similarly review the plan.

The Plan benefitted from input from umbrella research organisations including the Forum on Agricultural Research in Africa (FARA); the Center for Coordinating Research in Southern Africa (CCARDESA); the Association for Stregnthening Agricultural Research in Eastern and Southern Africa (ASARECA) and Conseil ouest et centre africain pour la recherche et le développement agricoles/West African Council on Agricultural Research and Development (CORAF/WECARD/). Strategic direction was provided by the African Union Commission, and African Ministers of Agriculture, Education, Science and Technology, and higher education stakeholders during the 2014 Biennial Conference held in Maputo, Mozambique in July 2014.

The RUFORUM Secretariat acknowledges most gratefully the input and guidance received from several persons including Dr. Joyce Moock, former Associate Vice President of the Rockefeller Foundation; Dr. Howard Elliott, former Deputy Director General of ISNAR; Dr. Mercy Karanja, Programme Officer of the Bill and Melinda Gates Foundation; Dr. Malcolm Blackie formerly with the Rockefeller Foundation; Dr. Carl Erik Larsen of the World Bank; Dr Patrick Okori of ICRISAT; Ms Bongiwe Njobe, RUFORUM Board Member; Prof Linus Opara of Stellenbosch University; Ms. Liz Levey, ICT Consultant; and Prof. Kay Muir Leresche, Chair, RUFORUM Technical Committee. Their insights, and input from the Secretariat staff, helped to shape the direction and focus of the Strategic Business Plan.

While acknowledging all the above input, this Strategic Business Plan, approved on 29 August 2015 in Windhoek, Namibia represents the strategic direction for the period 2015-2020 shared by the 46 RUFORUM Network universities and the RUFORUM Board of Trustees.

Professor Adipala Ekwamu Executive Secretary, RUFORUM

Abbreviations, Acronyms, and Websites

AGRA	Alliance for a Green Revolution in Africa www.agra-alliance.org		
ANYADE			
ANAFE	African Network for Agriculture, Agroforestry and Natural Resources Education www.anafe-africa.org		
ASARECA	Association for Strengthening Agricultural Research in Eastern and		
	Central Africa. www.asareca.org		
ATAAS	Agricultural, Technology, and Agribusiness Advisory Services		
	http://www.naads.or.ug/data/program/2/ATAAS-Project		
AU	African Union www.au.int		
AUC	African Union Commission www.au.int/en/commission		
AWARD	African Women in Agricultural Research and Development		
	www.awardfellowships.org		
BMGF	Bill and Melinda Gates Foundation <u>www.gatesfoundation.org</u>		
BP	Business Plan		
BRICS	A grouping that refers to Brazil, Russia, India, China and South Africa		
CAADP	Comprehensive Africa Agriculture Development Programme		
	www.caadp.net		
CAMES	Conseil Africain et Malgache pour l'Enseignement Supérieur		
	www.ecames.org		
CARP	Community Action Research Projects		
CGIAR	Consultative Group on International Agricultural Research		
Conne	www.cgiar.org		
CCARDESA	Centre for Coordination of Agricultural Research and Development in		
	Southern Africa www.ccardesa.org		
CORAF/WECARD	Conseil ouest et centre africain pour la recherche et le développement		
	agricoles/West African Council on Agricultural Research and		
	Development. www.coraf.org		
CRP	CGIAR Research Programme		
ECSA	Eastern, Central, and Southern Africa		
EDULINK	European Union Higher Education Linkages Programme for African,		
	Caribbean and Pacific (ACP) countries. www.acp-edulink.eu		
FANRPAN	Food, Agriculture and Natural Resources Policy Network		
	www.fanrpan.org		
FARA	Forum for Agricultural Research in Africa www.faraafrica.org		
FAWE	Forum for African Women Educationists www.fawe.org		
GRG	Graduate Research Grants		
GTAP	Graduate Teaching Assistants Programme		
iAGRI	Innovative Agricultural Research Initiative		
	www.iagri.org		
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics		
	www.icrisat.org		
ICT	Information and Communications Technologies		
IITA	International Institute for Tropical Agriculture		
	www.iita.org		
IPR	Intellectual Property Rights		

ISG	Institutional Strengthening Grants
M&E	Monitoring and Evaluation
MOU	Memorandum of Understanding
NARIs	National Agricultural Research Institute
1122	
NGOs	Non-Governmental Organizations
NEPAD	New Partnership for Africa's Development
OFIGE	www.nepad.org
OECD	Organisation for Economic Co-operation and Development
OER	www.oecd.org Open Educational Resources
	*
PAEPARD	Platform for African-European Partnerships on Agricultural Research
DIATE	for Development. www.paepard.org
PMEL	Planning, Monitoring, Evaluation, and Learning
R&D	Research and Development
RECs	Regional Economic Communities
REESAO	Le Réseau pour l'excellence de l'enseignement supérieur en Afrique de
DAMES DAMES	l'Ouest
RUFORUM	Regional Universities Forum for Capacity Building in Agriculture
COT	www.ruforum.org
S&T	Science and Technology
SDGs	Sustainable Development Goals
SRO	Sub-Regional Organization
STISA	Science, Technology and Innovations Strategy for Africa
T. C	www.hrst.au.int
ToC	Theory of Change
TEEAL	The Essential Electronic Agricultural Library
WATERCAP	Strengthening Universities' Capacities for Mitigating Climate Change
	Induced Water Vulnerabilities in East Africa
	http://www.scidev.net/global/farming/multimedia/african-universities-
USAID	IS A gapay for International Dayslanmant, www.usaid.gov
	US Agency for International Development www.usaid.gov
VC	Vice Chancellor

Executive Summary

This is a Strategic Business Plan (SBP) for 2015-2020 that builds on the accomplishments and experience of the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) for over a decade (2004-2014) as a University member-based, regional capacity-building Network. The Plan represents a strategic evolution of its development into an established organization ready to serve a wider mandate in relation to the visions of the Africa Union Commission (AUC) for agricultural higher education and its relationship to science, technology and innovation on the continent. It is an adaptable plan that pivots on the overlapping years of the previous Strategic Plan (2006-2015) and two Business Plans, 2006-2010 and 2011-2016 to make programme choices and financial expectations that can be continuously refreshed in response to changing opportunities and circumstances on the Continent. The Strategic Business Plan (hereafter "the Plan") is strategic in its vision of a RUFORUM in 2020 that meets the needs of many constituencies (different "customer segments") within Africa and globally while closely responding to its membership's needs. It proposes to be on strong financial footing in 2020 through increased African support, funded activities and secure core funding.

A review of the RUFORUM strategy commissioned by the Bill and Melinda Gates Foundation in 2013 recognized that its strength and its legitimacy remain in its relevance and capacity to meet the needs of its member Universities, and respond to demands at national and regional levels.

The Plan frames the future strategy under the tenet of regionality that allows RUFORUM members to overcome many of the supply constraints on delivering high-quality postgraduate education. It aims to attract and nuture superior postgraduate talent to agriculture in the region and achieve significant economies of scope and scale in rigorous and relevant training. It also presents a demand-driven education and research portfolio that reflects the commitment by the RUFORUM Vice Chancellors of bringing African Universities to farmers. The Plan will be guided by RUFORUM Strategic Objectives and its Theory of Change which outlines what the Secretariat will do to service the member universities and catalyze institutional reforms, the response action by the Universities in partnership with diverse partners to create a dynamic regional platform, and the outcomes and impact that RUFORUM aims to achieve.

This portfolio responds to changes in the external environment. Based on its acquired experience, the Plan aligns with and contributes to new frameworks and initiatives at the continental level. These include the AU/NEPAD Science Agenda for Agriculture in Africa ("Science Agenda"); AU Science, Technology and Innovations Strategy for Africa 2024 (STISA 2024); Agenda 2063 of the AU, and the Malabo Declaration on sustaining the Comprehensive Africa Agriculture Development Programme (CAADP). It positions the RUFORUM Network in relation to other regional and sub-regional partners from the African scientific community as well as university based networks and international partners. Significantly, RUFORUM is a Network of 46 member Universities governed by Vice Chancellors who bring knowledge of the many branches of science that contribute to agricultural innovation. As such, it can play an important role as a partner in the operational planning of both STISA 2024 and CAADP.

The Plan sharpens the strategic, operational and funding model set forth in RUFORUM's existing Business Plan (2011-2016). First, it reinforces its mission to ensure relevant and high-quality postgraduate agricultural education, research and knowledge management. It does this through promoting regional collaboration, exchange, and harmonized standards among its members. Second, it provides guidance to RUFORUM's Secretariat, the Network hub, on resource mobilization and cost containment of the RUFORUM Network programmes. Finally, in the face of widening demand for RUFORUM membership and new continental demands, the Plan articulates the goals, guidelines, activities, timelines and trade-offs, which are critical to managing RUFORUM's focus, expansion, partnerships and resource base.

Transition to a wider RUFORUM: The Plan (2015-2020) believes in the socio-economic benefits accruing from training and research conducted through the RUFORUM Network from its inception. It further underscores RUFORUM's key role of facilitating greater engagement and responsiveness of universities with farming communities. The Plan's development has been informed by wide consultation within and outside Africa. RUFORUM benefitted from a major 2013 external evaluation that applauded RUFORUM's structure and design, but also indicated some critical areas for improvement in the implementation and devolution of certain responsibilities to member Universities. Moreover, the Plan builds on the momentum of a successful and highly visible 2014 Biennial Conference at which MOUs were signed with several international and continent-wide organizations, including the African Union Commission (AUC).

Plan is underpinned RUFORUMs Strategic Goals (Box 1) and continues to follow the principle of balanced growth but sets out more clearly a transition strategy to a wider RUFORUM both geographically and thematically. It will do this while: 1) building high-quality and relevant postgraduate agricultural education, research and knowledge-sharing, 2) providing technology platforms and the "skills revolution" needed for Universities to be leading actors in national agricultural transformation systems, and gradually, and, in line with the urgency and the availability of new resources, taking on a visionary and advocacy role at the continental level as highlighted in RUFORUM's anticipated impact (Fig. 1) which will be guided by RUFORUM's Theory of Change¹.

Box 1: RUFORUM's Strategic Goals

- 1. Masters and doctoral programs responsive to stakeholder needs and national/regional development goals.
- 2. Shared research and education/training facilities and capacities rationalised for enhanced economies of scale and scope.
- 3. Innovative education/training research and outreach activities supported by adaptive management structures in universities contributing to policy and development practice.
- 4. Operational capacity and approaches for innovative, quality and impact-oriented agricultural R4D mainstreamed in universities.
- Increased participation and voices of women in education/ training, research and production and marketing of knowledge;
- 6. Increased use of technology to support effective, decentralised learning and sharing of knowledge.
- 7. A dynamic regional platform for policy advocacy, lobbying, coordination, and resource mobilization for improved education/ training, research and outreach by universities.

In their operational role as leaders in science for development, RUFORUM members will place increased weight on forging alliances with agriculture development agencies for turning research results into innovations of value to small-scale producers and the private agro-enterprises and agro-industries that serve them. This will be underpinned by lessons from its first ten years: 1) RUFORUM's competitive Graduate Research Grants (GRGs), which address critical needs in hands-on training, will be enhanced and made more thematic, while the number of field sites is expanded, 2) Community Action Research Projects (CARPs), designed to enhance experiential learning and engage communities in resolving their commodity value chain constraints with locally relevant and adapted technologies, will be intensified, 3) institutional-strengthening grants (ISGs), under which strong Universities nurture weaker ones and emerging issues and opportunities are addressed, will be increased, 4) regional Masters and PhD programmes will align more tightly with the

development priorities'

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¹ RUFORUM's Theory of Change describes the key outputs that will be delivered by the Secretariat during the period of the Plan. It also clarifies on the changes that RUFORUM will contribute to at university level, and the key actors expected to support these outcomes towards achieving RUFORUM ultimate impact of 'high Performing African universities that produce skilled, proactive graduates, demand driven research outputs and innovation in response to national, regional and continental agricultural

quality assurance protocols of leading Universities in Africa and overseas, 5) the powerful benefits of blending digital learning technologies with classroom teaching will be harnessed, 6) analytical skills of graduates through improved research methods theory and practice will be elevated, (7) promotion of closer liaison of members through greater mobility, shared information and common courses, and agricultural sciences professional communities of practice, including those among RUFORUM alumni, will be bolstered, and 8) RUFORUM's National Forums will be fortified by combining them with policy and higher education advocacy groups in member countries.

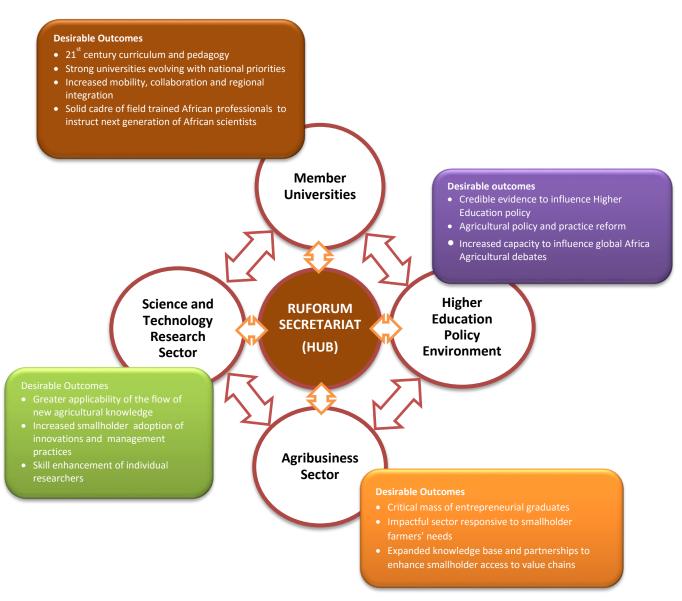
New partnerships and collaborative programmes will ensure the quality of graduate training. Ensuring quality training will not focus on "certification," something that formal governmental or Regional Bodies do but rather, ensuring that the products of RUFORUM's Universities and programmes are well accepted by potential employers across the region. Features include:

- A Graduate Teaching Assistants Programme (GTAP), whereby the host University waives fees and provides accommodation, while the sending University provides travel, stipends for PhD students nominated by their universities. Resources need to be mobilised for the research by the student, the sending/host universities and externally
- A competitive arrangement that will enable students to undertake internship opportunities at several centres of the Consultative Group on International Agricultural Research (CGIAR)
- Gradual outreach to West African Universities through pilot initiatives that share digital learning modalities, coupled with curriculum development innovations, joint research and cross-continental academic mobility exchanges
- Stepped-up efforts to raise the voice and participation of women scientists continent-wide
- Participation of RUFORUM MSc and PhD programmes in the World Bank's African Centres of Excellence initiative that emphasize engagement with grassroots and industry
- A new anchor country approach and key commodity value chains focus that magnifies the workings of local agricultural systems
- Increased engagement of the private sector by linking university capacities to supporting the increased efficiency and profitability of private sector innovations.

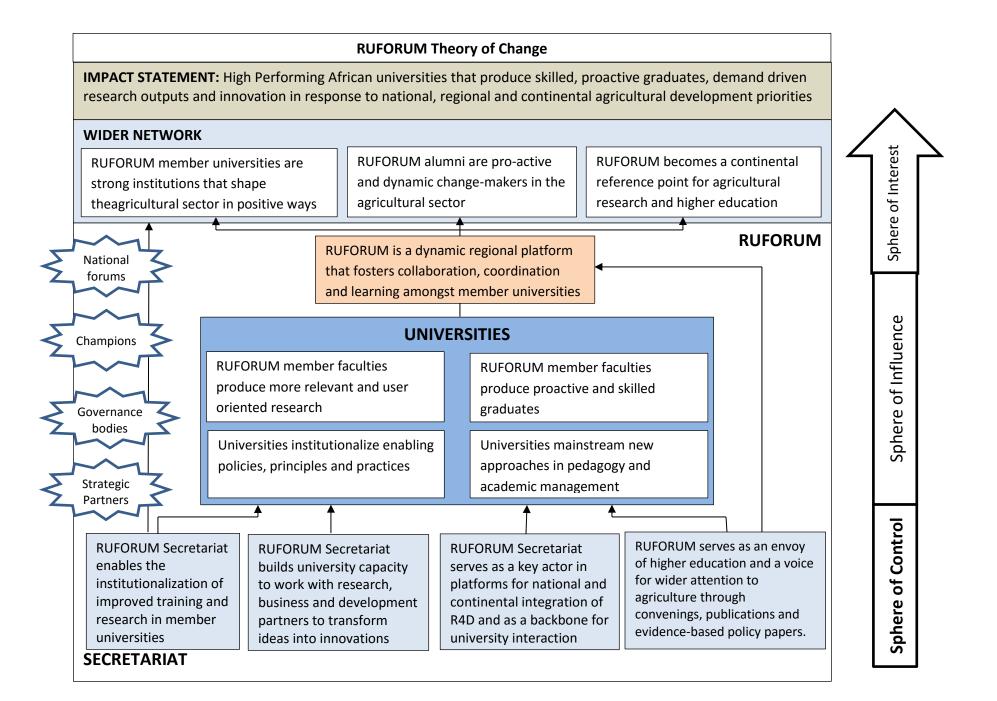
To accommodate these innovations, the Plan considers the principles and parameters of RUFORUM's comparative advantage of capturing regional economies of scale and scope; balances intensification with expansion; adjusts the value proposition for new customers/partners; ensures feedback from field experience into the classroom; and links the membership base to policy initiatives at the regional and continental level. New activities will be carefully evaluated on the business principle that they contribute to the way RUFORUM creates, captures and delivers value to its partners and stakeholders.

RUFORUM will aim to deepen current funding streams and cultivate new ones. Sustainable African organizations must be built on solid support from the private sector, African governments, regional economic communities (RECs) and continental bodies. This sustainable base will be attractive to partners in advanced economies, major emerging national economies (e.g. Brazil, Russia, India, China and South Africa -BRICS), private enterprises, NGOs, University members and alumni. During 2015-2020, RUFORUM will offer its membership and its development partners a well-positioned network to guide the increasing interest in agricultural higher education, and its contribution to science, technology and rural development, building on an already significant base of experience. A key approach will be on platforms for national and continental integration of Research for Development (R4D) and as a backbone for university interaction while strengthening national university capacity to work with research, business, and development partners to transform ideas into innovations. The anticipated outcome in 2020 is depicted in Figure 1 and its achievement will be guided by the RUFORUM Theory of Change. RUFORUM will operate at full-cost recovery.

Fig 1: RUFORUM in 2020 at a Glance



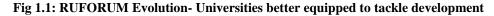
Critical Factors of Success: The subsequent sections identify the challenges and constraints RUFORUM must overcome and provides detail on what RUFORUM intends to do, with whom and with what instruments under its control. Some critical success factors lie within RUFORUM's environment. RUFORUM's Strategic Plan indicates how it will work to influence this environment or work within it. Influencing policy and institutional environments versus working within their constraints is a strategic investment decision. The concluding chapter is a checklist of what RUFORUM must do to become and remain the RUFORUM that its constituents need it to be.

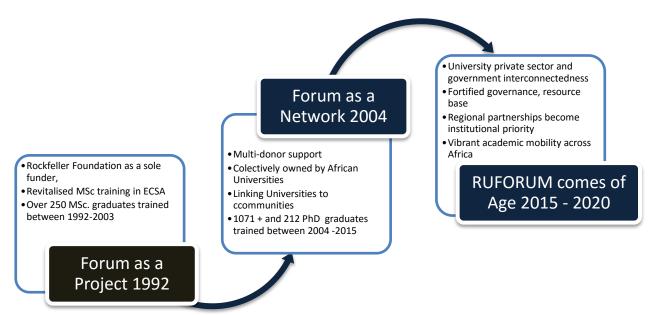


1. Introduction

1.1 Recent Evolution of RUFORUM

Following extensive Africa-wide consultation, this document updates the RUFORUM Strategic Plan (2006-2015) and the Business Plan 2011-2016 as approved by the RUFORUM Board of Trustees in May 2011. It reflects the first principles of the RUFORUM Network established by a far-sighted group of African Vice-Chancellors (VCs) of ten Universities in East and Southern Africa in 2004. These VCs recognized that although they were competitors for available limited resources, there was an opportunity through intensive knowledge-sharing and collective action to transform their Universities into viable institutional operations responsive to national aspirations and conditions.





A decade later, RUFORUM has become a Network of 46 Universities in 22 countries in sub-Saharan Africa. RUFORUM also has collaborating partners in West Africa beyond its member Universities in Benin, Ghana and Nigeria through the inclusion of students from several West African countries (including Liberia, Mali, Senegal and Togo) in the Network's regional PhD and MSc programmes. Significantly, an MOU with the Africa Union Commission (AUC), signed in 2014, serves to reinforce the framework for aligning capacity building activities and developing research and development goals for Africa. Through the MOU, the AUC has mandated RUFORUM to facilitate and coordinate work in the area of higher education in agriculture, and its relationship to science, technology and innovation on the continent.

Overall guidance of the Network is provided by the Board of VCs and five Directors at Large. Other governance organs include a Board Executive Committee, a Board Audit, Finance and Human Resources Committee, a Deans' and Principals' Committee, a Technical Committee and an International Advisory Panel. The RUFORUM Secretariat is hosted by Makerere University in Uganda. Substantial financial support for the implementation of the 2011-2016 Plan has been provided by the Bill and Melinda Gates Foundation

² RUFORUM evolved from its predecessor, the Forum on Agriculture Resource Husbandry, an initiative of the Rockefeller Foundation. In 2004, the ten African VCs agreed to establish RUFORUM and oversaw the development of its first Business Plan 2006—2011 (a further two VCs joined the club in 2006), which was supported initially by a three-year transition grant from the

Foundation. In 2009, the Bill and Melinda Gates Foundation became RUFORUM's core funding source.

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(BMGF).³ Other philanthropies along with several multilateral and bilateral agencies are now investors in RUFORUM. The Government of Uganda provides facilities for RUFORUM and support for training an important contingent of its agricultural scientists.⁴ Other Governments provide direct support to network activities, particularl hosted regional meetings. Discussions are underway with several other African governments potentially interested in investment in RUFORUM as part of their commitment to the AU/NEPAD Science Agenda for Agriculture in Africa ("Science Agenda"); the AU Science, Technology and Innovations Strategy for Africa 2024 (STISA 2024); Agenda 2063 of the AU; and the Malabo Declaration on sustaining the Comprehensive Africa Agriculture Development Programme (CAADP).

1.2 Motivation for Refreshing the Strategic Business Plan

This Strategic Business Plan 2015-2020 is described as a "strategic refreshing" of the current Strategic Plan and Business Plan because a) It maintains the seven Strategic Objectives of the 2006-2015 Strateic Plan, b) it overlaps the current Business Plan whose fundamental principles remain valid, c) it pushes the vision five years into the future, and d) describes the strategic choices that RUFORUM must make while maintaining focus on its membership base and adapting to new demands for collaboration beyond its original geographic and scientific roots. It applies a balanced growth approach that examines whether new activities will enhance its sustainability in creating and delivering value to its members and stakeholders.

Refreshing the current Plan is motivated by a rapidly changing environment within and outside Africa and by evolving institutional partnerships and funding possibilities. The post-2008 bounce of interest in the agricultural field in Africa has resulted in many new initiatives and significant resources. However, sustaining the momentum is difficult, as new problems have arisen and agriculture is growing. In the face of widening demand for RUFORUM membership and new continental demands, the Plan articulates the goals, guidelines, trade-offs, activities and timelines that are critical to managing focus, expansion, partnerships and widening the resource base.

1.3 Strategic Choices and Adaptive Management in Refreshing the Strategic Business Plan

A favourable external review commissioned by BMGF in 2013 applauded RUFORUM's structure and design, but indicated some critical areas for improvement and evolution, including devolving management of regional degree programmes to constituent Universities.⁵ This review was an important factor in renewed support to RUFORUM which is now addressing the recommendations. The updated Plan calls for actions that imply strategic choices and adaptive management:

New Organizational Challenges, Opportunities and Action

- Building on the burgeoning membership in the Network, which grew from 10 Universities in 2004, to 29 in 2011, and to 46 in 2014, including three in West Africa and responding to the consistent demand for further expansion
- Acting on a positive response from the RUFORUM Board to calls that the Network more closely align itself with new continental frameworks for agricultural development and strengthening science, technology and innovation

⁴ The Uganda Government is paying for the training of 12 PhD students through RUFORUM (\$720,000). In November 2012, the Government of Uganda committed additional funding under its ATAAS (Agricultural Technology and Agribusiness Advisory Services) project, for training 30 researchers (MSc and PhD students) through RUFORUM. The students are training under various programmes including Drylands Management at the University of Nairobi; Soil and Water Management at Sokoine; Agricultural and Rural Innovations at Egerton and Makerere; the Aquaculture and Fisheries at Lilongwe University of Agriculture and Natural Resources, and the Plant Breeding and Biotechnology Programme at Makerere.

³ BMGF is currently providing 62% of total budget support to RUFORUM.

⁵ The team was composed of John Lynam, former Associate Director, the Rockefeller Foundation (leader); Beth Medvecky Associate Professor, Cornell University; and William Lyakurwa, former Executive Director of the African Economic Research Consortium. The full report will be found at http://repository.ruforum.org/documents/evolving-regional-platform-higher-agricultural-education-review-ruforum

- Putting flesh on the new MOUs with AUC, Common Market for Eastern and Southern Africa (COMESA) and other RECs, the Forum for Agricultural Research in Africa (FARA), ASARECA, CCARDESA, CORAF, the Council for Scientific and Industrial Research (CSIR) in South Africa; other African organizations and the CGIAR Research Programmes (CRPs)
- Collaborating with EARTH University in Costa Rica to establish a platform in Universities to encourage entrepreneurial skills and preparation for agribusiness self-employment
- Meeting deliverables of a BMGF second phase core grant of US\$ 16 million (2014-2019) that introduces new aspects of programme design to which RUFORUM is committed, including University research in BMGF anchor countries and key commodities and systems
- Adapting commissioned functional analysis of the Secretariat organizational structure to improve efficiency and provide a guide for judicious expansion of staff to meet growing needs

Business Organization

- Addressing new demands, while maintaining RUFORUM's focus on delivering value to its members, partners and customers
- Maintaining RUFORUM's growth model: balanced growth from a consolidated core
- Phased implementation of the growth strategy and adaptation of the Plan targets and horizon
- Increasing operational efficiencies to reduce costs in line with the functional analysis
- Basing a clear resource mobilization strategy on turning value propositions into revenue streams

Governance and Management

- Strengthening the Board as a strategic asset of RUFORUM including: improved Board structures and subsidiary organs and management arrangements to support the flow of information to the Board and the RUFORUM Network
- Creating an expanded and focused Board Executive Committee that allows for regional representation
- Ensuring timely availability of information for decision making by the Board and its committees
- Well-defined responsibilities and accountability for the successful implementation of the Plan.

2. Vision and Mission

2.1 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. RUFORUM contributes to this vision by supporting Universities to build effective human capital to engage in research, policy, service provision, and the private sector, as well as translate knowledge into innovations for sustained economic growth and food security. 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 fundamental to RUFORUM's agricultural development strategy. It goes beyond enhanced productivity through the results of solid R&D – to innovation and links to small-holder producers; expanded and improved functionality of commodity value chains; and impact at scale through robust NGO 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 they contribute directly to the African Common Position on post 2015 Development.

The vision embraces a "new agriculture" within a context of emerging innovations in science, technology, market-friendly policy, robust talent pools and improved institutions – all helping to create a new platform for progress. Strengthened commodity value chains, which boost productivity, coupled with new forms of farmer collective action and revolutions in biotechnology and information technologies, offer Africa's social

entrepreneurs exciting opportunities to use agriculture to promote development. These entrepreneurs include those moving up the ranks of government and academe, who can open new agribusinesses and create venture capital mechanisms together with NGOs and advocacy groups, which can drive new directions in research institutes. RUFORUM's vision entails developing the catalysts of change -- sparking change rather than merely implementing change programmes prescribed by others.

2.2 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.

In order to achieve this mission, RUFORUM is developing the necessary capabilities, guided by its Strategic goals, to:

- Establish its niche and enhance its visibility, outreach and policy engagement through a range of knowledge management, communication and dissemination techniques to convey its products and maximize impact
- Ensure grounding in strong strategic and operational management that can identify risks and factors for success
- Build the partnerships that will organize spillovers from RUFORUM work and for which RUFORUM can be a delivery vehicle for their discoveries.
- Become financially sustainable by diversifying and broadening RUFORUM's resource base through identifying potential revenue streams for its value propositions and increasing support from African sources
- Maintain a balanced growth strategy in the face of multiple competing demands
- Employ a result-based measurement framework to track the progress of planned activities

Box 1: RUFORUM's Strategic Goals

- Masters and doctoral programs responsive to stakeholder needs and national/regional development goals.
- Shared research and education/training facilities and capacities rationalised for enhanced economies of scale and scope.
- 3. Innovative education/training research and outreach activities supported by adaptive management structures in universities contributing to policy and development practice.
- 4. Operational capacity and approaches for innovative, quality and impact-oriented agricultural R4D mainstreamed in universities.
- Increased participation and voices of women in education/ training, research and production and marketing of knowledge;
- 6. Increased use of technology to support effective, decentralised learning and sharing of knowledge.
- A dynamic regional platform for policy advocacy, lobbying, coordination, and resource mobilization for improved education/ training, research and outreach by universities.

2.3 Strategic objectives of the Plan

To support this mission and RUFORUM's strategic goals, the objectives for the 2015-2020 Plan are:

- An effective platform for University support to smallholders by enabling the University community to contribute to the productivity of small-scale producers and the value chains that serve them. This platform also to provide direct links into the national research and policy nexus.
- Realized economies of scale and scope that link national capacities regionally, rationalizing resource use and promoting international standards of excellence
- Engaged University actors along the whole value chain, including sister organizations and the private sector in mutually beneficial research and training to accelerate delivery of agricultural science-based innovations
- Increased participation and voice of women in higher education and activity along the value chain
- The spread of RUFORUM best practices through 1) building lessons into academic teaching, 2) working with partners in selected countries, including BMGF anchor countries to spread findings

through their networks both geographically and along value chains and 3) taking on a visionary/advocacy role at the continental level

2.4 Potential Impact: Realisation of RUFORUM's vision, mission and goals will make a critical contribution to the ability of African Universities to improve the lives and livelihoods of millions of small-holder farmers. RUFORUM has already contributed over 300 technologies, which have reached close to one million beneficiaries through extension, seed systems and supportive policies.⁶

The refreshed Plan describes how RUFORUM will achieve its goals of re-positioning Universities to be highly productive and fully integrated with Africa's farming communities and the set of public and private organisations with which they interact. RUFORUM Theory of Change (ToC) and impact pathway describes the key elements of the targeted impacts, towards the vision of high Performing African universities that produce skilled, proactive graduates, demand driven research outputs and innovation in response to national, regional and continental agricultural development priorities.

The Plan seeks impact beyond national and sub-regional innovation systems. The accumulated knowledge base within the Network and the active input of its 46 VCs constitute a unique resource for engaging in policy dialogues with regional economic communities and continental apex bodies.

3. Strategic Business Plan Basics

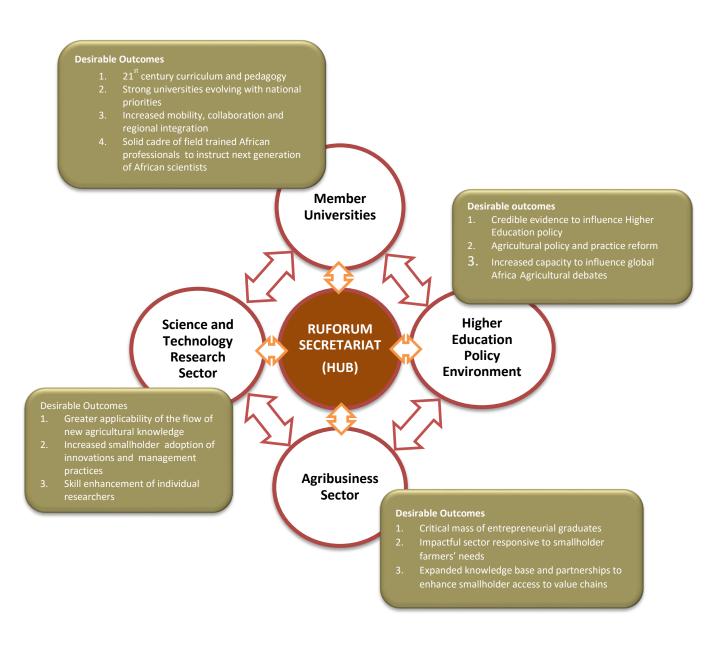
3.1 RUFORUM Strategic Business Principles

The Plan provides the basic model for RUFORUM's strategic design and implementation. It is based on the principles of:

- **Grounding** agricultural research in the hands of a well-informed critical mass of locally based professionals
- Quality postgraduate training
- **Relevance** of research, training and related services responsive to farmer needs and innovation opportunities
- Unlocking skills by providing links and integrating universities into national research, technology and policy institutions to ensure that the full potential of their human resources are made available to development
- **Regionality** as a Network of 46 Universities across 22 countries for collective action supported by governments through commitment to regional action
- **Affordability** by maintaining costs and salaries at levels, which are sustainable from regional resources.
- **Retention** of capacity within the region through enhanced regional mobility, acceptance of credentials, farmer and employer demand
- Scaling out through joint University programmes, networks and partnerships
- Financial Sustainability through recovery of all direct and indirect costs for staff and operations.

⁶ Such technologies include sorghum and soya bean varieties throughout Eastern and Southern Africa; micro-propagation of bananas (five countries); passion fruit disease control (three countries); artificial insemination of pigs (two countries); tomato curly virus control (two countries); beneficial mycorrhiza in sugarcane (two countries); biofortified foods (six countries); and sustainable intensification technologies (soil fertility, mbili intercropping/enhanced legume rotations, etc.).

Fig 2.1: RUFORUM in 2020 at a Glance



3.2 Understanding the External Environment: Policies and Institutions

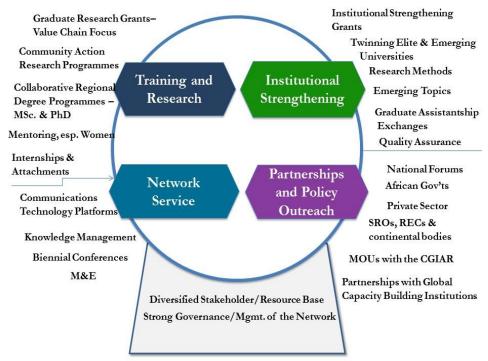
- Alignment with new frameworks and initiatives at the continental level that combine priorities in agriculture, S&T, and capacity building
- Repositioning of the CGIAR and the new CRPs for a sharper and more immediate focus on institutional and human capacity building
- African sub-regional organizations for agricultural research and development, including ASARECA, covering eastern and central Africa; CORAF/WECARD in West Africa and CCARDESA, in southern Africa as well as university networks, such as the African Network for Agriculture, Agroforestry and Natural Resources Education (ANAFE), Conseil Africain et Malgache pour l'Enseignement Supérieur (CAMES) and Le Réseau pour l'excellence de l'enseignement supérieur en Afrique de l'Ouest (REESAO) that need to band together in research capacity partnerships with strong Universities in their respective countries
- Increasing role of the private sector, under liberalization, which drives agricultural productivity and
 agribusiness, while placing greater demands on higher education for entrepreneurial skill training.
 Universities will be encouraged to more closely align research and training towards the delivering the
 needs of the private sector.
- National governments and National Agricultural Research and Extension Systems (NARES) that increasingly set priorities on commodity value chains and look to Universities to contribute to and apply knowledge from the many branches of sciences facilitating agricultural innovation.

3.3 Managing Increasing Demands for RUFORUM

Member Universities are facing similar challenges. Not all of them require regional solutions. Nevertheless, 46 VCs have voluntarily chosen to self-organize and pay membership fees for participation in the Network. RUFORUM satisfies their needs for four broad categories of value that are captured in Figure 3.1: Training and Research, 2) Institution strengthening, 3) RUFORUM member services including networking and knowledge sharing, and 4) Partnerships and policy outreach. Each Vice Chancellor sees membership as satisfying his or her needs with a different combination of RUFORUM's value propositions.

organization been quite successful in self-organized engagement in groundbased, credible, specific initiatives on the one hand and regional activities on the other for a strategic combination causing scale-up impact to occur. This is organized through participation in national, regional and continental development processes. Research and training have benefited from regional programmes capturing economies of scale. Regional mobility is a primary contributor to better research and understanding. The

Fig 3.1: Managing the Demands for RUFORUM: Capacity Building Framework



Board is unique in focusing the attention of the highest University authorities coming from many disciplines on sciences for agriculture. Their postgraduate programmes are established and produce graduates in high demand. A core benefit to members is the platform for engagement offered through RUFORUM. While growth of membership has presented challenges, RUFORUM's ability to adapt and renew its role is an attribute of a maturing institution. If it succeeds in maintaining a balance in its offerings, coherence in its ability to learn, synthesis and delivery of better value to its members, RUFORUM should be able to attract much needed core funding for its sustainable operation.

3.4 RUFORUM's Programme Portfolio: Responding to Demand for Quality and Quantity

During 2015-2020, increased weight will be placed on quality assurance and on forging alliances with agriculture development agencies for turning research results into innovations of value to small-scale producers and the private agro-enterprises and agro-industries that serve them. This will be underpinned by lessons from its first ten years.

Enhancing Capacity Building through Research:

- Re-orientated Competitive Graduate Research Grants (GRGs) with an expanded number of field attachments and a new targeted focus on the theme of "Innovation for sustainable systems within value chains that improve smallholder incomes"
- Enhanced Community Action Research Programmes (CARPs) on specific value chains that engage faculty and students in work with stakeholders to activate major gains for smallholders in income and food security⁷
- Collaborative Regional MSc (5) and course-based PhD Programmes (7) (one year course work, two years research for the PhD and one year research for the MSc) will step up quality assurance through tighter alignment with leading research institutes in Africa and overseas (including links with the World Bank's African Centres of Excellence initiative); programme management will be devolved to individual host Universities⁸.

Institution Strengthening:

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• Institution Strengthening Grants (ISGs), under which strong Universities nurture weaker ones, will be increased. Special attention will be placed on staff development, workshops on research methods, building capacity for research on emerging topics, and encouraging quality proposals from a range of disciples and from women (to date RUFORUM can boast of a 42 percent female enrolment in its postgraduate programmes)

⁷ RUFORUM will delegate its prior, successful CARPs in Malawi (fisheries), Uganda (maize-based crop systems) and Kenya (legume-cereal integration) to their lead universities, which have acquired direct funding for these initiatives. The new pilot programmes are 1) cassava value chains in Uganda, 2) wheat value chains in Ethiopia and 3) sustainable livestock value chains in Tanzania. The focus on anchor countries and crops/livestock value chains sets in place the regeneration of high performing graduates in these countries and fields who can work with NARES, the private sector, and other key stakeholder organizations to activate major gains (income and food security) for smallholder farmers. These concentrated activities can spread to the rest of RUFORUM members through curriculum, movement of staff and graduates, and participation in regional forums and projects. The CARPs provide an opportunity for evolutionary consolidation of RUFORUM's activities in a few places on the ground where both the Network and funders already have strong investments. Learning from the pilots will generate public goods that serve the entire network and open new opportunities for innovation and complementary resource flow. EARTH University in Costa Rica is a key partner in the programme.

⁸ RUFORUM's five regional MSc offerings are: *a)Research Methods, b)Agricultural Information and Communications*Management, c Monitoring and Evaluation, d) Agrometerology and Natural Risk Management, and e) the award winning Plant
Breeding and Seeds Systems programme. These highly popular courses have been maintained to date under the RUFORUM brand.
In future, the Secretariat is likely to act as an incubator of innovative MSc degree courses that are then franchised to interested
member universities. RUFORUM has also established eight regional PhD programme: a) Dryland Resource Management, b) Plant
Breeding and Biotechnology, c) Aquaculture and Fisheries, d) Soils and Water Management, e) Food Science and Nutrition, f)
Agricultural and Rural Economics, g) Agriculture and Rural Innovation and h) Life Sciences – each hosted by a lead university.

• A Graduate Teaching Assistantship Programme (GTAP) has been launched whereby the host University waives fees and provides accommodation for PhD students nominated by other member Universities, while the sending University provides travel, stipends and research funds. To date, 14 Universities have agreed to provide a total of 70 graduate teaching assistantships at an average three-year unit cost of \$45,050 for sending Universities and a waiver of US\$14,350 from receiving Universities. Resources for research costs need to be mobilised by the students, universities and externally.

Servicing the RUFORUM Network

- Powerful knowledge management and communications technologies to improve the management of the Universities and the clients they serve will be harnessed. Uses include blended learning (classroom and digital technology), dissemination of agricultural research information, and network information management systems. Under its Community Action Research Programmes, RUFORUM will also form strategic partnerships with outreach organisations to foster multi-channel communications that will enhance the ability of students and faculty to engage with local communities along the value chains.
- An extensive networking approach of over 18,000 faculty and non-academic experts, along with established partnerships with a wide-ranging set of organizations within and outside Africa will be utilized. This networking will allow RUFORUM to mobilize resources as well as provide regional platforms for sharing experience and knowledge at national events, its Annual General Meetings (AGMs), its Deans' and Principals' Committee Meetings, its training sessions and at its Biennial Conferences, and regional and global gatherings.
- Promotion of agricultural sciences through multi-disciplinary "professional communities of practice" through umbrella projects, such as WATERCAP, increase integration among RUFORUM Universities, enhance impact of the Network, and embrace the advocacy potential of the RUFORUM Alumni Association.
- Robust Planning, Monitoring, Evaluation and Learning (PMEL) with emphasis on improved ability to capture lessons from implementation and provide information for evidence-based decision making at the Secretariat and will also involve building M&E capacity of African Universities.

New Partnerships and Policy Outreach for a Wider RUFORUM

• RUFORUM partnerships with farmer associations that will ensure identification of aggregated demands from africas' smallholders. RUFORUM will work with umbrella farmers organisations at continential (such as PAFFO), regional and national levels to strengthen responsiveness of universities to demands.

• **RUFORUM's National Forums**¹⁰, which amplify both demand and advocacy at the country-level, will be strengthened by combining them with policy and higher education groups that have strong national nodes and convening power, such as FANRPAN. It is easier to work through such groups than to create a new organization in each country.

⁹ WATERCAP, collaboration among specialist researchers at Makerere University in Uganda, Egerton University in Kenya and the University of Natural Resources and Life Sciences in Austria, brings universities to farmers. Through the introduction of low-tech innovations, target farming communities now enjoy year-round access to safe water for both farming and domestic use, while participating universities have increased their capacity to contribute to the mitigation of climate change in smallholder agriculture. See also https://www.youtube.com/watch?y=6V3WL9CHWJU

¹⁰ National Forums provide a platform for stakeholders to articulate demands for university services, advocate for change, and provide feedback on the utility of RUFORUM's activities. The Forums typically are composed of member universities, representatives of farmer organizations, policy makers, members of the private sector, and members of NARIs and the national extension system.

- Partnerships with Sub-Regional Organizations will be executed to put in place a) umbrella agreements with SROs under which individual RUFORUM member Universities, NAREs and SRO programmes can quickly organize collaboration.
- Engagement with the private sector in mutually beneficial training will be carried out, along with public-private partnerships to develop market pathways leading to product uptake.
- Partnerships with AUC and other continental or regional bodies, including NEPAD, CAADP, FARA, FANRPAN, and RECs will offer the potential of connecting member Universities to continental level agricultural, S&T, and capacity building policy deliberations.
- A joint competitive arrangement with several CGIAR Centers/CRPS, which in a similar fashion to agreements with the SROs, will open new possibilities for students to undertake internship opportunities for research focused degrees.
- **Gradual outreach to West African and other Universities** through pilot initiatives that share digital learning modalities coupled with curriculum development innovations, cross-continental academic mobility exchanges and joint research.
- Partnership with African Women in Agricultural Research and Development (AWARD), the Forum for African Women Educationists (FAWE) and other groups will enhance efforts to raise the voice and participation of women scientists continent-wide.
- RUFORUM will partner with global capacity building institutes in North America, Europe, Australia, and the emerging economics (Brazil, Russia, India, China and South Africa-BRICs).

4. Value Proposition and Customer Segments

RUFORUM offers value to many different groups that can be classified under the term "customer segments." It is useful to distinguish three main classes of demand and the nature of the products and services that each claims. The following sub-sections identify: 1) RUFORUM members, who benefit from "club goods," the special services reserved for members; 2) Users of the "new graduates," who pay for employees in the market as private goods; and 3) regional, continental and global partners, who will be intensive users of "global public goods" generated by RUFORUM's understanding of University systems, value chains and market demands for African agriculture and skilled human capital. Necessary to its survival and success are the support of African policy-making bodies at all levels and the many donor investors who finance both the policy-making and operational research bodies. Each of these partners has general expectations of RUFORUM as an effective facilitator of innovation in higher education and research as well as of the specific interests they would like to promote with the assistance of the Network. Within this general picture of high expectations, RUFORUM tries to be clear about what it can do, how it keeps within its comparative advantage and sustainable limits, and the trade-offs that it must make to be an innovative force and not only a service unit. The balance is delicate but this Plan lays out key considerations for RUFORUM's choices. The Secretariat and its governance organs, will play a leading role in managing this delicate balance for services for which RUFORUM has a comparative advantage (Appendix D).

The essence of its business model is that RUFORUM must generate enough support from its various customer segments to be sustainable. "Club members" pay contributions that ensure the continuation of the organization and the general services and contacts they receive. Employers of the "New Graduates" pay market rates to the individual graduate that may include a quality premium. Development partners contribute to the organization because of the value of public goods and its services as a bridging organisation among Universities, NARIs, extension and the private sector, which is needed for policy making. Each customer segment may have expectations of other services of interest to it that RUFORUM could possibly provide if extra funding became available. Increasingly, the key to sustainability will be the commitment of African governments to fund gains captured by their national systems and of regional coordinating bodies to embrace regional collaboration in higher education.

The principle of intra-African mobility and integration is strongly worded in the Science Agenda for Agriculture in Africa, as adopted by the Heads of State and Government meeting in Malabo in 2014. African governments are the primary beneficiaries of strong national institutions and the economies of scale and scope gained from regional collaboration. Beyond this, regional cooperation has been the best insurance policy against natural and man-made disasters. Post-conflict and post-disaster recovery has been accelerated through highly- skilled people, wise policy and adapted technologies (including multiplication of seeds and resistant cultivars) used in reconstruction. This lesson should be clear to both national policy makers and RECs that have experienced disruptions between members and neighbours. The public finance dilemma, however, is getting the customers to cover the full cost of having and maintaining a RUFORUM.

The preceding paragraph introduces the underlying sources of value offered by RUFORUM. Two principles underpin RUFORUM's choices: sustainability and balanced growth. First, new activities will be pursued if they can assist RUFORUM to "create, capture or deliver value to its customers in a sustainable way." Stated simply, RUFORUM must earn revenues from its activities, creating private gains to use its block grants to provide public goods to all. Second, when expanding its activities, RUFORUM follows a path of balanced growth: building on its base, creating new value for its customers, and driving initiatives where new resources cover the costs and a fair overhead to expand the central hub.

Table 4.1 presents a value proposition register that should help members, users of RUFORUM's services and partners to see their key interests in ensuring the continuation and balanced growth of the organization through their membership fees, fees for services, full cost-recovery from partnerships and direct support to the core. The critical words: "economies," "quality," "relevance," "quantity," and "services" describe the attributes of the "value" that the customer receives.

RUFORUM satisfies a broad range of clients and their needs in three ways: it creates gains through collaboration, provides products and service that helps them be more relevant or productive, and it reduces some of their burdens by serving them all collectively. Which customers it services, how intensively it can meet their needs is the essence of a business model in which the sum of all contributions must cover their total cost to remain in operation. Having a clear business model with realistic estimates of revenue and grants is key to sustainability.

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¹¹ This is the essence of a business model (Osterwalder and Pigneur, 2010).

Table 4.1 RUFORUM's Value Proposition to Key Customer Segments, Reciprocal Gain, and Contribution to Sustainability

CUSTOMER SEGMENT	RUFORUM'S KEY VALUE PROPOSITION to CUSTOMER SEGMENT	GAIN to RUFORUM: "creation, capture, or delivery of value" to customers	RESOURCE IMPLICATIONS	ISSUES
RUFORUM ME	MBERS			
1. Member Universities	 Economies of scale/scope Coursework and field-based degrees GTAP Exchange Capacity for emerging topics E-learning access to global knowledge Bringing Universities to farmers Strong Universities nurturing others International collaboration, Networking opportunities¹² Spillovers of curriculum/pedagogy into the wider University space Joint political pressure and resource mobilisation 	 Employment-ready graduates Increased support from national educational authorities Capture of wider experiences and research findings New models for farmer outreach/product delivery VC Board enhances the efficiency and effectiveness of governance Participation of Network members in CAADP, STISA and other continental for a 	Sustainability from financial commitment by members, national governments and RECs Lower costs through collaborative training Focus point for funding partner engagement, leverage and exploration Increased membership raises competitiveness for award programmes and puts pressure on resources	 Channelling aspirations to postgraduate status into an organized national effort on behalf of agriculture, science, technology, and innovation Sustaining regional collaboration via evidence of continued gains Ensuring spread of benefits without incurring disadvantage of having to manage burgeoning membership
2. Staff, Students and Alumni	 Deepened analytic competences Ability to write successful proposals; publication in peer-reviewed jounals Women's greater enrolment/mentoring Ability to secure employment Participation in communities of practice Establish contacts and opportunities for regional mobility 	 Scientist entrepreneurs and graduates responsive to market needs Enhanced linkages between training, research and extension RUFORUM Alumni Association engagement with policy makers 	Alumni as donors Synergy with the private sector/NGOs for training employees	 A demand-pull instead of a supply-push approach to a diversified labour market Quality assurance as critical Capacity building through equitable partnerships
RUFORUM "US	SERS"			
African Governments	Solid postgraduate training enlarges national agricultural capacity	 Feedback on research as interpreter of evidence Integration of Universities into national development processes 	Political leverage for greater governmental support for training their scientists	 Higher agricultural education often falls into cracks among multiple ministries African governments are

¹² Establish contacts, build relationships, link to resource opportunities both by access to information shared on opportunities, and by direct brokering of links, and facilitation of proposal through RUFORUM. It also provides a platform for sharing research results, new pedagogy and curriculum opportunities, and lessons learned.

CUSTOMER SEGMENT	RUFORUM'S KEY VALUE PROPOSITION to CUSTOMER SEGMENT	"creation, capture, or delivery of value" to customers	RESOURCE IMPLICATIONS	
	 Access to policy briefs, Biennial conferences, policy workshops by the National Forums, etc. Graduates as staff/leadership Better institutions to make skills and knowledge from universities accessible 	 Increased demand for RUFORUM's products National Forums provide consistent channel to national policy-makers 	National Forums influence agricultural policy	prime beneficiaries but need to have "skin in the game" to diversify the resource base • Meet CAAP allocation of 10%
2. NARIs	 Opportunities to join in fortifying capacity of NARIs Access to the best University research facilities for junior NARI scientists RUFORUM graduates as replacements for retiring NARI scientists 	 Input and feedback on relevance and quality of training Potential to adapt and take innovations to scale Enhanced capacity for applied agricultural science 	 Government support for training NARI staff NARI scientists can utilize students as interns in their own research projects 	 Many NARIs face long-term research challenges: scanty use of biotechnology and nanotechnology, weak links with policy and development institutions Lack of infrastructure
3. NGOs and other Civil Society Organizations	 Potential new partners for University research and outreach services RUFORUM students as interns Short-term/degree training for staff RUFORUM graduates as potential employees/directors 	 National Forums' feedback on relevance of training and research Partnerships with service organizations like TechnoServe and multi-functional organizations like AGRA, building-up local markets 	Engaging with NGOs that have access to training funds to upgrade the skills of their fellows and staff members	Need local partners on research priorities, design and translation to use for African scientists to play a stronger role in achieving Sustainable Development Goals (SDGs)
4. Private sector (including local small and medium enterprises, international business)	 Mutually beneficial training/research/policy outreach Public-private partnerships to develop market pathways for innovations arising from University research Strengthened capacity for research and analysis in the private sector 	 Greater attention to value chains and innovation for product uptake Attachments to gain real world experience in agribusiness Knowledge of market demands and value chains deepen/broaden RUFORUM development impact 	Sponsorship of attachments for students with a focus on subsequent employment or venture capital for start-up businesses Private sector investment in the Network	Private sector linkages often have been overlooked by academe. Yet, agribusiness is increasingly seen as a major stimulus of growth via investment, job creation, and knowledge transfer
5. Smallholder Communities and Extension Agencies	Work with farmers to develop innovations to resolve their constraints Outreach to farmers and extension agencies through the CARPs Increased responsiveness to addressing emerging issues (e.g., climate change) Content development for digital learning and communication	 Partnerships with farmer service agencies for grounding research findings and innovations Benefits of market value chains providing incentives for cross-disciplinary coursework Feedback of practical experience into the classroom 	As partnerships expand, opportunities emerge to tap into new sources of finance The CARPs, led by individual member Universities, will continue to realize direct financial investment from donors	• Universities are not extension agencies; their advantages in working with farmer agencies are to (1) understand farmer priorities/context, (2) undertake appropriate research and (3) cooperate to deliver practical results
GLOBAL AND I	REGIONAL PARTNERS			
1. Sub-Regional Organizations and CGIAR	 Share common regional coverage; key in shaping demand for graduates Provide internships for student research 	Development oriented perspective that is often missing in Universities	Source of new customers Opportunities for shared "Knowledge Hubs"	SROs are currently considering reorganization and new sources of support

CUSTOMER	RUFORUM's KEY VALUE	GAIN to RUFORUM:	RESOURCE IMPLICATIONS	ISSUES
SEGMENT	PROPOSITION to	"creation, capture, or delivery		155025
	CUSTOMER SEGMENT	of value" to customers		
Research Programmes	RUFORUM focus on selected countries, including BMGF anchor countries and priority commodities overlap CGIAR interests	 Identification of best candidates and projects for degree training System-level outcomes Access to world-class facilities/staff 	Potential coinvestors in priority research and training in Africa	The CGIAR has not been strong on coordinated research with local Universities
2. Regional Economic Communities	 RUFORUM embodies all the needed outcomes of an REC: enhanced mobility, specialization, economies of scale and scope, subsidiarity RUFORUM cross-cuts several RECs 	• RECs may prove decisive in the future of higher education through legislation favouring mobility, harmonization of standards, and financial support to achieve regional "gains"	Support of RUFORUM by governments and RECs is one avenue to live up to commitments under CAADP, STISA and the Science Agenda	 RECs often see their mandate narrowly Ministers/Heads of State can ensure RECs are held accountable for regional advances in higher agricultural education
3. African Continental Organizations	 Partnership with a premier capacity building Network Fortification by an established organization ready to serve a wider mandate that has a comprehensive University base for science, technology and innovation The Biennial Conference as a major networking site National Forums can achieve high policy influence within CAADP MOU support to STISA Pillar 1 at AU Heads of State meetings 	 An enabling environment for agricultural training/research in Africa Potential for collaboration and commissioned research Bringing wider S&T opportunities to receptive audience of VCs Capturing value would come in lessons learned RUFORUM and FARA are linked through formal participation in each other's flagship meetings and committees and via joint research 	High demands on Secretariat VCs of comprehensive Universities could focus on agriculture-andrelated sciences Cooperation depends on subsidiarity and RUFORUM building a strong membership base useful to CAADP CAADP can help with top level donor support	 Costs of "flagship events" must be justified by evidence of outcomes: new projects, partnerships, funding Limited Secretariat resources cannot be overly diverted from regular functions already stretched Support could be delivered through partnerships with sister organizations
4. Global Research and Policy Institutes, and Universities	 Opportunities for collaboration and joint impact results RUFORUM as a strong capacity building organization with major convening power that has global outreach but a focus on Africa 	 Leverage for value creation Access to the African Diaspora Creation of international technology spillovers via leading research programmes in the BRICs, North America, Europe, and Australia, etc. 	Collaboration on joint projects with capacity-building institutes that might not fund RUFORUM directly but could prove attractive to donors with thematic funding streams	RUFORUM needs to choose partnerships strategically which have a comparative advantage for advancing the Network's core agenda
5. International Funding Agencies	 Proof of concept: high return to quality and relevant MSc and PhD training High leverage to research; many Universities at once RUFORUM sustainability through demonstration of its value to a range of customer segments 	 Broadening and diversifying stakeholders/the resource base RUFORUM as the African capacity building Network of choice RUFORUM as a success in the making of regional cooperation 	Focus on selected countries, including BMGF anchor countries and key commodities may reduce flexible funding Growing membership and reduced grant support may affect RUFORUM's usefulness to new members	• The end of BMGF core support (2018) highlights RUFORUM value propositions to its customers to generate sustainable support to RUFORUM—the Network and its Hub.

5. Business Development and Growth Strategy

5.1 Requirements and Implications for Growth and Sustainability: Four pathways

Steady-state growth along only one path usually runs into diminishing returns: either the market dries up, the knowledge or technology becomes obsolete, or the source of inputs declines in quality or becomes more expensive. Therefore, RUFORUM is obliged to explore alternative scenarios for its organisational development strongly linked to demand. Demand must be "effective", i.e. supported by the right financial arrangements and institutional support, if RUFORUM is to be sustainable.

RUFORUM has achieved success in a strong niche for postgraduate education in sub-Saharan Africa, using a simple organisational structure with regional governance mechanisms. The new demands on RUFORUM imply different thematic and service emphases, which could become part of an expanded core and offering of additional products and services. The four most likely scenarios for RUFORUM are compared in Table 5.1. Each of the scenarios builds on the core competencies established by RUFORUM but reaches out to different customers, and requires an expansion of core competences to support new roles. The resulting RUFORUM would be different but could probably be sustainable with appropriate resource mobilisation strategies targeted to the primary customers.

The four pathways are summarised briefly as follows:

- 1. <u>Develop the Internal Margin:</u> Focus on ECSA Niche, but with limited reach to West Africa. This scenario emphasizes the core activities and countries currently members of RUFORUM. Growth could focus on adding new services to existing members, or adding new members within the countries and regions where RUFORUM has credibility, legitimacy and relevant knowledge. It would rely on National Forums as an instrument to be developed so that higher education would serve the National Agricultural Innovation System. The programme would cover national demand in a more comprehensive way but likely dilute attention to regional mechanisms for scaling, high leverage, continental impact.
- 2. <u>Develop the External Margin</u>: Meeting Regional Demand for Advisory Services on Enhanced Performance of Agricultural Higher Education. RUFORUM would foster subject matter specialisation in the organisational development of Universities in Africa, leading to greater impact. The specialisation would be based on its credibility and ability to work more widely on its subject matter skills across regions, but RUFORUM would lose some "legitimacy" as it moves further from its grounding in a broader set of action-oriented services in ECSA with limited outreach to West Africa. The Secretariat would need to recover the high transaction costs in identifying and brokering short-term consultancies.
- 3. <u>Develop as a Continental "Framework" Organization:</u> Influencing Policy at the Top. RUFORUM could play an immediate role and generate resources by taking on a broker and continent-wide networking role. Its credibility would be based on its experience in facilitating cross-country learning and on the accumulation of knowledge among its members about University development and about how science serves agriculture. The opportunity to create and capture new value must be weighed against the cost of delivering existing knowledge and services to RUFORUM's original base and other Universities in member countries. The evolution of the donor environment argues in favor of judicious involvement in continental activities. However, RUFORUM would have to find an aid agency willing to fund its growth into a continental framework organization.
- 4. <u>Balanced Growth Strategy.</u> RUFORUM would incrementally build on experience and capture the benefits of a mixed strategy. This would include 1) <u>continued service to its membership base</u>, but with a limit on the number of member Universities from any individual country, 2) <u>progressive growth</u> matched by revenue streams from longterm investors, 3) <u>value in enhanced knowledge products</u>, pedagogy, and learning from peers, 4) <u>collective impact</u> through partnerships by doing things each partner could not do on its own, 5) <u>development of a powerful advocacy base</u> for higher

education in agriculture and related sciences and 6) <u>facilitation of science networks and technology spillovers</u> between institutions in sub-Saharan Africa and globally. Judicious trade-offs among activities would be required and shifts of emphsis may occur periodically depending on changes in the external environment and resource base.

Table 5.1: Alternative Scenarios for RUFORUM Compared: Rationale and Requirements

Area of "Focus on		"Organisational	"Continental	"Balanced Growth"
Comparison	Niche"	Development Advisory Services"	Framework Organization''	20
Description	Focus on geographic niche and national agricultural innovation systems	Offer formal expertise on organisational development	Fill an immediate need for boundary spanning capital development organisations	Build on demonstrated strengths in geographic niche but take on new continetal/global roles
	Core Activities: Expanded and enriched current "Flagship" activities in geographic niche	Subject-matter specialists work with local experts across geographical barriers	Focus on providing a 'platform' for continent wide higher education initiatives	Deliver on commitments in geographic niche, but expand incrementally by geography/mandate, as resources are available
	Intense M&E/ICT member support with new services	Cross-cutting core support common to all strategies	M&E and ICT are critical to performance of this function	M&E and ICT are critical to learning and synthesis as well as to delivery
	Organisation and governance strongly linked to region: provides clear "legitimacy"	Subject-matter expertise brings "credibility" when complemented by local knowledge	Broader geographic reach usually sacrifices some degree of credibility and salience; but, offers a wider platform for leveraging higher education	Management structure may differentiate; new skills required; composition of advisory and technical committees may have to adjust
Advantage	Ownership by the region; bringing Universities to farmers	Credibility of subject matter specialists; enhanced quality assurance	Responds to immediate demand by continental bodies and some donors	Continental ownership of expansion plan
	Proximity lowers cost of supervision	Requires excellent ICT and support to "nodes"	Offers a development path from "framework" to "content"	Validation of geographic niche on wider scale raises visibility
Excellent local contextual knowledge		Excellent subject-matter knowledge	Would scale-up current capacity for advocacy and Africa-wide networking	Participation in continental action is a learning opportunity if cost is not prohibitive
"Boots on the ground" achieves outreach functions to farmers, private sector and other local stakeholders		Mission could broaden to include "sciences for agriculture" as found in member Universities	Links with STISA, Centers of Excellence initiatives and other large scale programmes	New member Universities in West Africa bring knowledge and pilot activities
Disadvantage	Risk of diminishing returns in saturated market	Higher follow-up costs due to distance; resources found in the Network not in the Secretariat.	Requires rapid uptaket of knowledge (subject matter, regional, linguistic)	Expectations of three customer segments are hard to satisfy and involve hard tradeoffs
	Funding constraints from members and national gov'ts	Variable strength in different subjects; high transaction costs for one- off technical services	Danger of mission creep	Opportunity costs of taking on new initiatives may require large upfront investment

Area of Comparison	"Focus on Niche"	"Organisational Development Advisory Services"	"Continental Framework Organization"	''Balanced Growth''
Growth Options and Requirements	Increase breadth, depth, and intensity of service to original members	Requires specialists across content together with organisational policy and management	Building evidence base for supporting Africa-wide vision and initiatives is critical	Need to chart expansion pathway, looking at opportunity costs
	Expand membership to new Universities within member countries	Dispersion of customers; harder to bring synthesis	Build legitimacy at this level with University and donor agencies for sustained funding	New initiatives may bring more resources and options for alternative expansion; explorations can be sequenced
	Membership fees must rise to cover additional costs and increased demand for fellowships	Specialization of services may result in piecemeal, short-term project funding if not properly managed	The evolution of funding towards wholesaling to continental bodies may militate in favor of deepening continental engagements	If national governments and RECs do not provide additional resources, RUFORUM maybe obliged to rely on continental resources
	Integrate core activities in service delivery mode ("re-engineering Universities")	Follow-up requires good ICT and materials	Scale and breadth beyond current capacity	Carefully chosen initiatives reinforce core learning and ability to follow different expansion paths

The balanced growth strategy is based on a careful review of an impact pathway and tradeoffs with, within and among the set of current core areas. Since some of the activities are scalable up and down, an adaptive RUFORUM has some capacity to deal with financial uncertainty by weathering challenges and building on opportunities. By keeping Secretariat staffing lean and flexible, it will maintain fleet-footed responsiveness.

5.2. RUFORUM Growth Model: Balanced Growth and Scaling-out Through Networks

RUFORUM is strongly aware of the changes in the donor and institutional environment that call for an adapted business model. The post-2008 renewal of interest in agriculture is winding down; donors are seeking "impact" and crowding towards the near-market gains from research and higher education; coordination through reallocation of donor money is no longer likely to be the only way to encourage collaborative behaviour. RUFORUM's way of navigating these new waters is to continue with its balanced growth approach. As such, it maintains a lean Secretariat with all the core functions needed to play a facilitating role that is both coordinating and innovating. Through a balanced growth strategy, RUFORUM will seek to diversity its sources of support that provide an effective demand for its range of potential contributions.

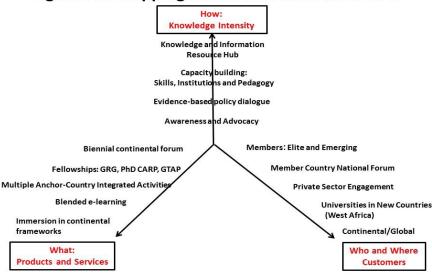
The essence of "balance" in balanced growth is that a solid foundation permits RUFORUM to begin initiatives to reach new goals as long as they do not erode the base or divert from its mission. Each new initiative will be assessed for its contribution to RUFORUM's ability to create, capture and deliver value to its members and customers.

As noted in the Business Plan 2011-2016, RUFORUM can expand incrementally, and often alternately along three axes. These are the "What," the "How," and the "For Whom" choices RUFORUM must make as depicted below.

Figure 5.1 is a three-dimensional diagram depicting the trade-offs that RUFORUM must make to achieve balanced growth. This ensures that RUFORUM consolidates its base, learns lessons from its experiences and feeds these back into a stronger core capacity to serve its various stakeholders.

In the three years since the Business Plan 2011-2016 was adopted, there have been several developments that alter RUFORUM's prospects for capturing, creating and delivering value to its customers (as well as to potential new some customers.) The Plan 2015-2020 adapts to these changes. Such changes include reform and restructuring of a number of continental and sub-regional organizations, various new or enhanced Africa-

Figure 5.1: Stepping Stones for Balanced Growth



wide frameworks and schema, a revitalized private sector, emboldened famer organizations and the call by African Heads of State and Government for increased intra-African collaboration in support of science for agricultural transformation, including a request to RUFORUM to reach out to other regions and support implementation of the STISA and S3A. This occurs, however, in a period when donor resources for agriculture are declining again after a post-2008 surge in interest.

5.3 From Niche to Balanced Growth

RUFORUM's Board strategy under its Strategic Plan (2006-2015) and Business Plans 2006-2010 & 2011-2016 was to establish RUFORUM's niche as a network of "high performing Universities" in agriculture and to establish its Secretariat with the management and skills needed to reinforce its central role in promoting relevant sub-regional postgraduate education in agriculture. RUFORUM's Secretariat became more established as a "hub" for a growing number of activities and a growing number of members. To stay focused on its postgraduate training and research niche, it devolved responsibility for managing fellowships to Universities and organized regional MSc and PhD programmes. RUFORUM limits involvement beyond its geographic base while simultaneously responding to a demand from within the region to accommodate new members and even some from outside the region (West Africa).

A balanced growth strategy can still accommodate "stretch goals" in a way that helps the organization expand and renew. However, balance requires that it maintain a secure base of membership and partner support.

Sustainability will require a mixture of: a) new support to enhance the Secretariat's capacity to facilitate Network activities; b) project development funding to explore new partnerships; c) full cost plus overheads on service activities to individual beneficiaries; and d) an adjustment in membership fees to cover "member services" and increase members "equity" in their organization. The BMGF currently provides generous support for a mixture of core and targeted activities. This amounts to 62% of the total. It is the main support for the Secretariat as the hub of many networked components. However, the Foundation is not geared towards long-term maintenance of institutional capacity. As a results-oriented impact-investor, it looks for measureable gains that can be replicated and transferred. It will continue over the next four years to provide core support to RUFORUM's networked Universities and the broad scientific and educational goals of RUFORUM. Other international funding agencies such as Carnegie Corporation of New York, the German Academy Exchange Programme, USAID through its Feed the Future Programme, International Development

Research Centre (IDRC) and the European Union (EC) have complemented BMGF support through contributions toward projects, fellowships and meetings.

RUFORUM's sustainability will depend on the support of national governments and Regional Economic Communities. International funding agencies commonly measure the seriousness that governments and Regional Economic Communities accord their subregional organizations by their monetary support or contributions in kind. Section 6.2 lays out a strategy for national support to sustain an operational core.

Given the recent dramatic upswing in RUFORUM's membership, there is not currently sufficient capacity in the Secretariat to serve its Universities' high demand in technical areas such as ICT, communication, and e-learning. The Secretariat, however, does not foresee a comparative advantage in serving as an implementation agency in these fields. The RUFORUM Secretariat will be lean by design and, where it cannot help directly, will increasingly be able to offer referral services. Each time it brokers self-help from within the RUFORUM network, integration is enhanced and the spread of knowledge widened.

Last, but not least, the member Universities have demonstrated their commitment through their "skin in the game." Each University pays a membership fee and its VC Board member pays for his or her own participation in meetings. Established Universities have created and pay for graduate teaching assistantships that welcome junior faculty from neighbouring countries on academic exchanges. Anticipation of results is strong. RUFORUM will increasingly call on Board Members as resources upon which it can rely to improve quality and collaboration in postgraduate education. An increment in member fees is expected by development partners, but it is the full engagement of the Board in promoting regional integration that is the prime asset of RUFORUM.

6. Managing Balanced Growth: Pathways and Funding Streams

6.1 Funding Streams and Financial Requirements

The maturity of RUFORUM is shown by the development pathway it has followed from a small Network of five countries and 10 Universities, focused on plant and soil sciences, to a major force that has fostered multiple mechanisms for enhancing capacity building through research, institution strengthening, Network services to members and partnerships with a wide variety of key stakeholders.

This Plan gives RUFORUM the opportunity to revise its goals for 2020 in the light of demands and its special ability to meet them. Table 6.1 shows RUFORUM's baseline programmes and resources for 2014-2015 and a notional budget for the next five years of the Plan. It finds itself with many more country and University members than anticipated; a more restricted ability to satisfy requests for fellowships, but strong engagement by Universities. The challenge is to line up the political and financial support from the national and regional organizations that benefit from the outputs of the Network's high performing graduates linked to research with development impact.

Table 6.1 Estimated Budget for 2015/16 to 2019/20 (in US\$ millions)

Estimated 5-Year Budget	Base	2015/16	2016/17	2017/18	2018/19	2019/20	Total
Main Budget Line							
Core Activities							
1. Enhancing Capacity Building through Research (GRGs, CARPs, regional degree programmes)	3.388	3.727	4.659	5.358	6.161	7.085	26.990
2. Institution Strengthening: (Institution Strengthening Grants, GTAP)	0.329	0.362	0.452	0.520	0.598	0.687	2.619
3. Network Service (ICT, Networking, Communities of Practice, Communications, M&E)	0.482	0.530	0.663	0.762	0.877	1.008	3.841
4. New Partnerships and Policy Outreach (National Forums, partnerships with SROs, RECs, continental bodies, private sector, CGIAR, global institutes, others)	0.750	0.825	1.031	1.186	1.364	1.569	5.976
Secretariat Operating Costs							
Regional Recruited Staff	0.947	1.041	1.302	1.497	1.722	1.980	7.542
Locally Recruited Staff	0.835	0.919	1.149	1.321	1.519	1.747	6.655
Finance and Administration	1.139	1.253	1.566	1.801	2.072	2.382	9.075
Other Operating and Running Costs	0.942	1.037	1.296	1.490	1.714	1.971	7.507
GRAND TOTAL	8.813	9.694	12.118	13.936	16.026	18.430	70.204

In looking ahead, RUFORUM envisions some engagement in continental initiatives (although not yet fully designed or costed), but will maintain its emphasis on reinforcement of RUFORUM's core activities in ECSA and the three West African countries (Benin, Ghana and Nigeria). RUFORUM also has collaborating partners in West Africa beyond its member Universities in Benin, Ghana and Nigeria through the inclusion of students from several West African countries (including Liberia, Mali, Senegal and Togo) in the Network's regional PhD and MSc programmes. Significantly, an MOU with the Africa Union Commission (AUC), signed in 2014, serves to reinforce the framework for aligning capacity building activities and developing research and development goals for Africa. In other words, what RUFORUM can best bring to the table of any continent-wide agricultural higher education development initiative is its own strengths and experiences, while in turn feeding back a continental perspective to fortify its mainstay endeavors.

For the immediate future, RUFORUM will continue to build and analyze its collection of case studies on member Universities. In the near-term future it will begin to build a database with comparable information on Network Universities in member countries. Such initiatives are necessary to fortifying RUFORUM's major programmes and will enable more synthesis and dissemination within and beyond current University membership. RUFORUM has already strengthened its membership base by shifting greater responsibility for hosting/sponsoring some RUFORUM activities to individual Universities or University clusters. In this way, RUFORUM will take advantage of the network nature of the organisation rather than placing increasingly heavy demands on the Secretariat. This adjustment in emphasis and format will rely on boosting

University nodes of excellence in specialized areas while exploring the potential for expansion of geographic and subject matter boundaries.

6.2 Characteristics of the Plan 2015/16-2019/20

The Plan is best seen as a "rolling" plan that has a base year of 2015-2016, grounded in the reality of 2014-2015, and a five-year vision to mid-2020. It is designed to be adaptive: the first three years will implement a balanced growth in strengthening postgraduate education and demand-oriented research. The scope and scale of this core function can be enlarged if additional funding is secured. Efforts to grow the financial base of support will focus on national and regional governmental bodies that are committed to greater regional integration. At the same time, RUFORUM could build up and build upon the strength of its Board to engage policy makers at the regional and continental levels. If successful, RUFORUM will be able to attract a wider regional and continental role in policy and advocacy relating to University science for agriculture. The development pathway is composed of stepping stones, and an adaptable plan must admit the possibility of jumping across geography or stepping down to develop internal collaboration at the national levels. It is for this reason that in two or three years, there will be a refreshing of the plan around a base year of 2017/2018 and a vision for 2022-2023. In this way, the rolling plan is both strategic and adaptive.

The Plan is based on "ideal" numbers of research grants, fellowships, CARPs, field attachments, and a reasonable number of institutional development grants at unit costs that are known. In the event of resource shortfalls, the number of awards can be reduced and the size of the RUFORUM "core" staff can be adjusted to maintain an appropriate support ratio. Longer term in-house research, synthesis and methodology development may be spread over time and intensity of services reduced.

The line item "new initiatives" is not assigned a specific budget. Fully funded activities meeting Board criteria may be net increases to the Plan. They may also represent transfers from other line items as conscious investments in the repositioning of RUFORUM. It would be expected that they not exceed 20 percent of total expenditure in order to ensure they remain non-distorting while building the depth, breadth, and intensity of services associated with other growth scenarios with sustainable funding.

It is difficult to forecast the level of support that RUFORUM will receive from each of its potential customer segments. The relative percentages provided by members, users, and core sustainers of RUFORUM's public goods role are expected to change. With targeted resource mobilization, RUFORUM expects the relative shares in 2014/15 and 2019/20 to be quite different than roughly as shown in Table 6.2. The hypothesis is that members and their governments will assume an increasing share of the cost of RUFORUM activities; as activities prove their effectiveness, they will become institutionalised in the budgets of Ministries and Universities.

Table 6.2 indicates that budgetary contributions from clients, governments and regional organizations are still below "desired" levels. "Desired" level is a euphemism for "Expected by Development Partners," who are potentially willing to come in if the region has shown "effective demand" for programmes through its contributions. This effective demand may also come from the AUC or other continental partners but it is national and regional commitment that unlocks support from donors.

Table 6.2: Estimated Share of Total Funding by Source

Funding Source	Indicative Elements Supported	Percent of 2014/15 Budget	Target Percentage
Member Universities, Alumni	Membership fees, attendance at meetings, fellowships, GTAP, alumni services	5	10
African Governments	Global public goods; training for own public servants, research and syntheses, boundary spanning activities	7.5	20
Private Sector and NGOs Student internships, training for own staff, join research/outreach expenses		0	10
African SROs, Continental Organisations, CGIAR	Boundary spanning services, interaction with regional organisations	2	10
International Funding Organisations	Fellowships for trainees in aid programmes, institutional support, global public goods, research and synthesis of experience	85.5	50
Total		100%	100%

The donor environment is changing. Large block grants made by donors through collaborative mechanisms such as the Multi-Donor Trust Funds under CAADP are falling out of fashion. The burst of attention to agriculture following the 2008 crisis is tapering off; donors have less money to give out; and donors increasingly invoke the need for projects that they can sell to their taxpayers. The major foundations want to innovate and are also calling for impact and results. They demonstrated decades ago that education and research are good investments, worthy of investment by African governments and donor countries. Foundations now want to explore new approaches and the application of new technologies that further enhance the productivity of investment in education and agriculture.

RUFORUM recognizes that its good work, while widely documented, still needs a stable funding base. During the last two Business Plans, RUFORUM was generously funded by the Rockefeller Foundation and BMGF, which allowed it to promote regional postgraduate studies through three main mechanisms: 1) the coordination services provided by the RUFORUM Secretariat; 2) the Biennial Conferences that brought together Universities and development partners from near and far and 3) postgraduate competitive awards and institution strengthening programmes that met the needs of countries. The demand for these value-added programmes continues to be high, while new demands are being added. The potential for adding value is compelling but it must be matched with the revenue streams needed for implementation.

RUFORUM is exploring multiple streams to fund this Plan and increase the willingness to pay of the various customer segments.

- Membership fees paid by universities and by faculty, RUFORUM students, and alumni should ensure
 sustaintability of the basic functions of RUFORUM so that it is recognized as a true membership
 organization. RUFORUM will work toward this type of self reliance during the Plan. The fees also
 cover basic "club goods", the special services that members receive such as elegibility for grants,
 access to regional training and valuable networking opportunities.
- <u>User fees</u>: Fair overhead or fee for service should be applied to many operation. For example, an African government has enlisted the help of RUFORUM in placing its postgrduate students in RUFORUM member universities. This is a service which could be developed in a cost-recovery mode for non-members. There is, moreover, a potential role in facilitating intra-African mobility of

- staff and students on a larger scale with universities covering the costs of the program. Finally, RUFORUM is a potential broker of consortia to develop and implement special projects.
- <u>Core support to RUFORUM</u>: Recognizing the value RUFORUM provides to African development (especially to smallholders) RUFORUM universities, African governments, regional economic communities and continental organizations are logical core supporters to RUFORUM operations and core programmes.

The processes and architecture for collaboration are complex and costly. An MOU has been signed at the continental level with the AUC, but channels for coordination still need to be worked out. The role of engaging the many RECs who cut across member countries is becoming clear. They are, after all, the primary organizations with a mandate to promote regional integration of all types. RUFORUM is negotiating operational agreements with several CGIAR centres working at the sub-regional level while, exploring with the AUC how it can assist AUC with its approach to "Priority 1: Eradication of Hunger and Achieving Food Security." All this work must be supported through programme or project aid for it to be sustainable. At the national level, the importance of strengthening National Forums is rising as more Universities see the value of working with RUFORUM.

There are other sustainability challenges that need to be addressed in the course of the Plan 2015-2020. With a growing number of member Universities, the cohesiveness of the original 10-University group could break down if not carefully nurtured for three reasons: 1) there will be a wider variation of interests in belonging; 2) the chance of competitive blocks will grow; and 3) the distributive capacity of RUFORUM is less. If such challenges are not adequately answered in the business model, they will eventually have to be addressed in the "risk analysis".

Resource mobilization during the life of a Business Plan that emphasises RUFORUM's gradual expansion will require significantly deeper investment of time and provision of information to build awareness among potential funders and ensure that those individuals responsible for funding decisions have sufficient and updated information at hand. In addition to donor commitment through signed grant agreements, the Secretariat must have the ability to create a sense of ownership of RUFORUM's vision and activities on the part of investors to secure long-term funding relationships. This will require proactive dialogue with institutional donors, governments and business communities by senior management and the Board.

The Plan for 2015-2020 focuses on diversifying funding by demonstrating value to society, direct beneficiaries, public funding sources and indirect beneficiaries engaging in social responsibility. It must build on a strong identity that is well understood by clients, beneficiaries and funding sources.

- **Brand Identity** While RUFORUM is known for the quality and relevance of post-graduate research, it will increasingly become branded as a Network of "*High-performing Universities connecting (agricultural) science to impact.*" RUFORUM can build on the following attributes:
 - o MSc and PhD holders in immediate demand while CARP PhD researchers are positioned for leadership in many sectors.
 - o Important linkages to scientific, educational and value-chain demands
 - o A known collaborator with other sectors and with a clear mission defining the benefits of joint action
 - Credibility and legitimacy ensured by a Board of 46 VCs and the Deans' and Principals Committee which includes some 150 Deans of Faculties of Agriculture, Environment, Rural Development and Veterinary Science

• Political Support

 Connections with many actors and beneficiaries who are potential supporters of its activities through financial and in-kind support

- Leverage of experience in mobilizing interest in training national-based scientists in current and emerging fields in high demand
- Sub-regional strategy focused on clear and tangible benefits to policy-makers and on the importance of regional public goods of interest to RECs

• Effective Partnerships.

- o Collaboration with "Preferred Partners," on joint research, attachments, meetings, presentations and facilitation of network, which are costed and reimbursed
- Value offered to all members in assisting participating Universities to write grant proposals for activities originally initiated by RUFORUM (to date the Secretariat has helped to raise \$60 million in direct grants for its members)
- Appeal to organizations that implement donor projects and which may have access to training funds to look to RUFORUM to upgrade the skills of their fellows and staff

• Financial Stability and Growth

- Create an "Enlarged Inter-African Mobility Fund," jointly with selected partners such as the AUC¹³ to enable long-term, stable investments in high-demand programmes and effective use of ICT technologies
- Leverage emerging African philanthropy by encouraging private-sector sponsorship of attachments for University MSc or PhD students, with a focus on subsequent employment or venture capital for associated start-up businesses
- o Activate a strong Alumni Association willing to pay for relevant services
- o Ensure that all projects cover full costs and applicable overhead
- o Build up a reserve fund

• Demonstrate Efficiencies for Investors and Gain a Reputation for Cost Containment

- Promote Graduate Teaching Assistantship exchanges, organized by member Universities with a builtin bias to cost-efficiency due to a) national compensation scales, and b) exchange of teaching services for tuition and formal degree work
- Secretariat salaries maintained at a sustainable level to be regionally attractive but not out of line with long term sustainability
- Provision by Makerere University of effective but suitably modest facilities for an academic coordination hub

Key to this strategy will be on-going enhancement of RUFORUM's performance, which helps to build funders' and customers' confidence. Effective monitoring and evaluation, maintaining strong systems of accounting and financial control, 14 cost containment where possible, smart targeted communications and transparent marketing will remain essential. In addition, ICT services must be upgraded and refreshed. Most important, at a time when RUFORUM is considering various activities at a continental level, it must have assurance that: a) these activities will be supported by the current Board and Annual General Assembly; b) the activities will generate sufficient revenue to cover their costs or to justify some investment from RUFORUM core financing, and c) the internal structures of RUFORUM can evolve to take on these activities.

Table 6.3 indicates the confirmed funding for the financial year 2014/15. The estimates are based on amounts in the award letters/ agreements.

¹³ Funding agencies may be willing to contribute to an Expanded Inter-African Mobility Fund to support organizational sustainability if one or more agencies step forward with risk capital to leverage investment by others.

¹⁴ For the past 10 years, the Secretariat has received clean audits from independent auditors Deloitte and Touche (2004-2010) and KPMG (since 2011).

Table 6.3: Confirmed Funding:Financial Years 2014/2015 and 2015/2016

Income Source / Donor (US\$)	2014/15	2015/16 ¹⁵
Bill and Melinda Gates Foundation Phase II	3,393,075	3,393,075
Carnegie Corporation of New York	259,100	1,262,000
USAID: Ohio State University Project - iAGRI	437,328	397,793
Membership Subscription	222,500	230,000
European Commission: Platform for African, European Partnerships for Agric Research for Dev (PAEPARD)	212,275	130,000
ICRISAT for PhD training and internships	83,500	83,500
EDULINK 11: Online tracking of Alumni	-	42,215
EDULINK: Establishing and Piloting Postgraduate Programmes for Supporting Agricultural Development in Post Conflict Countries of		
Central and Eastern Africa	19,763	32,719
The Germany Academic Exchange Service (DAAD)	38,550	132,300
IDRC	18,470	-
CTA	33,855	-
Rockefeller Foundation	125,000	-
EU – Outreach project	290,054	-
EU- GO4IT	24,046	-
EU- NUS	166,327	-
Biennial Conference support	150,000	-
APPEAR/ WATERCAP	40,083	-
World Bank for Consultations on Higher Education Summit	100,000	-
Scholarship fund - crowd funding campaign	4,280	-
Miscellaneous Income	14,894	-
Opening Cash at Bank	3,180,038	-
TOTAL	8,813,138	5,703,602

Note: Member University contribution in kind during the year 2014/15 was US\$ 90,813 and it relates member universities' contribution to meetings and conferences organized by RUFORUM.

The solution to stabilize funding to drive the Plan may lie partly in new donors, but fundamentally it must derive from member Universities and from national governments, regional commissions and private business that depend on a regular flow of relevant MSc and PhD degree holders.

7. Governance, Management and Institutional Arrangements

New structures and processes in governance and management are being planned to enable both the Board and management to cope with expansion in a time of tightening resources. At the base is an attempt to engage

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¹⁵ The figures for FY 2015/2016 will be revised according to additional funding when confirmed.

the Board as a strategic asset of RUFORUM, while the Network and its Secretariat remain responsive to member and stakeholder expectations and financial contributions.

7.1 Maintaining the Board as a "Strategic Asset"

Each fully accredited University has entered with its VC as a full, self-financing member of the Board of Trustees. This high level engagement is a strategic asset for RUFORUM. It both informs VCs and focuses their attention as a group on agriculture and related sciences, an important achievement given that the great majority (80 percent) of VCs are non-agricultural specialists. Even so, they are attuned to agriculture and can adopt activities that will develop their agricultural faculties and related sciences in a regional framework. Moreover, their breadth of knowledge is important in a time when agricultural productivity-increasing innovations often have their origin outside what is traditionally considered the agricultural sector. CAADP's framework is a Science Agenda for Agriculture in Africa; not just "an agenda for agricultural sciences."

The number of RUFORUM member Universities may continue to grow as high as 60 during the course of this adaptive plan. A 60-person Board is too large to transact all its business in plenary. A series of measures will be put in place to enhance the efficiency of the Board while maintaining the full engagement of its VCs in decision-making. This involves better exploitation of existing committees while creating subsidiary Board executive structures for effective engagement with management.

7.2 Adapting Board Structures and Processes

Measures to be placed before the Board at its 2015 meeting ratify decisions already taken on total size of the Board (60 full members) and the expansion of the Board's Executive Committee to be able to act on behalf of the Board between meetings. Recent proposals include the following:

Enlarged Board Executive Committee: The Board will discuss the creation of an enlarged Board Executive Committee from four to eight members. Its Officers will be the Chair, the Vice-Chair, Chair of the Audit, Finance and Human Resources Committee, a representative of non-university VCs, three representatives, one each from eastern and central Africa, from southern Africa and from West Africa and the Executive Secretary to the Committee.

Elections to an Enlarged Board Executive Committee: The Enlarged Executive Committee will be chosen through a formal nomination and election processes ensuring democratic Board governance. The processes to be designed would aim at a balance that includes both geography and number of member Universities in a country caucus.

Functions of Board Members: Board members are encouraged to be ambassadors for their network: to inform policy makers, give speeches, and make linkages for programmes. Board evaluation procedures ask members to report on significant efforts to promote RUFORUM in peer and funding agencies.

Linking the Board more closely to Existing Advisory Committees:

In adapting the Governance structures to an enlarged RUFORUM, this Plan looks at recommendations from the 2013 BMGF-commissioned External Review to exploit fully the potential of other existing committees with relevant knowledge and involvement: 1) the Deans' and Principals' Committee, 2) the Technical Committee, 3) the International Advisory Panel (IAP), and 4) The Audit, Finance and Human Resource Committee.

- **Deans' and Principals' Committee**: This committee is the critical link between the operational side of RUFORUM's faculties and the policy-making side. It is the committee most familiar with issues arising from RUFORUM programmes. The External Review recommended that a more formal reporting relationship be worked out for reporting to the Board or the Executive Board Committee.
- *Technical Committee:* The seven-person Technical Committee consists of three persons, one from each of the three subregions represented in RUFORUM. appointed by the Board on the Secretariat's

- nomination and four who represent other key stakeholders. Appointment is based on merit and nomination.
- *International Advisory Committee:* The IAP consists of eight persons nominated by the Board with four of them from Africa and four others from outside Africa. Their functions are purely advisory to both Board and Management on a wide range of issues, such as: the international funding context, strategic priorities and partnerships, mobilizing international support and internal management.
- *The Audit, Finance and Human Resource Committee:* is responsible for overseeing financial and human resource issues of the Secretariat on behalf of the Board.

7.3 Management

The RUFORUM Secretariat plans to maintain itself as a "lean and effective" body. RUFORUM undertook a functional analysis, which it is using to design structures that align with its programme directions, ensure that all core functions are covered and that duplications and separation of related activities are reduced. The Secretariat is adapting to the changes and not growing beyond sustainable levels.

The planned internal organization of RUFORUM is represented in Appendix E. RUFORUM is in transition from a more informal structure that revolved around the Executive Secretary as a hub-and-spoke to one with delegation and shared authority with a Deputy Executive Secretary and Managers of key Secretariat services. The Plan 2015-16 reflects programme directions with progressive growth. The purpose of a "rolling business plan" is to enable RUFORUM to adapt both activities and management structure to evolving opportunities. The internal structures are designed to be flexible, non-hierarchical and maintain a culture of open information internally without overburdening the Executive Secretary.

Financial management is strong and secure and RUFORUM continues to receive clean audits. To ensure that RUFORUM will be sustainable, the Board Audit, Finance and Human Resources Committee regularly makes certain that salaries are attractive in the local market, competitive in the regional market for regionally recruited staff, and sustainable when funding will increasingly come from national and regional sources.

8. Implementing the Strategic Business Plan

8.1. Knowledge Management

Knowledge generation, sharing and use are pivotal to RUFORUM's goals. Knowledge includes lessons from field based research process and experience that are useful to improve teaching and learning. New approaches/ processes and technologies emanating from research are central to the knowledge that RUFORUM will produce and promote through policy processes. RUFORUM recognises the importance of generating, sharing and use of relevant knowledge to transform agricultural practice to raise productivity. As RUFORUM membership expands, sub-grants and projects will not be the main point of contact. Knowledge brokering and network facilitation will be the primary value that is consistently provided to members. Some of these core tasks are outlined in the Communications and Marketing strategy outlined below but they remain integral to the sharing of research, lessons, opportunities and trends.

While RUFORUM's research is chosen to test hypotheses about technologies, innovations and management practices, it is not about delivering impact at scale. The University's role has ultimate impact through the sharing of knowledge, training of partners in research, and training of agricultural advisory agents who will ensure the spill over of approaches and results at scale. ICTs play an important role in the further testing, use and adoption of the knowledge developed through RUFORUM networks. RUFORUM has already developed

a major regional repository of information on agriculture ¹⁶ that will serve as a platform for moving the KM strategy forward. In addition, a range of administrative and training meetings, workshops, and international conferences organised by RUFORUM will allow for increasing face-to-face exchanges and an opportunity to build relationships across the network to enhance knowledge sharing.

Effective knowledge management results in increased organizational efficiency, and will ensure achievement of RUFORUM's overall goals. It will also support the application of available knowledge emanating from RUFORUM's programs for policy reform and practice at national and regional levels. Use of knowledge is critical in enhancing the productivity of farmers through upgrading commodity and other value chains and leading to important impacts, including wealth creation at farmer level. RUFORUM recognises that ICT will continue to play a key role in training of future agriculturalists, research and outreach processes, but is also aware that although ICT can inspire knowledge management it cannot deliver the content. The KM strategy design will look closely at how ICT, knowledge management for improved institutional performance, and knowledge sharing with RUFORUM's many customer segments can lead to ultimate impact on farming communities.

The current Plan will build on achievements of the previous RUFORUM Business Plan (2011-2016), which focused on facilitation of access to scientific journals through databases such as FAOs' Access to Global Online Research in Agriculture (AGORA) and The Essential Electronic Agricultural Library (TEEAL) and built robust ICT framework for the capture, storage and dissemination of knowledge products. These systems included the RUFORUM website, institutional repository, the stakeholder directory and social media platforms.

The goals of the knowledge management activities will be to:

- 1. Increase the impact of postgraduate research by increasing its visibility, accessibility and uptake by clients and stakeholders
- 2. Support delivery and access to high quality postgraduate education that is responsive to local, national and regional agricultural development priorities
- 3. Support knowledge generation and sharing by professionals in the network
- 4. Support syntheses and dialogues on issues of regional and continental relevance to inform policy reform and enhance the achievement of Africa's Agenda 2063
- 5. Facilitate continuous learning to improve products and services offered to the network

As with RUFORUM's general approach to balanced growth, the KM strategy will grow in line with its ICT capacity. The success of the KM strategy will also depend on the emergence of strong partnerships in which mutual benefit ensures input and use of output. RUFORUM will work with ICT experts and professional content providers to build a first rate knowledge management system and its complementary functions with the communications and M&E units. RUFORUM's knowledge management strategy will focus on the following core activities:

- a) Creating knowledge products that deliver value to its customer segments: RUFORUM will ensure that knowledge is created in an actionable format -addressing the "know-how" and "know-why"- to meet the needs of stakeholders. This activity will encompass knowledge translation or converting information and "less actionable" knowledge packaged as theses, scientific papers or other technical research outputs and lessons learned into actionable knowledge products like policy recommendations, tip sheets, best practices guides and training modules.
- b) **Enhancing access to knowledge:** The Secretariat will strengthen its work on building capacities of its member universities to 1) implement technology-mediated learning, teaching and research

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¹⁶ http://repository.ruforum.org

including further development and use of open educational resources (OER) and Massive Online Open Courses (MOOCs) and training students on accessing relevant and recent research and practice; and 2) use ICTs to publish and disseminate information effectively. Adoption of the RUFORUM Policy on Intellectual Property Rights (IPR) that promotes open access to research publications will be promoted across the network. ¹⁷ Enhancing access to knowledge will also entail integrating and maintaining RUFORUM's knowledge management systems into a one-stop Knowledge Centre. The RUFORUM website will be fashioned into an information gateway, hosting and linking to resources on its niche area including research outputs and training resources developed by network members.

- c) Building capacity for knowledge sharing: RUFORUM will develop guidelines for knowledge management within the Secretariat and universities; support universities to implement policies that promote open access to research materials; train university students and staff in converting outputs into actionable knowledge products like policy briefs and toolkits and in the communication tools to share these; train students in scientific publishing; and support universities to develop knowledge management strategies.
- d) **Promoting a culture of learning and knowledge sharing** aimed at improving policy and practice. The Secretariat will model this culture through embedding learning and knowledge sharing in its internal practices. Reflective learning will be embedded in network activities drawing from the example of the graduate research grants management model where grantees share lessons learned during the course of the project as part of their reporting requirements.
- e) **Building networks and communities of practice** to facilitate knowledge sharing, build a knowledge base and generate new ideas and knowledge. These communities will be based on themes, disciplines, and/or stakeholder groups or time-bound activities.

8.2. Communications and Marketing RUFORUM's Brand

RUFORUM's Communications Strategy is tailored to the diversity of its customer segments. As the agriculture capacity-building field in Africa is filled with many contributors, RUFORUM must be very clear about the unique brand of training, research and outreach it delivers. Its overall goal is to increase the visibility and agricultural higher education relevance of RUFORUM and its track record in producing results. Strategic communications that correspond to major local and continental debates are crucial to raising awareness of RUFORUM activities among its multiple audiences and advancing the position of higher education in Africa.

The Strategy has four objectives, all of which serve to market RUFORUM's unique brand and make its programme activities more widely known:

- Increase the visibility, awareness and understanding of higher education capacity-building to science and technology enhancement across Africa
- Disseminate RUFORUM-sponsored research to influence agricultural and higher education policy and practice
- Foster the early adoption of technologies being generated by RUFORUM scientistsFacilitate ongoing interaction among the agricultural, science and technology, and higher education communities across the continent

The Communications Strategy will involve working at the Secretariat level, but also with members of the Network in order to ensure that the entire RUFORUM constituency adopts best practices for information accessibility.

¹⁷ Openness is assuming new importance, as donor agencies increasingly require their grantees to make the research they fund freely available. The BMGF, for example, now expects that all grantees to publish with a Creative Commons attribution 4.0 generic license (http://www.gatesfoundation.org/how-we-work/general-information/open-access-policy). The knowledge management strategy will involve working at the Secretariat level, but also with members of the Network in order to ensure that the entire RUFORUM constituency adopts best practices for information accessibility.

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Specifically, communication activities will be targeted towards:

- Enabling more scientists to understand the national agricultural innovation system and the benefit of bringing multi-disciplinary skills to research projects undertaken with local communities
- Demonstrating to African governments, NARESs, SROs, RECs, apex organizations, scientists
 worldwide, and the international donor community the contributions of the RUFORUM Network model,
 with its highly-motivated collective force of member Universities and many partnerships, to science and
 technology development in Africa
- Promoting the early adoption and impact of the Network's technology and innovation products
 throughout the value chainCreating two-way channels so that RUFORUM can listen to what others have
 to say about strategies, and partake in dialogues around higher education and its role in advancing
 equitable development

At every stage of its communications and maketing strategy, RUFORUM will clearly outline customer segmentation as its target audience; messaging channels and tools to be used to reach each target group; the strategies to be used to achieve objectives and specified budget for each strategy. This will be done in order to buttress resource mobilisation and support to the Plan. The communications strategy is bolstered by the monitoring and evaluation framework that has been developed to assess RUFORUM's performance, essential to communications practices.

Thus, the communications and marketing plan will harness a range of technologies and services, which are divided into two categories—the first are those that can be implemented immediately, while the second category would require more sustained planning and more resources (both financial and staff).

Products/Services for immediate implementation:

- The existing website (http://www.ruforum.org), constantly refreshed, to publicize RUFORM through features and news. The website will also be used as a knowledge hub about agricultural education, policy, practice and opportunities. to s
- The open access Repository (http://repository.ruforum.org), a major academic repository in sub-Saharan Africa, for RUFORUM and Network research publications
- Better targeted email and blogs to "push" communications to different audiences
- Connections with RUFORUM's virtual alumni association, current students and faculty, and others through social media such as Facebook, Twitter, YouTube and Flickr
- Policy workshops sponsored by the National Forums
- Policy briefs, newsletters, case studies series, and other resources.
- African postgraduate research briefs and theses online
- Dynamic stakeholder participation at RUFORUM events
- Direct personal contact with policymakers and funders
- A monitoring and results-based evaluation system, which includes tracking how and where new technologies are promoted and used, as well as numbers of beneficiaries/users

Products/Services that require sustained planning and additional resources:

- Regular use of YouTube and other videos, live-webcast feeds at each Biannual conference, blogs and other ICT mechanisms
- Interactive web-based modes of online forums for topical interest/focus groups
- Partnerships with science journalists in Africa and internationally
- Strengthened links among Universities-students-farmer organizations-local communities through mobile platforms, radio and social media, such as Digital Green and Farmerbook (www.digitalgreen.org/farmerbook) to deliver agricultural services and information
- Translation of materials into multiple constituency languages (English and French); translation of technical work into language appropriate to the layperson and policymaker.

Matching medium to the message and audience is essential. Students, alumni and some faculty will resonate to the informality and immediacy of Twitter and Facebook, for example. But others may not.

8.3 Planning, Monitoring, Evaluation and Learning (PMEL)

Maintaining the rigorous results-based system for PMEL is an imperative for RUFORUM's ability to capture lessons from implementation and provide information for evidence-based decision-making. PMEL activities are crucial for the Secretariat and its support to member Universities wishing to build their own M&E capacity. The attribution of impact to RUFORUM-Network and RUFORUM-Secretariat is a challenge that can be addressed in designing a PMEL system for RUFORUM as a whole and not just for Secretariat implemented activities.

RUFORUM's Theory of Change provides the overarching results framework that links its four "Functions" through "Activities", "Outputs", "Outcomes, and "Ultimate Impacts." Member Universities will legitimately claim their primary role in the "Outcome" of producing the New Graduate and Knowledge to support development, while RUFORUM (Secretariat and Network) may legitimately emphasize their value-adding, even pivotal, role in creating and sustaining collaborative networks.

Specific activities are underpinned by a complete suite of measurable indicators of the desired progress, results and impact including, where possible, expected transformation. The complete set of indicators articulates an aggregated view of RUFORUM's distinct value within and across countries.

By the end of FY 2015/2016, RUFORUM will have in place an advanced functioning PMEL system. The preconditions are in place: structure, approach, and staff recruited for annexed functions:

- Structurally, the PMEL function reports to the Deputy Executive Secretary (see Organigram, Appendix E, a position where authority resides to link across ICT, Finance and Administration, Communications and Donor and Partnership relations
- All key positions have been confirmed for all the collaborating units, taking into account financial realities
- RUFORUM's ToC is well understood and continues to underpin this refreshed Plan
- RUFORUM's repository of M&E experiences and documented case studies of its own programmes have created a basis for analysis
- A PMEL framework, management information system and templates are in place.

Finally, core support from the BMGF has been provided for three PMEL priorities: a) implement the PMEL system tracking of outputs, outcomes and impacts, b) plan, budget and review processes, and c) build PMEL communities of practice. Monitoring of planned results is also complemented by documentation and analysis of unintended results. Evaluation is not only done at the end of a project but during its implementation, as well. Each core programme component will be externally evaluated after two and a half years. A second external impact evaluation will be conducted just before the end of the Plan period.

8.4. Strategic Risk Register

The strategic risk register presented in Table 8.1articulates the threats and mitigation approaches most critical for the successful implementation of the 2015-2020 Plan.

Table 8.1 Risks and Risk Mitigations

Risk Type	Risk & Consequences	Level of Risk and Impact	Mitigation Strategy
Strategic Focus Risks	Inability to maintain value to Network member base, while adapting to new demands from continental bodies for collaboration beyond its original geographic and scientific roots	Medium probability, serious impact that can be contained, but requires additional resources and management effort	 Structure: A Strategic Business Plan with balanced growth paths and structural mechanisms reviewed regularly A strategic combination of ground-based, credible, specific initiatives and regional activities for scale-up/impact to occur Oversight:
Governan ce Risks	A dysfunctional Board emerges due to 1) overly large numbers for decision-making, 2) uneven grasp of RUFORUM among members, 3) inadequate induction of new members, 4) incomplete information, 5) divergent interests not reconciled	Medium Probability, high impact	Structure: • Bylaws and procedure manuals in place • Creation of high functioning Board committees Oversight: • Board members jointly set key objectives and milestones for each year and monitor results Investment of Resources: • Joint activity of the Secretariat and Board Management: • Orientation workshops for Board members • Intelligent use of ICT in all governance functions
Reputation al Risks	Failure to manage effectively the image and reputation of RUFORUM to stakeholders and donors	Medium Probability, high impact	 Structure: Partnerships with clear expectations, complementary skills and resource contribution to RUFORUM goals Continuous competition profiling Oversight:
Resource Mobilisatio n Risks	Inability to raise sufficient funds to support the new Plan due to 1) African governments having other priorities, 2)	High with grave impact for RUFORUM's health and well- being	 Structure: Implmentation of the Business Plan Database tools to anticipate donors' foci and directions Board agreement on proper fee levels for Universities Oversight: Measuring the cost effectiveness of programme activities

Mgmt. Efficiency Risks	donor fatigue and changed priorities, 3) member Universities resisting increase in fees and other finaincial contributions and 4) perception of higher education as too costly and not oriented to quick results Inability to achieve a level of management capacity that ensures operational and financial sustainability	Low probability, but with serious consequences for RUFORUM's performance and standing	 New initiatives to come with sufficient resources for implementation Investment of Resources: Reduce unit costs by taking every advantage of Network economies of scale and use of ICT Target African governments and the RECs to live up to their commitments under CAADP, STISA and the Science Agenda Target non-traditional funders (NGOs and the private sector) who are immediate beneficiaries Management: Scale down or delay new initiatives Structure: Maintain strong leadership and a solid internal management to implement the Plan Oversight: New activities have: a) a systematic approach to reducing unit costs and b) managable scale Investment of Resources: Devolution of regional programmes to lead Universities Management: Build on principles of open access, distributed management, and
			interlinked sub-networks Strong communications capacity Increase participation of underrepresented countries/regions
Quality Assurance Risks	Failure to ensure quality as perceived by employers of graduates and users of scientific outputs in a changing environment	Medium to Low probability, high impact	 Structure: Intra-African mobility programmes to boost the harmonisation of quality standards Partnerships for mentoring and internships MOOCs and blended e-learning require high investment to avoid reputational risk Questight:

9. Critical Factors for Success

Each of the preceding sections has identified the challenges and provided detail on what RUFORUM intends to implement, with whom and with what instruments under its control. Some critical success factors lie in RUFORUM's environment; RUFORUM's Strategic Business Plan indicates how it will work either to influence the environment or work within it. Influencing policy and institutional environments versus working within them is a strategic investment decision.

This concluding section provides a checklist of what RUFORUM must do to remain the RUFORUM that its constituents need it to be.

<u>Brand</u>: RUFORUM is known as a member-owned Network of high performing postgraduate Universities, focusing on agriculture and related disciplines to serve an agricultural transformation that helps all farmers. The brand identifies RUFORUM, indicates what it does and guides internal culture. To do this sustainably, RUFORUM will attract support from a wide range of customer segments (clients, beneficiaries, research partners, and development supporters who value what RUFORUM provides directly to or on behalf of a broader "society"). It will continue to be a leader in intra-regional mobility and inter-African collaboration.

<u>Commitment To Excellence</u>: RUFORUM will continue to facilitate excellence in its members. This includes raising professional standards first within the Network and then by spillovers to other Universities within countries or across regions. It does this by mainstreaming new findings, methods and pedagogy. Rapid promotion of graduates is evidence of continued demand for "The New Graduate." Such individuals are in a position to support RUFORUM as collaborators and mentors of interns, as promoters, and possibly as financial supporters.

<u>High-Functioning Strategic Partnerships</u>: RUFORUM and its facilitating Secretariat will create and sustain networks and new partnerships that: 1) achieve breadth and depth that individual Universities cannot accomplish alone; 2) generate economies of scale and scope; 3) link RUFORUM networks to networks in international, continental and subregional organizations. While its Universities are not development organizations, RUFORUM programmes train relevant scientists, mainstream lessons, and test approaches in collaboration with development-oriented organizations. Increasingly, RUFORUM seeks collaboration with the private sector and support from its alumni.

<u>Sustainability</u>: RUFORUM will achieve sustainability by maintaining its "salience, credibility, and legitimacy." RUFORUM's balanced growth strategy underpins these three attributes through the importance of its activities to its customers, the quality of its education and clear-cut value of its research, and sense of ownership of the Network by its constituents.

<u>Implementation Imperatives</u>: Within this Plan, RUFORUM details how it will ensure that all critical success factors are in place. Governance will be strengthened to maintain the Board's informed guidance and oversight, while dealing with its growth in size. A strong and engaged board ensures that RUFORUM responds to its members. Financial sustainability will focus on enhanced contributions from members, national governments and RECs as a means of encouraging continued support from development partners. Partnership programmes will bring resources for research and cover overheads of the Secretariat. The relevance of RUFORUM's graduates to the private sector may bring support in money or in kind. For all of the above, a strong planning, monitoring, evaluation and learning capacity will underpin the evidence base needed to demonstrate success, adapt to change, and advise decision makers.

APPENDIX A: RUFORUM Member Universities

Region	Country	No.	University	Year of Joining RUFORUM
Central	Burundi	1	University of Burundi	2009
	DRC	2	Universite Catholique De Bukavu	2009
	DRC	3	Universite Evangelique en Afrique	2014
Eastern	Ethiopia	4	Haramaya University	2009
	Ethiopia	5	Mekelle University	2009
	Kenya	6	Egerton University	2004
	Kenya	7	Jomo Kenyatta University of Agriculture and Technology	2004
	Kenya	8	Kenyatta University	2004
	Kenya	9	Moi University	2004
	Kenya	10	University of Eldoret	2013
	Kenya	11	University of Nairobi	2004
	Rwanda	12	University of Rwanda	2009
	South Sudan	13	John Garang University	2014
	South Sudan	14	University of Juba	2010
	Sudan	15	University of Gezira	2009
	Sudan	16	University of Kordofan	2009
	Tanzania	17	Sokoine University of Agriculture and Technology	2006
	Tanzania	18	Nelson Mandela Institute of Science and Technology	2014
	Uganda	19	Gulu University	2009
	Uganda	20	Kyambogo University	2009
	Uganda	21	Makerere University	2004
	Uganda	22	Uganda Martyrs University	2009
	Uganda	23	Busitema University	2014
	Uganda	24	Uganda Christian University	2014
	Uganda	25	Ndejje University	2014
Southern	Botswana	26	University of Botswana	2009
	Lesotho	27	University of Lesotho	2009
	Madagascar	28	University of Antananarivo	2014
	Malawi	29	Lilongwe University of Agriculture and Natural Resources	2012
	Malawi	30	Mzuzu University	2010
	Mozambique	31	Eduardo Mondlane University	2004
	Mozambique	32	Universidade Catolica de Mozambique	2010
	Namibia	33	University of Namibia	2010
	South Africa	34	Stellenbosch University	2013

APPENDIX B: Impact Pathways

RUFORUM's Programme Portfolio Outcomes **Consequent Impacts Outputs** Skill enhancement of · Critical mass of Strong universities Demand-driven research, Training and individual researchers entrepreneurial graduates evolving with national community action (GRGs, Research • High quality, demand • Raised standards through priorities CARPs, regional MSc./PhD) responsive research competitive processes Improved nutrition, Improving smallholder access produced/disseminated Institution food security for low-• 21st century curriculum to value chains New curricula/research Strengthening income households and pedagogy capacity with value chain Research support (research Employment of high-• Rise in women scientists and science foci methods training, internships, quality agriculturalists Network Establish regional platform More women active in research results fed into with deep appreciation Service for capacity building competitive and other curriculum, professional for Africa-wide research activities community building) knowledge and Longer-Term Outcomes Partnerships Institutional capacity for Institutional strengthening respect for citizens of and Policy research/training built Greater applicability of (twinning elite and emerging their societies Outreach • Use of e-learning to change universities, capacity for the flow of new Agricultural policy and how teaching and learning emerging topics, quality agricultural knowledge practice reform take place assurance, faculty exchanges) Increased smallholder Effective M&E systems adoption of innovations Raising women's inclusion Research agenda setting and mgmt. practices from conferences and Exposure to innovative • Expanded knowledge base influential reports education models as EARTH U. and partnerships to 46 VCs and 60 deans linked Blended e-learning and enhance smallholder for joint action technology platforms access to value chains HE policy capacity Solid cadre of field trained Advocacy / dissemination developed at national and continental levels African professionals to (Biennial conferences, varied communications) Increased cooperation instruct next generation of among academe, farmers, African scientists Capacity in use of M&E NGO, business, government Strong ability to influence National Forums to generate, and new global conversations disseminate agricultural Private sector partnerships on African agricultural knowledge • RUFORUM as a regional Engaging SROs, CGIAR, reference point for continental/global bodies agricultural development Good governance/mgmt. **External Factors External Factors External Factors**

APPENDIX C: RUFORUM Capacity Building Framework for the 2015-2020 Plan

ACTIVITIES	EXPECTED OUTCOMES	(NEW) FEATURES	SPRINGBOARD to Success	HIGH PRIORTY to RUFORUM
PROGRAMMES				ner onem
1.1 Graduate Training and Research	CAPACITY BUILDING THROUGH T	RAINING AND RESEARCH THAT IS FARMER	AND MARKET RELEVANT	
• Graduate Research Grants (GRG) MSc. Level	 Increased number of locally-based researchers conducting smallholder relevant research Enhanced relevance and application of research Thematic professional communities of practice built Improved ability to write successful proposals Early career research published in peer-reviewed journals 	Theme-based, primarily on sustainable systems within value chains for crops and livestock, which improve smallholder incomes and nutrition Number of field sites increased Competitive Field Attachments: five months Part-time mentors in selected countries, including anchor countries, graduate tracer studies, documentation of communication materials (journal articles, policy briefs, pamphlets and workshop reports)	Advisory committee to scan the environment on basic and cutting edge themes Potential placements for mentored research with CGIAR centres, SROs or NARIs	Core objectives Necessary academic base for support to essential development activities Universities exploring priority growth opportunities/ demands for new capacities demands for new capacities
Community Action Research Programmes (CARPs)	Indepth experience within systems and value chains Community ownership of research and implementation of results Development/ implementation of an enhanced research model to mobilize expanded regional agricultural research capacity Undergraduate research assistants gain experience and publish research results Establishment of a platform for university engagement with farmers and other stakeholders along the value chain	Anchor country pilots, value chains, participatory and multidisciplinary research, demonstration orientation Move toward commissioned research teams Communities plan the research or develop a business plan to be implemented over time Increase to four-year timeframe Engage undergraduates as research assistants Intensified assessment of outcomes CARP facilitators to assist in outreach with communities and links with National Forum Experience recycled into the classroom (new curriculum)	 EARTH U. technical assistance, co-sponsorship with other organizations Wageningen University and Research Centre support for team mentoring/workshops on experiential learning and action research. Organized research spillovers through links to CGIAR and to development through national advisory extension services 	Core objectives Revenue generation potential (through project funding) Necessary academic support to essential development activities Universities exploring priority growth opportunities /demands for new capacities
1.2 Regional Degree Programmes:	ECONOMIES OF SCALE IN RESEAR	RCH AND TRAINING		
MSc Programmes	Standards raised through a collaborative approach providing a platform for a more superior type of instruction than would be available at any single University	Heavy focus on improvement of core skills, particularly research methods, and innovation module-based, blended learning curricula Increasing spillover of impact oriented training/research to member Universities Joint regional course model	Developed Technical Committee with responsibility for student selection, curriculum enhancement and organization of external examiners Partner with established Universities in developed and	Core objectives Revenue generation potential and cost sharing with Universities Necessary support to essential activities

ACTIVITIES	EXPECTED OUTCOMES	(NEW) FEATURES	SPRINGBOARD to Success	HIGH PRIORTY to RUFORUM
	 Analytical skills of graduates improved through research methods theory and practice Mainstreamed impact-oriented research model to other University research departments Employment ready graduates 	 Franchise model from original to hosting by member Universities Facilitated distance learning MSc or Certificate with e-learning courses, Moodle platform and teaching caravan across focus countries Regional Masters programmes will align more tightly with the quality assurance protocols of leading Universities in Africa and overseas 	emerging countries for mentoring, curriculum development and exchange	Universities exploring priority growth opportunities/ demands for new capacities
Course-based PhD Programmes	 Centre of Excellence model implemented at member Universities with explicitly recognized expertise Curriculum and research spillovers to other African Universities Employment ready graduates 	 Greater emphasis on facilitating University-owned targeted regional programmes (MSc and PhD) for staff development and market demand Comprehensive course work added to research Increasing spillover of impact-oriented training/research to member Universities Back programmes with ICT to support regionality Faculty interchange in the delivery of courses, including lecturers from world class Universities and the Diaspora PhD programmes will align more tightly with the quality assurance and employment-oriented protocols of the World Bank Africa Centres of Excellence initiative 	 Engage external reviewers on quality assessment Develop per student cost estimates compared to costs outside Africa Partner with external agencies for mentoring Draw on materials from WB Africa Centres of Excellence initiative 	Core objectives Revenue generation potential and cost sharing with Universities Necessary support to essential activities Universities exploring priority growth opportunities by leveraging other PhD programmes in Africa
1.3 Internships and Attachments	 Real experience within systems and value chains Exposure realized to advanced science labs High performing, employment-ready graduates 	 Competitive short and medium-term field internships on a cost-sharing basis with hosts with NARIs, CGIAR centres and selected private sector research agencies Building graduates with scientist-entrepreneur capabilities in partners such as EARTH University and emerging schools in Africa Promoting female leadership 	 MOU partnerships with CG, SROs, NARIs and NGOs Links to Europe, North Am., India, Australia, BRICs, etc. MOU with AWARD 	 Core objectives Revenue generation potential (counterpart contribution) Necessary support to essential activities Universities exploring priority growth opportunities/ demands for new capacities
1.4 Mentoring (Especially for Women)	 Increased enrolment and pass through rates for women Gender sensitivity created via curriculum and competitive research programmes Expanded technical training Increased number of woman researcher and trainers across Africa 	Programme exceeds participation targets, now at 42 percent, for women RUFORUM works with AWARD to strengthen the research and leadership skills of African women in agricultural science, including mentoring and professional community building Implementation of projects focused on support for women in science as well as increased access to scholarly agricultural literature	MoU with AWARD AWARD trainers work in a caravan approach to enhance short-course skills at RUFORUM member Universities	Core objectives Revenue generation potential (counterpart contribution) Necessary support to essential activities Universities exploring priority growth opportunities/ demands for new capacities

ACTIVITIES	EXPECTED OUTCOMES	(NEW) FEATURES	SPRINGBOARD to Success	HIGH PRIORTY to RUFORUM
Twinning Elite and Emerging Universities	Increased number of students from emerging Universities able to win research awards Experiencegained in bringing Universities to farmers Economies of scale realized by mature Universities serving as a regional the base for specialized degree programmes New models developed for farmer outreach/product delivery	Elite Universities build capacity of newer ones Independence to set quality standards outside individual University administrative constraints Providing mechanisms to integrate University scientists into national agricultural innovations systems via National Forums and joint research Facilitate closer relationships between Universities and small scale producers	 Graduate Training Assistant Programme Joint training and workshops 	Core objectives Necessary support to essential activities Exemplifies how regional collaboration enables incountry development of the wider national innovation systems
Research Methods and Emerging Topics	Expertise gained through new research methods and emerging topics improves course work along with mentored field work Widen offerings beyond existing curriculum at Universities Modernized curriculum and pedagogy realized	 At least ten case-studies based on RUFORUM field research made accessible through OER- Blended learning Workshops: research methods, scientific writing Teaching Caravans 	Increased access to the pool of resource people from various parts of Africa and other parts of the world	 Core objectives Revenue generation potential (fees) Necessary support to essential activities Universities exploring priority growth opportunities/ demands for new capacities
Graduate Training Assistant Programme	 Intra-African exchanges for sustained collaboration of scientists across Universities and countries Widened recruitment and experience realized through the network Strength gained by emerging Universities by having exchange graduate assistants on board Intra-African experience widens students' horizons 	 Facilitating academic mobility across the continent To date, 14 member Universities provide 70 graduate teaching assistant exchanges The host waives fees and provides housing for PhD students/staff nominated by home University Sending University provides travel, stipend, research funds Host University is eligible to send staff for specialized training to sister Universities Enhanced mutual confidence in qualifications and training offered 	 Potential of expanding programme to partner with selected Universities in West Africa Special bridging programmes with West Africa to be financed separately by donors Recognized monitoring and quality assurance put in place quickly Opportunity for "external examiner" system to guarantee quality. 	Core objectives Costs covered by Universities Necessary support to essential activities Universities exploring priority growth opportunities/ demands for new capacities
Quality Assurance	Access to world knowledge through expansion of elearning and utilization of open access resources, particularly those resources that are specifically relevant to Africa Quality of emerging Universities enhanced by matching them with elite Universities	 Mobility of future staff through the Graduate Teaching Assistantship Programme New OER courses adapted and offered in blended learning Focus on harmonizing teaching and research standards across member Universities Opportunity for donors to University programmes to build in support for quality assurance. 	MOUs for research training with SROs and CGIAR centres Active engagement of RUFORUM National Forums in CAADP High visibility of RUFORUM Biennials	Core objectives Revenue generation potential (project funding) Necessary support to essential activities

ACTIVITIES	EXPECTED OUTCOMES	(NEW) FEATURES	SPRINGBOARD to Success	HIGH PRIORTY to RUFORUM
3 Notwork Sorvices	Benefits of blending digital learning technologies with classroom teaching harnessed Proposals and research reports strengthened by high quality reviews Practical experience gained through internships/attachments University institutionalisation of enabling policies, principles and practices Quality assurance reflected in RUFORUM graduates being well accepted by potential employers Women's leadership qualities enhanced through mentoring Students with greater leadership self-confidence BILLE PRIFORUM SERVICES TO M.	EMBED UNIVEDSITIES		
Knowledge Management and Communication Technology Platforms	 BUILD RUFORUM SERVICES TO M Improved technology-mediated learning, teaching and research implemented in pilot Universities Scaling takes place based on enhacing a delivery mechanism or shared space (e.g. physical platforms, such as labs) that offers training to many students at the same or lesser costs Multi-channel communication/dissemination of African agricultural research information operationalized Enhanced RUFORUM brand and reputation increases demand for training and research activities Expertise turned into influence and impact 	 Creation of OER and/or MOOC-module based curriculum Interactive digital information series to support CARPs MOOC module feasibility study OER and classroom blended format Digital technology for participatory research Link to Agricultural Information and Communication Management MSc. Growing Institutional Repository Website improvements with interactive features, on-line community platforms, new IPR/open access policy guidelines, scaling out ICT methodologies Blog series, robust publications, newsletter generation, social media Use of major on-line science journals, such as SciDev Customized communication for various target audiences Management Information Systems Outreach to West African Universities through pilot initiatives sharing digital learning modalities, curriculum development and research initiatives 	Outreach to over 18,000 faculty and non-academic experts as Network resources within and outside Africa Alliance with advanced northern and southern Universities Strategic Partnerships (ex. CG, SROs, OER Africa, Int'l research institutes, Grameen Foundation) Alignment with BMGF "Digital Design for Agriculture Initiative" Tap the Diaspora	Core objectives Revenue generation potential (project funding; fees) Necessary support to essential activities Universities exploring priority growth opportunities/ demands for new capacities RUFORUM members become key to organized spillovers from donors

ACTIVITIES	EXPECTED OUTCOMES	(NEW) FEATURES	SPRINGBOARD to Success	HIGH PRIORTY to RUFORUM
Biennial Conferences	Strong convening platform created for scientific exchange and voice for Universities at high visibility conferences Wide recognition of RUFORUM brand Agricultural sciences professional communities of practice, bolstered Venue for continuing engagement of RUFORUM alumni Participation by development partners involved in other parts of national innovation systems.	 Donor representatives from broader science and development interests attracted by exposure to RUFORUM talent pool. Student presentations continue as factor accelerating productivity and publication Build alumni support to program through mentorship, internships and/or financial contributions. 	RUFORUM recognized for valuable contributions to education and development	Core objectives Revenue generation potential (fees) Necessary support to essential activities Universities exploring priority growth opportunities
• M&E	Reliable results tracking system in place and providing critical learning Member Universities assisted to elaborate compatible M&E results frameworks for collaborative programmes Insight advanced into impact and influence through careful indicator measures of outcomes	 Use of a Results Framework for monitoring and measuring milestones Convening of annual and quarterly mini-reviews Engagement of an external evaluation team to assist with the development of the framework, data collection, analysis tools; mentoring of member University monitoring staff Have in place on-line tracking of graduate students/alumni M&E University communities of pPractice strengthen learning and documentation of outputs and outcomes to beneficiaries 	Deans'/Principals' committee as source to capture relevant data Incorporate BMGF Results Framework Periodically engage external agency for backup support, credibility, and programme development	Revenue generation potential (project funding) Necessary support to essential activities
4. Partnerships and Policy Outreach	RUFORUM WITH NATIONAL, REGI	ONAL, CONTINENTAL AND GLOBAL PARTNE	ERS SCALE-UP ACTIVITIES	
National Forums	 Enhanced African ownership of RUFORUM National Forums integrated into national innovation systems Facilitation/ maintenance of strong linkages with NARI realized Feedback provided to ensure the Network's plans for future training and research are in line with the "market" Alignment with organizations having strong convening power resulting in research and higher education more responsive to national needs 	RUFORUM's National Forums fortified by combining them with existing policy and higher education advocacy groups in member countries. Inclusion of private sector, farmer associations, NGOs in Forum composition National Forum support managed by Deans or a dedicated RUFORUM staff member National Forum chairs invited to Biennials	Piggybacking on partners (e.g. FANRPAN, which can increase links to policy promotion) Linkage with Deans'/Principals' Committee	Core objectives Necessary support to essential activities Universities exploring priority growth opportunities/demands for new capacities

ACTIVITIES	EXPECTED OUTCOMES	(NEW) FEATURES	SPRINGBOARD to Success	HIGH PRIORTY to RUFORUM
• The Private Sector	Public-private partnerships established leading to market pathways for product uptake Private sector internships provide real world agribusiness experience Mutually beneficial training programmes developed	Greater consideration of value chains as part of University training and research Provision of direct pathway for smallholder impact Collaboration with private farmer extension services and cooperatives	Private sector engagement with focus on future employment or venture capital for associated start-ups Potential funding source for RUFORUM	 Core objectives Revenue generation potential (project funding) Universities exploring priority growth opportunities/demands for new capacities
• African Governments	Higher Agricultural Education Investment Plan will be a required chapter in next round of CAADP-Agricultural Investment Plans African government assisted to assume responsibility under CAADP for funding research and higher education Increased support for in-country training and research	 Expanded number of policy briefs and other materials for policy makers University expertise and knowledge more accessible to support policy and development RUFORUM Alumni Association engagement with policy makers In-country training support from the Government of Uganda Four additional countries considering training support RUFORUM graduates as replacements for retiring NARI scientists 	MOUs with African governments Skin in the game for in-country training of future employees and raising national science and technology capabilities	 Core objectives Revenue generation potential (project funding) Necessary support to essential activities Universities exploring priority growth opportunities/demands for new capacities
• SROs, RECs, CGIAR Centres and Continental Bodies/Frameworks	Capture of comparative advantage and regional economies of scale/scope Enhanced partnerships of Network members in apex organizations to strengthen science, technology and innovation in Africa Increased demand for RUFORUM graduates, especially in focus countries	 MOUs signed with several continent-wide organizations, including the Africa Union Commission Linking membership base to policy initiatives at the regional and continental levels Partnering with SROs, AGRA and FARA as the agricultural research organizations linked to NARIs MOUs with CGIAR centres to strengthen their capacity-building programmes and create access to world class mentors and facilities 	 Financial pooling MOU with AUC Partnerships with CGIAR to develop Joint surveys with ASTI on staffing capacity, etc. MOUs with CGIAR Centres RUFORUM engagement in Heads of State meeting on agriculture and higher education 	 Core objectives Revenue generation potential (project funding) Necessary support to essential activities Universities exploring priority growth opportunities/demands for new capacities
 Global Capacity Building Institutions 	 Expanded access to global programmes, collaboration, exchanges, fellowships Widen access to African scientists in the Diaspora as lectures and mentors North-South and South-South links developed with institutes in North America, Europe, Australia, Asia, Latin America 	Create international technology spillovers via activated linkage to leading international research programmes Establish alliances with University programmes focusing on donor "priority countries" and become an organizer of spillovers within ECSA/West Africa and from elite to emerging Universities in member countries.	Twinning arrangements with Northern Universities under Feed the Future Partnership in core areas under North- South and South-South arrangements	 Core objectives Revenue generation potential (joint projects) Necessary support to essential activities Universities exploring priority growth opportunities

ACTIVITIES	EXPECTED OUTCOMES	(NEW) FEATURES	SPRINGBOARD to Success	HIGH PRIORTY to RUFORUM
1. Reaching Financial stability and sufficiency	Member Universities increase their financial contributions Traditional funders renew support Successful outcome in outreach to new funders (governments, RECs, private sector, etc.) Governments and RECs assume an increasing base for sustainability and thus attract increased development partner support Cost-recovery measures for services effective Professional standards raised while creating economics of scale that lower costs	 Member Universities increase their financial contributions Attractiveness to funders as reference point for reaching multiples Universities (wholesaling) Focus on anchor countries may reduce GRG and CARP flexible funding Joint resource mobilization with individual or clustered Universities Fee for service by Alumni Association Provision by Makerere University of suitable campus facilities for the Secretariat Demonstrated efficiencies for investor and reputation for cost containment (e.g. Graduate Teaching Assistantship Programme with costs covered by participating Universities) 	Member Universities increase their financial contribution as a signal of Network ownership Continued core support from BMGF during the course of the Plan New funders coming on board with grants Creation of an "Enlarged Inter-African Mobility Fund" Build up the reserve fund for sustainability	Core objectives Necessary support to essential activities
1. Structure: Board Size and Committees		HIGH FUNCTIONING BOARD AND COMMITT • Expansion of Executive Committee • More restrictive criteria for University membership within ECSA/West Africa • Mechanisms for collaboration with Universities in West Africa (joint graduate training, joint OER, joint research activities) • Clear guidelines on membership benefits and responsibilities	Raise membership fees to support wider direct Board involvement in policy and advocacy for agricultural higher education New Alumni revenue stream for RUFORUM services African governments and RECs as funders with line item in their budgets	Core objectives Necessary support to essential activities Board activism in support of RUFORUM (is already in the Board Evaluation Instruments)
2. Organs of the Board: • Executive Committee • Audit, Finance, HR Committee • Technical Committee • Deans'/Principals' Committee • IAP	APPROPRIATE GOVERNANCE OF Board self-evaluation regularized Board performance enhanced by prereview of issues by a strong Executive Committee and other Board organs Increased Board effectiveness through clear reporting lines	Clarity of function and reporting structure (input into the Board, especial for the Executive, and for the Audit, Finance and HR committees and subsidiary organs of the Board (Deans'/Principals' Committee, Technical Committee and IAP.) Leadership within each committee Closer integration among organs of the Board and expansion in scope of work	,	Core objectives Necessary support to essential activities

ACTIVITIES	EXPECTED OUTCOMES	(NEW) FEATURES	SPRINGBOARD to Success	HIGH PRIORTY to RUFORUM		
3. Management Capacity	STRONG ORGANIZATIONAL BASE FOR IMPLEMENTATION AND MANAGEMENT					
	 Improved programme management functions Efficient financial management, communications, and resource mobilization Enhanced ability to convene highly visible and well-oiled conferences Increased capability to respond to demands on RUFORUM at the regional and continental levels Ability realized to build on membership while integrating a wider stakeholder perspective Flexibility realized for scaling programmes in accordance with available funding Risks identified and mitigated RUFORUM Secretariat becomes an advocacy voice on behalf of the Board VCs 	 Increase in staff numbers as needed and resources permit Technological shift (from manual to electronic tracking of projects Increased office space, including meeting rooms Higher Bandwidth – 2 mbps Theory of change in place Procedures, manuals and institutional policies (Finance, ICT, HR, IPR) Procedures to fast-track strong research- topublication process Stronger internal control procedures High standards performance appraisal system Devolvement of regional degree programmes to member Universities 	 New Plan Non-core activities terminated or devolved Increased budget High quality/reliable consultant support team Negotiate HQ agreement commensurate with interregional nature of staff and programs. 	Core objectives Necessary support to essential		
4. Functions:Strengthened	STRONG NETWORK MANAGEMENT					
demand-side of programmes Enhanced national, regional/int'l networking and partnership Bolstered and diversified resource base	Strong support for members to develop effective outreach to farmers Harnessed economies of scale/scope Strengthened mentoring Highly fruitful partnerships Leveraged powerful advocacy; role as power broker fortified Strong diversified core funding base Funds raised for member Universities with new partners Secretariat models developed for best practices of information management	 High level leadership/managerial talent Consultation-based strategy development, refinement and implementation Expanded visibility via large-scale convening Integration of teaching, research, outreach to foster synergy and relevance Balanced growth strategy Build the secretariat and Universities capacity for resource mobilization Manage databases of potential funding sources (including private sector) 	New staff for coordinating partnerships and communications Functions of National Forums aligned with strong convening power organizations Explorations and pilots sequenced and matched with available resources Project funding budgeted on basis of full cost accounting	Core objectives Revenue generation potential (leads to project/core funding) Necessary support to essential activities		

APPENDIX D: RUFORUM Services

RUFORUM will rely on a range of services within the wider science for agricultural development arena to support the implementation of its Strategic Business Plan. Underpinned by highly professional Secretariat staff, a robust Financial Management and Information Management System, RUFORUM offers the below services.

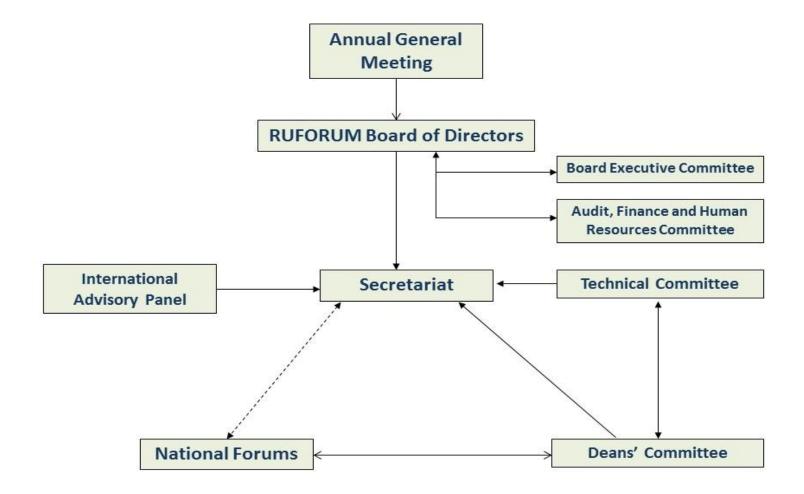
RUFORUM Service

- 1. Tailor Made PhD & MSc Programs (minimum 10 students per intake)
 - a. Existing PhD programmes (3-4 years)
 - Plant Breeding and Biotechnology at Makerere University (MAK), Kampala
 - Dryland Resource Management at University of Nairobi, Kenya
 - Soil and Water Management at Sokoine University of Agriculture (SUA), Tanzania
 - Agricultural and Rural Innovations at MAK and SUA and Egerton University, Kenya
 - Food Science and Nutrition at Jomo Kenyatta University of Agriculture and Technology (JKUAT), Kenya
 - Aquaculture and Fisheries Science at LUANAR, Malawi
 - Agricultural and Resource Economics at LUANAR, Malawi
 - Life Sciences at Nelson Mandela African Institution of Sciences and Technology (NM-AIST)
 - b. Existing MSc Programmes (2-2.5 years)
 - Research Methods at JKUAT, Kenya
 - Agricultural Information and Communication Management at University of Nairobi (Kenya) Haramaya University (Ethiopia)
 - Plant Breeding and Seed Systems at Makerere University
 - Agro-meteorology and Natural Risk Management at Haramaya University in Ethiopia
 - Agroforestry and Soil Management at the University of Rwanda
 - Rural Economy and Agro-business at the National University of Burundi, Burundi
 - Agri-enterprise Development at Egerton University (Kenya) and Gulu University (Uganda)
 - Agricultural Monitoring and Evaluation at Uganda Martyrs University, Nkonzi, Uganda
 - Diary Science and Technology at University of Zimbabwe
 - Life Sciences (NM-AIST), Tanzania

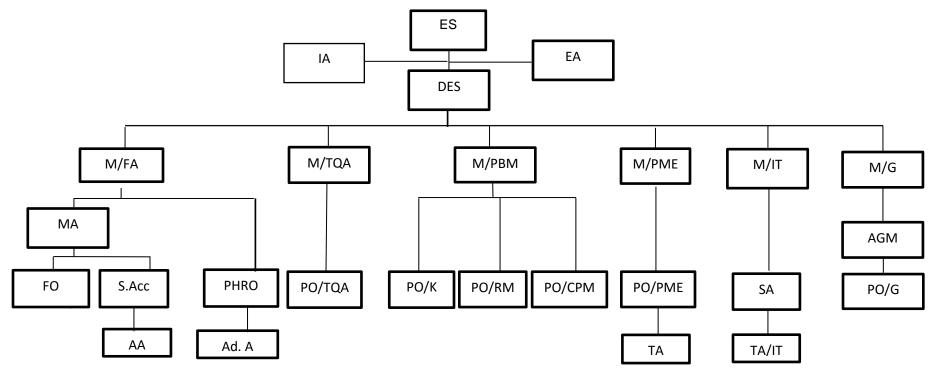
2. Short skills enhancement courses (Tailor made course on request)

- Leadership and personal mastery skills for staff and students, Scientific data management and scientific
 writing and Journal publication, Agribusiness and entrepreneurship, E-Learning, IT and Communication
 skills, Modern teaching methods and professional supervision, Value chains, food systems and nutrition
 management
- 3. Scholarship coordination and management (including internships with private sector and CGIARs)
- 4. Facilitating academic mobility
- 5. Research coordination and management
- 6. Match making for training, research, advocacy and networking
- 7. Information portal for knowledge in the agricultural sciences
- 8. Video conferencing services

APPENDIX E: RUFORUM Governance Structure



APPENDIX F: RUFORUM Secretariat Organizational Structure



Key:			
ES:	Executive Secretary	IA:	Internal Auditor
DES:	Deputy Executive Secretary	EA:	Executive Assistant to the Executive Secretary
M/FA:	Manager Finance and Admin.	PO/CPM:	Program Officer Communication Publicity and Marketing
MA:	Management Accountant	PO/KM:	Program Officer Knowledge Management
FO:	Finance Officer	PO/RM:	Program Officer Resource Mobilisation
S.Acc:	Systems Accountant M/PME&IT: Manager PM&E/IT		
AA:	Accounts Assistant	PO/PME:	Program Officer PM&E
PHRO:	Procurement and Human Resources Officer	SA:	Systems Administrator
Ad.A:	Administrative Assistant	TA:	Technical Assistant
M/TQA: Manager Training and Quality Assurance		GM:	Grants Manager
POTQA: Program Officer Training and Quality Assurance A		AGM:	Assistant Grants Manager
M/PBM: Manager Partnership and Business Management		PO/G:	Program Officer Grants