Regional Universities Forum for Capacity Building in Agriculture

Results-Focused Capacity Development Strategy

March 2016

Regional Universities Forum for Capacity Building in Agriculture (RUFORUM)
Plot 151/155 Garden Hill, Makerere University Main Campus
P.O Box 16811 Wandegeya
Kampala, Uganda
Tel: +256-417-713-300
Website: www.ruforum.org

Table of Contents

Foreword ii
Acknowledgements iii
Abbreviations, Acronyms, and Websites iv
1 INTRODUCTION 1
2 INSTITUTIONAL CAPACITIES OF NETWORK MEMBERS 2
3 RUFORUM CAPACITY DEVELOPMENT STRATEGY 7
3.1 Conceptual Framework 7
3.2 Goal and Objectives of the RUFORUM CapDev Strategy 10
3.3 Capacity Development Services Action Areas 11
3.3.1 CDS Action Area 1: Capacity for demand-driven market-relevant AR4D and AET. 11
CDS 1.1: Graduate Training and Research 12
CDS 1.2: Community Action Research 12
CDS 1.3: Regional MSc and course-based PhD Programmes 12
3.3.2 CDS Action Area 2: Capacity for innovative knowledge delivery 13
CDS 2.1: Knowledge facilitation and management 13
3.3.3 CDS Action Area 3: Synergies and dynamics for system integration and coherence 14
CDS 3.1: Partnerships for strengthening capacities to achieve impacts at multiple scales 16
CDS 3.2: Opportunities, Initiatives and Learning 17
3.3.4 CDS Action Area 4: Advocacy for aligning incentives and support systems 18
CDS 4.1: Strategic initiatives for institution strengthening and organizational development 20
CDS 4.2: Capacity to innovate 21
3.4 Results Framework and Indicators of Successful Implementation 22
3.5 Requirements for Success 24
3.6 Potential Constraints 25
4 CONCLUSION 26
Annex 1: Capacity Development Results Framework and Indicators Matrix 27

Foreword

Acknowledgements

Abbreviations, Acronyms, and Websites

3AGT	Accelerated Africa Agricultural Growth and Transformation (Malabo Declaration)
A&RD	Agriculture and Rural Development
AAIS	Africa Agricultural Innovation System
ACP	African, Caribbean and Pacific (Group of States), www.acp.int
AET	Agricultural Education and Training
AfDB	African Development Bank, www.afdb.org
AGM	Annual General Meeting
AgriSTI	Agricultural Science, Technology and Innovation
AKSIA	Access to Scientific and Socioeconomic Knowledge in Africa, www.uneca.org/sites/default/files/PublicationFiles/capacity_development_strategy.pdf
AR4D	Agricultural Research for Development
ARIs	Advanced Research Institutes
AU	African Union, www.au.int
AUC	African Union Commission, www.au.int/en/commission
AVLIN	African Virtual Library and Information Network, www.uneca.org/kss/pages/avlin
CAADP	Comprehensive Africa Agriculture Development Programme, www.caadp.net
CapDev	Capacity Development
CARP	Community Action Research Projects
CBF	Capacity Building Framework
CDS	Capacity Development Strategy
CDSF	Capacity Development Strategic Framework (of AU-NEPAD)
CGIAR	Consultative Group on International Agricultural Research, www.cgiar.org
CMF	Capability Maturity Framework
CMM(I)	Capability Maturity Model (Integration), www.cmmiinstitute.com
CMU	Carnegie Mellon University, www.cmu.edu
CoP	Community of Practice
CSO	Civil Society Organisation
DOSA	Discussion-Oriented Self-Assessment, pdf.usaid.gov/pdf_docs/Pnadw115.pdf
ECA	Economic Commission for Africa, www.uneca.org
EDC	Education Development Centre, www.edc.org
EDF	European Development Fund,
FARA	Forum for Agricultural Research in Africa, www.faraafrica.org
GM	Grant Management (Unit of RUFORUM Secretariat)
GRG	Graduate Research Grants

GTAP	Graduate Teaching Assistants Programme
HAEL	Higher Agricultural Education and Learning
HR	Human Resources
ICT	Information and Communications Technologies
IDRC	International Development Research Centre, www.idrc.ca
IOA	Institutional and Organizational Assessment (Model)
ISG	Institutional Strengthening Grants
K2A	Knowledge to Action
KM	Knowledge Management
M&E	Monitoring and Evaluation
MfDR	Managing for Development Results
MSc	Master of Science
NARES	National Agricultural Research and Extension Systems
NGO	Non-Governmental Organization
NEPAD	New Partnership for Africa's Development, www.nepad.org
NPCA	NEPAD Planning and Coordination Agency, www.nepad.org/npca
OECD/DAC	Organisation for Economic Co-operation and Development/Development Assistance Committee, www.oecd.org
OPA	Organisation Performance Assessment
PAU	Pan African University
PBM	Partnerships and Business Management (Unit of RUFORUM Secretariat)
PfDR	Planning for Development Results
PME&IT	Planning, Monitoring, Evaluation and Information Technology (Unit of RUFORUM Secretariat)
PhD	Doctor of Philosophy
PROSE	Participatory, Results-Oriented Self-Assessment, pdf.usaid.gov/pdf_docs/Pnadw115.pdf
PVO	Private Voluntary Organisation
RECs	Regional Economic Communities
RF	Results Framework
RTP	Regional Training Programme
RUFORUM	Regional Universities Forum for Capacity Building in Agriculture, www.ruforum.org
S3A	Science Agenda for Agriculture in Africa, www.faraafrica.org/programs/frameworks/science-agenda/
SBP 2015	Strategic and Business Plan 2015 - 2020 (of RUFORUM)
SEI	Software Engineering Institute, www.sei.cmu.edu/
SRO	Sub-Regional Organization
STISA	Science, Technology and Innovations Strategy for Africa, www.hrst.au.int

STU	Secretariat Technical Unit
ToC	Theory of Change
TQA	Training and Quality Assurance (Unit of the RUFORUM Secretariat)
UN	United Nations, www.un.org
UNDG	United Nations Development Group, www.undg.org/home/about-undg/
USAID	US Agency for International Development, www.usaid.gov
VC	Vice Chancellor
YPP	Young Professionals Programme

1 INTRODUCTION

RUFORUM, established by 10 Vice Chancellors in 2004, is today a dynamic platform that fosters collaboration, coordination and learning amongst a consortium of 55 African universities in 22 countries. Its establishment was underpinned by an assessment of key challenges to which universities could respond to support national growth goals and targets in the agricultural sector. It has evolved from an initial focus on expanding the capacity of Master's level degree holders for supporting field level implementation of agricultural development programs to PhD training and some elements of undergraduate support through internships. The founding universities recognised the need to collaborate rather than compete as a means of strengthening graduate training in Africa.

The RUFORUM mission is *"to strengthen the capacities of universities to foster innovations responsive to demands of smallholder farmers through the training of high quality researchers, the output of impact-oriented research and the maintenance of collaborative working relations among researchers, farmers and national agricultural research institutions"*. Transforming African agriculture and related sectors through higher education, innovative scientific research, educational and training approaches are the cornerstones of RUFORUM's work.

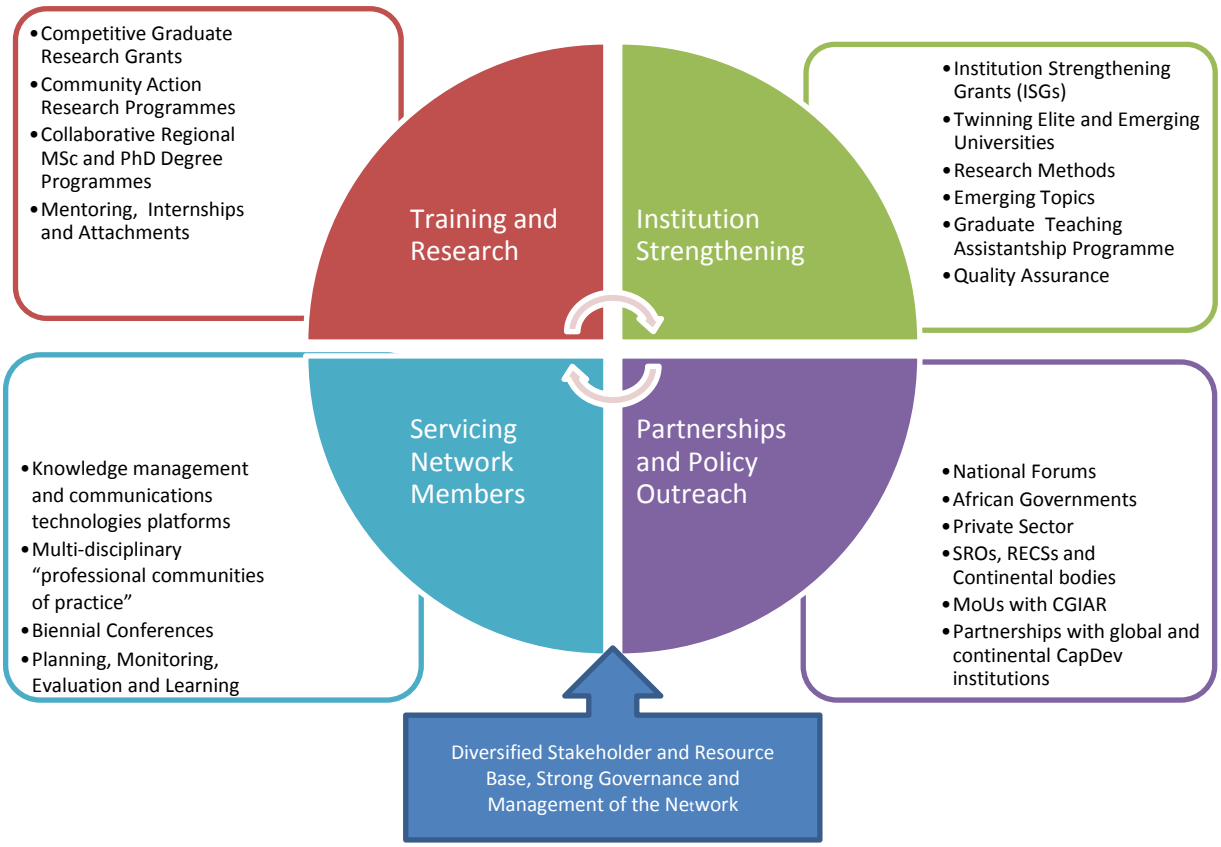
Capacity is a critical aspect of development. Capacity development (CapDev) has been at the core of RUFORUM's mandate and one of the most important result areas for the network. A key approach of the network is to facilitate engagement of universities to current and emerging challenges facing rural communities and in building capacity of young people to be part of the accelerated African agricultural growth and transformation (3AGT) agenda through developing and implementing relevant curricula driven by learning needs. From a capacity development perspective, RUFORUM aspires to be an important actor for CapDev in its areas of work in higher agricultural education and learning (HAEL) and agriculture and rural development (A&RD), playing a catalytic and facilitation role to deliver high-quality CapDev support grounded in national, regional and global plans and strategies, to partners and customer/client institutions.

The CapDev strategy constitutes a principal 'modus operandi' underpinning the network's programme of work outlined in the Strategic and Business Plan 2015 – 2020 (SBP 2015). CapDev is the process through which individuals, groups and organisations, and societies deploy, adapt, strengthen, and maintain the capabilities to define, plan and achieve their own development objectives on an inclusive, participatory, and sustainable basis. Conceptually, there has been a paradigm shift whereby the notion of CapDev is no longer limited to human resource development, but rather covers a broader scope that includes societal and organizational transformation and the issues of ownership, policy-level impacts, and sustainability. It includes the creation of space for and management of dialogues, relationships, and partnership; knowledge networks; and incentives for performance and accountability. Operationally, it no longer emphasizes outputs, but also processes and mechanisms that lead to outputs. Institutionally, it is at the core of work as it gets embedded in strategies as well as plans. CapDev is a non-linear complex process of change, internally or externally initiated, that occurs in and between individuals, organizations, institutions and their networks thereby strengthening linkages and the (collective) capabilities of systems to innovate, deliver development impact and create (social) value. This process takes place within an overall environment that requires constant adaptation to internal and external contextual changes. This definition is in contrast to more linear conceptions of 'capacity building as training', in which individual human resources increase competencies through training and skills development. This differentiation between "capacity development" and "capacity building" is fundamental to defining the operation modalities required to deliver the anticipated RUFORUM outputs and outcomes.

The SBP 2015 distinguishes three main classes of "customer segments" that RUFORUM responds to, based on demand and the nature of the products and services that each claims: *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 are 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 and education bodies. Each of these customers and partners has general expectations of RUFORUM as an effective facilitator of innovation in higher agricultural 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 defined a capacity building framework (CBF) as illustrated in Figure 1 (refer to SBP 2015, Appendix C for details) to satisfy the needs of these clients for four broad categories of value: training and research; institution strengthening; member services including networking and knowledge sharing; and, partnerships and policy outreach. The CapDev strategy unpacks these broad areas into specific actions that RUFORUM will undertake to realise its goal and deliver results and impact. The approach adopted will benefit the RUFORUM network in various ways as it will result in: an increased coherence and effectiveness of CapDev activities across the HAEL and AR&D sectors; a strengthened impact and visibility and a strategic re-branding of the RUFORUM role; a strengthened credibility for RUFORUM as a CapDev partner within the international community and in the context of STISA 2024 and the Africa Agenda 2063; and an increased and more effective application of the network resources for CapDev linked to achieving outcomes.

Figure 1: RUFORUM Capacity Building Framework



2 INSTITUTIONAL CAPACITIES OF NETWORK MEMBERS

RUFORUM comprises a network of universities (with their boundary partners - organizations, enterprises, and individuals) focused on bringing innovation (new products, new processes, and new forms of organization) into use in the areas of HAEL and agricultural research for development (AR4D) and the wider AgriSTI landscape, together with the institutions and policies that affect their behavior and performance. The CBF focuses on assisting member universities develop organisational capacities through collaborative arrangements with each other and other formal or informal organisations over a sustained period. Collaboration may take different forms, including frequent exchanges of information, joint priority setting for policies and programs, and joint implementation of innovation projects. All this requires different sets of organizational capacity - the ability to do, experience, or understand

something that result from the combination of an organization's resources, processes and values. The resources are the people and physical assets an organization can command; in general, resources can be hired, bought or built. The processes, whether formal or informal, define how an organization transforms inputs into products; routines (often tacit) are an important component of processes. Finally, the values define what the organization should do and guide the everyday, independent decisions of its members. The organizational culture is an important element of an organization's values.

A number of models or frameworks for conducting an organisational performance assessment exist. The different frameworks are underpinned by different philosophies and theories of organisational change. The Institutional and Organisational Assessment Model (IOA Model) elaborated by Universalia and the International Development Resource Centre (www.idrc.ca) views the performance of an organisation as the balance between the effectiveness, relevance, efficiency, and financial viability of the organisation (Figure 2). The framework also posits that organisational performance should be examined in relation to the organisation's motivation, capacity and external environment. Indeed, organisations change: in response to factors in their external environment, because of changes in their internal resources (e.g., financial, technological, human), and as a result of fundamental shifts in values within the organisation, which in turn affect the organisational climate, culture and ways of operating.

Figure 2: Universalia-IDRC Institutional and Organisational Assessment (IOA) Model

In the context of RUFORUM, CapDev targets – first and foremost - individual capacities: the ability of researchers and graduates to do, experience, or understand agricultural innovation that results from the combination of innate and acquired abilities including talent, task commitment, creativity and education. Because individual capacities result from the interaction between innate and acquired abilities, each individual is good at a few things and not as good at all things. These individual capacities collectively come into play in determining the capacity and eventual performance of organisations. RUFORUM intervention, through this strategy, is to identify, nurture and further enhance these abilities. The second aspect of RUFORUM CapDev interventions is institution strengthening of its member universities. This looks at the formal and informal rules that structure and/or constrains human behaviour and interaction. Institutions include the legal rules (e.g. laws and regulations), social norms and ideologies, contractual arrangements, accepted and established practices, ideas that govern organizations, policies and

processes, and management strategies that influence choices and decision making. The institutional environment is the fundamental set of rules, both formal and informal, that govern production, exchange and distribution of knowledge and services within the HAEL and AgriSTI systems. Institutional arrangements, on the other hand, are specific arrangements between parties to a contract that govern the way the parties co-operate and/or compete. The RUFORUM strategy is to foster processes and actions that encourage healthy competition but largely collaboration and collective action amongst member universities.

Improving performance - the balance between the *effectiveness*, *relevance*, *efficiency*, and *financial viability* of the organisation – is at the centre on any capacity development process. It defines the purpose for the interventions. Consequently, understanding the performance of the secretariat and the university system in the key capacity areas was fundamental to the development of the strategy. As a mechanism for establishing the baseline situation of current capacity, the "participatory, results-oriented self-evaluation" (PROSE)[1] method developed by Pact (www.PactWorld.org) and the Chicago-based Education Development Centre (www.edc.org) was adopted. The method has the dual purpose of both assessing and enhancing organizational capacities. It is designed to compare capacities across a cohort group of peer organizations, which allows for benchmarking and networking among the organizations. The use of numbers (ordinal scales) and statistical analysis to represent capacity are useful in ordering by rank along a continuum. They are however, relative and not absolute measures and the PROSE approach provided opportunity to capture qualitative descriptions of an organization's capacity level as a good complement to ordinal scales. PROSE tools measure and profile organizational capacities and assess, over time, how strengthening activities affect organizational capacity. In addition, through a facilitated workshop, PROSE tools are designed to allow organizations to build staff capacity; create consensus around future organizational capacity building activities; and select, implement, and track organizational change and development strategies.

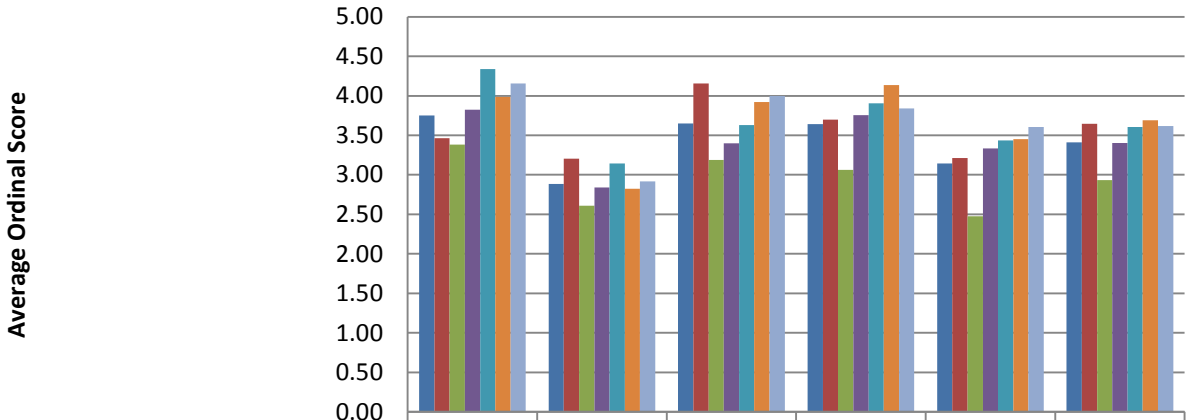
A self-assessment survey was undertaken for the Secretariat and seven (7) universities in East, Southern and West Africa[2]. The exercise was undertaken both to: i) develop and test a tool that can be adopted for providing a basis from which to assess performance progress in developing institutional capacity; and, ii) have a rough idea of which aspects of capacity development (apart from the academic training) form the weak links at the secretariat and member universities in general so as to design appropriate improvement and support plans in the implementation of the strategy. The self-assessment process followed a facilitated procedure with teams of the selected members of the RUFORUM Secretariat and the sampled member Universities. Through a series of group discussions interspersed with individual responses to questionnaire items, participants representing a cross-functional, cross hierarchical sample responded anonymously to a questionnaire, selecting the best response to statements about the Secretariat and/or the University's practices in six capacity areas (*the key process areas*): governance and oversight; leadership style and management practices; external relations and partnering; service/program delivery practices; financial management practices and human capital development practices. The scored questionnaires were analysed by simple tabulation and graphical illustration. The instrument produced two types of scores and accompanying graphics. The first was a capacity score, which indicated how each staff perceived the strengths and weaknesses of the institution in each of the capacity (*key process area*) and sub-capacity (*common feature*) areas as scored for each of the questions (representing the *key common practices*). The second is an average consensus score which shows the degree to which the assessment team members agree on their evaluation of the organization's capacity maturity level, overall and in each of the capacity and sub-capacity areas. The consensus score acts as a check on the perceived capacity scores from individual members. It also helps identify capacity areas that all members agree need immediate attention.

The consensus scores showing the degree to which the assessment team members agree on their evaluation of the Secretariat and selected Universities capacity maturity level, overall and in each of the capacity areas are presented in Figure 3. The consensus score acts as a check on the perceived capacity scores from individual members. It also helps identify capacity areas that all members agree need immediate attention. The results of the analysis clearly depict that the RUFORUM Secretariat is in all aspects, except human capital, at a higher capability maturity level than its member Universities collectively with an overall score of 3.75 points against 3.41 points out of a possible 5 points. The universities also show marked differences both in overall ranking and in the rankings for each capacity

[1] USAID (2011): Measuring Institutional Capacity. TIPS Series Number 15.
[2] Makerere University, Kyambogo University, Uganda Martyrs University, University of Nairobi, Lilongwe University of Agriculture and Natural Resources, University of Abomey-Calavi, and University of Cape Coast.

area. Generally, capacity for managing external relations and partnering, leadership and management style and governance was perceived as better developed than for financial capacity and program management and delivery. The overall rankings indicate that practices for most process areas are generally perceived as close to being institutionalized (scores between 3.0 and 4.0), more complete and no longer being performed irregularly or are not *ad hoc* in their implementation. Practices are documented, stakeholders of the practice are identified and often involved but inadequate resources are often provided to support the process (people, funding, and tools). Standards and/or guidelines exist to guide the implementation of most of the practices although the levels of adherence vary. The analysis allows for ranking to compare organizations with each other and rolling up results to report on a group of organizations together.

Figure 3: Consensus and Aggregate Scores for 6 Capacity Areas



	Secretariat	Uni01	Uni02	Uni03	Uni04	All sampled Universities
Overall Consensus Score	3.75	2.89	3.65	3.64	3.14	3.41
Human Capital	3.46	3.21	4.16	3.70	3.21	3.64
Financial Resources	3.38	2.61	3.19	3.06	2.47	2.93
Service and Programme Delivery	3.82	2.84	3.40	3.76	3.33	3.40
External Relations and Partnering	4.34	3.15	3.63	3.91	3.43	3.61
Leadership Style & Management Practices	3.98	2.82	3.92	4.13	3.45	3.69
Governance & Oversight	4.16	2.92	4.00	3.84	3.61	3.62

The general picture from Figures 3 portrays that external relations and partnering, participatory management practices and good governance and oversight stand out as areas where the Secretariat is perceived by its workforce as performing rather outstandingly, with ordinal sores close to or above 4.0 points. In a more detailed analysis, the universities showed deficiencies in staff numbers but seemed to have appreciable HR administration and management processes while also being acknowledged as having relatively clear staff development practices and processes giving them a higher human capital index than the secretariat. Staff development is an area that RUFORUM has been actively engaged in, and its contribution is widely acknowledged in these universities. Practices for leadership process areas are also perceived as being institutionalised and proactive, although there seem to be issues with information sharing at the Secretariat and participatory management at the Universities. The general perception at the universities is that organizational guidelines exist in the form of prescribed policy/plans (verbal or written), but these are often either deliberately ignored/flouted or not adequately communicated and understood by those supposed to adhere to them. The use of obsolete communication channels (circulars on noticeboards) leaves many administrative decisions unnoticed by staff and students who now largely use social media. Performance in the area of financial resources is lowest – in all the three facets of financial sustainability and viability, management and resource mobilisation.

Two significant issues came up from the focused group discussions and key informant interviews – i) sustainability of Regional programs beyond RUFORUM intervention; and, ii) compatibility/compliance of the grant programs

with established university procedures, especially regarding staff development and implementation responsibility for academic programmes. Views from respondents strongly imply that the long-term sustainability of programmes will largely depend on the ability of RUFORUM to help improve the capacity of implementing universities to continually develop and adapt relevant curricula and infrastructure (staff and facilities) matched to market demands and country development objectives, so as to attract public and private funding and sponsorship. The grant programmes have also to be matched with the University calendars and comply with the staff development policies.

Respondents from the administrative support functions of the universities propose that RUFORUM should proactively directly engage with the relevant units of the University responsible for the processes depicted in Figure 3 above, including skilling the relevant staff, to introduce changes that incorporate the necessary flexibilities that facilitate student admission, staff and student mobility, and cost-sharing.

It was also pointed out that academic programs at Universities are run by departments. Whereas, RUFORUM largely deals with Vice-Chancellors and Deans/Principles (of Schools/Colleges of Agriculture and related disciplines), the instruction requirements of modern curricula require collaboration and inputs from a wide array of university departments. There was a strong feeling that RUFORUM should help the university systems to develop a strong sense of collective ownership of these programmes and internally develop the incentive systems to encourage participation of the different departments that house the resident expertise and facilities.

Although the results indicate a higher average human capital index for the sampled universities than the Secretariat, nonetheless, they do not have full staff establishments and part-timers play an increasingly significant role. There is strong agreement about inadequate staff numbers in some academic disciplines, high academic qualifications but marked deficiencies in some areas of leadership skill, resource mobilisation and management, program delivery especially with respect to participation of stakeholders and delivery mechanisms, and monitoring and evaluation. There is also a strong belief in the existence of well-established human resource management processes and staff development intentions although constrained by limited financial resources. Most practices appear to be defined, characterised and largely institutionalised, but some staff still perceive many of these as rigid, non-proactive and sometimes restrictive.

The CBF in the SBP 2015 addresses most of the aspects considered in the self-assessment and raised from the field visits. For some, the Secretariat is intervening directly while for others it focusses on influencing policy and institutional internal processes for creating, adopting, leading, implementing and sustaining change initiatives towards achievement of objectives. These interventions are further elaborated in the next chapter. These results of the self-assessment summarised above were used to inform the priorities in the CapDev strategy. The analysis generally indicates relatively stabilised processes that are being consolidated. Strong institutions, the formal and informal rules that structure and constrain human behavior and interaction, help RUFORUM and the member universities focus on relevant actions, fully engage with partners and stakeholders in the teaching, research and outreach processes and the subsequent use of products and services to achieve outcomes. However, many challenges still exist for both the Universities as individual entities and for RUFORUM as a network. Critically important is the low level of resourcing and low investment in activities to strengthen and/or reform processes that can seriously impair the sustainability and credibility of the supported grant and regional training programmes.

3 RUFORUM CAPACITY DEVELOPMENT STRATEGY

3.1 Conceptual Framework

Capacity is an attribute internal to people, organizations and groups or systems of organizations; CapDev then is a change or transformation process from within. CapDev has traditionally been associated with knowledge transfer and training of individuals, yet it is a complex, non-linear and long-term change process in which no single factor (e.g. information, education and training, technical assistance, policy advice, etc.) can by itself be an explanation for the development of capacity. It contributes to addressing specific needs of actors across the three interlinked dimensions - individual, organisational/institutional and enabling environment. CapDev involves the empowerment of societal actors through learning, knowledge, information and innovation to effect transformational and sustainable change in institutions, which in turn supports the achievement of the development goal. It goes far beyond the transfer of knowledge and skills through training, and cuts across multiple levels.

Figure 4 depicts the systemic approach to operationalising and implementing the RUFORUM capacity development framework described in section 1.3 (Figure 1). Conceptually, the CapDev strategy is based on enhancing the **technical** and **functional capacities** of the Secretariat and member Universities, which are prerequisites to achieving the goals of the network. Technical capacities are required in the broad areas of teaching, scientific research and outreach to enable member universities carry out all technical tasks required to build the requisite capacity to meet national development objectives. In addition, the functional capacities enable members and partners to plan, lead, manage and sustain change initiatives to ensure that technical know-how is embodied in local systems and processes in a sustainable way. Institution capacity strengthening, therefore, revolves around three operational targets of CapDev efforts:

a) Strength of stakeholder ownership for the development objectives (demand): this largely requires strengthening capacities in the technical and program functions - service delivery system, program planning, program monitoring and evaluation, and use and management of technical knowledge and skills, capacities to access/generate/manage and exchange information and knowledge, consultative processes

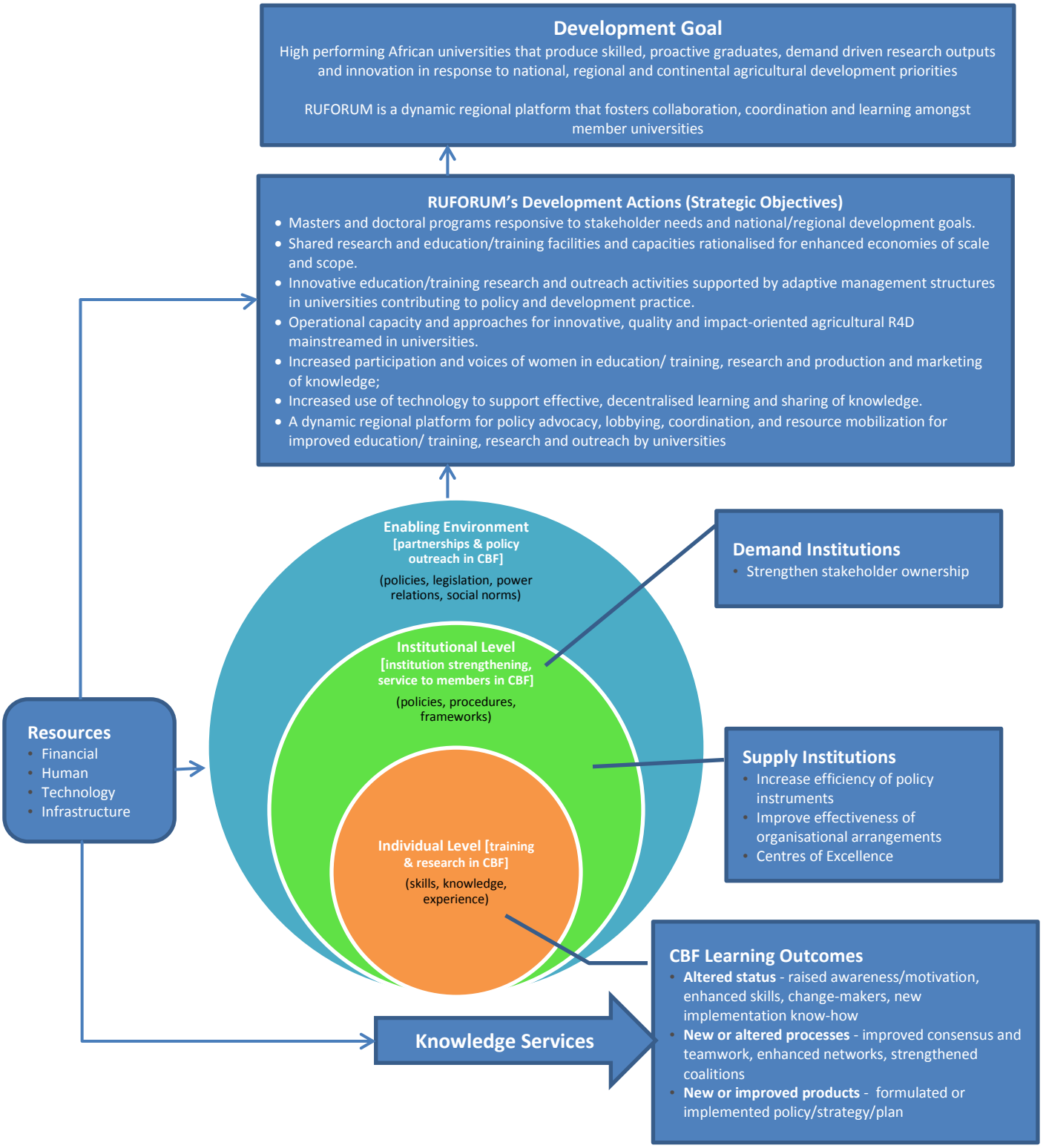
b) Efficiency of policy and other formal incentive instruments that guide stakeholder behavior toward the goal (supply): requiring addressing issues of organisational motivation, structure and culture - organizational identity and culture, vision and purpose, leadership capacity and style, organizational values, governance approach, and external relations, policy and normative capacities to formulate and implement policies, legislative frameworks and lead policy reform;

c) Effectiveness of the institutions and organizational arrangements established to achieve the objectives (supply): this requires resources (human, physical and financial) and strengthening administrative and support functions - administrative procedures and management systems, financial management (budgeting, accounting, fundraising, sustainability), human resource management (staff recruitment, placement, support) and management of other resources (information, equipment, infrastructure), partnering capacities to engage in networks/alliances/partnerships, management capacities to implement and deliver programmes right from planning to monitoring and evaluation of impacts and trends.

The technical and functional capacities, which are in themselves inter-related, exist across three dimensions of enabling environment, organizations and individuals. The dimension of enabling environment relates to political commitment and vision; policy, legal and economic frameworks; budget allocations and processes; governance and power structures; incentives and social norms. The organizational/institutional dimension relates to: strategic management functions, structures and relationships; operational capacity (processes, systems, procedures, sanctions, incentives and values); human and financial resources (policies, deployment and performance); knowledge and information resources; and infrastructure. The individual dimension relates to the people involved in terms of: knowledge, skill levels (technical and managerial) and attitudes that can be addressed through facilitation, training and competency development. In CapDev interventions, all three dimensions are interlinked; individuals, organizations/institutions and the enabling environment are parts of a broader whole. CapDev often involves the enhancement of knowledge of individuals, although the output of individuals greatly relies on the quality of the organizations in which they work. Furthermore, the effectiveness of organizations and networks of organizations is

influenced by the enabling environment. Conversely, the environment is affected by organizations and the relationships between them.

Figure 4: RUFORUM's Systemic approach to Capacity Development



The RUFORUM impact pathway elaborated in the SBP 2015 lists the outcomes and impacts desired. A more detailed list of outcomes has been developed for each activity of the CBF. As depicted in Figure 2, the long list of the outcomes in the CBF can be summarised into seven broad **learning outcomes** - *agents of change (champions/graduates), raised awareness, enhanced skills, improved consensus and teamwork, strengthened coalitions, enhanced networks, and new implementation know-how*. These outcomes to be reflected in the strategy bridge the gap between broad overall objectives as summarised in the Theory of Change and the institutional and specific capacity development activities so that the CapDev change processes can be better managed. CapDev supports reform of characteristics that contribute to the capacity areas of stakeholder ownership, policy instruments and organizational arrangements. It is essential to understand these characteristics that constrain or enable stakeholder results to diagnose and define institutional change in practical terms. Agents of change, such as coalitions or networks, bring about needed changes toward institutional reforms while outcomes of the change processes associated with CapDev support design, implementation, monitoring and measurement of the broad RUFORUM programs.

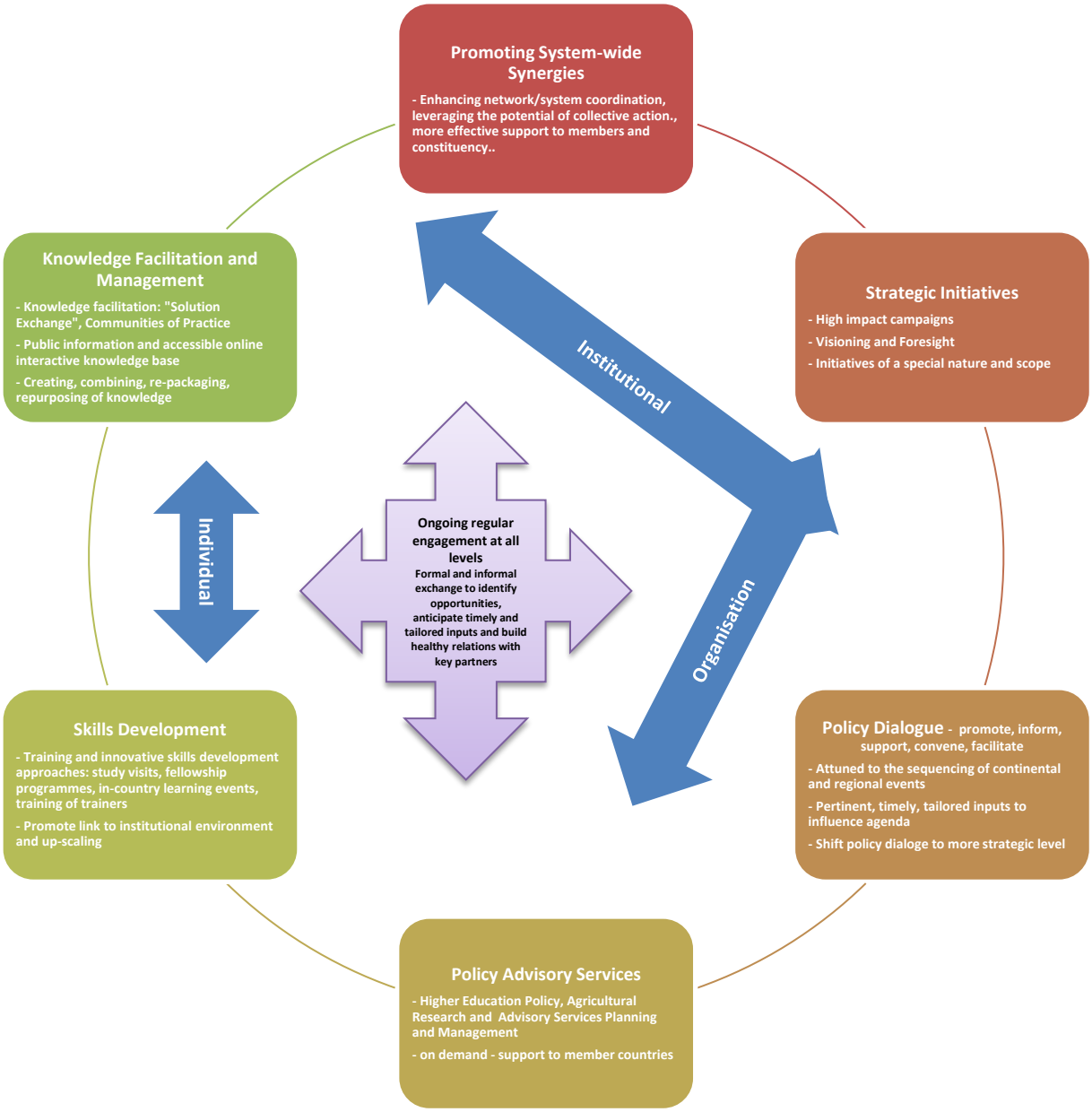
The goal of strengthening an institution is usually to improve the organization's overall performance and viability by *improving administrative and management functions, increasing the effectiveness of service provision, enhancing the organization's structure and culture, and furthering its sustainability*. Operationally, CapDev consists of a series of 'actions towards the creation of a critical mass of skills, knowledge and expertise, and the availability of the requisite financial resources and organizational instruments, processes and systems, for the effective formulation and prosecution of policy, and the realization of the objectives of institutional programmes and projects'. Institutional strengthening programs may address one or more of these components. RUFORUM's interest in institutional strengthening is driven by the prospects of improving delivery and effectiveness of the eventual network-level results (and the sustainability of these results) that these stronger organizations – the member universities - can help achieve.

RUFORUM has adopted a systems thinking approach to capacity development. The main innovation from this is that emphasis is placed upon defining the system as a whole, which is made up of interacting parts. It is also about recognizing complexity and knowing that one cannot always predict outcomes so one has to have the capacity to learn and adapt along impact pathways. Capacity development is hence a multifaceted process combining elements across several dimensions, which themselves are interrelated. In addition, capacity development is also linked with improved governance critical to outcomes.

Capacity development has two components: human *(technical capacities)* and institutional *(functional capacities)*. For humans, their knowledge, skills and attitudes of a specific theme can be enhanced; for institutions, their policies, organizational designs, strategies, plans and processes can be improved through capacity development to enable a specific theme to grow and to flourish. In addition, capacity development can promote networking among individuals and organizations in order to improve synergies. RUFORUM focuses on mobilising human and institutional capacity for research to generate knowledge; for education to advance the communication of the knowledge; and for outreach, incubation and innovation to bring the knowledge to practical use and application. The nature of capacity mobilization and development activities may range from supporting educators to teach contextualised subjects and supervise graduate research students and other young scholars through mentoring and on-the-job training, seminars, workshops and conferences. The capacity of Universities, NARS, NGOs and policy-makers may be mobilized through a variety of tailored and contextually appropriate capacity development activities.

RUFORUM is one of many facilitators of capacity development on the continent and is mindful of system-wide synergies, complementarity and reinforcement of current efforts in providing its capacity development services. Figure 5 schematic presents the key areas that constitute fundamental capacity development objectives for RUFORUM: improving the supply chain and access to RUFORUM outputs; encouraging and extending knowledge and information exchange among university leaders, academics and researchers as learning providers as well as graduate student participants; understanding the CapDev needs of member Universities and the regional/national human capital requirements and supporting the development and implementation of high impact initiatives and innovative learning solutions that address the CapDev needs of partners in service delivery, and farmers and rural communities; and, generating data for research and evidence for policy formulation and advice.

Figure 5: CapDev Services of RUFORUM Secretariat



3.2 Goal and Objectives of the RUFORUM CapDev Strategy

Following a comprehensive review of available documentation, interviews and self-assessment surveys at selected member universities, together with multiple meetings with Secretariat staff and taking into consideration the direction of RUFORUM as well as international trends and announced vision and mission of RUFORUM and other capacity development institutions, a clear and focused goal has been developed to guide the decisions on priority actions, facilitate the development of strategic approaches to reaching the goal, and provide adequately detailed expectations of results. The vision and mission of RUFORUM are identified in the Business Plan and reflected in the Impact Statement of the Theory of Change. The CapDev Strategy derives its Goal and its overall Objective from the RUFORUM Vision and Mission statements

Goal: RUFORUM Secretariat and member Universities constitute a high performing African Network with the human capital, institutions and systems to unlock potential to work collaboratively as an integrated system and effectively carry out their defined teaching, research and outreach roles in HAEL and AgriSTI, producing skilled, proactive graduates, demand driven research outputs and innovation in response to national, regional and continental agricultural development priorities.

Objective: To design and implement an internationally competitive and sustainable approach to Capacity Development that is fully integrated into the RUFORUM development outcomes and impact pathways making the network a dynamic regional platform that fosters collaboration, coordination and learning amongst member universities.

3.3 Capacity Development Services Action Areas

3.3.1 CDS Action Area 1: Capacity for demand-driven market-relevant AR4D and AET.

CDS Strategic Objective 1: *Improving the supply chain and access to RUFORUM outputs by providing grant support to member universities for the training of pro-active and dynamic researchers and change-makers and the co-creation of impact-oriented, strategically relevant and of consistently high quality research ideas and outputs that are transformed into innovations for job and wealth creation.*

Outcome:

Academics, researchers and graduates of member universities possess the needed knowledge, skills and attitudes that enable them to better conduct more strategically coherent agricultural research, be accountable through transparent stakeholder involvement, and shape HAEL and AgriSTI pathways to achieve impact on the ground.

Strategic Actions:

Improving the supply chain and access to RUFORUM outputs by:

a) making available high quality research and learning opportunities that are customized and contextualized to address the demands of clients

b) skilling individuals and strengthening the capacity of member universities and boundary partners to become more efficient and effective in designing, developing and implementing AR4D and AET programmes and learning solutions.

The overarching focus of RUFORUM is to promote policies, programmes and practices that strengthen the process of academic and research cooperation and integration amongst African universities as well as enhancing skills and capacities for leadership based on well researched, informed positions and well grounded, innovative agricultural education and training. RUFORUM shall develop tools to help member universities routinely diagnose their capability maturity in different capacity aspects and develop and implement change strategies to improve the research and training processes and outputs. The key programme to promote this objective is the "graduate training and research" through tailor-made regional MSc and PhD degree programmes. These programmes are based on thematic professional communities of practice, economies of scale for superior instruction platforms, and grant-facilitated research models. Areas of focus detailed in the CBF will continue to evolve within the mandate of RUFORUM to respond to the needs of industry and the wider national and continental development agenda.

Skills development will remain an important element in the RUFORUM service mix. Efforts to enhance learning at the individual level have been dominated by training approaches. In the new RUFORUM structure and SBP 2015, rationality, regional approaches to delivery, quality assurance, a clear and comprehensive understanding of actual impact, and follow-up form the critical mechanisms for delivery. RUFORUM will pursue greater diversification of the thematic focus drawing on evolving research and integrating cutting edge knowledge, while being mindful of the fact that training has often been used as a "quick fix" solution that has indiscriminately been thrown at very complex capacity problems. Beyond training, skills development will increasingly be supported through innovative approaches and in ways that better bridge individual learning and changes in the environment. Innovations to be further developed and consolidated include, but are not limited to, integration of content on promoting capacity development and change in course curricula, "contextualized" modular courses, sound arrangements for study visits,

attachments, mentoring and fellowships. RUFORUM will continue to scale-up its programmes for wider reach through online courses, developing partnerships between universities and other peer institutions and mobilizing its extensive alumni network.

CDS 1.1: Graduate Training and Research

Graduate training and research shall continue to be driven by the competitive graduate research grants program. The competitive grants instrument is useful for stepping up the process of developing partnerships with and among member universities and research institutions, think tanks, as well as civil society and private sector organizations working on AgriSTI issues. Research partnerships through grants and fellowships offer scope for expanding knowledge generation and delivery in areas of common interest amongst universities and professional groupings. Through its technical publications and scientific publications of its graduates and staff of member universities, RUFORUM will disseminate promising practices of specific aspects of agricultural science, technologies and innovation within Africa. The specific actions for enhancing the effectiveness of the GRGs are summarised below.

Action/service description	**Strategic Actions to enhance effectiveness of the GRGs**
1.1 Competitive Graduate Research Grants (GRGs)	*1.1.1. Support member Universities to develop critical mass of highly trained graduates motivated to improve smallholder farmer access to value chains and spearhead economic growth* *1.1.2. Integrate graduate training and research programmes into national agricultural innovation systems by facilitating field attachments for MSc students spending additional time as interns with NGOs, NARES, or private sector organizations to promote value chains that improve smallholder farmer incomes in a dynamic environment.* *1.1.3. Develop professional communities of practice to enhance applicability and flow of new agricultural knowledge and adoption of innovations generated through GRGs*

CDS 1.2: Community Action Research

RUFORUM 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. 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. These concentrated activities will spread through curriculum, movement of staff and graduates, and participation in regional forums and projects.

Action/service description	**Strategic Actions for enhancing effectiveness of CARPs**
1.2 Enhanced Community Action Research Programmes (CARPs)	*1.2.1 Support member Universities to develop and invest in more comprehensive demand-driven and sustained action research that engage faculty and students in work with stakeholders on value chains that have potential to activate major gains for improvement of smallholder income and food security* *1.2.2 Establish functional outreach (national and regional) platforms for member Universities to position and engage with stakeholders to enhance their relevance in research and outreach in national innovation systems*

CDS 1.3: Regional MSc and course-based PhD Programmes

The intervention strategy for the collaborative regional MSc/PhD programmes is based on capacity needs assessments, and design and delivery of innovative learning materials and approaches. The CapDev strategy and interventions are based on and aligned with the current theory of change (ToC) and impact pathways but will evolve

based on emerging opportunities, and partners' needs and solutions. RUFORUM will invest in innovative content development and knowledge sharing mechanisms firmly anchored in best practices in learning and instructional design theories. Such mechanisms will make the research and teaching processes and the subsequent co-created physical and knowledge products more suitable, accessible and appealing to a wider range of users. At the same time, knowledge sharing of research and teaching approaches and lessons learned will help to avoid duplicating what others have already done and encourage cumulative learning.

Action/service description	**Strategic Actions to enhance effectiveness of regional MSc and PhD programmes**
1.3 Skills Development through Collaborative Regional MSc and course-based PhD Programmes	*1.3.1 Develop and implement training and research quality assurance frameworks with quality parameters aligned to internationally accepted standards* *1.3.2 Develop and implement interactive and participatory frameworks for curriculum review and reform that permit the end-users of university products to input into the academic programmes.* *1.3.3 Develop competences of lecturers and students in soft skills, leadership and entrepreneurial skills to inculcate self-learning and adaptive capacity.* *1.3.4 Facilitate the scholarship award process for the Regional MSc(5) and PhD (7) training programs (RTP) and support beneficiary students and universities* *1.3.5 Support mobility of staff and students to ensure regionality of the programmes and to share lessons and enhance mutual learning, effectiveness and sustainability of the programmes and help scale out research results and innovative learning approaches* *1.3.6 Facilitate staff and student mobility through quality assurance, transferability of credits and shared resources*

3.3.2 CDS Action Area 2: Capacity for innovative knowledge delivery

CDS Strategic Objective 2: *Knowledge delivery is strategic and of "good fit", and inputs, products and engagement are sound and influential in promoting, encouraging and extending knowledge and information exchange among university leaders, academics and researchers as learning providers as well as graduate student participants.*

Outcome:

Staff of the Secretariat and member Universities and graduates of RUFORUM supported programmes possess the needed knowledge, skills and attitudes for improved approaches in pedagogy, pro-active and dynamic engagement in the agricultural sector and shaping HAEL and AgriSTI pathways and policy to achieve impact on the ground.

Strategic Actions:

Encouraging and extending knowledge and information exchange among university leaders, academics and researchers as learning providers as well as graduate student participants by:

a) utilizing current and emerging ICTs for knowledge management and e-learning

b) incorporating knowledge to action (K2A) approaches

c) capturing and documenting experiences and lessons learned.

Knowledge is the biggest weapon one should always have, and knowledge delivery forms the core of the CapDev services of RUFORUM. The CapDev effort is to ensure that RUFORUM Secretariat and member Universities engage closely with client segments and partners to deliver relevant and targeted knowledge and capacity development support timely and effectively.

CDS 2.1: Knowledge facilitation and management

Recognizing that the availability, access and flow of knowledge are key determinants of development effectiveness success, RUFORUM will strengthen its Knowledge Management (KM) services. The outline KM Strategy (see SBP 2015, Sections 8.1 and 8.2) lays down the foundation of the network's interventions on knowledge capturing, sharing, exchange and dissemination. RUFORUM will provide KM services, including for communities of practice (CoP) where practitioners share knowledge, expertise and experience towards finding sustainable and well

researched solutions to problems. Furthermore, library, learning, knowledge and information services will be enhanced for African stakeholder and development partners. RUFORUM will also create awareness on information society issues and the role of information in development, and offer a "one-stop-shop" access point for African knowledge collections, including the RUFORUM repository of pertinent digitized and indexed knowledge products produced by the network and its partners. These will be linked to other major knowledge sources like the ECA "Access to Scientific and Socioeconomic Knowledge in Africa (AKSIA)" and the "African Virtual Library and Information Network (AVLIN)" - Africa-wide resources linking African libraries, documentation centres and archives to share locally produced information and pooled resources across organizations virtually, expanding the range of materials that can be made available within the RUFORUM network and to other stakeholders.

Action/service description	**Strategic Actions**
2.1a. Powerful knowledge management and communications technologies to improve the management of the Universities and the clients they serve. *(and transform RUFORUM into key regional and continent-wide knowledge hub of AgriSTI and HAEL)*	*2.1.1. Strengthen and enrich the existing institutional repository to meet the knowledge demands of wider scientific community and development partners* *2.1.2. Support delivery and access to high quality blended learning (classroom and digital technology) and postgraduate education that is responsive to local, national and regional agricultural development priorities* *2.1.3. Support synthesis, dialogue and 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, issues of regional and continental relevance to inform policy reform.*
2.1b. Strengthen networking of faculty and non-academic experts, along with partnerships with a wide-range of organizations	*2.1.4. Build knowledge sharing platforms and facilitate brokering and networking on AgriSTI and HAEL knowledge generation and sharing by professionals in the network* *2.1.5. Convene knowledge sharing and networking meetings such as Annual General Meetings (AGMs), Deans' and Principals' Committee Meetings, training sessions and Biennial Conferences, and regional and global gatherings for promoting knowledge sharing*
2.1c. Multi-disciplinary professional communities of practice and umbrella projects	*2.1.6. Build virtual and physical platforms that enhance networking, integration of member universities and impact of the RUFORUM network* *2.1.7 Develop spaces to exploit the potential of alumni association in fundraising, knowledge sharing, experience sharing, peer support, career guidance to young scientists etc. for vibrancy in the network*

3.3.3 CDS Action Area 3: Synergies and dynamics for system integration and coherence

CDS Strategic Objective 3: *Maximize the potential impact of CapDev interventions by reaching out and deep to stakeholders and meeting their needs through pertinent partnerships and services to member Universities and boundary partners.*

Outcome:

Mechanisms for developing, maintaining and strengthening partnerships in CapDev developed and applied and collaborative initiatives strengthened to realize stronger capacities of universities, empowering them to achieve impacts at multiple scales and shape the agricultural sector in positive ways.

Strategic Actions

Understanding the CapDev needs of member Universities and the regional/national human capital requirements and supporting the development and implementation of high impact initiatives and innovative learning solutions that address the CapDev needs of partners by and through:

a) capacity needs assessments to improve effective targeting of CapDev interventions

b) reviewing institutional frameworks - policies, strategies, structures and processes - to support CapDev programmes based on system-wide synergies that leverage and complement the services of participating member universities through collaboration and optimisation of human capital and infrastructure

c) incorporating evidence-based approaches from instructional science, organizational development, information science and related disciplines

d) grooming a pool of capacity development specialists with specialized competencies in soft skills to support universities efforts to meet the demand for flexible, creative team-workers in a rapidly changing world.

RUFORUM obtains its right of existence from its members and therefore must squarely be focused on strengthening the effectiveness of its members to collaborate for implementing the regional programmes and be held accountable for results. The RUFORUM network is broadly aware that lack of capacity in member universities (and other partner or customer organizations) stands in the way of achieving its results. Increasing the capacity of these partners helps the RUFORUM Secretariat carry out its mandate effectively and function more efficiently. Strong member Universities are more able to accomplish their mission and provide for their own needs in the long run. Building pertinent partnerships is one way through which member universities can benefit from capacities resident in other institutions other than themselves.

The development of capacities of universities by working with policymakers in the formulation and implementation, monitoring and evaluation of AgriSTI and HAET policies, plans and programmes is critical to the achievement of RUFORUM's objectives and for Africa's sustainable development in general. Within this context, RUFORUM support is anchored around the production and dissemination of technical information, knowledge and technologies usable by farmers and entrepreneurs, and policy-oriented research to support policy, legal and regulatory frameworks for the development of HAEL and AgriSTI in Africa. Furthermore, the Secretariat seeks to enhance the knowledge base needed to strengthen human and institutional capacities and broaden stakeholder participation with regard to the conduct and management of agricultural science, technology, innovation and education.

It is typical within organisations for operational units to naturally work around manageable programmes, hence risk functioning in a "silo" fashion. Implementation of the CapDev strategy requires spaces that foster joint strategizing, constructive collaboration and continued learning both for the Secretariat Technical Units (STUs)[3] and the member Universities. These spaces are the "glue" and dynamics required to effectively deliver together as the RUFORUM network. Creating and maintaining the dynamics of collaboration between STUs, within and between member universities, with differing assignments, thematic orientations and stakeholder systems is bi-directionally challenging. In one direction, the RUFORUM research, knowledge and expertise is being leveraged for timely and tailored delivery and in the other direction, strengthening capacity development dimensions, as well as integrating other cross-cutting issues, is promoted as an integral part of its work.

The important potential and roles of partnerships and collaboration forms the basis for RUFORUM existence. Africa's transformation is the result of collective efforts and multiple partners bringing diverse strengths and complementary energy. Cooperation and synergy are likely to support Africa's transformation more effectively than fragmentation, duplication of efforts or competition. The work of the Secretariat and network members thus increasingly relies on substantive partnerships in identifying, articulating and promoting actions that respond to the RUFORUM mission. Partnerships may be of a strategic nature or time-bound around a specific initiative. They are as relevant in generating technical and policy options as they are in disseminating and promoting them among constituents. The guiding question should be "partnership for what" in terms of promoting the RUFORUM mission and furthering Africa's transformation agenda.

RUFORUM intervention shall, by necessity, be tailored towards identifying and brokering appropriate partnerships models, and assessing and developing partners' capacity. There is often a widespread assumption that everyone can successfully create and sustain effective partnerships, but in practice, individuals and organizations differ in their capacity to collaborate. RUFORUM must face the challenge to move from research and teaching partnerships to broader, strategic and effective multi-stakeholder partnerships that will bolster development processes, from collective diagnosis of problems to co-creation of knowledge and implementation of solutions for impact.

Contemporary development theory currently places much emphasis on the need for strengthened partnerships. Partnerships with local organizations and institutions adept at developing capacity, particularly for value chain actors, will boost technology and knowledge uptake, while those with the private sector and funding agencies could leverage additional financing for RUFORUM sponsored CapDev initiatives. It also includes partnerships with local organizations and institutions that have the capacity to provide important feedback and input into RUFORUM

[3] Grants Management (GM); Planning, Monitoring, Evaluation and Information Technology (PME&IT); Training and Quality Assurance (TQA); Partnerships and Business Management (PBM)

strategies and university teaching and research. Specific methodologies need to be developed and applied to enhance the capacity of the Secretariat and member universities to identify the appropriate partners to support the RUFORUM Theory of Change and Impact Pathways. In addition, many boundary partners with which RUFORUM and its member universities collaborate lack strong capacities in and around teaching and research methods and emerging topics. For example, partners who adapt research results and share them with the next level of users may be weak and constrain the up-scaling of research-based solutions. The capacity of current or potential member universities, as well as boundary partners is of crucial importance and needs to be systematically assessed and supported.

Partnerships are required for and based on principles – managing the full cycle of programme implementation (scoping, design, approval, commissioning, start-up, piloting [if relevant], scaling-up, etc.; engagement and dialogue with stakeholders; alignment with other initiatives; engagement with the private sector; identifying and demonstrating the role of partners in teaching, research and management/ governance; appropriate resourcing of partnerships. All of these partnership principles and activities need to be based on key factors that can contribute to their success, including: a common agenda, shared measurement (e.g. data collection and analysis), activities coordinated through a mutually reinforcing plan of action, consistent and open communication lines, and backbone and coordination support. All of this will require strong capacities by both STUs as well as member universities to identify, establish and maintain meaningful partnerships towards realizing valuable goals. CapDev should offer ways to understand the capacities needed as well as how those capacities can be met, and how this can be monitored along the way.

CDS 3.1: Partnerships for strengthening capacities to achieve impacts at multiple scales

In the recent past, RUFORUM has been engaged in forming partnerships that link the network and member universities more closely in policy dialogue with African policy makers and international partners, particularly to garner increased support for higher education and having a greater voice in the African AgriSTI development agenda. Based on recent developments, it is evident the network has been able to contribute to informed debate and advancements in increased involvement of HAEL institutions in furthering national development agendas. A trustful and constructive relationship with the AU-NEPAD and FARA programmes has been of fundamental importance. RUFORUM envisages further deepening policy dialogue by even becoming more attuned to the relevant processes, more pronounced in articulating well targeted policy options and more intelligent in delivering knowledge where and when it is needed. Attuned and based on a disciplined calendar of events, RUFORUM will optimize anticipation, packaging and delivery of inputs for good fit and impact.

Through these partnerships, and to enhance the quality of policy dialogue, RUFORUM (the Secretariat) services will shift to a more strategic level by moving away from less strategic services, such as mainly functional support to meetings and training. The Secretariat will position its support based on evidence that can break new ground in terms of policy options, remove systemic bottlenecks, foster agreements for higher levels of collective ambition, and shift implementation into higher gear. Mindful of the political economy dimensions, RUFORUM will promote a deeper understanding of implications of capacity development aspirations and help identify feasible implementation strategies, i.e. the "how" to get from policy to action and results. Efforts will aim at impact, including widening partnerships and building dynamic coalitions. Selected processes will be upgraded to strategic initiatives to leverage stakeholders and visibility of critical issues and resources. This includes stronger policy positioning on the continent and in the sub-regions through engaging closely with AUC-NPCA, RECs and national Governments on strategic areas of priority with particular emphasis on planning, conduct and management of HAEL and AgriSTI. One such endeavour that is already generating dividends is the recruitment of African presidents to act as global champions for higher education in Africa.

RUFORUM shall also step up its engagement in providing advisory services to the AUC-NPCA, RECs, Countries, and Development Partners in its thematic areas of competence – HAEL and AgriSTI (STISA 2024 Priority Area One), on full-cost recovery basis. Advisory services draw on staff across the STUs and member universities. The Secretariat will step up collaboration with other institutions that have specific mandates to support capacity development for their respective constituencies. Given that advisory capacities and resources are limited, RUFORUM will not be able to respond to all demands. Requests will be carefully screened to determine whether support falls into RUFORUM areas of competence, the likelihood of yielding sustainable results, and change

readiness in the stakeholder system, including political leadership. Once a request is accepted RUFORUM will follow a three-staged approach with five steps for the implementation. During the first stage agreement on the pertinent "good fit" approach will be established based on an open-minded exchange on options. Delivery will be purposefully kept highly flexible and iterative to allow adaptations as the analysis becomes clearer. Post-intervention, there will be a systematic review of the experience, impact and outcomes, and distillation of lessons for learning purposes to enhance the approach to future advisory services of a similar nature.

Another key intervention of RUFORUM is to develop future AgriSTI and HAEL leaders through fellowships by facilitating a convergence of policies and procedures within and across member universities, strategically focusing investments in fellowship and exchange programs, and giving strategic focus to on-the-job-training to maintain competences of existing staff and partners relevant throughout their careers. Fellowships and mentorships supported by RUFORUM provide future AgriSTI and HAEL leaders with the opportunity to work with teams of experienced scientists and educationists in the field and in laboratories to develop capacity on research and teaching methods, processes and management. It also helps them to participate in global research networks that influence access to resources and scientific information. RUFORUM shall improve links with financing partners in the area of fellowships, which will benefit the capacity of member universities, and at the same time significantly raise the opportunities for scientists, academics, support staff and students to develop capacities in key areas that directly support achievement of outcomes.

Action/service description	**Strategic Actions**
3.1a. RUFORUM partnerships with Continental and Regional Economic and Political bodies.	*3.1.1 Establish partnerships with AUC-NPCA and RECs to connect member universities to continental level AgriSTI and HAEL policy deliberations*
3.1b. RUFORUM partnerships with other AAIS actors.	*3.1.2 Establish and build strategic partnerships with institutions and organisations that facilitate RUFORUM member Universities to (i) quickly collaborate with NARES and SRO programmes; (ii) capture and service the demands and interests of small holder farmers, private/agribusiness sector, at national and regional level; (iii) engage with the private sector in mutually beneficial training, along with public-private partnerships to develop market pathways leading to product uptake.*
3.1c. RUFORUM partnerships with the CGIAR, ARIs and Universities of the North and other Developed Countries.	*3.1.3 Establish and build strategic partnerships with institutions and organisations that facilitate RUFORUM member Universities to access skills, expertise, research & teaching opportunities* *3.1.4 Establish and build strategic partnerships with institutions and organisations to create a platform that re-enforces RUFORUM presence*
3.1d. Developing and strengthening partnering capacities of member Universities and selected boundary partners to effectively participate in RUFORUM programmes.	*3.1.5. Strengthen the national forums for both AgriSTI/HAEL demand and policy advocacy at country level* *3.1.6. Build alliances with policy and AgriSTI/HAEL groups that have strong national nodes and convening power* *3.1.7 Train and skill participants from Secretariat, member Universities and selected boundary partners, including farmers and community agents*

CDS 3.2: Opportunities, Initiatives and Learning

In order to develop more effective approaches for capacity development, RUFORUM shall occasionally commission studies and reflection meetings on capacity development to learn what worked (or is not working) in each context, how and for whom – so as to inform the design and implementation of subsequent capacity development interventions. For example, multi-stakeholder action-research has enabled adaptive iterations through scanning trends, monitoring capacity changes, and cross-university exchange of experiences. Organisational learning and exchanges will help member universities' teams to continually examine, fine-tune and improve management processes. This in turn will contribute to more effective CapDev and ultimately to achievement of outcomes and impacts. Capacity development is a process. There are challenges such as ensuring credible consultation processes, prioritizing funding in line with development aspirations, coordinating partners and donors, strengthening capacities to implement research and training programmes, and developing effective monitoring and evaluation systems that feed back into the planning and policy-making processes. Through the CapDev support, RUFORUM can help to

bring the "how to" move from promising ideas to action, provide traction with member universities and other institutions, and achieve desired development results at the national level to the forefront.

RUFORUM consistently advocates for predictable and sound HAEL and AgriSTI policy frameworks that are supportive of inclusive growth, private sector development, youth and women employment, value addition, economic transformation and sustainable development. RUFORUM also tracks and analyses trends in capacity growth and performance of African universities and makes recommendations on measures for improvement and support. Regional integration remains a key strategy for accelerating Africa's agricultural growth and transformation. With the exception of a few African universities, there exists limited infrastructural (human, physical and financial) capacity to perform even the core functions efficiently and effectively. Through regional programmes and inter-African mobility, RUFORUM shall assist African universities to pool their resources together so as to play a competitive role in the global market place. To deepen this integration process, the Secretariat shall seek to better understand the drivers of HAEL and AgriSTI development so as to devise regional approaches to university development to substantially reduce delivery costs through economies of scale. Understanding this dynamic will help universities to leverage on each other's comparative advantage, and the weaker ones to be mentored by those "Centres of Excellence" with explicitly recognised expertise.

Operational teams, both at the Secretariat and member Universities, convene the relevant units, conceive strategic initiatives, map relevant content, take decisions on allocating staff resources, identify opportunities, discuss challenges and coordinate concrete action and time tables. They also avoid a proliferation of multiple processes and establish accountabilities for collaboration and collective results. Unit teams often decide on the focus, form and shape of working arrangements around the respective agendas and are responsible for developing substantive partnerships in their areas of activity; bring in partners into the relevant planning processes as useful, necessary and pertinent; or engage in the relevant processes led by partners. These challenges require a constant review of the skills possessed and required to be able to offer skills training and/or source the new skills.

Action/service description	**Strategic Actions**
3.2. Defining the most suitable working arrangements and implementing CapDev "agendas", or standing tasks, that constitute the backbone of work as related to respective thematic focus.	*3.2.1 Identify emerging opportunities and collectively anticipating, meaningful and timely capacity development support, especially to member universities.* *3.2.2 Map and match expertise - manage an inventory process, mapping skills profiles and interests beyond the current staff positions and using substantive and contextual understanding to inform the process and sorting out any resource issues around implementation of capacity development services.* *3.2.3 Gender and youth sensitive approaches throughout capacity development - mentoring (especially for women) and incorporating gender and youth dimensions into capacity development strategies and actions, using appropriate CapDev tools and methods to enhance the achievement of youth and gender-related goals and overall outcomes.* *3.2.4 Product development and campaign planning to tailor products to respective audiences, occasions and job markets as pertinent.* *3.2.5 Conceive and manage strategic initiatives – articulation of ideas and innovations, dissemination of a flagship reports using all relevant channels and capacity development service lines for enhancing impact.* *3.2.6 Analysis, post-action reviews and learning - learning from research has direct implications for policy and technical messages, lessons drawn from knowledge delivery, trainings, or strategic initiatives have implications for practice in research and capacity development services.* *3.2.7 Mainstream and integrate capacity development dimensions and other cross-cutting issues, such as gender, youth, emerging topics, quality assurance and standards, etc.*

3.3.4 CDS Action Area 4: Advocacy for aligning incentives and support systems

CDS Strategic Objective 4: Improved focus and alignment of incentive and support systems, including results and quality management, staff management, operations, resource mobilization and diversifying funding modalities, and improving donor relations in order to effectively promote the above objectives.

Outcome:

RUFORUM Secretariat, member Universities and their development partners make explicit commitments in the form of policies, investment plans, programmes, legal frameworks and the allocation of necessary resources to adopt inclusive governance and coordination mechanisms and make decisions regarding capacity development based on evidence and high-quality, timely and comprehensive analysis that draws on data and information available in the network of existing sector and stakeholder information systems.

Strategic Actions:

Generating data and evidence for policy formulation and advice by:

a) facilitating and working with members and partners to adapt and/or develop checklists, policy and procedural guidelines, and toolkits on capacity development and organisational performance assessments and improvement

b) facilitating and working with members and partners to establish quality assurance systems for learning, education and training based on international standards and integrated with ensuring quality science

c) providing the necessary guidance and leadership when delivering [conceptualisation, analysis, design, development, implementation, evaluation] CapDev activities within RUFORUM and across its partners.

Given that RUFORUM is a continental platform, it has mandate to leverage resources for supporting regional integration and capacity development of the HAEL and AgriSTI systems, especially within African universities. The prime mechanism is for RUFORUM to evolve into a highly strategic forum, combining coordination with policy dialogue and knowledge exchange, and effective alignment of incentives and support systems amongst its member Universities. RUFORUM as the Network and its Secretariat remain responsive to member and stakeholder expectations and shall explore ways of enhancing not only coordination and coherence but also mechanisms for leveraging financial contributions around a capacity development centred approach.

RUFORUM shall advocate for developing the synergies between processes that enhance technical delivery. This will largely be achieved through enhancing the governance and management structures and practices. The RUFORUM governance structure and the Secretariat organisational structure have been configured to ensure that Secretariat and Network incentive and support systems are well aligned for effective capacity development support, including results and quality management, staff management, operations and budget. The DOSA analysis indicates that the Secretariat has relatively stabilised processes that are being consolidated. The situation may be more fluid at some of the member Universities. Strong institutions, the formal and informal rules that structure and constrain human behavior and interaction, help RUFORUM and the member universities focus on relevant actions, fully engage with partners and stakeholders in the teaching, research and outreach processes and the subsequent use of products and services to achieve outcomes. Yet, many challenges exist for Universities, including low investment in activities to strengthen and/or reform their processes.

RUFORUM shall facilitate the design/adaptation and use of institutional capacity and organisational performance assessment tools and communication methodologies to identify appropriate partners and interventions, and prioritize capacity development interventions at the organisational level. Development organisational capacities may include advocacy and policy dialogues through and with multi-stakeholder forums, engaging decision makers throughout the teaching, research and outreach processes, advising decision makers on legislation and innovation programs, and establishing action research projects with partners to test and adapt new institutional arrangements. RUFORUM shall further leverage its capacity development intervention by strengthening whole organizations and institutions, not just individuals. This forms the basis for the institutional strengthening grants (ISGs).

Efforts to mainstream new capacities in partner institutions should yield high returns, but significant institutional changes are also needed within member universities as well as in relationships with partners. Activities to achieve all of this shall be embedded in ongoing programs and will target key skill sets identified and requested by partners, as well as by the STUs. The Secretariat and member Universities require organization development with stronger

capacities to implement core functions that lead to outcomes. RUFORUM needs capacity to better engage with partners in identifying and addressing such organisational weaknesses, so that innovations are taken to scale. Likewise, RUFORUM needs to support organisational development of boundary partners critical to achieving outcomes. This is more likely to happen if boundary partners are involved throughout the process, and participate from the inception phases of programmes, including in needs assessments.

CDS 4.1: Strategic initiatives for institution strengthening and organizational development

Strategic initiatives respond to particular opportunities for advancing the RUFORUM agenda for regional integration and transformation. These are routinely identified through regular programming, from specific demand through ongoing policy dialogue as well as based on normative considerations building on global agendas and analysis of the HAEL and AgriSTI sectors. Important policy and scientific options regarding HAEL and AgriSTI may not get adequate attention or reach the critical intensity and length of debate required to eventually make a difference without deliberate effort. Strategic initiatives bundle forces, energy and resources in a campaign approach to make a convincing case for policy action. RUFORUM has (and shall continue to have) a few well targeted CapDev campaigns to encourage action at all levels and foster coalitions for change - focussing on "how" momentum can be gained and maintained for promoting policy breakthroughs. The strategic initiatives for promoting system-wide synergies in the current SBP 2015 focus on peer nurturing of emerging universities, rationalising existing resources, facilitating staff and student mobility, and mobilising greater support for HAEL.

The current RUFORUM initiatives include the "internships and attachments" and "institutional strengthening grants" that aim to strengthen the capacity of the member universities through staff mobility programmes, twinning elite with emerging universities, and hands-on training. Fellowships offered by RUFORUM are strategic, aligned, and encourage co-financing from partners so that investments have a bigger impact. The system is designed to provide practical, hands-on mentorship in well-resourced research laboratories and experiment stations, as well as in farmers' fields and the twinning of elite with emerging universities. RUFORUM shall improve monitoring and evaluation of fellowship programs to improve them and to provide evidence of their value and contribution to longer-term outcomes. In addition to fellowships, RUFORUM organises appropriate on-the-job training programs, to allow staff of the STUs and member universities to grow and improve their performance by becoming more informed, innovative and responsive to change, and maintain up-to-date knowledge and skills.

The GTAP is a RUFORUM programme that facilitates academic mobility across the continent through graduate teaching assistant exchanges. The host waives fees and provides housing for PhD students/staff nominated by home University, while the sending University provides travel, stipend, and research funds. The host University is eligible to send staff for specialized training to sister Universities. The programme enhances mutual confidence in qualifications and training offered, intra-African exchanges foster sustained collaboration of scientists across Universities and countries and widened recruitment and experience is realized through the network. Additionally, strength is gained by emerging Universities by having exchange graduate assistants on board and the intra-African experience widens students' horizons.

The ISG and GTAP provide lessons and inputs into developing regional and conceptual frameworks for integration processes; reviewing concepts and definitions of student and staff mobility, and in refining existing mobility programmes and projects[4] - their structure and objectives, trends in student-academic-scientific staff mobility and the impact of 'free movers' into, out of and within the region. RUFORUM shall generate lessons and propose guidelines for the future of intra-regional mobility. Within the context of a wider African Economic Community (the Africa Free Trade Area) the RUFORUM model could foster a multifaceted model for greater cooperation that will see the free movement of technologies, innovations, knowledge, services, investment, and skilled labour and freer flow of capital. These are ingredients for creation of a single market and production base, competitive economic position (relating mainly to regulatory structures and policy development with respect to consumer protection,

[4] Some examples: The EDF funded intra-ACP academic mobility scheme; the Mwalimu Nyerere Scholarship Scheme for Africa of the African Union Commission (AUC); The Young Professionals Program (YPP) at the African Development Bank (AfDB)Group; The Pan African University Project; Scholarships, Grants, Fellowships and Financial Aid Positions for Bachelors, Masters, and PhD studies - See more at: http://www.scholarshipsbar.com/africa-scholarships-fellowships-grants-financial-aid.html, Regional and Institutional protocols and partnership agreements, etc.

intellectual property rights and taxation), equitable economic development among African countries and full integration into the global economy. Facilitating greater intra-African mobility of people and exchanges of faculty and students encourages networking and increases diversity of experience in teaching and research through academic and professional/technical links and staff mobility for academic and knowledge transfer/exchange allowing people to study, train, work or volunteer outside their institutions and/or countries.

Action/service description	**Strategic Actions**
4.1a. Institution Strengthening Grants (ISGs), to strengthen emerging universities through peer nurturing by the established ones	*4.1.1. Facilitate and strengthen partnerships between strong universities and emerging ones in technical areas such as staff development, shared/joint academic programmes, multi-disciplinary research etc.* *4.1.2. Promote solidarity among African Universities in building shared science and educational capacities, rehabilitation, reform and re-equipment of facilities, transformation into Centres of Excellence, sharing technologies across countries and regions including sharing information and facilities to improve efficiency and effectiveness in research and training.*
4.1b. A Graduate Teaching Assistantship Programme (GTAP) to strengthen teaching and research capacities of member universities	*4.1.3 Facilitate academic mobility, training and research capacities of junior academic staff* *4.1.4 Provide lessons and inputs into developing regional and conceptual frameworks for integration processes; reviewing concepts and definitions of student and staff mobility, and in refining existing mobility programmes and projects*

CDS 4.2: Capacity to innovate

CapDev contributes to RUFORUM's mission not only by supporting the ability to carry out high quality teaching and science to produce more relevant and user oriented research and proactive and skilled graduates but also by enhancing the capacity to innovate of the systems of actors that develop, interact with and use the results of the RUFORUM network. This implies institutionalising enabling policies, principles and practices and mainstreaming new approaches in pedagogy and academic management. The capacity needs and capability maturity level assessment tool and approach used shall further be customized for university systems. Needs assessments shall determine gaps between required and existing competencies at different levels to deliver expected outputs, achieve outcomes and contribute towards broader development goals. In addition, this may include assessment of gaps in staff, infrastructure and equipment required for effective research, training and outreach. These assessments will help to attract and target appropriate investments, develop partnerships, leverage other resources available for capacity development and provide benchmarks for future monitoring, evaluation and impact assessment.

Expanding the scope of RUFORUM's capacity development to explicitly include capacity to innovate is part of the jump for which the SBP 2015 and this strategy is calling. Doing so shall require RUFORUM and partners' theories of change to be explicit about how they will develop capacity to innovate. This in turn implies a proactive role for those championing CapDev to engage in building RUFORUM and partners' impact pathways and theories of change. Specifically they will need to show how capacity development activities are contributing to one or more of the core competencies that constitute system capacity to innovate.

Advancing agricultural innovation, through teaching, science/research and outreach services are the core elements of RUFORUM's mission. Staff, both academic and non-academic, is RUFORUM and University's most valuable asset and *personnel development and management* are key to success. The Secretariat went through a re-profiling where staff were matched into new or refocused functions. Deepening professionalism, and hence capacity to innovate, is an important aspect across the Secretariat and member universities. This applies to research, teaching and outreach and equally to capacity development competence. A sustained effort is required to enhance the understanding and competencies of staff, many of whom are comfortable with conventional approaches, such as training and mentoring services. A strategic approach to capacity development is much less familiar and also requires changes in mindset. Staff learning programmes shall be tailored to staff groups and include a minimum mandatory element of exposure to capacity development in the new context. Staff will be encouraged to engage in knowledge networks and to deepen their knowledge in the context of occupational groups. A corporate system for "closing learning loops" will

be important to reinforce an institutional culture of learning for gradual improvement of capacity development as a practice.

The world is changing rapidly and with it knowledge – graduates, lecturers and supporting institutions all need to be adaptable and creative. There is need to groom a pool of capacity development specialists with specialized competencies in soft skills - change management, brokering, process facilitation and other related competencies. The skills mix can be improved through adequate matching of posts, learning opportunities, dedicated courses and recruitment. The learning culture can be reinforced through regular team reflection on how the capacity development work is approached. Problems need to be turned into opportunities to learn and connecting to the cutting edge of the capacity development debate through networks will be vital. Sensitization of managers, academic/research staff and non-academic staff is also important to raise the level of capacity development understanding and competence across staff categories. Managers are of particular importance, since they lead the way in setting priorities, shaping motivations, defining staff work plans, evaluating performance, and encouraging cross-divisional cooperation. Mapping staff skills will be critical for matching demand and supply. Staff development efforts will incorporate modules aimed at sensitizing staff to capacity development and induction courses for newcomers should integrate a capacity development module.

RUFORUM shall equally keep a close eye on strategic planning issues. The programming cycle requires close monitoring as programme activities and budget allocations can easily get out of synchronization with quick moving realities. Also, tight knitted business plans and programme budgets can become inflexible. Beyond regular programme implementation, RUFORUM research and capacity development services need to safeguard space for flexibility and emerging opportunities. Administrative bottlenecks, delays in contracting, inefficiencies in arranging travel, and other problems in operational processes are not simple externalities. They have an impact on delivery and can have very detrimental effects where "good fit" requires flexibility and timeliness. These issues are not easy to address but they need to be kept under continued review for effective delivery of CapDev services and for the improvement of the overall performance of the Secretariat and the member universities.

Action/service description	**Strategic Actions**
4.2. Other support systems for enhancing member Universities' capacity to innovate	*4.2.1 Continuously identify and prioritize problems and opportunities in a dynamic systems environment.* *4.2.2 Take risks, experiment with social and technical options, and assess the trade-offs that arise from these.* *4.2.3 Mobilize resources and form effective support coalitions around promising options and visions for the future.* *4.2.4 Link with others in order to access, share and process relevant information and knowledge in support of the above.* *4.2.5 Understand how change comes about in complex systems and how to intervene effectively.* *4.2.6 Embed research activity in ongoing processes of change.* *4.2.7 Groom a pool of capacity development specialists with specialized competencies in soft skills - change management, brokering, process facilitation and other related competencies to enable graduates, lecturers and supporting institutions become adaptable and creative in a world changing rapidly and with it knowledge*

3.4 Results Framework and Indicators of Successful Implementation

RUFORUM shall monitor and evaluate its investments and reflect on, analyse and exchange lessons learned across member universities to facilitate organizational learning and improve capacity development across the network, while also reducing the risks that activities result in negative impacts. The RUFORUM CapDev interventions contribute to better-managed organizational change and continuous improvement of the approaches to creating high performing African universities that produce skilled proactive graduates, and demand-driven research outputs and innovation in response to national, regional and continental agricultural development priorities. Due to its novelty and complexity, RUFORUM's monitoring and evaluation of capacity development will require detailed attention. It must integrate traditional indicators (typically, gender-disaggregated counting of short- and long-term trainees and research outputs) with new metrics and procedures covering the broad set of elements of the outcome-level indicators outlined in Section 3 of this document. Additionally, the strategic objectives in the SBP 2015 provide

pointers to specific capacity development dimensions and these will also require monitoring and evaluation using the CapDev indicators.

The RUFORUM Theory of Change and Impact Pathways, as a logic models or results chains, give a succinct description of the essential elements of the CBF. They show how the elements are interconnected and what causal links lead from the initial state to the desired end state. In addition, the logic model highlights key points in the flow of a program that help to define outputs, objectives, and results, as well as indicators that help program implementers and stakeholders assess progress and achievement of goals. The results framework is perhaps the strongest element in the incentive structure. If it is not aligned it can easily induce counterproductive pressures and motivations. The RUFORUM results framework incorporates measures beyond numbers and puts emphasis on the quality of human interaction and reflection. While fulfilling accountability functions, results management should primarily cater for learning and continuous improvement of RUFORUM CapDev practices in teaching, research and knowledge delivery. RUFORUM contributes to Africa's transformation through targeted agricultural research and pertinent delivery of relevant knowledge to a wide range of actors and beneficiaries. These are the two *externally oriented* results levels with distinct contributions to Africa's transformation.

a) *Level 1:* Research focuses on areas where RUFORUM, through its member universities, has acknowledged competence and complies with the highest professional standards. RUFORUM research is strategic in nature to fill evidence gaps. It contextualizes generalised norms for local context and, based on sound statistics and science, develops concrete technical and policy options to broaden the solution paths available to countries. Building on understanding of change promotion, research also takes full account of the capacity challenges faced by actor stakeholders and provides options on how to address them. The CapDev concern at this level of results that RUFORUM has control over is *relevance* and *quality* – How effectively does research address the identified challenges?

b) *Level 2:* Knowledge delivery goes beyond teaching, flagship reports and seminal studies. It involves incorporating critical thinking, problem solving, interactive learning, and experiential learning into the learning process. RUFORUM engagement, especially in policy dialogue, policy advice and skills development has to comply with the "good fit" principle. This means engaging effectively, in an integrated, pertinent, timely and tailored-to-context manner in order to promote and support systems change, and harness synergies. To be relevant and influential, RUFORUM capacity development support services should be optimally attuned and delivered "just in time". As a RUFORUM strategic result, the CapDev element here is about *quality of inputs and engagement* – how strategic, "good fit", influential, desirable?

To effectively translate research into policy and to deliver knowledge RUFORUM needs internal institutional arrangements at 2 additional levels:

c) *Level 3:* Institutional dynamics that foster an integrated and coherent approach to contributing towards Africa's transformation need to be in place. Several mechanisms that foster collaboration between actors in the AAIS and bring relevant knowledge fully to bear are required. Furthermore, promoting continued learning and mainstreaming of capacity development concepts and approaches across member universities and through extended partnerships around substantive agendas is also paramount. The CapDev issue to track is *inter-unit/agency cooperation* and *partnerships* – how effectively are the integrated and coherent approaches operationalised?

d) *Level 4:* Corporate incentive and support systems that underpin all of the above operations and institutional processes need alignment if they are to be effective for capacity development. These include - results and quality management, staff competence, development and performance systems, as well as knowledge management. It also implies that the CapDev strategy has to be fully integrated and become part and parcel of the wider RUFORUM corporate and operational support systems, including procurement and financial management, and results oriented budgeting. The primary concern is about – results and quality management, staff management, operations and funding – how effective are the systems?

Traditional capacity development indicators based on training and research alone are insufficient for monitoring and evaluating this CapDev strategy as they are largely restricted to counting the number of (gender disaggregated) trainees and/or research outputs. There are existing standard CapDev indicators developed by various communities of practice and CapDev institutions. These indicators are useful for planning as well as monitoring and evaluating CapDev activities across the RUFORUM network portfolio.

The successful implementation of the RUFORUM CapDev strategy, building on the elements outlined in this document, will require adequate levels of investment sustained over periods sufficiently long to allow the efforts to mature. RUFORUM will track and analyse how capacity development is incorporated and budgeted in implementation plans, including incentives to encourage member universities to support and directly undertake capacity development of both their own staff and of their partners. The RF depicts the deployment and sequencing of the activities, resources and policy initiatives to cause the desired changes in existing conditions. It depicts the purposeful use of knowledge and information (i.e. learning outcomes) to strengthen stakeholder ownership for the development objectives (demand), enhance efficiency of policy and other formal incentive instruments that guide stakeholder behaviour toward the goal (supply) and effectiveness of the institutions and organizational arrangements established to achieve the objectives (supply).

The literature on adult learning and action learning indicates that six basic types of learning outcomes are relevant to the institutional change context of capacity development: *raised awareness, enhanced skills, improved consensus and teamwork, fostered networks, formulated policy/strategy and implemented strategy/plans.* Learning outcomes are, therefore, the drivers for change. They activate or accelerate the change processes affecting capacity factors and their indicators by producing: altered status (enhanced individual and institutional capacity - raised awareness/motivation and enhanced skills through training and exchange); new or altered processes (increased capacity for innovation in secretariat, member universities and boundary partner organizations exhibited in form of improved consensus and teamwork and fostered networks), and new or improved products (formulated policy/strategy, implemented strategy/plan and resultant physical outputs therefrom). The degree of achievement of learning outcomes is a critical part of the results of capacity development efforts. In demonstrating this achievement, it is important and necessary to go beyond description of the outcomes and to collect evidence of achievement in terms of indicators, as well as evidence that could be used to assess those indicators. Annex 1provides a list of indicators for the CapDev strategy, as well as examples of evidence that could be used to assess those indicators.

3.5 Requirements for Success

Measuring the level of institutional commitment and capacity to act focusses on four dimensions that correspond to a set of "Essential Success Factors". These are:

a) Political commitment as stated explicitly in strategies, policies, and investment programmes that are comprehensive and based on evidence, address underlying causes of capacity deficits, and ideally in legislation that supports capacity development. Together, all of these instruments provide a balanced approach towards the implementation of a twin-track approach, paying due attention to training to address acute needs in tandem with measures that make people and institutions learn in the long term.

b) Strategies, policies, programmes and legislation are translated into effective action through the allocation of adequate human and financial resources and solid administrative capacity.

c) Managing mechanisms for improving governance, promoting partnerships and coordinating action across the broad range of actors involved in capacity development at national and local levels, creating adequate space for active multi-stakeholder participation.

d) Decision making on AgriSTI and HAEL draws on evidence generated through functional information systems that help to monitor trends, track and map actions, and assess impact in a manner that is timely and comprehensive, and allows for feeding the lessons learned back into the policy process.

While the above are broad essential factors of success, they should not be regarded as pre-conditions, as capacity development can be influenced by other factors, often out of the control of institutions. Some of the other elements necessary for the success of the strategy implementation include:

a) Adoption of a holistic and inclusive systems' approach to CapDev that is integrated into the anticipated outcomes and RUFORUM impact pathways

b) Successful identification, prioritization, planning and selection of CapDev interventions and approaches

c) Targeting the right beneficiaries from among individuals and organizations who can use the capacities developed in achieving impact on the ground

d) Partnering with renown strategic, international, regional and national educational, research and CapDev institutions to expand thematic coverage and to fill-in areas where there is lack of internal expertise and competence

e) Diversifying approaches, tools and techniques, including ICT-aided interventions, of capacity development to meet different needs and targeted outcomes

f) Establishing an institutional learning culture

g) Developing mechanisms/guidelines for identifying, establishing, managing and reviewing partnerships that can support the vision and mission

h) Integrating the work of the participating universities and ensuring complementarity rather than competition

i) Description of roles and responsibilities within STU teams and management levels

j) Ensuring effective governance of RUFORUM CapDev projects

k) Improving program efficiency in using human and financial resources

l) Adopting innovative financing for CapDev jointly among all universities involved: some potential approaches include developing crowd funding arrangements, public-private strategies, and pursuing "high risk-high reward" impact investors

m) Continuous follow-up with beneficiaries and monitoring and evaluation of the process

n) Establishing mechanisms for internal administrative and logistical coordination and coordination with various partners

o) Campaigning for strengthening commitment and readiness for national investment in human capital and general capacity development

p) Following an inclusive approach to make use of all available talents, women and men, young and old and people of different backgrounds

3.6 Potential Constraints

The following elements are the main constraints that may affect the effectiveness of the CapDev strategy:

a) Limited budget and competition over funds at the local, regional and international levels

b) Inadequate allocation of staff time to capacity development interventions, coupled with the lack of incentive systems to motivate investment of time and effort in capacity development of targeted beneficiaries and boundary partners

c) Lack of expertise in capacity development modalities and approaches, especially ICT-guided CapDev among staff (online, distance and broadcasted learning)

d) The focus on CapDev as a one-off training event traditional way of doing things, and losing the image of a comprehensive, integrated, holistic and all inclusive approach to capacity development that guarantees achieving impact on the ground

e) The unavailability of capacity development material in the different languages used in RUFORUM network countries, especially the francophone and lusophone countries

f) Poor internet connectivity in some of RUFORUM countries which limits reaching out through internet and social media

g) Depending on locals to recommend beneficiaries of CapDev interventions which doesn't necessarily result in developing the capacities of those who could show impact on the ground

h) The multiplicity of member Universities, diversity of regions served and of needs expressed, and the necessity of getting everyone involved at the same level which provide challenges to the design and implementation of capacity development interventions

i) Political changes and uprisings which may limit the ability to reach out to certain partners

j) Exclusion of potential talent on the basis of ingrained socio-cultural values, norms and habits, and outright biases and discrimination.

4 CONCLUSION

The CapDev Strategy outlines the interventions that RUFORUM will undertake to facilitate change through capacity development. To achieve the objectives set, RUFORUM must be grounded, and well connected with its environment. RUFORUM must know its constituencies and their needs; know its allies, supporters and enemies. RUFORUM must have great sector expertise and understand why stakeholders in the system behave the way they do or don't do what we believe they should. RUFORUM must be attractive and innovative to get their attention, build their potential and capacity.

RUFORUM also must blend in; integrate into the bigger picture as facilitators; be the catalyst enabling and empowering others to drive the change. RUFORUM needs to carefully observe and analyse the situation; take a stepwise strategy so that it chooses the right direction and cautiously select the interventions that are most likely to induce the greatest change. Yes, there are targets to meet but RUFORUM sometimes has to be patient and/or act slow so as to give time to others to cope. Social change doesn't happen immediately; often it neither can be accelerated nor forced. It doesn't help if we try to do it for others. But when it happens we want to prove it. Knowing what works and what does not is important for RUFORUM to remain accountable to its supporters and constituency; and with evidence, convince those who oppose us. That is why RUFORUM must be alert, see the signs of change and catch them in the nick of time. This is the RUFORUM Capacity Development Strategy.

Annex 1: Capacity Development Results Framework and Indicators Matrix

Results Framework elements	Indicators of Capacity Development
Development Goal (Impact): RUFORUM Secretariat and member Universities constitute a high performing African Network with the human capital, institutions and systems to unlock potential to work collaboratively as an integrated system and effectively carry out their defined teaching, research and outreach roles in HAEL and AgriSTI, producing skilled, proactive graduates, demand driven research outputs and innovation in response to national, regional and continental agricultural development priorities.	• Improved status of the human capital, institutions and systems to unlock potential to work collaboratively as an integrated system: *proxy measures - increased mobility, collaboration and regional integration; increased capacity to influence global Africa AgriSTI and HAEL debates* • Enhanced effectiveness in carrying out defined teaching, research and outreach roles in HAEL and AgriSTI: *proxy measures - solid cadre of field trained African professionals to instruct next generation of African scientists; 21st century curriculum and pedagogy; strong universities evolving with national priorities* • Increased numbers and quality (skilled & proactive) of graduates, research outputs and innovation (demand driven): *proxy measures - skills enhancement of individual researchers; critical mass of entrepreneurial graduates* • Improved responsiveness to national, regional and continental agricultural development priorities: *proxy measures - impactful sector responsive to smallholder farmers' needs; greater applicability and flow of new agricultural knowledge; increased smallholder adoption of innovations and management practices; expanded knowledge base and partnerships to enhance smallholder access to value chains; credible evidence to influence AgriSTI and HAEL policy; AgriSTI and HAEL policy and practice reforms*

Objective/Purpose (Outcome): To design and implement an internationally competitive and sustainable approach to Capacity Development that is fully integrated into the RUFORUM development outcomes and impact pathways making the network a dynamic regional platform that fosters collaboration, coordination and learning amongst member universities.	• Improved supply chain and access to RUFORUM outputs through grant support to member universities for the:
	  ○ training of pro-active and dynamic researchers and change-makers
	  ○ co-creation of impact-oriented, strategically relevant and of consistently high quality research ideas and outputs that are transformed into innovations for job and wealth creation.
	• Enhanced delivery of knowledge that is strategic and of "good fit"
	• Inputs, products and engagement processes that are sound and influential in promoting, encouraging and extending knowledge and information exchange among university leaders, academics and researchers as learning providers as well as graduate student participants.
	• Pertinent partnerships and services to member Universities and boundary partners maximize the potential impact of CapDev interventions
	• Improved focus and alignment of incentive and support systems, including results and quality management, staff management, operations, resource mobilization and diversifying funding modalities, and improving donor relations

Results Framework elements	Indicators of Capacity Development
Learning Outcomes: • Academics, researchers and graduates of member universities possess the needed knowledge, skills and attitudes that enable them to better conduct more strategically coherent agricultural research, be accountable through transparent stakeholder involvement, and shape HAEL and AgriSTI pathways to achieve impact on the ground • Staff of the Secretariat and member Universities and graduates of RUFORUM supported programmes possess the needed knowledge, skills and attitudes for improved approaches in pedagogy, pro-active and dynamic engagement in the agricultural sector and shaping HAEL and AgriSTI pathways and policy to achieve impact on the ground. • Mechanisms for developing, maintaining and strengthening partnerships in CapDev developed and applied and collaborative initiatives strengthened to realize stronger capacities of universities, empowering them to achieve impacts at multiple scales and shape the agricultural sector in positive ways. • RUFORUM Secretariat, member Universities and their development partners make explicit commitments in the form of policies, investment plans, programmes, legal frameworks and the allocation of necessary resources to adopt inclusive governance and coordination mechanisms and make decisions regarding capacity development based on evidence and high-quality, timely and comprehensive analysis that draws on data and information available in the network of existing sector and stakeholder information systems.	***Refer to the outcome-level indicators in the narrative (Chapter 3) for the detailed indicators*** • **Altered status** (enhanced individual and institutional capacity - raised awareness and motivation to participate more actively amongst members of the targeted RUFORUM Client segments' and enhanced skills and knowledge of beneficially participants through training and exchange, and ability to use the knowledge and skills) • **New or altered processes** (increased capacity for innovation in secretariat, member universities and boundary partner organizations exhibited in form of improved consensus and teamwork amongst stakeholders during implementation of supported programmes, and fostered formal and informal knowledge-sharing coalitions and networks between national and international community • **New or improved products** (formulated policies and strategies; implemented strategies, plans and programmes; and resultant physical outputs therefrom) – *more directly measured at output level (see below).*
Outputs: • Graduates from Masters and Doctoral programs responsive to stakeholder needs and national/regional development goals • Solid cadre of field trained African professionals to instruct next generation of African scientists. • Science, Technology, Innovation and Knowledge products and services from innovative education/training, research and outreach activities supported by adaptive management structures in universities contributing to policy and development practice. • Strong universities with operational capacity and approaches for innovative, quality and impact-oriented agricultural R4D and AET evolving with national priorities • High performing universities with shared research and education/training facilities, increased staff/student mobility, collaboration and regional integration, and capacities rationalised for enhanced economies of scale and scope. • Increased participation and voices of women in education/ training, research and	The strategies, inputs, processes, and technology of the Secretariat and member Universities are managed to optimize the quantity and quality of output relative to the cost of accomplishing the CapDev goals. Measures expressed in terms of: • **Quantity of output - volumes compared to performance benchmarks:** Quantity describes the number of units of output delivered during a given period of time. The form of output is generally either a product (e.g. publication, trainees, technology) or a service (e.g. training). • **Quality of output:** Quality describes the conformance of the product or service delivered to its requirements (performance benchmarks or criteria), as deduced from the goals of RUFORUM/University. In the RUFORUM and Universities settings two kinds of quality improvements may be distinguished. In one case, the prevailing decision rules are applied more accurately and meet certain performance benchmarks or criteria; in the other, new decision rules that are superior to the old ones are introduced and lead to improved average scores in exams, reduced estimates for error rates, greater customer satisfaction, higher publicly available indices on the quality of products • **Timeliness of product/service delivery:** Timeliness describes the period within which

Results Framework elements	Indicators of Capacity Development
production and marketing of knowledge. • 21st century curricula and pedagogy and increased use of technology to support effective, high quality blended 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.	RUFORUM/University processes the products or services they deliver. Whether a certain delivery date is met may (case [a]) or may not (case [b]) affect the RUFORUM clients and customers directly. An example for case (a) would be the timely sending out of grants to beneficiaries. An example for case (b) would be the adoption and implementation of newly proposed programmes and/or regulations without unnecessary delay. • **Unit cost:** Unit cost describes the average cost for the product or service delivered. This change indicator should be constructed in a way so that it includes all expenses incurred for the provision of one unit of output.