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HUMAN AND INSTITUTIONAL CAPACITY DEVELOPMENT STRATEGY REVIEW: AFRICAN STAKEHOLDER PERSPECTIVES



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Human and Institutional Capacity Development Strategy Review: African Stakeholder Perspectives

A synthesis prepared by
Irene Annor-Frempong¹

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This paper has been synthesized from contributions and reviews from the following individuals: Moses Osiru², Aissetou Yaye³, Dan Kisauzi⁴, Genevesi Ogiogio⁵, Nelson Ojijo⁶, Aggrey Agumya⁷, Alex Ariho⁶, Dady Demby⁶ and Ifidon Ohiomoba.⁶

It has, therefore, benefited from the perspectives of several institutions including the African Forum for Agricultural Advisory Services (AFAAS), the African Network for Agriculture, Agroforestry and Natural Resources Education (ANAFE), the Forum for Agricultural Research in Africa (FARA) and Regional Universities Forum for Capacity Building in Agriculture (RUFORUM). I extend sincere appreciation for their candid contributions and reviews and to USAID for the opportunity given to African institutions to be part of shaping its directions on capacity development in Africa.

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¹ Director, Research and Innovation Ag and Strategic Priority Leader, Integrated Capacity Development (ICD), FARA

² Deputy Executive Secretary, RUFORUM

³ Executive Secretary, ANAFE

⁴ Advisor, AFAAS

⁵ Advisor, CEO of the New Partnership for Africa's Development (NEPAD); Advisor, Pan Africa Parliament; Former Director Africa Capacity Building Foundation

⁶ Team Member ICD Strategic Priority, FARA

⁷ Technical Advisor, ED of FARA

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HIGHLIGHTS

Africa's agriculture faces an imperative to double agricultural scientists and other specialized skills over each medium term planning cycle to meet up with the demand for high-quality knowledge, skills and competences required to secure an irreversible transformation of the sector and eliminate poverty. Sustained transformation requires effective linkages between skills, new knowledge, innovations and improved agricultural practices. Weak links between agricultural research (AR) and farming practices remain a challenge. All these point to the need for improved and more effective Agriculture Education and Training (AET); research; extension and advisory services, especially to rural small-holder resource-poor farmers, a large number of whom are women. The U.S. Agency for International Development (USAID) Human and Institutional Capacity Development (HICD) programs target aspects of these challenges and needs. **Individually and collectively, the portfolio of programs have the potential to contribute to the transformation of Africa's agriculture, however the delivery approach should be revised and strengthened further to realize the desired impact.**

The capacity development model on which the USAID HICD programs are based needs to be refined. The model is a variant of the older traditional technical assistance model. It is not consistent with modern means of implementation, which favor building capacity of local institutions to deliver programs and achieve local and national objectives. Locally grounded professionals and institutions offer opportunity for sustained improvements. To ensure sustainability, these programs will need to be hosted in African partner institutions and mainstreamed into national and regional AET and agricultural research for development (AR4D) systems. Even though the model now in use delivers high-quality products and services, it has very limited reach compared to the population that needs high quality skills, competences and experiences and the variation of institutions that require strengthening. The model is also implemented at high average cost. The transfer of the Economic Management Training program once hosted by Universities of McGill and CERDI to Africa through the African Capacity Building Foundation offers some learning experiences on the extent to which capacity building models have shifted over the years. Also worthy of note is the Collaborative Master's and PhD Programs in Economics and Agricultural Economics managed by the African Economic Research Consortium which are now being decentralized and delivered by regional and national institutions that have been strengthened for management responsibility. The Rockefeller Foundation similarly devolved its Forum on Agricultural Resource Husbandry Program (FORUM, now owned by African Vice Chancellors as the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM).

Whilst the model on which the programs are built offers a good starting point for strengthening capacity in African institutions, it requires long term support for long-run sustainability. This stakeholder assessment concludes that the programs should begin to look beyond the immediate needs of AET and AR4D and develop sustainable modalities for transfer to national and regional host institutions. The improvement opportunities recommended herein offer areas where relevant adjustments and refinements could be made in the interim. Central to these are the following, among others:

- Upgrade selected national and regional institutions on the continent to host and support implementation of HICD programs as part of a long-term sustainability strategy.
- Identify clear transition and exit strategies for the programs to be mainstreamed by African institutions.
- Ensure that local organisations benefitting from the HICD programs see initiative as part of their core business and not an 'add on.' This will encourage them to contribute to a longer term a long-term financing strategy by linking to practical attachment programs with industry to grow partnerships with the private sector.
- Conduct tracer studies at regular intervals to ensure that retention strategies for beneficiaries are in place and effective.
- Strengthen spill-over of lessons and outcomes from pilot HICD investments in target/non-'anchor' countries to other African countries by facilitating experience sharing initiatives.
- Build on lessons from previously successful HICD programs and scale out to other African countries.

The paper recommends that:

- USAID identifies and supports successful local African capacity organisations to enable them to drive the change process anticipated in their programs.
- USAID revises its HICD approach and re-orient itself to become a ‘Facilitator of Change.’
- USAID HICD programs include components that will increase its efforts at integrating capacities across actors in the entire agricultural innovation system.

INTRODUCTION

Despite concerted efforts by a number of African countries and substantial donor support, ‘capacity’ remains a binding constraint to development and poverty reduction. This explains the importance of resolving the capacity constraint in alignment with development partner investments in Africa.

A World Bank review in 2008⁸ recommended changes in the way the Bank impacts African capacity, both directly through operations aimed at capacity development and indirectly through the way it conducts its overall business of development lending and cooperation in Africa. The review concluded that ‘*Capacity is the missing link in Africa’s achievement of the MDGs.*’⁹ In that same year, in response to the food crisis, and in the African context of Comprehensive Africa Agriculture Development Program (CAADP), the Obama administration formulated its Global Development Policy and allocated \$3.5 billion over three years, and created the Feed the Future (FtF) Initiative under the leadership of USAID. The USAID, with input from other organizations developed a process for selecting 19 FtF focus countries, (12 in sub-Saharan Africa, 4 in Asia, and 3 in the Caribbean) and has developed strategies for enhancing agricultural productivity and food markets in key value chains and improving infant and child nutrition. An earlier review of the FtF by the BIFAD revealed that currently the FtF initiative has no targets for Human and Institutional Capacity Development (HICD). The review¹⁰ recommended an increased emphasis on institution building and focus on strengthening host country universities’ ability to train future generations of scientists.

This current assessment of the HICD strategy and portfolio is intended to provide recommendations for a comprehensive HICD effort as a part of the overall goals of its FtF Programs in order to contribute to the sustainability and impact of scaling HICD efforts. The goal of the overall review is to provide a mid-term assessment of the programming decisions and approaches within the HICD Program Area and to offer a set of guidelines and a framework for the development of HICD programming from 2015-2020.

2.1 Process for the Assessment

The assessment process for the review was through a desk review of literature provided by the HICD division, FARA assessments reports, stakeholder analysis of the FtF portfolio of projects, and experience in African capacity development over the last fifteen years. The stakeholder perspective on HICD strategy and portfolio was specifically intended to: review the strategic approach; evaluate the appropriateness of the HICD programs in meeting local needs, identify gaps that should be addressed; and to provide successful case studies in HICD that are locally owned by African countries and institutions.

The following elements were generally considered:

- the strengths and weaknesses in the overall approach taken by the project activities;
- how well the HICD Programs Portfolio takes advantage of emerging approaches;

⁸ World Bank. (2008) World Development Report 2008: Agriculture for Development. The World Bank, Washington DC. 386 p.

⁹ [The United Nations’ Millennium Development Goals.](#)

¹⁰ [BIFAD Review of the Collaborative Research Support \(CRSP\) Program Model, August 2012.](#)

- how well the portfolio of activities delivers meaningful impact in the FtF countries (or other countries where they operate) and whether impact is being maximized;
- the extent to which activities are designed or managed to create linkages to development partners, private sector and other “downstream” players in the value chain that will be able to ensure development impact; and
- the involvement of local HICD program partners that could create complementarities, synergies, and sustainability.

These elements were summed up mainly in terms of the benefits and improvement opportunities of each of the programs. The opportunities for improvement, therefore, respond to questions relating to the appropriateness of the design, potential for impact, areas for modification of the program, areas in which mission partners can engage the programs, and linkages with other development partners, especially the private sector and issue of sustainability. In order to appropriately place the HICD programs portfolio model in the context of capacity development in Africa, lessons, from successes and challenges of programs that have been implemented in the area of capacity development and agricultural education and training on the continent were reviewed. Annex 1 presents a synopsis of these experiences.

In **the assessment of the HICD portfolio**, less emphasis was placed on the basic elements relating to organizational establishment. The focus was more on those dealing with operations – courses offered, performance, administrative structures, monitoring and evaluation, risks and institutional sustainability and to a limited degree on finances. On the analytical framework, the assessment relied on a simple analysis of data and information generated mainly from the web sites of the institutions, where available, and hard copies of publications on the institutions. There was no field survey. Annex 2 of this review, therefore, offers suggestions based on this desk review.

Based on selected process indicators (including being demand driven, responding to assessed needs, its delivery mechanism, how it is contextualized for driving the capacity for local needs, how it ensures use of capacity by local organizations, opportunities for mutual learning and sharing of knowledge and its funding and sustainability trends), the report also presents in Annex 2, an analysis and compilation of some selected HICD interventions in Africa with strong elements of institutional capacity development and local ownership.

2.2 Contextual Issues for Capacity Development in Africa

Capacity development priorities in agricultural innovation in African countries are often shaped by the funding priorities of donor countries. These also influence programs in foreign aid resulting in projects embedded in larger bilateral, multilateral or private development programs. The expectation that the Paris Declaration on aid effectiveness in 2005 and the subsequent Busan High Level Forum for Effective Development Cooperation in 2011 would enable the recipient countries to set their priorities independently and induce donor countries to passively align to the respective national strategy for capacity development has not materialized because of the current influence and power in development assistance.¹¹ This is exacerbated by the perceptions of taxpayers in donor countries who see aid as charity. Creating an enabling environment to promote institutional capacity development that facilitates agricultural innovation in African countries may, therefore, not be easily seen as priority. Capacity development is recognized as crucial for long-term agricultural growth and sustainability, as a result, programs are unlikely to produce immediate and tangible results in terms of poverty reduction.,

Lessons from past programs (Annex 1) are an important guide to successful implementation. Importantly, they underscore the value of African Governments and development partners like USAID cultivating local ownership by re-directing and raising the level of investments in developing the skills and knowledge base as well as the institutional support mechanisms for a successful implementation and sustenance of the transformation process in Africa’s agriculture.

There is a growing corpus of literature¹² that analyzes the institutions involved in national agricultural innovation systems in Africa. These provide a basis for improving understanding of the pieces critical for sustainable capacity development. Regional assessments¹³ under the aegis of the Tropical Agricultural Platform (TAP) mapped the main stakeholders’

¹¹ W. Easterly, C. Williamson. (2011). Rhetoric versus Reality: The Best and Worst of Aid Agency Practices. 78 pp.

¹² See, for example, the <http://faraafrica.org/publications/>

¹³ See, for example, [Ghana: Report on 2012 National Agricultural Innovation System Assessment](#). FARA (2012).

involvement in the national agricultural innovation system and reviewed the institutional and political economy context, and capacity levels and needs. The assessments identified three gaps; 1) current initiatives do not match the corresponding needs of agricultural producers and service providers; 2) weak institutions especially in research, education, and extension have few incentives for assuming a more active role in the agricultural innovation system or for seeking private sector collaboration in areas where there is an effective demand in the agricultural economy; and 3) policies that do not promote the institutions to move towards a more dynamic and demand-driven agricultural innovation system (AIS) and create an enabling environment that rewards public-private partnerships in capacity development for agricultural. These gaps are largely in line with basic findings of many previously published studies.

In Africa, the need to produce graduates in core and specialized disciplines related to agriculture is key to successful short to medium term sustainable results. Education must be based on contextualized, well-focused hands-on training led by adequately-resourced national and regional institutions rather than out-of-context programs hosted outside the Continent. Externally hosted programs deliver high-quality products and services, however they have very limited reach and do not build institutional capacity in recipient countries. Their average costs (the cost per student) are often very high relative to the cost of local training.

2.3 Approach to Capacity Development

From the foregoing, the approach to capacity development should be taken as a core area of national strategy for growth and poverty reduction. Homegrown strategies are much more likely to address the right issues, be effectively implemented and sustained over the long term. African governments should be supported to design strategies for capacity development as part of a participatory poverty eradication process, including a robust monitoring and evaluation system, as an integral part of National Strategic and Investment plans. African country stakeholders, including their regional institutions should, therefore, be at the center of a strategic and holistic approach to capacity development. This emerging approach brings to the fore the significance of the recommitment to the Comprehensive Africa Agriculture Development Programme (CAADP) effort at the recent African Heads of State Summit in Malabo, Equatorial Guinea, last year, as it creates the spirit of mutually reinforcing support and accountability that should underpin sustainable capacity development for African countries.

The USAID Food Security Innovation Center (FSIC) HICD division should, therefore, adopt an approach that facilitates capacity development as a more strategic and, systematic effort at national level. This will require a frank and comprehensive assessment of the real organizational / institutional constraints instead of perceived ones. National participants of USAID HICD programs should be assisted to understand the bigger picture of these programs so that they make the appropriate linkages to their own national agenda. Analytical and financial support should be directed at homegrown strategies where Africans take the lead in capacity development. New modalities and practices should be put in place to follow customized approaches towards supporting the development of country capacities and strengthening the human and institutional dimensions of such capacities.

Such an approach will also mean that the US missions and supporting institutions, such as HICD, may need to engage existing capacity in all African countries and seek African leadership and ownership of the design and implementation of national capacity development strategies. This will require the implementation of the capacity development strategies with timely, flexible and predictable technical and financial assistance.

The weak value-chain integration of small-holders and, therefore, inadequate private sector involvement can be addressed by formulating and implementing facilitating policies that create an improved environment for the private sector to invest in agriculture and participate in capacity development for agricultural innovation. There is evidence that this approach has enabled many countries in the developing world, such as Brazil and China, to increase competitiveness in agriculture while also substantially reducing hunger and malnutrition in marginal rural areas.

A critical element for achieving capacity outcomes is independent monitoring and Africa is now preparing to engage relevant monitoring systems. In the context of the CAADP process, mutual accountability between external partners and African countries has been gathering momentum in the last decade and has shown the way through the African Peer Review Mechanism, which uses a regional framework to strengthen domestic dialogue and encourage change towards

improved political and economic governance. These systems need strengthening as part of the overall capacity development approach that incorporate self-assessment and accountability processes.

2.4 Model for Partnership for Real Change and Integrated Capacity Development in Africa

Experience has demonstrated that enhanced coherence and stronger partnerships can improve the quality and impact of capacity development in innovation systems.^{14,15} Increasing private sector partnerships in agriculture may also induce change in public sector institutions that need to respond to the new challenges and opportunities of economic and social change in agriculture. This process of institutional and economic change is far from perfect, but ultimately reflects a continuous learning process that has to be assisted and encouraged by an agricultural innovation system designed to improve capacities in policy development at the institutional and the individual levels.

It is important to strengthen capacity for the three ‘M’ innovations systems approach - Multi-disciplinary, Multi-institutional and Multi-stakeholder – to bring players together at the farmers’ level in order to improve interaction between training and education, research, industry and government. Internalizing and sustaining capacity strengthening should be based on documenting and sharing experiences widely to reach the global scale through the wide range of partners and the need to understand the roles of different types of institutions. An emerging success story of real partnership for change for capacity development is the UniBRAIN case¹⁶ (Universities, business, research in agricultural innovation- See Annex 2).

Starting with six value-chain ‘incubators’ in five countries in livestock (Ghana); non-timber forest products and grains (Mali); bananas (Uganda); coffee (Uganda); sorghum food, fuel and feedstock (Kenya); and horticulture and fruits (Zambia), current analysis shows that over the 3 years of implementation, the program now has 138 start-up businesses incubated along the selected commodity value chains for job and wealth creation. 72 technologies have been commercialized and adopted by the private sector from research organizations and universities in Africa under UniBRAIN. A management information and collaboration system (MICS) has been developed to enable information sharing,¹⁷ knowledge management, business management, collaboration, monitoring and reporting by geographically dispersed stakeholders. Five additional Food Processing Business Incubation Centers are at various stages of being setting up. 1412 direct jobs have been created from the incubators and startup incubator activities along selected commodity value chains. 9000 households have been reached and linked to incubation activities as suppliers for enhanced income and employment creation and 884 students linked to incubation activities through internships and industrial attachments. Over 138 African Universities have been reached through agribusiness education promotion and agribusiness education curriculum reforms. An agribusiness education curriculum framework has been developed for Africa from Certificate to PhD level and is now being implemented in over 45 African institutions of higher learning. A continental platform has now been established for agribusiness “Incubators” (African Agribusiness Incubators Networks) aimed at a continued role for incubating incubators in Africa. The platform is earmarked to implement a new program (African Agribusiness Incubators Program, AAIP). This sustainability strategy for African agribusiness incubation has been developed and will continue to support incubating incubators in Africa. (See annex 3 for some projected economic impact related to UniBRAIN.)

2.5 Capacity Development Initiatives and Successful Cases in Africa

The endorsement of the Comprehensive Africa Agricultural Development Program by the African Union Assembly in 2003 marked an important milestone in Africa’s agricultural development. As an African-owned initiative, the CAADP framework offers a shared vision for sustainable growth in agriculture, provides a framework for collective continental action, and introduces indicators for peer monitoring of progress towards agreed growth targets. In terms of capacity development for agricultural innovation, Pillar 4 of CAADP is crucial since its overall aim is to improve agricultural

¹⁴ The World Bank (2012) Agricultural Innovation Systems: An Investment Sourcebook Published: February 2012 ISBN: 978-0-8213-8684-2 e-ISBN: 978-0-8213-8944-7

¹⁵ R. Ludemann *et al* (2012) Capacity Development in Agricultural Research for Development. Report commissioned by the European Initiative on Agricultural Research for Development.

¹⁶ <http://farafrica.org/programs/strategic-priorities/integrating-capacities-for-change/unibrain/>

¹⁷ Analysis by the UniBRAIN program manager at FARA.

research and systems in order to disseminate appropriate new technologies. All efforts should lead to annual agricultural productivity increases of 6%. In order to achieve these ambitious goals, African Heads of State and Governments called for a minimum of 10% annual allocation of national budgets to agriculture in their Maputo Declaration of July 2003, and reiterated this call in their Malabo declaration of 2014. The Science Agenda for Agriculture in Africa¹⁸ now presents the platform and framework for implementing strategies for strengthening the required human and institutional capacity for agricultural transformation. The Capacity development strategy Framework provided some principles for taking on board the CAADP process in capacity development in Africa. Based on selected process indicators,¹⁹ a number of capacity development initiatives have been compiled as presented in Annex 2. The successes of these initiatives, albeit could be improved, point to the advantage of ensuring demand-led approaches and ensuring African ownership.

The SCARDA²⁰ (Strengthening Capacities for Agricultural Research for Development in Africa) approach to capacity development has emerged as a formidable case for embedding institutional change in capacity development. It started with some 12 focal institutes (FIs) across Africa that were selected to participate in the program. For the past 3-4 years, these FIs have been the focus of a series of capacity strengthening activities (including change management training courses, various short courses on specific topics, as well as enrollment in MSc-degree programs).

The basis for these capacity strengthening interventions was a series of in-depth institutional analyses of the FIs at the beginning of the program. Most of these analyses included a SWOT analysis table, which provided a snapshot of the issues at stake. As an example, the SWOT table as produced by Institut des Sciences Agronomiques du Burundi (ISABU) in Burundi in 2007/8 gives a flavor of the challenges a National Agricultural Research Organisation (NARO) in a small African country has to deal with. SWOT tables, such as this one for ISABU, provided an input into the change management training courses (organized regionally), the various topical short courses (sometimes regionally, sometimes locally) and the MSc program.

Monitoring institutional change accruing to a particular intervention using SWOT factors often need to take cognizance of multiplicity of other ongoing capacity development initiatives. However, the general lesson that can be derived from this pilot study is that monitoring institutional change using longitudinal SWOT analysis can be attractive, and it offers donors a framework within which they can invest in improving organizations.

2.6 Strategic Directions for USAID HICD: Supporting successful local African capacity development Institutions and enabling them to drive the ‘Change Process’

As indicated above, CAADP provides a framework for coordinated programming from local to continental levels based on stocktaking, roundtable negotiations and country and regional compacts involving governments and development partners. Agriculture and Food Security Investment Plans (AFSIPs) have identified capacity deficits. However, the corrective actions proposed are not rooted in correcting the origin of the weakness in the tertiary education institutions as agriculture was the main line ministry engaged with the CAADP stocktaking processes. Thus, the deficits will inevitably reappear in the next generation of AFSIPs and similar agricultural development initiatives. Reforms of the AET systems need to be tackled vigorously from the root causes and within the systems perspective. A ten-point strategic direction is offered to set AET on the path for agricultural transformation in Africa.²¹ There is opportunity and merit for USAID HICD programs to take advantage of successful and strong African institutions to provide leadership and establish ownership and sustainability of these programs over time. A number of the growth opportunities recommended for these programs (Annex 2) relate to this issue. African institutions should be strengthened as ‘Champions of Change’ to ensure the required institutional changes at country levels to provide the required returns of the USAID and other donor investments.

¹⁸ <http://www.scienceagenda.org/spstrategies.aspx>

¹⁹ S. C. Babu, I. Annor-Frempong, K. Asenso-Okyere. (2011) Enhancing Capacity for African Agricultural Research: Conceptual Framework, Models, and Lessons. IFPRI and FARA. 26 pp.

²⁰ Annor-Frempong, I., J. Roseboom and N.K.O. Ojjo. (2012) A [Pilot Study](#) on Institutional and Organisational Changes in Selected National Agricultural Research and Education Institutes in Sub-Saharan Africa. Accra, Ghana: FARA. 81 pp.

²¹ I. Annor-Frempong, M. Jones, Agricultural Education and Training for Development: Lessons from sub-Saharan Africa in F.Swanepoel, Z.Ofir, A. Stroebe, Eds. (2014) Towards Impact and Resilience: Transformative Change In and Through Agricultural Education and Training in Sub-Saharan Africa. Cambridge Scholars, Newcastle upon Tyne, UK. pp. 62-89.

There are successful African institutions and networks that are spearheading successful initiatives and driving local ownership and initiating change. (See Annex 2).²²

USAID as ‘Facilitator of Change’

Aligning USAID (missions and related institutions) strategies to national AFSIPs will facilitate African countries and institutions to connect the dots and work within the full understanding of the bigger picture. Capacity development at national levels need to move closer into productive relationships with other actors within the innovation system, thereby building on the comparative advantages of different actors and institutions to achieve economies of scale and scope, reduce transaction costs, exploit complementarities and realize synergies in the process of innovation. To do this there is the need to align capacity development in sub-Saharan African countries to the national AFSIPs. It is appreciated that the USAID missions are very autonomous, and that they develop their Country Development Cooperation Strategy with a broad range of stakeholders, including line ministries. It must be compliant and aligned with all local policies and priorities. It is a fact that CAADP has improved national planning processes and policy environment for agricultural transformation, but in many countries the capacity development per se, has not featured in these planning and alignment processes.²³ USAID needs to better take advantage of the current planning processes to better engage its *modus operandi* and work as a facilitator of change instead of an implementer.

USAID HICD programs to include components that will increase its efforts at integrating capacities across actors of the innovation system

Efforts at capacity development have had low impact. Africa still lacks the critical mass for improving agricultural productivity. This is because efforts have been heavily supply-driven, have over-emphasized few levels of the ‘capacity pyramid’ and neglected, especially, the vocational levels. Capacity development efforts and initiatives are fragmented and not targeted to local needs. Investment is small in relation to need with unacceptable duplication of efforts. Reforms in agricultural education and training are required across the board for all levels, disciplines and skills because weaknesses in one impede the effectiveness of workers in other aspects of the industry.

For example, irrigation schemes need engineers and pump mechanics as well as agronomists and business managers, etc. However, the corrections will have to be carried out sensitively because, whereas there has been underinvestment for all levels of the *human capacity pyramid*, some levels, especially technicians and vocational levels, have been particularly severely neglected.

This means that the focus now has to be on restoring the essential equilibrium of the *human capacity pyramid*. HICD programs should not only focus on improving formal AET organizations, but should also expand to strengthen technical and vocational training institutes, in-service and on-the-job programs, distance education, and other modalities specifically adapted to the needs of diverse actors in the innovation system. Policies and programs would also focus on private sector sources of AET as a necessary complement to the formal, public sector AET system.

3. CONCLUSION

This paper has argued that significant learning has occurred in Africa, emanating from the massive number of capacity development initiatives and efforts undertaken over the last three decades or so. The CAADP and its associated science agenda frameworks now represent a major shift and impetus towards focusing on strengthening institutional capacities at the country level. The paper analyzed a number of capacity development initiatives in Africa based on selected process indicators that underpin the CAADP capacity development agenda (namely; being demand driven, responding to assessed needs, the mechanism of delivery, how initiative is contextualized for driving the capacity for local needs, how it ensures use of capacity by local organizations, opportunities for mutual learning and sharing of knowledge and its funding and sustainability trends). This yielded a healthy number of initiatives that can provide a critical mass and firm basis for the kind of institutional shift in capacity development that Africa requires to drive wealth creation, create jobs, increase production

²² J. Lewinger Mook. (2011) Network Innovations: Building the Next Generation of Agricultural Scientists in Africa. Conference Working Paper 1: ASTI-FARA Conference, Accra.

²³ FARA (2012) Internal review of National Agricultural and Food Security Investment plans (NAFSIPs): [FARA library](#)

and productivity, and build resilience for real sustainable agricultural transformation. The paper also articulates that there are indeed strong and successful institutions at national, regional and continental levels that stand prepared to become the actors of change for human and institutional capacity development in Africa.

The paper confirms that USAID HICD interventions and initiatives have played an important role in lifting Africa's capacity over the years. It outlines a number of benefits and opportunities for improvement including:

1. Upgrade selected national and regional institutions on the continent to host and support implementation of HICD programs as part of a long-term sustainability strategy.
2. The need to have a clear transition and exit strategy for the programs to show how, where necessary, they could be mainstreamed into the programs of African institutions.
3. The need to ensure that local organizations benefitting from the HICD programs see initiative as part of their core business and not an 'add on' so as to encourage them to contribute to a longer term financing strategy by linking to practical attachment programs with industry to grow partnerships with the private sector.
4. Programs should be mindful of retention strategies for beneficiaries and the need to conduct tracer studies at regular intervals.
5. Strengthen spill-over of lessons and outcomes from pilot HICD investments in target/non-'anchor' countries to other African countries by facilitating experience sharing initiatives.
6. Build on lessons from previously successful HICD programs and scale up capacity building to other African countries.

It is indeed an opportune time for a major, but tempered, shift in approach for USAID. The key recommendations are that USAID becomes a 'Facilitator of Change;' and facilitate successful African capacity development institutions at all levels, but particularly at national level, to drive the change process that should be inherent in capacity development programs. This will help to attain the required institutional capacity and increase the returns on USAID investments over time. An important strategy to adopt is for USAID HICD programs to provide the basis for balancing the capacity pyramid at a national level by integrating capacities across actors the agricultural innovation system. This can be achieved by USAID itself developing and advancing a coherent and holistic CD approach from which its programmes derive direction. Such an approach should include processes that help to embed a change process.

ANNEXES

Annex 1: Agricultural education and training In Africa – some major findings from evaluations²⁴

Since the 1980s, there have been systematic efforts to build agricultural management capacity in Africa. A number of successful programs have been implemented. These include: 1) the Agricultural Management Training Program for Africa (AMTA); 2) the Near East and North Africa Management Training in Agriculture (NENAMTA); 3) Japan Capacity Building Program for African Agricultural Researchers, focusing on on-the-job training and group-program training and hosted by Centres supported by the Consultative Group on International Agricultural Research (CGIAR) and other international research institutions, universities and national agricultural research institutes; and 4) the Collaborative Masters' Program in Agricultural and Applied Economics for Eastern, Central and Southern Africa with participation from 16 universities in 12 countries, *viz.*, Botswana, Ethiopia, Kenya, Malawi, Mozambique, Rwanda, South Africa, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe. AMTA, for instance, was conceived by the International Fund for Agricultural Development (IFAD) in the early 1980s and implemented in collaboration with the African Development Bank (AfDB), the World Bank's Economic Development Institute (EDI), and the Organization of African Unity/Scientific, Technical and Research Commission (OAU/STRC) as the regional sponsor and clearing house. It was an extensive effort to reach all sub-Saharan African countries; the program was adequately funded by the three sponsoring institutions (AfDB, IFAD and the World Bank). The Collaborative Masters in Agricultural and Applied Economics (CMAAE) program is also a multi-donor agricultural training program that is currently being implemented on the continent. It was developed through the African Economic Research Consortium (AERC). There are a number of other initiatives being supported by the AfDB, FAO, the International Food Policy Research Institute (IFPRI), the World Bank and other development partners.

The early and more recent interventions have helped in the following manner: 1) establishment of agricultural education and training institutions; 2) training cadres of agricultural sector managers; 3) strengthening of agricultural management education and training capacity among regional educational, as well as national, training institutions; 4) developing curricula, training materials and methods for training agricultural sector managers; 5) improving the performance of agricultural development projects; and 6) raising awareness among senior government officials about policy issues and practices that affect the implementation of agricultural development projects and programmes. Some of the programs have introduced promising training methods and tools that combined individual and team training in the use of selected management techniques. The programs were conducted through residential courses, seminars, non-residential workshops and on-the-job training. With financial resources and institutional support, appropriate pedagogical guidance from training institutions, and training of trainers, the basic curricula and materials developed by some of the training programs were adapted to training needs of widely differing African countries. It should be recalled that AMTA techniques were incorporated into agricultural management training curricula of institutions such as the Kenya Institute of Management (KIM) in Kenya and the Ghana Institute for Management and Public Administration (GIMPA) in Ghana. Regional training institutions such as the Pan-African Institute of Development (PAID), Centre d'Etudes Supérieures en Administration et en Gestion (CESAG), Dakar, Senegal, the Eastern and Southern Africa Management Institute (ESAMI), Arusha, Tanzania benefited from and contributed to the success of the AMTA programme. With refinements of the curriculum to fit national needs (based on a more rigorous needs assessment survey and a more selective use of training materials), and additional help from training institutions for on-the-job applications, the methods became very effective means of training managers and management teams in the agricultural sector in Africa.

Evaluation reports on these training programs, however, indicated that while the methodologies adopted were generally suitable - appropriately focused on policies, practices and administrative issues; project organization; and skills of project managers and senior staff - there was insufficient involvement and commitment of senior government officials in the public sector who were responsible for agricultural policies and investment planning and management. Two major weaknesses of the early training programs were weak commitment of regional and national training institutions, and

²⁴ FAO. (2011) Implementing CAADP Capacity Development Support Program - An Assessment of Potential Partner Institutions in Africa; ACBF, 2002-2005, Annual Status Reports on Projects and Programs Implementation.

inadequate support by senior agricultural officials in the countries. Their commitment fell severely short of expectations. Even though some regional and national training institutions readily adopted the curriculum and methods developed by programs such as AMTA, there was no firm commitment on their part, and there were not enough national trainers and funding support to continue their application. Thus, while a remarkable amount of training material was developed, these programmes led neither to reform of problematic policies nor to a sufficiently enabling policy and administrative environment to support improvement in the agricultural sector.

Even more broadly, in the context of agricultural education and training, there was a general failure on the part of training institutions to make curriculum and management adjustments required for providing the skills and knowledge to change the agricultural sector and bring about transformation in rural economies. The need for practical, hands-on training with problem-solving and innovation-generating skills remains indispensable for the success of the CAADP process. Well-focused, hands-on training in agricultural capacity development is needed to address a core aspect of the inadequacy of specialized skills and knowledge in Africa, which still remains one of the most serious obstacles to agricultural transformation. Dearth of practical skills explains a portion of the stagnation that has been witnessed in the agricultural sector since the 1990s.

It is, however, on record that tertiary level agricultural education and training in Africa grew considerably between 1960 and 1990. During this period, African universities grew from some 20 to nearly 150, and the output of graduate agricultural researchers quadrupled (Eicher 1999:27; World Bank 2004:78). Domestic investment in agricultural education and training, however, collapsed in the 1990s, in large part, as a result of economic structural adjustments and severe cuts in public expenditures. Also, during the 1990s, development assistance to Africa declined alongside the reductions in government funding for agricultural capacity development. Most of the constraints associated with poor funding of agricultural capacity development persist today. Agricultural institutions have been depleted by loss of skilled personnel due to brain drain and HIV/AIDS. Low salaries and poor promotion opportunities in the public service have prompted a flight of senior academics to the private sector and international jobs. UNCTAD estimated that about 30% of all African university trained professionals live outside the continent (InterAcademy Council 2004:180). The World Bank observed that national research and training institutes badly lack indigenous capacities in crucial fields such as economic analysis, agricultural engineering, ecology, natural resources and environmental sciences (World Bank 2005:14).

These weaknesses point to the need for a more vigorous re-engagement in agricultural education and capacity development in order to promote a knowledge-intensive agricultural transformation in Africa. This is precisely what the HICD portfolio of programs seeks to address. To achieve a target increase of 6% in agricultural output a year over the next 20 years requires significant investment in agricultural capacity development, especially investments in agricultural research, extension and innovation systems. Recognition of the skills and knowledge gap in the agricultural sector prompted CAADP to emphasize the revitalization of education and training programmes, drawing on academic resources in Africa and partners' tertiary and specialized training institutions. To pursue CAADP objectives, FARA developed a Framework for African Agricultural Productivity (FAAP). FAAP emphasizes that "increases in agricultural productivity that are central to food security, competitiveness, rural growth and poverty eradication require enhanced investment in agricultural research, extension and education, accompanied by institutional reforms to improve efficiency throughout the technology generation, dissemination and adoption chain." One main component of FAAP is the building of Africa's scientific and institutional capacity in agriculture and natural resources management. To support FAAP as a key vehicle for implementing CAADP, the World Bank put forward the African Agriculture Productivity Program (AAPP) in March 2005.

More recent studies and literature²⁵ under the auspices of the Science Agenda for Agriculture in Africa (S3A)²⁶ also confirm that the critical, undeniable contributor is the lack of capacity in Africa— both in terms of quality and quantity – at both

²⁵ F. Swanepoel, A. Stroebel, Z. Ofir. Analysis of AET for Development in sub-Saharan Africa in F.Swanepoel, Z.Ofir, A. Stroebel, Eds. (2014) Towards Impact and Resilience: Transformative Change In and Through Agricultural Education and Training in sub-Saharan Africa. Cambridge Scholars, Newcastle upon Tyne. pp. 2-25.

human and institutional levels. Regrettably, despite acknowledgement of the importance of AET, insufficient progress has been made during this period, clearly highlighting the need for continued efforts and activities around agriculture and AET in particular. The Science Agenda now provides a major opportunity and renewed impetus for building the basic individual and institutional capacity for science to drive Africa's agricultural transformation. Recent studies and reports provide exemplars of success stories in international AET potential models for application on the continent and showcase the types of impact that can be anticipated when transformation is facilitated within AET.

²⁶ FARA. (2014) [Science Agenda for Agriculture in Africa \(S3A\): “Connecting Science” to Transform Agriculture in Africa. Forum for Agricultural Research in Africa](#). (FARA), Accra, Ghana. 92 p.

Annex 2: Key successful African capacity development initiatives based on selected process indicators²⁷ in the context of the CAADP process

Selected process indicators	Strengthening Capacity for Agricultural Research for Development in Africa (SCARDA) ²⁸	Universities Business, Research in Agricultural Innovation (UniBRAIN) ²⁹	Disseminating New Agricultural Technologies in Africa (DONATA)	Africa Human Capital for Science, Technology and Agri-preneurship Framework for Food Security (AHC-STAFF)	Regional Agricultural Information and Learning System (RAILS)
Demand driven	The program is a result of an expressed need from stakeholders of FARA through various consultations.	An initiative of the Africa Commission driven by stakeholder need to address graduate unemployment, SME human resource needs and low incomes.	The initiative was based on demand of key stakeholders arising from food security needs of its constituents.	The program is to ensure demand-driven CD initiatives in African countries.	The initiative intended to contribute in filling the digital divide affecting most African ARD institution and stakeholders, in order to foster knowledge sharing and access to technologies.
Needs assessment	Responded to NARS Assessment of 2006 ³⁰ . The needs assessment indicated the importance of subsidiarity principles and for strengthening institutional capacity in addition to individual capacity and the strengthening of Research Management capacity.	Responded to the Africa Commission report ³¹ . Analysis showed high level of unemployment among graduates coming out of college co-existing with lack of suitable employees for employment in SMEs.	The apparent need to improve food security situation among citizens of the low income countries (LICs) of Africa especially in post conflict era.	It is based on a thorough needs assessment and evidence of capacity gaps from serious studies in order to ground a CD framework.	The NARS needs assessment conducted by FARA in 2006 and the PSTAD project appraisal document highlighted the need for capacity strengthening for African ARD organizations.

²⁷ S. C. Babu, I. Annor-Frempong, K. Asenso-Okyere. (2011) Enhancing Capacity for African Agricultural Research: Conceptual Framework, Models, and Lessons. IFPRI and FARA. 26 p.

²⁸ U. Mokwunye, J. Ellis –Jones. (2010) Sub-Saharan Africa Challenge Program: Internal Review Report. Forum for Agricultural Research in Africa, Accra, Ghana.

²⁹ [Annex 2b](#)

³⁰ FARA. (2006) Agricultural Research Delivery in Africa: An Assessment of the Requirements for Efficient, Effective and Productive National Agricultural Research Systems in Africa: Main Report and Strategic Recommendations.. Accra, Ghana.58 p.

³¹ Africa Commission (2009). Reaising the Potential of Africa's Youth: Report of the Africa Commission. Africa Commission, Copenhagen, DK. 96 p.

Selected process indicators	Strengthening Capacity for Agricultural Research for Development in Africa (SCARDA) ²⁸	Universities Business, Research in Agricultural Innovation (UniBRAIN) ²⁹	Disseminating New Agricultural Technologies in Africa (DONATA)	Africa Human Capital for Science, Technology and Agri-preneurship Framework for Food Security (AHC-STAFF)	Regional Agricultural Information and Learning System (RAILS)
Capacity delivery mechanism	<p>SCARDA's approach to capacity development focused on strengthening the whole organization giving emphasis on filling the gaps in the skills of the individuals. This is in line with the CAADP process needs for capacity development.</p>	<p>UniBRAIN's approach is to link research, business and education to equip graduates with requisite skills to be readily employable in industry or to form own businesses that can absorb additional labor and generate new streams of income.</p> <p>http://faraafrica.org/programs/strategic-priorities/integrating-capacities-for-change/unibrain/</p> <p>http://um.dk/en/danida-en/partners/research/unibrain/</p> <p>You may access UniBRAIN Success stories publications globally under GABI e-newsletter using the following link : http://www.aipicrisat.org/gabi-e-newsletters/</p>	<p>DONATA approached capacity strengthening at all levels: enhanced institutional capacity to conduct research by training young scientist at MSc degree level; improving knowledge and skills of researchers and extension personnel as well as those of farmers and other producers at the IPTA level.</p>	<p>The AHC-STAFF framework will embrace complexity theory (noting that capacity is necessarily emergent) and innovation systems perspectives. The delivery mechanism is based on strengthening the ability of organizational participants—"within" an organization and in relation to key "system" stakeholders (i.e. systemic capacity development methodology; action-based approach to learning).</p>	<p>RAILS's capacity strengthening approach was focus on a) individuals, through de establishment and facilitation of communities of practices using the RAILS multi-stakeholder Learning Team concept in one hand, and b) organizations by providing ICT equipment and internet connectivity.</p>

Selected process indicators	Strengthening Capacity for Agricultural Research for Development in Africa (SCARDA) ²⁸	Universities Business, Research in Agricultural Innovation (UniBRAIN) ²⁹	Disseminating New Agricultural Technologies in Africa (DONATA)	Africa Human Capital for Science, Technology and Agri-preneurship Framework for Food Security (AHC-STAFF)	Regional Agricultural Information and Learning System (RAILS)
Contextualization of the capacity for local needs	Capacity developed under SCARDA was intended to directly influence the organization and management of the research organizations. This contextualized approach helped to focus individual attention on the participating organizations.	Youth unemployment is a big problem in most African countries and the formal sectors cannot readily absorb all the numbers graduating from tertiary education. The value chains that UniBRAIN works with in the five countries are well aligned with national or local priorities.	DONATA capacity improvement was focused on strengthen knowledge exchange and management for enhanced adoption of proven technologies for increased agricultural productivity.	The CD framework to be developed under AHC-STAFF is to be predicated on local context based on identified needs and gaps.	RAILS capacity strengthening was geared toward the use of ICT tools and systems for information collection and dissemination, and knowledge sharing by various categories of stakeholders along the value chain. Particular attention was given to the needs of farmers in relation to the problems they faced on the field . This contributed to gather important datasets in responding to the farmers' needs .
Ensuring use of capacity by local organizations	SCARDA strengthened existing capacity without adverse effects in terms of attrition.	UniBRAIN has strengthened capacity of local entrepreneurs to run businesses and has given graduates soft skills for employment in industry.	DONATA through IPTAs strengthened the institutional capacity of local producer organisations like FBOs.	Local organizations involved ab initio in the needs assessment, design of CD initiatives, implementation, and M&E based on the principles outlined in the Paris Declaration on Aid Effectiveness, the Accra Accord, and the conclusions of the Bushan Consultations.	Through the capacity strengthening effort deployed by RAILS, various stakeholders have been able to use the eRAILS continental portal on Agriculture to create their organizational and individual websites, e.g. Kenya , Tanzania , Cote d'Ivoire , Madagascar , Benin , Togo , Sudan , Malawi , and much more .

Selected process indicators	Strengthening Capacity for Agricultural Research for Development in Africa (SCARDA) ²⁸	Universities Business, Research in Agricultural Innovation (UniBRAIN) ²⁹	Disseminating New Agricultural Technologies in Africa (DONATA)	Africa Human Capital for Science, Technology and Agri-preneurship Framework for Food Security (AHC-STAFF)	Regional Agricultural Information and Learning System (RAILS)
Mutual learning and sharing of knowledge	SCARDA programs provided adequate opportunities for mutual learning. Developed a new methodology for monitoring Institutional Change. ³²	Wide sharing of experiences from the UniBRAIN model has led to increased demand for replication in other countries. Up-scaling to all countries in Africa is envisaged.	Mutual learning was the pivot of IPTAs which are multi-stakeholder platforms.	Effective avenues for lesson-learning, feedback mechanisms and communication to be embedded in the programmatic outlay.	RAILS Learning Teams used online platform on Dgroups to share information and lessons learnt from their various experiences. The FARA Rails Dgroups (fara-rails@dgroups.org) gathers more than 3000 members from 69 countries and territories worldwide. Several countries have also established their national Dgroups for information and knowledge sharing e.g. Cote d'Ivoire , Congo , Tanzania , etc. The archives develop in response to practical problems have been shared in local gathering places e.g markets to allow a wider spread.

³² Annor-Frempong, I., J. Roseboom and N.K.O. Ojijo. (2012) A [Pilot Study](#) on Institutional and Organisational Changes in Selected National Agricultural Research and Education Institutes in Sub-Saharan Africa. Accra, Ghana: FARA.81 pp.

Selected process indicators	Strengthening Capacity for Agricultural Research for Development in Africa (SCARDA)²⁸	Universities Business, Research in Agricultural Innovation (UniBRAIN)²⁹	Disseminating New Agricultural Technologies in Africa (DONATA)	Africa Human Capital for Science, Technology and Agri-preneurship Framework for Food Security (AHC-STAFF)	Regional Agricultural Information and Learning System (RAILS)
Funding and sustain-ability	Uncertainty in funding and the dependency on external resources for program implementation remain challenges for long-term planning.	After initial Danida funding, additional donor funding for a limited period together with a revolving fund and cost based provision of services is a possible strategy for sustainability .	Funding and sustainability are key challenges. Exposure of IPTAs to business opportunities in the locality and mainstreaming of approach to emerging projects and local institutional processes in few instances are the key exit strategies.	Currently, externally funded; however, participating countries are expected to institutionalize the AHC-STAFF framework and allocate budget lines.	Uncertainty in funding and the dependency on external resources for program implementation remain challenges for sustainability and scaling out of the achievements. However it is observed a certain ownership and local support aimed at sustaining the achievement of RAILS, e.g. Kenya, Tanzania, Sierra Leone, etc.

Selected process indicators	Collaborative Research and Capacity Building of Sokoine University of Agriculture and the National Agricultural Research System (iAGRI)	Engaging Capacity of African Universities to Support Agricultural Development in Eastern and Southern Africa (BMGF Phase II)	strengthening universities' capacities for mitigating climate change induced water vulnerabilities in east Africa (WATERCAP)	Shifting from outreach to engagement: Transforming university response to current development trends in agricultural research and training in Eastern, Central and Southern Africa (OUTREACH)	Building Capacity of Universities in Eastern Africa to Support Pro-Poor Food and Income Security through Rural Agri-Enterprise Development (AGRI-ENT Project)
Demand driven	The project is a result of a capacity gap in training and research required to boost food production to new levels.	The project launched in 2008 and ongoing till 2017 is a response to an expressed need by Vice Chancellors of RUFORUM member universities to catalyse change in African universities.	Available literature and extreme events associated with climate change are replete with Africa –East Africa in particular- as one of the most vulnerable geographical regions.	Universities in Africa are under intense pressure to engage in processes that facilitate the creation of responsive programs to deliver competent graduates and, in the case of the agricultural sector, these graduates should be able to support farmers and small and medium enterprises to establish sustainable agro-food value chains.	Sub-Saharan Africa (SSA) continues to battle with poverty and hunger and this is worsened by emerging challenges such as climate change. There are few initiatives that focus directly on development of innovations along the agricultural value chain. However, there exists a business case as well as a social and environmental sense for pro-poor development, the promise of linking small scale farmers to emerging markets, building their capacity to create market-based solutions to poverty, and enhancing their effective participation in agricultural production value chains. http://www.fordfoundation.org/grants/grantdetails?grantid=115824

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Needs assessment	Joint needs assessment indicated that Tanzanian capacity building project will require holistic systemic approach at different levels namely; individual, institutions, and creating opportunities for improving links among institutions.	The project builds on earlier engagements for strengthening agricultural education in Africa and is focused on the approach of the Forum for Agricultural Resource Husbandry (Forum).	Evidence of scattered efforts in response to climate change, with limited engagement of universities to generate the evidence base to fight against induced water vulnerabilities and uncertainties.	This is a RUFORUM approach to transforming member universities, informed by the graduate demand analysis study of 2009.	The curriculum for training post-graduates lacks agri-business and entrepreneurship content to match the dynamic landscape in the agricultural sector. Based on this, there is stakeholder consensus and demand to review and develop new curricula.

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Capacity delivery mechanism	The project uses an approach of South to South - Long and Short term trainings and sandwich programs in identified gap areas.	First, strengthen the RUFORUM Secretariat to serve the Network. Secondly, different mechanisms used to engage member universities to train and mentor postgraduate students thereby contributing to the critical human resource demands in Africa. Thirdly, nurturing and building research teams to undertake relevant value chain research. Lastly, engage universities to effectively contribute to technology dissemination through community engagement	The project was implemented as a partnership between RUFORUM member universities in eastern Africa, partner universities in Europe and grass root communities, and entailed developing case studies and modifying curricula to incorporate aspects of climate change in agricultural education.	The project provided for research grants and scholarships that effectively engaged research teams and students for PhD and Masters training.	Participatory development of courses that have been approved and rolled out for training masters students.

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Contextualization of the capacity for local needs	The capacity being developed is envisaged to contribute to an innovative and entrepreneurial cadre of Tanzanian agricultural and food systems. It will also nourish knowledge linkages among Tanzanian Agricultural Institutions.	Agricultural development sector in Africa requires critical thinkers to design and implement rural development interventions that foster innovations responsive to demands of smallholder farmers. Agricultural colleges and universities can leverage existing/ongoing efforts from other partners.	Over the last 20 years, climate change induced water vulnerabilities, uncertainties and stress have jeopardized the performance of the agricultural sector in Africa. Rainfall amounts and patterns within seasons have changed dramatically. Unexpected drought, heavy downpours, leading to floods, water stress related crop failure and livestock deaths have increasingly become frequent hence the need to engage and build knowledge centres to contribute to build capacity to overcome these challenges.	Universities have immense potential to engage communities and disseminate knowledge for increased adoption. This project was designed to boost outreach processes and catalyse engagement of researchers (students and faculty) to reach out to communities and build platforms as a sustainable mechanism for connecting universities to end users of knowledge generated.	The agricultural sector remains a key sector for rural livelihoods and part of the campaign to increase incomes in addition to securing food security demands for efforts to boost agri-enterprise and entrepreneurship skills along agricultural value chains.

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Ensuring use of capacity by local organizations	The project focuses its effort in building the existing capacity of Sokoine University and NARI's employed staff.	Several projects supported through the competitive grants awarded to member universities entail collaborative arrangements with NGOs, NARIs, CBOs, government agencies, agricultural extension services, private sector and industry. The human capital developed has been deployed in to continue working and contribute to the visions and missions of these organisations.	The project was implemented as a community action research and engaged a continuum of stakeholders including local government authorities, policy and decision makers, researchers, farmer organisations, NGOs, private sector and industry.	The participating universities (Makerere University, University of Eldoret and Lilongwe University of Agriculture and Natural Resources) successfully engaged in community outreach programs involving multi-stakeholder platforms to support communities improve outputs and incomes from specific value chains with potential to link future university-led research towards supporting grass root communities to articulate innovations.	The courses launched and training the next generation of agri-business experts for deployment at local and regional organisations.
Mutual learning and sharing of knowledge	Biennial events have been the most powerful platforms for mutual learning and knowledge sharing among students and scientists from various parts of Africa.	Through the RUFORUM Network, the member universities have generated research products and opportunity provided to share through face-to-face convening events, virtual learning platforms, print and electronic media.	National and regional learning events were part and parcel of project implementation processes.	The project involved a partnership between eastern and southern Africa stakeholders and was intentional on aspects of peer learning through regional convening events.	Gulu University and Egerton university engaged in mutual learning to develop regional training programs and through the RUFORUM Network, several other universities and experts were involved in the process (http://c-aed.org/index.php/19-news/51-agrienterprise-development-workshop)

Selected process indicators	Collaborative Research and Capacity Building of Sokoine University of Agriculture and the National Agricultural Research System (iAGRI)	Engaging Capacity of African Universities to Support Agricultural Development in Eastern and Southern Africa (BMGF Phase II)	strengthening universities' capacities for mitigating climate change induced water vulnerabilities in east Africa (WATERCAP)	Shifting from outreach to engagement: Transforming university response to current development trends in agricultural research and training in Eastern, Central and Southern Africa (OUTREACH)	Building Capacity of Universities in Eastern Africa to Support Pro-Poor Food and Income Security through Rural Agri-Enterprise Development (AGRI-ENT Project)
Funding and sustain-ability	Seed grants are provided at the end of academic training to promote entrepreneurship, networking with other organizations and a firm career foundation.	The project is designed to facilitate RUFORUM Network to mobilise additional resources. This has already manifested, but remains an on-going effort to engage various partners to contribute to the vision and mission of the Network.	Engagement of government line-ministries especially in Kenya and local authorities in the case of Uganda, was a leverage point that has ensured buy-in and the project activities are being moved to scale even after project closure.	Increasingly, stakeholders in higher education have realized the potential for engaging universities to undertake outreach. This has resulted in institutional reforms at several RUFORUM member universities with specialized units and departments for outreach, community research and engagement. These units are now benefitting from available national budgets and internally generated university funds. The units also have potential to generate funding to sustain their operations.	The outcomes of this project are entrenched in university implementation programs and, in particular, the MSc programs developed have become attractive and registered paying students.

Selected process indicators	Strengthening Africa's Strategic Agricultural Capacity for Impact on Development: (SASACID) 2012- 2015	African Center for Crop Improvement (ACCI)	Collaborative Masters Program in Agricultural and Applied Economics (CMAAE)	African Forum for Agricultural Advisory Services (AFAAS)
Demand driven	The program is a result of expressed needs from the ANAFE member institutions, and a strong recommendation from an external review of the preparatory phase implemented a year earlier in 2010.	The program was developed as a result of high need expressed by the African agricultural research community	The program emerged from several levels of regional consultations	The AFAAS was formed at the First Regional Networking Symposium on Innovations in agricultural Advisory Services (AAS) , held in Kampala, Uganda in October 2004. Initially it only embraced sub-Saharan African but after the Second symposium held in September 2006 in Kampala, it was decided that the network should embrace the whole of Africa.
Needs assessment	This program was initiated after gaps and need assessments of the curriculum, teaching modes including experiential learning and pedagogy, and learning materials available within ANAFE institutions in East, West, Central and Southern Africa. Needs assessment also gave an opportunity to assess institutional management and governance, and how TAE institutions link to research organizations, communities, farmer organizations and private sector.	The needs assessment revealed the critical need for breeders who could conduct adaptive research on various African crops.	Needs assessment revealed the strengths and weaknesses of various faculties and how to bring existing capacities together to generate high-quality capacity	The needs assessment that resulted in the first AFAA Strategic Plan identified five areas of focus, namely: (i) supporting institutional development for bringing AAS actors to come together at national level - Country Fora; (ii) Engagement with CAADP processes, (iii) knowledge management for AAS innovation, (iv) partnership building, and (v) building a continental body to anchor AAS initiatives

Selected process indicators	Strengthening Africa's Strategic Agricultural Capacity for Impact on Development: (SASACID) 2012- 2015	African Center for Crop Improvement (ACCI)	Collaborative Masters Program in Agricultural and Applied Economics (CMAAE)	African Forum for Agricultural Advisory Services (AFAAS)
Capacity delivery mechanism	Curriculum content and delivery mode was the focus, with support to development of learning materials, retooling of lecturers and internship support to students to work with the community, farmer organizations and private sector enterprises	Combined both the teaching and rigorous training by the University of Kwazulu-Natal and the practical training through mentors in the local institutions. This helps to address local problems and made the capacity develop highly relevant for the participants' country.	Effectively used the African capacity although additional external support was sought to fill the gaps in teaching. The shared facility approach was efficient in increasing the quality of the program jointly.	AFAAS approach to capacity development is through supporting institutional development for AAS stakeholders at national level and working through them to address systemic weaknesses in national AAS systems
Contextualization of the capacity for local needs	The SASACID program aimed at strengthening capacity of Universities and colleges in producing graduates who could support SMEs and industries and help farmers and communities in managing risks and uncertainties in Agroforestry and Forestry.	ACCI participants applied their knowledge to solving problems in their own countries.	While the theoretical training was common to all graduates in the applied areas of the program, the participants applied their skills to address socioeconomic problems in their countries.	At continental level the capacity was initially contextualized within CAADP Pillar IV and now within the Science Agenda for Africa's Agriculture (S3A). At national level it is contextualized within the CAADP implementation plans for Pillar IV.
Ensuring use of capacity by local organization	The ANAFE Curricula, learning materials in Agroforestry, Forestry and recently in Risks Management and Agribusiness, and the various other policy documents produced are widely used within higher education institutions. MoU have been signed with various member institutions willing to pilot the implementation of the Agribusiness curriculum at Diploma, BSC and MSC levels.	The participants came from the research institutions in various countries who returned to their jobs to conduct their thesis research; thus the capacity developed was used effectively by host institutions.	While the capacity developed is of high quality, due to high demand for the applied economics capacity, graduates have found placements that contribute to the agricultural development process in their countries.	The Country Fora (CF) embrace stakeholders involved in AAS and they all benefit from the interventions that CF promote for bringing about systemic improvements in AAS.

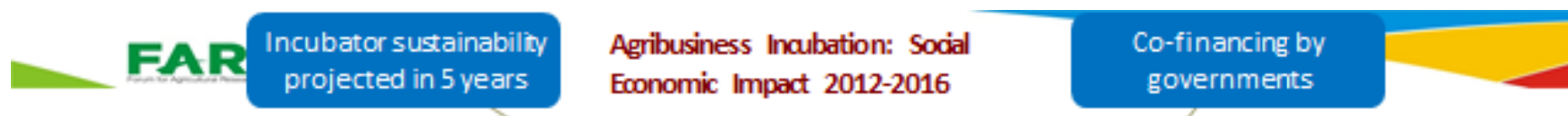
Selected process indicators	Strengthening Africa's Strategic Agricultural Capacity for Impact on Development: (SASACID) 2012- 2015	African Center for Crop Improvement (ACCI)	Collaborative Masters Program in Agricultural and Applied Economics (CMAAE)	African Forum for Agricultural Advisory Services (AFAAS)
Mutual learning and sharing of knowledge	Through SASACID, ANAFE put together Anglophone and Francophone training institutions and also allowed for exchange of experiences and lessons between strong and weak institutions.	Sharing of knowledge on problems and solutions was facilitated by bringing students to Kwazulu-Natal to train in plant-breeding methods.	The shared facility approach brought students from various participating countries together to achieve specific learning goals. This facilitated mutual learning among participants.	Mutual learning is undertaken through workshops and learning events as well as through physical and virtual interactions.
Funding and sustain-ability	Curriculum development is an area that is more and more supported by institutions themselves; however, the SASACID program was a donor funded program and this was a challenge for the long term planning and implementation.	The program depends on donor funding to support the participation of the international students.	The program continues to depend on external sources of funding, although several self- and government-sponsored students have recently been accepted into the program.	Ultimately the AFAAS Secretariat shall become a facilitator for the CF to mobilize their own resources from members as well as from national development programs and international development partners.

Selected process indicators	Ugandan Forum for Agricultural Advisory Services (UFAAS)	Sierra Leone Forum for Agricultural Advisory Services (SLeFAAS)	Malawi Forum for Agricultural Advisory Services (MaFAAS)
Demand driven	The forum was formed by Ugandan actors in Agricultural Extension and Advisory Services (AEAS) to bring them together and address issues that affect the system.	The SLeFAAS platform was established in 2011 from the expressed need from stakeholders in the Sierra Leone agricultural innovation system to get AEAS professional to deliver quality services to end-users.	MaFAAS was established after a consultative workshop in 2008 in which practitioners strongly agreed to have a country forum for agricultural extension and advisory services in Malawi.
Needs assessment	The institutional and stakeholder analysis conducted in 2011 indicated that there was no such fora.	The need assessment indicated that AEAS in Sierra Leone is pluralistic this is not impeded by policies or practices but it is encouraged by government so that the end users get the maximum benefits from the inputs and services.	With support from AFAAS, an institutional assessment was conducted in 2011. Other coordination structures were identified but only the District Agriculture Extension Services System was providing services similar

			to MaFAAS. However, there was no country forum hence MaFAAS was necessary.
Capacity delivery mechanism	One of UFAAS' thematic area is capacity development. The main focus is identifying and developing capacity of members in critical and emerging issues in AEAS. Examples of topics handled: CAADP, Climate Change Agriculture, Innovation Platforms and approaches, GMOs, use of networking platforms, ongoing reforms etc.	SLeFAAS' approach to capacity development focused on strengthening the whole organization giving emphasis on filling the gaps in the skills of the individuals and ensuring quality assurance.	MaFAAS builds capacity of practitioners through workshops and thematic team meetings. Capacity assessment was conducted in 2014 with support from AFAAS and it is expected that MaFAAS will broaden mechanisms for capacity delivery if funds allow.
Contextualization of the capacity for local needs	The capacity development under UFAAS is aimed at keeping the actors up to date and relevant to the ever changing AEAS scene. Hence, the main focus on identified emerging issues not handled by individual organizations of the members.	Capacity development under SLeFAAS is intended to work with its partners to ensure access to resources and opportunities.	Through the capacity assessment study, MaFAAS has compiled capacity issues at local level. Capacity needs of individual organizations are well articulated. However, it is evident that a significant number of important organizations were not involved in the capacity assessment.
Ensuring use of capacity by local organizations	UFAAS identifies the issues from the members and the information is shared through the different communication channels that were agreed on as the most effective.	SLeFAAS strengthened existing capacity of local organizations in order to meet high demand on AEAS.	MaFAAS ensures use of capacity by local organizations by engaging local organizations in all capacity strengthening opportunities.
Mutual learning and sharing of knowledge	UFAAS strategy and themes provide adequate opportunities for mutual learning through organized for a, online communications and social networking platforms.	SLeFAAS support sharing experiences, information and knowledge on learning platform.	MaFAAS workshops and thematic team meetings provide a platform for mutual learning and knowledge sharing.
Funding and sustain-ability	Though UFAAS is a membership based organization, sustainable funding is still a challenge but the board, in partnership with AFAAS constantly looks for opportunities	The entity is hosted by the Ministry of Agriculture Forestry and Food Security; Funds are expected to come from contributions and donations. Mechanisms for sustainability include;	Currently, MaFAAS uses funds from the Ministry of Agriculture and AFAAS. However, members contribute their own resources to participate in MaFAAS workshops

	for funding that can supplement members' contributions.	membership registration, annual subscriptions, and publication fees	and thematic team meetings. Shortly, MaFAAS will start collecting membership fees which are a sustainable source of funds.
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Annex 3: UniBRAIN Agribusiness Social and Economic Impact (2012-2016)



FAR Forum for Agricultural Research

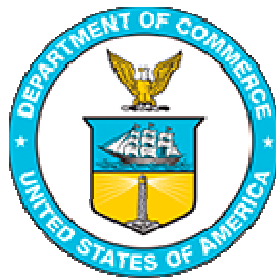
Incubator sustainability projected in 5 years

Agribusiness Incubation: Social Economic Impact 2012-2016

Co-financing by governments

Incubator	Incubator Income	Grants	Partner Contributions	Government Support	Incubate Income	Total projected direct and indirect income 2016	Total
ABP	150,000	50,000	600,000	1,000,000	150,000	2,000,000	3,950,000
AgBIT	100,000	25,000	500,000	600,000	200,000	1,500,000	2,925,000
CCLEAR	50,000	400,000	100,000	500,000	100,000	1,000,000	2,150,000
CURAD	131,000	20,000	300,000	875,000	440,426	1,467,497	3,233,923
SVCDC	60,000	36,800	200,000	200,000	100,000	1,000,000	1,596,800
WAARI	50,000	30,000	500,000	100,000	150,000	1,000,000	1,830,000
Total	541,000	561,800	2,200,000	3,275,000	1,140,426	7,967,497	15,685,723

- **Total average investment per incubator is 1,500,000USD .**
- **Business growth is dependent on the nature of the enterprise & enabling environment hence variances in return to investment**



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