

Showcasing Models of University Partnerships with External Stakeholders

A Synthesis of 6 Institutional Initiatives in Africa

August 2013



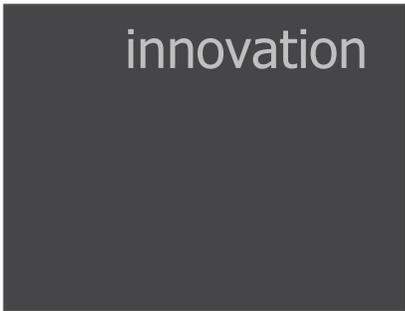
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(SHESRA)**



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This document synthesizes case studies of 6 exemplary models of African university partnerships with external stakeholders. The case studies were developed during Component 2 of the three-year Strengthening Higher Education Stakeholder Relations in Africa (SHESRA) Project jointly implemented by the Association of African Universities (AAU) and the Association of Universities and Colleges of Canada (AUCC). The following synthesis report was prepared by Ms. Rebecca Ramsey (AAU-AUCC Field Liaison Officer) with the assistance of Mr. Ransford Bekoe (SHESRA Acting Project Officer) and Professor John Ssebuwufu (Director of Research and Programmes, AAU) who provided insight on the case study development process.

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University of Botswana, Botswana
Université Cheikh Anta Diop, Senegal
Université Gaston Berger, Senegal
Kenyatta University, Kenya
Kwame Nkrumah University of Science and Technology, Ghana
Makerere University, Uganda



Abbreviations

AAU	Association of African Universities
AECID	Spanish Agency for International Development Cooperation (translation)
AUCC	Association of Universities and Colleges of Canada
CIDA	Canadian International Development Agency
HEIs	Higher Education Institutions
MNC	Multinational Corporation
NGOs	Non-Governmental Organisations
SADC	Southern African Development Community
SHESRA	Strengthening Higher Education Stakeholder Relations in Africa
SIDA	Swedish International Development Cooperation Agency
SMMEs	Small, Medium and Micro-sized Enterprises
U-I	University-Industry

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In 2010, the Association of African Universities (AAU) entered into a three-year partnership with the Association of Universities and Colleges of Canada (AUCC) to link African universities more closely with the productive sector and thereby position them to better develop skills and knowledge to meet their countries' needs and, in the process, enhance graduate employability and technology transfer. The project, *Strengthening Higher Education Stakeholder Relations in Africa* (SHESRA), was built around three components. The first component focussed on developing African-Canadian university partnerships for improved strategic planning capabilities of African universities; the second component focussed on documenting best practices of university-industry linkages in Africa through case study knowledge-sharing; and the third focussed on applied research and the subsequent development of advocacy tools to enhance university-community engagement strategies in Africa.

This compendium represents one publication in a larger set of resources produced through the SHESRA Project for university leaders, managers, and stakeholders at large to enhance their collaboration and make them more responsive to societal needs.

Contextualizing Higher Education Stakeholder Relations in Africa

2.1 What is “Stakeholder Theory”?

Freeman (1984) defines a “stakeholder” as an individual or group of individuals either impacted upon by a company or able to impact on the achievement of its objectives. Similarly, the 1998 Eden and Ackerman study identifies stakeholders as individuals or groups that have the power to directly impact the future of an organization (Bryson, 2004). This is the concept underpinning **stakeholder theory**: this theory considers that the final results of any activity should take into consideration the returns of the results for all stakeholders involved and not only the results for owners and shareholders (Alves, Mainardes & Raposo, 2010). Therefore by implication, stakeholder relationships refer to relationships between entities that have mutual benefits and arrangements that are characterized by mutual inter-dependence (Alexander, Mieseng, & Parsons, 2005).

Understanding this mutual inter-dependence is becoming increasingly more important in the field of higher education which has undergone major changes as a result of changes taking place in the external environment. The requirement to fully understand the needs of education consumers is more pronounced than ever before. Jongbloed, Jürgen and Salerno (2008) state that “the legitimacy of higher education to society is increasingly evaluated by the level and quality of the HEI commitment to its community of stakeholders and is inherently of greater depth than any simple maintenance of contacts.” In this way, the community of stakeholders is increasingly playing an active role in the validation process of the human resource and research products that are being developed by HEIs.

The challenges, however, remain that HEIs have not yet proven able to either (1) correctly identify all the stakeholders or (2) to concretely establish the needs of each entity and the level of importance to attribute to the respective relationship. Research on the relationships between HEIs and their stakeholders remains recent and exploratory, with the majority of studies only featuring conceptual approaches or adapting theories from other fields to explain this dimension, which is still relatively unknown to both academics and those responsible for university management (Alves, Mainardes & Raposo; 2010).

2.2. Stakeholder theory in African higher education

Synergies between African HEIs and stakeholders in the productive sector remain an area of limited investigation. The preferred model for HEI-industry relationships thus far have been through the formation of productive and mutually beneficial partnerships with relevant industry partners in certain areas of engagement. However, the contemporary African HEI is severely constrained in this regard by a number of factors, which make the conventional and tested Western models of HEI partnerships very difficult or very challenging to emulate and with which to obtain comparable results.

For instance, it was noted by the authors of the Makerere University case study that with the exception of a few fairly industrialized countries like South Africa and Egypt, African investment in research and development (R&D) is still low; with countries largely populated by service sector businesses and resource-based cottage industries that require minimal value addition in terms of supply chain and operational execution, R&D is not a priority. According to the Global Investments in R&D report (UNESCO, 2011), the average distribution of Gross Domestic Expenditure allocated for R&D in Africa was 0.9% in 2007, compared to 23.1% for the European Union and 32.6% in the United States. Also noted by the authors of the case study from the University of Botswana and in available literature on the subject, was that the private sector involvement in HEI-industry partnerships as understood in developed countries' contexts – where it may be characterized by big businesses actively seeking and engaging HEIs and other research, development and innovation institutions in a variety of research and technology development projects – is largely underdeveloped in a significant number of African countries (Mugabe, 2009).

The seminal scoping study on university-industry linkages in Africa conducted by Ssebawu et al (2012) was a major attempt at collecting data towards the development of stakeholder theory for higher education that is *relevant in the African context*. The study – *Strengthening University-Industry Linkages in Africa: a Study on Institutional Capacities and Gaps* – represents a major output of SHESRA's Component 3 and focused on determining what interface structures, policies, positions, incentives, and funding avenues are currently in place (or lacking) and what services or interventions African institutions gauge to be most important for strengthening their linkages efforts. The survey responded to the lack of data on these measures by providing an informed and representative picture of what steps 133 African HEIs have already taken and what is needed to strengthen the platform for university partnership development with the productive sector.

As noted by the authors of the Ssebuwufu study, African universities face considerable constraints that affect their economies, political environments, and institutional research capacity. However, the study notes that many institutions are indeed taking steps to initiate and accelerate measures to strengthen institutional capacity to support linkages with external stakeholders. Forty-two percent (42%) of the 133 HEIs surveyed requested additional opportunities to learn from institutions with a strong history of engagement. It is within this context that the SHESRA Project team sought to share the testimonial or experiential information on how African universities have successfully incubated, established, and sustained partnerships with external stakeholders in their unique regional contexts. The development of these narrative accounts represent an important qualitative layer of information that allows higher education managers to understand what has been possible with stakeholders in other environments and what theoretical concepts and methods may be transferrable.

Although the end product of the 6 finalized case studies in this report represents the major output of Component 2 of the SHESRA Project, the process of preparing, discussing, and revising the case studies with universities represents a significant learning experience on how to document and share knowledge. Learning was both procedural and substantive and the case study experience was more than simply documenting institutional activities. Below is the sequential process of case study development:

3.1 Call and selection of Letters of Intent

- Call for submission of Letters of Intent (LOI) by AAU member universities, in collaboration with Canadian university partners, for the development of detailed case studies launched in July 2010 through to December 2010.
- A total of 18 LOIs were received and 12 were selected for developing the case studies. The selection criteria included relevance to the African University and Africa, duration of the initiative in operation; implementation capacity of the African university and its Canadian counterpart; methodological considerations including Canadian public engagement, gender equality, and environmental sustainability. Another criterion was that 50% of the selected Letters of Intent had to involve a university located in CIDA focus-countries (Ethiopia, Ghana, Mali, Mozambique, Senegal, Sudan and Tanzania).

3.2 Selection of Case Studies

- Following the submission of the 12 case studies, the Selection Committee reviewed them with the intent to scale down the number to 6 for development into models for in depth discussion and showcase. Four of the original 12 were accepted and a consultant was appointed to head-hunt universities known to have good university-industry linkages; this resulted in obtaining 2 more accepted case studies. The criteria used for selecting case studies was very similar to the criteria and weighting of the selection of the LOIs but more scrutinous on the 'why' and 'how' it was developed, as well as the challenges and constraints associated with the initiative discussed in the study. The term 'industry' was widened to encompass the productive sector (agriculture, manufacturing, services, etc.) and evidence of consideration for gender equality and environmental sustainability issues were examined again.

- Some of the issues noted by the Selection Committee when reviewing the 12 case studies were as follows:
 - Many were proposed activities rather than actual university-industry linkages in operation
 - Some submissions described the institution's general activities in linking up with industry, with several projects mentioned, but did not describe a specific case study
 - Few mentioned gender considerations or issues in their reports
 - Few also mentioned environmental sustainability considerations or issues
 - The way the linkage was being managed was not clearly explained
 - Although several of the linkages were funded from external sources, few addressed the long-term sustainability of the linkage
- Table 1 lists the six African institutions and their Canadian counterparts that produced the selected model case studies.

Table 1: Selected case studies

African University	Canadian University	Case Study Topic
University of Botswana (Botswana)	Carleton University	Linkages with Indigenous Knowledge Systems practitioners
Université Cheikh Anta Diop, Senegal	No partner university in Canada. Consultant provided assistance.	Annual national service camps for students and the INNODEV Business Incubator
Université Gaston Berger, Senegal	Université du Québec à Trois-Rivières	Agricultural Farm
Kenyatta University, Kenya	University of Ottawa	Linkage with Equity Bank for Students' Community Service Programme
Kwame Nkrumah University of Science and Technology, Ghana	No partner university in Canada. Consultant provided assistance	Vodafone Internet Café Project
Makerere University (Uganda)	Concordia University	Linkages with the ICT sector through the Corporate Relations Office

3.3 Exposure visits

Eleven (11) of the twelve participating African universities each sent a representative on a two-week mission to Canada to interact with their Canadian counterparts on broader stakeholder relations with special attention developing the case studies into model. Their counterparts, on the other hand organized public engagement events through which the African were able to inform their Canadian audience about African higher education's contribution to development issues in their respective countries.



Figures 1 & 2. Images from the staff exchange visits of l'Université Gaston Berger (Senegal) and l' Université du Québec à Trois-Rivières.

3.4 The Case Study Partnership Workshop in Accra, Ghana (2012)

- Following their selection, all 6 case studies were presented at a two-day Case Study Partnership Workshop in Accra, Ghana on June 28 and 29, 2012 for experience sharing and further strengthening into models. Participants were from the 6 African universities whose reports were selected, their Canadian university counterparts, and selected resource persons. With the exception of Université Cheikh Anta Diop, whose case-study was albeit presented, all selected universities attended and presented at the workshop. During the workshop, participants were grouped into three working groups with each group tasked to review two case studies based on the presentations for final feedback to the group at large. These working group sessions allowed participants to discuss the success/enabling factors in the cases showcased, as well as the constraints.
- Professor Takyiwaa Manu (University of Ghana, Ghana) who participated as a gender specialist advised participants on how gender issues can be mainstreamed into the activities described in the presented case studies. Professor Owen Skae (Rhodes

University Business School, South Africa) participated as the environmental sustainability specialist and also guided participants on how to integrate environmental sustainability into their cases. After the workshop, the participating universities were given the opportunity to revise their case studies for final submission and documentation.



Figures 3 & 4. Images from the Case Study Partnership Workshop, SHESRA Component 2. Accra, Ghana 2012

Overview of the 6 Model Case Studies

4.1 University of Botswana, Botswana



Centre for Scientific Research, Indigenous Knowledge & Innovation (CesrIKi)

CesrIKi was established in 2006 as an interdisciplinary and science-based Centre of Study for basic and applied sciences at the University of Botswana. Its stated mission is to derive value from Indigenous Knowledge Systems (IKS) to the benefit of communities in Botswana. The objectives are to explore areas of comparative advantage in natural resources and IKS through research, engage in training of post-graduate students, translate IKS into innovative processes, develop IKS conscious scientists facilitate innovative pedagogical approaches. These pedagogical approaches are intended to: empower traditional healers and communities to take advantage of their natural resources; support advocacy and policy development in relation to IKS; and transform CesrIKi into an intellectual and cultural centre that champions IKS and the country's social and cultural heritage.

(a) Approach

CesrIKi's priority areas include health, food security, agriculture, environmental conservation and natural resource management. Whilst the modus operandi had hitherto been inter-disciplinary, a recent decision was made for its conversion into a fully-fledged multi-disciplinary science-focused Research Centre.

CesrIKi places great importance on developing participatory and collaborative research approaches in integrating IK with science education and fostering relations with communities and holders of IK, based on the values of mutual respect and *trust*. The focus therefore is on building concrete models of university-community partnerships.

(b) Structure

CesrIKi has a Director, an Advisory Board, and an Executive Management Committee. Given the responsibility of being a research centre that requires close interaction with community structures, it requires a leadership structure with strong executive elements. In line with the vision of becoming a centre of excellence, CesrIKi is setting up teams in the areas of human health, food systems, conservation and agriculture and members of the executive will coordinate a Focus Area. Each focus area is managed by a coordinator. The Advisory Board comprises experts external to the University (drawn from international and national institutions, community organizations, public and private sector) and reflects the three domains of scientific research, indigenous knowledge and innovation.

(c) Activities

CesrIKi has to date attracted Fulbright Scholars and researchers from abroad as well as securing grants from the Bill & Melinda Gates Foundation, the Government of Botswana and SIDA amongst others to undertake projects in the area of IKS but also on the interface between IKS and industry applications. One example is the pan-African Natural Product Library (p-ANPL) and its screening for natural product-based anthelmintic (a family of drugs that expel parasitic worms from the body). It has also been involved in developing national competence in surveys documenting IKS and promoting IKS amongst diverse communities. The “Screens-to-Nature” is another highlight that provides the opportunity to conduct preliminary screens of natural resources for their bioactivity in the field and sharing results directly with traditional healers and community representatives.

(d) Challenges

CesrIKi is constrained by lack of external funding and spatial facility requirements. The former is due to it being in a ‘catch-22’ situation where a Centre of Study is not included in the University’s Institutional Budget, but as outsiders see it as being part of a public University, this makes it ineligible to receive funding from certain quarters. While space is an immediate concern, seventeen hectares of land has been identified north of the new Academic Hospital, which the centre is hopeful of acquiring.

Other issues in line with the SHESRA project objects needing focus at CesrIKi are gender mainstreaming and environmental sustainability. While a policy on Sexual Harassment exists at the University of Botswana, explicit interventions designed to expressly prop-up the policy are still lacking. The authors of the case study noted that this is particularly important as a significant number of its stakeholders both at the institutional level and within its stakeholder community consist of women. In the course of developing this case study, important lessons on gender mainstreaming were learned from interactions with Canadian institutions and such lessons were used in the development and implementation of explicit policies and other interventions through CesrIKi. As no explicit policies on environmental sustainability existed during the development of the case study, the need to improve and strengthen relevant policies in this domain was noted. Representatives of the Centre commented that considering that a significant proportion of IKS resources are drawn from the biophysical environment in and around IKS communities, the need to develop strategies aligned to the internationally recognized Nagoya Protocol to promote the sustainable use of natural resources would be prioritized through strategic partnerships and community education campaigns.

(e) Conclusion and Way Forward

In addition to lessons from interactions with Canadian institutions, from the 2012 Accra workshop on case study development and Carleton University's Going Green Strategy, other specific action points critical to the success and sustainability of CesrIKi include:

- Intensification of collaboration with other international, regional and national research institutions
- Identification of prospective industry partners that can turn research outputs into commercial applications
- Addressing of intellectual property issues
- Guidelines for benefit sharing of successful products
- Development of a code of ethical conduct
- Capacity building amongst staff to successfully obtain research funds and recruit best graduate students
- Lobbying for the establishment of a National Research Council
- Engagement with SMMEs to collaborate with research institutions

4.2 Université Gaston Berger (UGB), Senegal



University Agricultural Farm (UAF)

The idea of the farm emanated from an expert professor's lecture entitled "Development, monitoring and evaluation of agricultural projects" which provided the catalyst for a needs assessment on a 30 hectare piece of land within the University campus that showed its location had beneficial water use advantages. The University Agricultural Farm (UAF) was therefore established in 2004 to serve as a pedagogic tool for practical work and seminars, research activities, and attachments (i.e. applied research, training and community service with additional production activities involved, namely plant production, new farm production mixes covering three agricultural seasons, and poultry).

(a) Approach

In setting up the UAF, three phases were followed (although the authors stated that the sequence of these phases were overlapping and iterative), namely:

- (i) The incubation period which occurred between 2000 and 2004. This included the formation of the team, project gestation and resource mobilisation. Whilst the University did not have the funds to assist, the letters of introduction and engagement with stakeholders enabled some resources to be mobilised such as digitization and topographic survey, voluntary workers, and start-up funds for seeds.
- (ii) Farm establishment (2004 to 2008) involved test production, farm set-up and starting of the farm. The test production commenced with the growing of half a hectare of onions, however logistical problems such as destruction of the

submersible water pump caused by a loss of electricity proved a setback in the planning. In 2007, the Ministry of Education offered a 10,000,000 West African CFA (FCFA) subvention to resuscitate the initiative. Following the personal support of the newly appointed Rector, the University Assembly granted 30 hectares land in May 2007 for the establishment of the farm and the engagement of a Coordinator, who was the original expert professor.

With administrative authorization granted, a farm management committee was also constituted drawing upon a number of representative stakeholders. The stakeholders that contributed to the project's take-off included the Water and Forestry Department which was responsible for clearing 4 hectares of land, the Senegalese Institute of Agricultural Research (Institut Sénégalais de la Recherche Agricole ISRA) who tilled the land, and 'Grand Domains' Senegal who loaned a tractor. Other pioneering partners included Senegal Delta Land Development and Planning Company (SAED) which released a farms operations engineer to UAF and paid his monthly salaries. An overhead sprinkling system was also acquired following a tender process. In December 2007, additional crops were introduced, with the harvesting coinciding with the advent of the academic year in 2008 – the opening thereof presided over by the Minister of Education. The presentation of crates of produce to the national Cabinet subsequently led to a congratulatory letter from the President, which in turn resulted in media coverage. By then, produce was being bought by university staff, generating a surplus of 5 million FCFA. During 2008, some female Geography students embarked on poultry farming which benefited from a 300,000 FCFA subvention from the Rector's office. With production of peanuts, okra, tomatoes, pepper, watermelons and aubergine, the necessary foundation to proceed to the development phase had now been achieved.

- (iii) Farm development began in 2009 and remains on-going to promote the actions aimed at ensuring and supporting development, growth, and extension of the UAF (i.e. achieving sustainability) as well as attracting and maintaining strong partnerships. This includes construction of infrastructure, equipment acquisition, the start of the agricultural school program and farm expansion. The partnership with Foundation MON'3 working with the University of Barcelona led to the disbursement of a €160,000 grant which in turn led to the construction of a storage facility and other necessary infrastructure. Wire-netting production was established (for sale to other farmers as well) in addition to a meteorological station. Further equipment, including two tractors and ploughs (granted from Ministry of Agriculture) as well as a horse and cart were also acquired.

In 2009, through the UAF, UGB and the National Youth Development Agency (NYEA) partnered to establish the Agricultural Trade School (ATSS) with funding from the Spanish Agency for International Development Cooperation (AECID). Over 2000 applications were received for the 2009-10 year with 120 being accepted for an 18 month training programme. Attachments and internships are undertaken for a 45-day period.

During 2010, further land expansion from 4 to 26 hectares was undertaken, with 6 hectares granted to ATSS and 20 hectares for cereal crops. Staff expansion has been steady and for the 2010 to 2011 period, an operations manager was appointed, but regrettably due to budgetary constraints his contract could not be renewed for the 2011 to 2012 period.

(b) Lessons Learned

The UAF has provided some valuable lessons in establishing sustainable linkages:

- (i) Importance of a champion, namely the contribution of the expert professor and the support university leadership (the Rector).
- (ii) Perseverance: despite the challenges in the test production phase, the period of introspection enabled problems and challenges to be reflected upon.
- (iii) Identifying 'external factors', namely the capacity to secure support from various partners. These stakeholders can be categorised as *partners for public-owned resources*, specifically the university (for land acquisition) and government and those who assisted in initial surveys; *partners for infrastructural construction* (Spanish Agency for International Development Cooperation and MON'3, Korean Cooperation, National Agency for Youth Employment (NAYE) and the National Agency for the Return Plan to Agriculture (NARPA); *partners for material resources (equipment)*; *human resource partners*; *training partners*; *partnerships for production and commercialization*; and *partners for research*.
- (iv) A number of 'internal factors' were also highlighted, namely a motivated team, institutional resolve, personal support from top management, and the involvement of a number of academics. Other important factors highlighted by the authors included *confidence-building capacity*, namely reliable partners and the well-cultivated university-community relationship; the *time dimension*, which importantly highlights multiple interactions between the university and its stakeholders; and lastly the *campus radio* to facilitate marketing and communications.

(c) Conclusion and Way Forward

The case writers noted that the growth of the farm's activities in a rapid and 'ill-prepared' way requires it to rethink its organization and structure. Most importantly it requires an operational budget. Consistent energy supply was highlighted as a significant challenge at the time the case study was developed, one which required a plan to consider renewable energy supplies. Whilst training is underway, the research focus still requires additional impetus and is not sufficiently developed within the framework of the 'university-community' relationship. Finally administrators of the UAF noted that there needed to be consideration for how knowledge from the farm can be transferred. Nevertheless, the UAF has proven to be a success with many positive outcomes.

4.3 Makerere University, Uganda



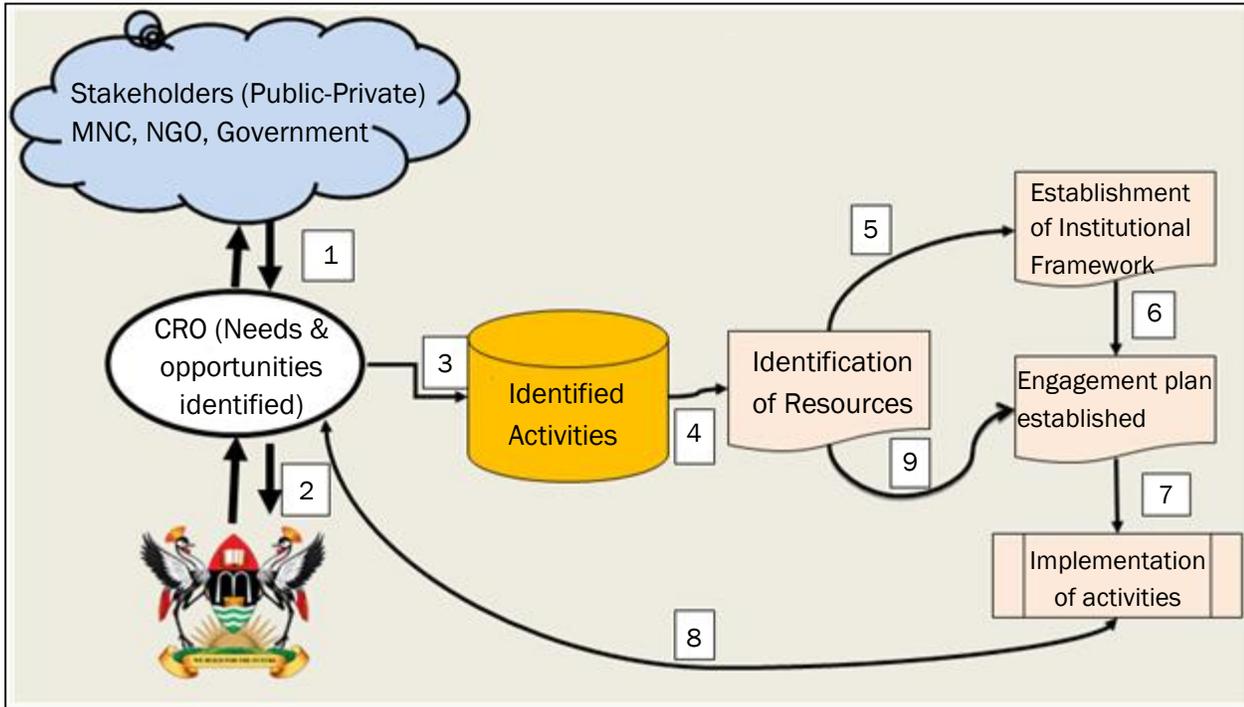
Figure 9: Mobile ultra-sound applications developed by Makerere University students in the Mobile Applications Lab.

College of Computing and Information Sciences & the Corporate Relations Office (CRO)

To champion industry-academia relations, the Corporate Relations Office (CRO) of Makerere University was officially established in 2009 after commencing informal operations in 2007. The core responsibility of the CRO was to provide oversight coordination of all engagements that the Faculty of Computing and Informatics Technology had at that time.

From a single staff member, it now has a staff of six with three student intern positions (the Head reporting to the College Principal) and is the contact point for any engagement that involves both the public and private sectors. It provides stakeholders with a 'one-stop liaison point' fashioned under a systemic engagement model (See Figure 10). Since the inception of the CRO, fifteen MOUs have been signed of which 60% were still active in 2012.

Figure 10: Engagement Model developed for external stakeholder engagement developed by the CRO of Makerere University



(a) Approach

(i) Stages

A framework (or engagement model as seen in Figure 10) was established comprising nine stages. Stages one to five are the initiative level (stakeholders, needs assessment, identified activities, identification of resources, and establishment of framework), six to eight require significant institutional requirements and compliance (engagement plan, activity implementation, and matching to needs). Stage nine occurs where potential relationships are explored without undergoing a formal process.

(ii) Skills transfer

The emphasis of the CRO has been on ‘stakeholder-led’ engagements. The fruit of these efforts have culminated in publications, conference papers and the documenting of learning outcomes from these engagements. Three examples are highlighted:

National Software Incubation Lab (NSIL)

This was established from a one-year grant of USD 300, 000 given by the Rockefeller Foundation in 2007. The NSIL was established to spur the local software economy

through partnerships with local and international organizations. As of the time of developing the case study report, 72 students had successfully completed the programme and one of the key aspects of this was industry players acting as mentors.

Translation of Google and Mozilla Web Browsers into the local Luganda

The translation of Google and Mozilla web browsers into the local Luganda language is seen as part of the University's community outreach programme. The project was initiated when the Google localization team based in Nairobi approached the University, which has seen the Faculty of Computing and Informatics Technology playing a pivotal role and interacting with Rhodes University in South Africa, the Institute of Languages at Makerere University, the Kingdom of Buganda and the Uganda Broadcasting Corporation.

Mobile Applications Lab

Nokia was approached to provide support towards a Mobile Application Lab and consequently made 20 high-end programmable phones available and mobile computing courses were subsequently introduced. From initially being seen as largely academic in nature (hence with little impact on the Nokia Ovi Store), this has now evolved into short-term Java Mobile Applications Development training, for which Nokia provided a training grant. Sixty-seven students attended the initial 17 week training and a total of 17 mobile applications were developed in 2011. Nokia also made its certification available and one student has developed 6 mobile applications all available on the Nokia Ovi Store.

(b) "Approach Value" of CRO in Industry-Academia Relationships

The fact that a dedicated office exists is seen as an indispensable part of the process of engagement with external stakeholders at Makerere University. In this way, the CRO sees itself as both a gateway and a bridge. A feedback survey has been undertaken and while most of the international corporations have not responded (due to the requirement to get official permission to respond), the responses that have been received from the smaller companies confirm the value of the partnership to their business, highlighting recruitment of student interns, project implementation, and project partnerships as key.

(c) Constraints and Challenges

- Lack of awareness about CRO activities
- Lack of R&D functions

- Infant ICT industry
- Limited financial resources
- Limited Human Resources

(d) Gender and Environment

Makerere University has a strong gender policy consistent with the Government of Uganda’s drive to ensure gender mainstreaming. At the time the case study was developed in 2012, the Computing School had an equal mix of women with 11 of 16 in Information Systems and 6 of 17 in Computer Science. The authors of the case noted that environmental issues are addressed through strict standards and proper disposal of obsolete equipment.

(e) Conclusion and Way Forward

The CRO operates a very lean structure, but it has the advantage of the staff salaries being covered by the University’s main budget. A budget amount was allocated (although reduced) in order for it to undertake a marketing and branding exercise. The case writers make the point that investing in relationship building is a long process that requires a dedicated team, a professional approach to stakeholder engagement and raising the profile of the entity. Though the return on investment takes time, it does pay off in the end. They also emphasized that entities such as a CRO must be part-and-parcel of the University (i.e. budgeted and resourced accordingly). Proposed actions going forward are to realign the CRO’s mission to be an innovation centre rather than just focusing on software development. This calls for additional institutional support to sustain activities.

4.4 Kwame Nkrumah University of Science and Technology (KNUST), Ghana



Vodafone Internet Café Project

While there is evidence of the establishment of industry linkages since the establishment of KNUST, the strategic orientation towards the enhancement of these linkages only became more proactive about a decade ago. With the advent of

Figure 11: KNUST Vice-Chancellor (left) exchanging pleasantries with the CEO of Vodafone at the opening of the Café (Source: KNUST).

the collegiate system in 2005, one of the responsibilities of each of the Provosts (Heads of the Colleges) was to develop industry linkages and hence generate income. Objective 3 of the University's strategic plan states: "KNUST is committed to initiate new programmes and research to address the problems of industry and rural communities in response to national needs and to expand entrepreneurship training."

(a) Specific Linkages

KNUST has numerous examples of industry linkages that were documented in their case study. The following are specifically highlighted:

- (i) Association of Ghana Industries (AGI): Working through the University's International Programmes Office, KNUST partnered with AGI to assist them in jointly planning the first Ashanti Trade Fair (held in 2011) after signing a MOU in 2008. The KNUST team were nominated by the Deans of the Business School, School of Engineering, Centre of Business Development and the Registrar's Office. There are plans to mount this fair every other year.
- (ii) HUAWEI ICT Training Laboratory: A USD400,000 grant has been received from HUAWEI for the establishment of an ICT Training Laboratory.
- (iii) Department of Optometry Outreach Programme: Since 2005, the Optometry Students' Association has undertaken an annual outreach programme in communities and districts around the city of Kumasi in a mobile van to conduct screening and educate the public on health promotion measures. The majority of female students participate in this programme. The Ashanti Vision Centre is another initiative run by the Department with support from the International Centre of Eye Care Education (ICEE).
- (iv) Centre for Business Development: This is seen as having the most potential to foster strong linkages and is viewed a strategic priority hence it is placed directly under the Office of the Vice-Chancellor and its Board is chaired by the Pro Vice-Chancellor. It aims to support all disciplines at KNUST; create and develop new business opportunities for future collaborations; innovate and develop new products related to science and technology, law, business and art; provide flexible, responsive and high quality customer service; and provide training and business solutions to industry within the northern sector. The Centre has different departments, the two highlighted ones being first, the Entrepreneurship and SME Development Department, whose main aim is to foster an enterprise culture in KNUST students and staff and the Ghana business community. The other is the Kumasi Business Incubator which supports the establishment of businesses.

(v) National Board for Small Scale Industry: It is estimated that at least 200 small-scale enterprises have benefited from KNUST expertise over the last 10 years. One of the highlighted interventions is the Department of Agricultural Engineering's assistance in improving yields of the Ntinanko Cooperative Oil Palm Farmers Society Limited.

(b) Best cases highlighted in the case study

(i) Vodafone Internet Café

Prior to 2010, KNUST had major challenges with its internet connectivity. In 2008, KNUST commenced discussions with Vodafone and in September 2010, an MOU was signed to guide the partners on the establishment and management of an internet café at the College of Engineering. This MOU incorporated an upgrade of the bandwidth and established a steering committee that was appointed by the Vice-Chancellor for the implementation of the two initiatives (upgrade and café).



Figure 12: KNUST Vodafone Café
(Source: KNUST).

Now in operation, the café has a library, discussion area, and other ancillary facilities. Students and staff pay a nominal fee for the use thereof and Vodafone is required to pay 10% of the return generated to the University's internal fund. The internet bandwidth has also increased from 13mbps to 145 mbps. The latter has had profound implications for communication, learning and research, submission of assignments and the achievement of the goal for moving towards an intranet (hence reducing paper use). The increased bandwidth has also contributed to the delivery potential of the Institute of Distance Learning. Through the

Kumasi Virtual Centre for Information Technology (KVCIT), KNUST has been able to mount live lectures. Furthermore, to make the internet accessible, KNUST has negotiated with Vodafone for the provision of 100 mobile modems for use of regional centres where connectivity is poor or non-existent.

(ii) KNUST-Ghana Association of Bankers (GAB) Banking Seminars

After an MOU was signed between KNUST and the Ghana Association of Bankers in 2007, a Chair in Banking and Finance was established at the KNUST School of Business (KSB). In November 2010, the Vice-Chancellor charged KNUST to organize an open platform where GAB and KNUST could formally interact. An explicit objective was to also incorporate SMEs. The Dean of KSB constituted a five member Banking Chair Committee to plan an appropriate platform, culminating in a 3-day seminar on “Facilitating SME Development in Ghana: The Role of Universal Banks”. This was hosted at KNUST, chaired by the Vice-Chancellor and featured the Minister of Trade as the keynote speaker. The seminar was attended by 18 of the 27 universal banks, and 300 SMEs were represented through umbrella bodies, namely, the Association of Small Scale Industries (ASSI), Ghana National Chamber of Commerce and Industry (GNCCI), and the Association of Ghana Industries (AGI). The CEOs of bodies such as Ghana Investment Promotion Centre (GIPC), Venture Capital Trust Fund (VCTF) and Ghana Export Promotion Agency (GEPA) chaired various sessions and the banks were provided with an opportunity to present topics to SMEs in the plenary sessions.

The output of this interaction with the banking sector is a book published that is the recommended text for students pursuing professional banking qualifications and a paper presented on ‘Bond Pricing in Ghana’ at the seminar. At the seminar, the language barrier was reduced as SME owner/managers were able to converse with banking officials in Akan, the dominant language in the Ashanti Region where the university is based.

(c) Conclusion and Way Forward

The case writers highlighted a number of key lessons from the two best cases highlighted above. In the case of Vodafone, the importance of senior management commitment from both parties was imperative. The authors noted that there must be a project champion involved in an initiative’s implementation and there must be transparency so that all departments and stakeholders are informed and involved where necessary.

In the case of the banking seminar, the role of the champion is also highlighted. It also shows the importance of keeping the momentum going by showcasing the event and using the goodwill generated to further develop ‘win-win’ outcomes. For instance, developing a database to be able to identify other stakeholders (especially from the private sector),

internship programmes, and research possibilities through increased collaboration is a necessary next step to building the bond established.

Building on the example of KNUST's College of Art and Social Science, it is expected that all colleges will appoint an External Links Coordinator. The International Programmes Office in conjunction with the university's Centre for Business Development has also intensified its focus on improving links to private sector organizations. As a consequence of a series of entrepreneurship clinics, the need for formalized links between industry and academia was discussed. KNUST will continue to brainstorm with stakeholders on a communiqué to be used to advocate a national policy on formalized collaboration among tertiary institutions.

4.5 Kenyatta University, Kenya



Kenyatta University: Students' Community Service Program

The Directorate of Community Outreach and Extension Programmes (COEP) at Kenyatta University was established in July 2007. Headed by a Director who reports to the Vice-Chancellor, COEP also has an advisory board of seven members, nominated by the Vice-Chancellor from amongst University academics. The main goal of COEP is to reach out to communities and extend knowledge, skills, information and other resources to further help communities identify, mobilize and utilize resources available to them to improve quality of life. It offers its services under four unique programmes, of which the Students' Community Service Program (SCSP) is one.

(a) Collaboration with Equity Bank

The COEP collaborative program with Equity Bank on students' outreach was launched in June 2008 and commenced in 2009 following an MOU between the two institutions which requires Kenyatta University to recruit students, develop operational and field manuals, organize training seminars, undertake field supervision and write follow-up reports while Equity Bank provides field facilitation allowances to the students and trains them on entrepreneurship and financial skills.

The program facilitates 3 000 students undertaking community service annually during the July, August, December, and April vacation months. The main goal of the program is to expose students to real life situations and to help them learn from their interaction with the communities they serve, which in turn benefit from the students' knowledge and skill. Before commencing the community service, students undergo a two-day training seminar which focuses on topics such as HIV/AIDS awareness; drugs and substance abuse awareness; understanding communities across age groups; food and nutritional security; environmental conservation and management; motivational talks to schools; basic financial skills and entrepreneurship; and peace building and conflict resolution.

(b) Partnership with University of Ottawa

Since 2007, Kenyatta University and University of Ottawa have undertaken an Annual Summer Program where Canadian students go to Kenya for three weeks to undertake community service, field research and a short course addressing globalization and environmental issues in Kenya.

The partnership enabled a recent review of the SCSP and Annual Summer Program looking at the models of the University of Ottawa and two other institutions (United States International University and Starehe Boys' Centre). The information gathering was on the benefits of the training seminar prior to placement, the experiential learning criteria, the benefits of SCSP to communities served, the benefits of SCSP to the two collaborating institutions (Kenyatta and Equity), and a comparative assessment with other models to determine which components could be incorporated to improve the SCSP.

(c) Findings of the SCSP Review

All but one of the 255 students who responded to the survey noted that the training seminar was useful to them as individuals, while 247 felt that the experiential learning from the training seminar benefited the communities that they served. The most frequently cited benefits of knowledge gained from the training seminar were 'able to serve community', 'able to apply skills', 'gained knowledge that was extended to community', 'able to mobilize and involve the community' and 'able to assist HIV/AIDS patients'. The most frequently cited experiential learning benefits were 'communication skills', 'social skills and ties', 'practical financial skills' and 'interpersonal relations'.

Insofar as the benefits to communities were concerned, the responses of the host supervisors (who responded on behalf of the communities) were as follows: 67% stated that the programme was 'very beneficial', 30% 'beneficial' and 3% 'fairly beneficial', and the most frequently cited benefits were 'staff support', 'HIV/AIDS awareness', 'peer counselling/motivational talks' and 'served as good role model'.

The benefits to Kenyatta University were seen to be the opportunity to have a corporate social responsibility programme with an industry partner, the removal of the 'ivory tower' perception that communities have of a higher learning institution, development of students as responsible citizens, reaching out to school pupils at both primary and secondary level, the development of other initiatives (Financial Education and Mentorship Program), improved financial literacy among students, networking opportunities, and the opportunity for students to acquire laptops at lower prices and on credit.

The benefits to Equity Bank were seen to be the collaboration with an institution of higher learning, the removal of the 'ivory tower' perception and the bank gaining more customers. The comparative assessment was valuable in its own right as clearly there is always value in learning about other models. The main findings were on the voluntary nature of SCSP (it is compulsory at United States International University for example) and SCSP not being linked to academic programs with certificates given for participation and not academic credit.

(d) Conclusion and Way Forward

The Directorate of Community Outreach and Extension Programmes is in the process of intensifying the Students' Community Service Programme at Kenyatta University and other

fundable programmes which will benefit and use the services of the students who are our main source of manpower.

In future, the Directorate is planning to do the following with the SCSP initiative:

- Revise and improve the current Students' Community Service Programme model to be able to accommodate all the University students in the programme.
- Introduce a Service Learning (SL) model where students will be given academic credit instead of a certificate of participation.
- Develop a training manual on contemporary issues in the community which will be revised and updated accordingly as more issues emerge in the community.
- Incorporate a Research Uptake Model where the University will be able to have intervention programmes in the community based on the research undertaken by both the students and academic members of staff.

The Students' Community Service Programme at Kenyatta University has been reported as a success story which the University would like to recommend to other African Universities who might be interested in undertaking a similar programme. However, the following considerations were noted as necessary before engaging into the programme:

- An engagement structure in line with its strategic and vision plan to develop, implement, and occasionally monitor and evaluate programmes to ensure success.
- A realistic mission statement and related specific objectives that will help to accomplish its mission.
- Links with an industry that share similar interests of service to humanity.
- The development of a MoU for the identified programme to politically build the link between the institutions and to guide the activities of the programme. The two institutions should be fully committed to the programme.
- Considerations on the sustainability of the programme for the sake of continuity in case the linking industry will not be able to renew the contract.
- A method to recruit students of integrity to avoid tarnishing the institution's name in the community.
- Student empowerment through training seminars on contemporary issues they are likely to encounter in the community.
- The development of a volunteer policy at a national level to guide the university-industry linkage so that the programme will be carried out within the national policy.

4.6 Université Cheikh Anta Diop, Senegal

UCAD undertakes its industry partnership at two levels: firstly, at institutional and central levels and secondly, at the decentralised local and technical levels. At the first level, these are dealt with through the office of the Vice-Chancellor and are concerned with external representation on school and institute boards. At the second level, these are undertaken within a decentralized context and cover all sections within the university from faculties, schools, departments, institutes and so forth.

(a) Institution-wide / Central Levels

(i) Annual National Service Camps

These have been undertaken since 2000 and are designed to promote patriotism and a sense of “service to the nation” among students especially in addressing development gaps. Students are sent out in groups of fifties, led by a teacher and involve themselves in the communities for a period of between 12 to 15 days. Historically, the four main activities they are involved in are tree planting, health campaigns, introduction to IT and a literacy programme in local languages, but latterly these have been expanded to archiving in municipalities and seminars in the Faculty of Law. The various ‘editions’ have seen interactions with students visiting from France, United States, Germany and Japan. From 250 UCAD students in 2008 to 700 students in 2010 on 13 different sites, the programme is showing strong commitment. A number of institutional (7 of them as of the time of this report), technical (3) and financial (12) partners have contributed in supporting this initiative. These include the Presidency, ECOWAS, USAID and ArcelorMittal (a multinational steel manufacturing corporation).

Likewise the 2009 edition, 2010’s was graced by the participation of 50 international students from France, USA, Germany and Japan. They were conveyed on thirteen different sites where they actively participated in tree planting activities and health campaign programmes. The University wished to internationalize the camps to on one hand, ensure a better mutual understanding among students and, on the other hand to have support from the international front. It is worth mentioning that the authors reported that the international students were perfectly integrated among their African colleagues during this edition of the camps. *The main objectives of giving an international dimension to this policy was to acknowledge the many positive effects this could bring as well as to open up the university and institutions of higher learning in Senegal to perspectives that go way beyond national and regional borders.*

To ensure the continuity of the scheme, UCAD envisages the establishment of an office run by students to recruit volunteer students, choose camp leaders, and organize campaigns. From 2001 to 2010 (the last edition), 900 hectares of land were rehabilitated, 618 993 trees were planted of which 63.33% were planted in the greenbelt wall, 58 598 patients (75% women and children) screened and provided health care, 1 787 learners were taught in local languages, and 814 people were introduced to ICT. From interviews conducted with students, the scheme is agreed to be successful and the host communities confirm how much they appreciate the students' involvement in their lives.

The case writers noted that it is regrettable that the scheme's activities have been slow since the departure of the former Vice-Chancellor. Their assessment of the latter's role has shown that his commitment to the program was instrumental in catapulting it to a different dimension. There have also been economic obstacles in taking the program forward and it was suggested to seek re-engagement with partners especially from Germany, Holland, and Japan who have indicated willingness to support the scheme. Lastly, the stakeholders of the scheme should be encouraged to not only disseminate the outcomes of their efforts, but also to be receptive to suggestions on how to improve the process itself.

(ii) INNODEV-SODEBIO Business Incubator



The founding agencies of the INNODEV-SODEBIO Business Incubator (launched on November 25th, 2009) located on the campus of the National Polytechnic at the UCAD consisted of 5 universities, 3 research institutions, and 1 international cooperation agency. INNODEV serves as a focal point amongst institutions of higher learning and

partner economic stakeholders. INNODEV's mission is to validate multi-faceted research in Senegal through, inter alia, (i) sensitizing and training researchers and students; (ii) promoting the development of businesses based on the research works by institutions of higher learning; (iii) building managerial capacity through indirectly coaching researchers; (iv) and promoting a system for business development to drive the establishment of national and sub-regional incubation and to source funds for such efforts.

In order to ensure that business development opportunities are identified, the operations of the Business Incubator consist of 7 stages: application, validation, assessment, integration, follow-through, development of the business and exit. There are tools available to assist with the process, which lasts for about 24 months. For selected projects, accommodation arrangements are available (6 projects/businesses per annum = 18 persons), an allowance is provided per project (€3 000) and coaching and expertise are availed to them.

Businesses are selected on the basis of a tendering process. Once selected, an MOU is signed with the coached promoters and stringent follow-up procedure is implemented to ensure a considerable rate of success. A direct funding service is also available, which on average stands at 5 000 000 CFA Franc. Assessment criteria include innovative criteria, excellent scientific basis and techniques, feasibility and future long term prospects. Recent projects deemed eligible are Innovative Biopesticides (designed to improve agricultural yields), EoSenegal Project (small aero generators) and Political Decision Consulting Services (expertise and assistance in political decision making).

(b) Decentralised Level

Companies are linked to the running of the polytechnic's programme, having six seats on the school's board and participating fully in decisions relating to its direction and management. They also participate as contract tutors. For many years now, the polytechnic has been organizing industry-oriented training seminars on topics such as 'Quality management', 'value analysis' and 'company appraisal'. Polytechnic research lecturers also undertake research activities in the eleven laboratories which also serve to assist industry in quality control measures. The polytechnic also provides training to laboratory technicians thereby leading to their promotion to senior technicians.

An External Relations Service is also provided whereby companies' needs are identified, ensuring that students are being trained accordingly. With the support of French co-

operation, a database of companies has been created and a study of the employment pool undertaken to gather information on alumni who are in employment. Finally, there is the Challenge Undertaken project which is designed to stimulate entrepreneurial skills amongst students.

(a) Selection logic

The specific cases investigated in this report were selected on the general rationale that they represented exemplary cases of African universities successfully partnering with external stakeholders. The replication logic was that every case study should demonstrate elements of success and positive impact prior to their final selection – for example, the case study selection was not meant to be representative of the current state of stakeholder engagement practices in the African higher education sector. Rather, the cases represent relevant examples of innovation in the design, implementation, and impact of stakeholder engagement between 6 members of the Association of African Universities and their external partners.

(b) Acknowledging case diversity

It should be noted that the cases were significantly diverse in format and content. Where one university highlighted one initiative, another university highlighted two or more initiatives to demonstrate different levels of stakeholder relationship building. Where one university provided substance on a partnership leading to the development of a farm for research and instructional purposes, another was focussed on a partnership leading to the installation of an IT centre on the university campus to improve internet access for internal campus users. Although it made comparative, cross-case analysis challenging, this diversity of content is beneficial as it demonstrates the various purposes towards which partnerships are forged and emphasized the reality that each individual case needed to be treated as a unique, independent study. The key question is whether similar events in each case or arrangement accounted for the positive outcomes.

(c) Identified cross-cutting issues

The analysis of the case studies turned to examine cross-cutting issues that are observed or described as influential considerations in the cases. In general, the success of policies frequently depends on the ways in which environmental or other factors interact; in the higher education environment, partnerships frequently cut across institutional departments in terms of resource areas and the vertical and horizontal levels of staff responsibilities.

Many of these issues were present and *recurrent* throughout the different phases of the cases discussed, but could not be discretely categorized as issues relating to periods such as incubation or expansion of the initiatives.

Below are the 6 cross-cutting issues identified during this analysis, which are further explained in Section 6:

- i. Champions for staff, resource, and organizational development
- ii. Different subsets of stakeholder relationships
- iii. Capitalizing on an institutional niche or competitive advantage
- iv. The challenge of scaling up
- v. Provision of seed capital
- vi. Moving from *informal* to *formal*, institutionalized arrangements

(i) Champions for staff, resource and organizational development

There was a clear answer to the basic question that framed the analysis of the 6 case studies: whether similar events in each case or arrangement accounted for positive outcomes. While some institution's success stories can be attributed to their substantive expertise in a certain field, the *main* factor that made these documented initiatives successful was administrative excellence in leadership and management. In each case, there was a university staff champion for the external linkage who motivated staff (both senior and junior), stimulated resource mobilization and organizational development, and who generated critical personal connections with external partners. In some cases, these champions became institutionalized at the managerial level within the initiatives they helped to form, such as the position of the Director of the Corporate Relations Office "institutionalized" at Makerere University. In other cases these types of individuals remained separate, but active champions at the leadership level, as was the case with Kenyatta University's Vice-Chancellor.

Still in other cases, the champion represented a combination of leadership and management individuals. For instance, one of the main difficulties met during the incubation stage of UGB's University Agricultural Farm was resistance from the university community – the project required a lot of resources and was not a traditional, cultural university practice. There were doubts that such a challenge was going to be met by a university with limited resources and means. However, the tenacity of a newly recruited expert professor led to numerous meetings with the management of UGB and several awareness-creation programs. Despite the absence of financial support at the inception stage, UGB's senior management provided moral backing and the Rector became a consistent defendant and proponent of the project.

(ii) Different Subsets of Stakeholder Relationships

The second notable theme that cut across the initiatives is the conceptualization of "stakeholder" by the universities. Staff at Université Cheikh Anta Diop, for instance, demonstrated that they were planning, managing, and measuring their efforts for impact beyond immediate university stakeholders. In their case, the university in collaboration with other socio-economic stakeholders in Senegal took stock of all the services required from

the university – aside from traditional teaching and research – and subsequently established the National Service Camp Scheme. The services delivered through this initiative are considered by the university to be “developmental activities” to help deprived communities in bridging developmental gaps and to promote a patriotic sense of “service to the nation”. Rather than simply focusing on internal university benefits, the impact reported in the case study focussed equally on the outreach impact on the beneficiary community and its ethical success in terms of the appreciation received by the communities. The 2008 edition of the Service Camp Scheme brought together 250 students in 4 different communities during which time they reached out to 15,000 persons, educated close to 300 women, and planted trees covering 300 hectares. In this project, students as well as community member beneficiaries were clearly conceptualized as stakeholder groups by the university’s implementing body, the Office of Students’ Affairs and Community Relations.



Figure 16: Logos of the sponsors for the 2010 edition of the National Service Camp scheme. These sponsors also represent a crucial sub-set of stakeholders with distinct motivations and expectations (Source: UCAD Office of the Vice Chancellor).

However, the same university hosts a different external relationship builder with a distinct stakeholder focus: the INNODEV Business Incubator that is autonomously managed and promotes the development of businesses based on research works linking all public universities, research institutions, and business communities in Senegal. In this initiative, there were two different stakeholders identified and incubator activities were organized around two different kinds of projects: “those in line with researchers and those in line with entrepreneurs who put into practice laboratory technology”.

At Makerere University’s College of Computing and Information Sciences, the majority of engagements that have been sustained by their Corporate Relations Office (CRO) are with multinational corporations, which commonly have strong histories of university collaborations and established R&D functions in their home countries. For instance between 2009 and 2012, the ICT sector in Uganda has saw the establishment of

companies like Microsoft, Google, and Hewlett Packard – companies with very strong industry-university strategies in their root countries. Other stakeholders the CRO engages are local companies that commonly lack sufficient funds for R&D. To engage these stakeholders, a different approach of outreach is used, where the College invites them to partner on a particular pilot initiative to explore opportunities for an eventual scale-up of activities.

The development of differing orientations to “*who*” constitutes a stakeholder within the same university environment was observed within each case study initiative. The variation points to the need to recognize the various sub-sets of stakeholders that different HEIs are actively engaging with and the various sub-sets of stakeholders each *individual* HEI may focus engagement efforts on. The sub-sets described in the case studies represent a wide variety of groups that have different levels of internal heterogeneity (village communities within a region may each be unique), relationship needs, financial and political clout, and capacity for self-representation and organised partnership. These stakeholder attributes are critical to forming the purpose of partnerships, negotiating shared resources, and for conducting impact evaluation with different beneficiaries.

(iii) Capitalizing on an institutional niche or competitive advantage

Building where there is a competitive advantage to leverage

It was noted by several case study authors that the level of knowledge transfer from African HEIs and R&D institutions and its subsequent utilization for economic development is generally low. Ironically, Africa is richly endowed with a largely untapped resource base of indigenous knowledge which its communities have maintained over centuries. As the authors of the University of Botswana CesriKi project noted, these knowledge systems are largely nutritional, health, medicinal, and spiritual in nature. The University of Botswana noted that prior to harnessing these indigenous knowledge system (IKS) interactions as a niche area for R&D, its Office of Research and Development (ORD) operated using a model which was focussed on the prevailing practices of HEIs in the Northern Hemisphere. The similar recognition of constraints on institutional capabilities to follow foreign stakeholder models proved key in the other case studies. The Botswana authors continued to explain the development of their competitive advantage in this regard:

...most African HEIs appear to have jumped on the bandwagon of research commercialization and HEI-industry partnerships for the purposes of extending the third mission through patenting and commercializing activities when in actual fact the basic research and innovation support infrastructure has not been properly developed...While the constraints towards emulating Western

HEI-industry partnerships are many, the need to explore alternative models that may strike an accord with many an African HEI-industry relationship has become even more deafening. Bearing this in mind, the area of IKS and culture provides sterling opportunities for African HEIs with ever dwindling financial and other resources to leverage and build meaningful and sustainable partnerships with the broader communities in which they operate at minimal costs. IKS may be construed as a common denominator in all if not most African communities.

The CesriKi project's capitalization of local IKS resources was driven by staff members who have propelled the Centre's community-centered solutions in line with national socio-economic development aspirations, establishing the Centre as a leader in the SADC's IKS platform.

However, it was not just specialized knowledge that emerged as a competitive advantage across the case studies, but environmental resources as well. At Université Gaston Berger (UGB) in Senegal, two strategic reasons motivated the proposal for an irrigated agriculture initiative and the creation of the University Agricultural Farm. First, the will of the university to contribute to the promotion of agricultural/rural entrepreneurship (a national priority for Senegal) and second, the special geographical situation of UGB which is located at the junction of the sea, river, and Sahel region. Built in the rural community of Gandon of the Saint-Louis District and Region, UGB is situated 12 kilometres away from the city of Saint-Louis and is accessible throughout the year due to its position on National Highway 2. The university campus – 240 hectares in size – is about 1 kilometre away from the Djeuss River, a tributary of the Senegal River Valley which supplies the region of Saint-Louis with potable water and the university with water for irrigation and domestic purposes. Surface water from the Djeuss River is abundant and available all year round. The recruitment of a new expert faculty member who specializes in agricultural research in the Senegal River Valley and the favourable campus context led to the completion of a needs assessment on a 30 hectare piece of land for the optimal development of a university agricultural farm.

Whether it was substantive expertise or contextual assets such as those described in the Senegalese case, several of the showcased universities were successful in developing effective external linkages by building on their competitive advantage and investing resources in areas where this advantage would produce positive externalities to all the stakeholders involved.



Figures 17 & 18: Practical work is merged with course theory at Université Gaston Berger’s University Agricultural Farm.

Fostering a competitive advantage where there was none before

One of the case study authors offered valuable insight on an area where there can be significant strategic advancements in African higher education: the transfer of expertise in partnership building and competitive advantage development amongst francophone universities in Africa that are still integrating “licence-master-doctorat” (LMD) reforms. Mobility of learning represents a significant area for competitive development for francophone higher education stakeholders in Africa and is an important part of the education harmonization sought by the Arusha Convention (1981) and the LMD reform process.

The authors from UCAD noted that with the integration of the LMD reforms, the traditional mandate of francophone universities (teaching and research) is being enriched by the new mandate to produce employable graduates and a comparable qualification system (Bachelor, Masters, Doctorate). Schemes to reorient francophone universities and students to external engagement will encourage the mobility of African youth during and after their studies, and would equally facilitate their professional integration all over Africa in areas where linguistic expertise – among other skills – is needed.

(iv) The challenge of scaling up

The challenge of scaling initiatives up and planning for sustained programme growth proved to be challenges for every case study showcased. The authors of the UGB case noted that the rapid growth of the University Agricultural Farm (UAF) activities forced administrators to rethink its organization and structure. An expansion of the UAF was pursued to increase the area needed for farming, training, and research activities related to the market-garden, horticultural, and poultry production efforts. In view of the initial success of the farm, the Management Committee of the UAF decided to expand the acreage of its operations from 4 to 26 hectares of prepared land and to proceed with the installation of a drip irrigation system equipped with a submersible pump, a filtration plant with sand tanks and an improved meteorological station. The development planning of the farm site provided for *gradual* site exploitation due to the relatively limited space to enable student participation in the implementation process of establishing an agricultural holding and because of limited financial resources for land development.

Operational hurdles

Despite the success of the project, the UAF team encountered three main challenges in their efforts to scale the initiative up. The first challenge was unexpected and exogenous: unguided land clearing by the surrounding communities led to an uncontrolled fire that destroyed the electric lines of the farm. These damages which culminated into the disruption of electricity supply thus paralyzed the functioning of the submersible pump in the river that supplies water to the pumping station.

The second challenge was the contract renewal for the agricultural hands which had been originally signed with Senegal's Ministry of Youth for a period of 24 months. It had been stipulated that about 75% of the farm revenue would go to pay the salaries of the manual workers, 20% of revenues would go to UGB, and 5% to external stakeholders. This was sufficient encouragement for these workers to work hard and for the UAF to ensure the payment of their salaries, and even increasing them according to the results achieved. When their contract came up for renewal, the UAF coordinator was persistent in negotiations with UGB management to employ these manual workers as it was clear that if they were not well paid (or not paid at all), current levels of production would be affected with revenue remaining low and producing difficulties to cover the farm's expenditure. This sustainability and growth challenge was positively addressed however during the contract renewal. Due to the UAF's persistent negotiation and sensitization work, the UGB management decided to recruit and support a few of the manual workers and to hire an operations manager.

The third challenge was the commercialization of the agricultural produce from the activities of the UAF. This was a similar challenge faced by other universities producing commercial outputs, but particularly challenging in the case of UGB's farm because of the low sale price of perishable produce, the need to satisfy the low purchasing power of university students who required affordable food sources, and delays in payment when selling produce to local, internal university stakeholders.

Managing demand

Despite the operational hurdles noted, the case study authors offered promising opportunities for the regeneration of the UAF that highlighted the need to properly manage demand: in 2010, many rural communities began earmarking portions of their land to be given out to UGB for the establishment of a UGB model farm. The Niandane community allocated 100 hectares of land to UGB and have signed an agreement with the university. Similar negotiations have been pursued by at least two other local communities to set up agricultural farms for the training of producers, the development of applied research on productivity themes, and to secure agricultural production capable of generating income for both the community and the university. These sets of proposals are promising opportunities for the regeneration and replication of the UAF model in the surrounding rural communities to help them develop their local economies. In the UGB case, model replication in different localities is dependent on *community* demand.

Although perhaps not a goal, the UAF case study demonstrated the strength and vulnerability of initiatives that receive financial support or support in kind from multiple partners, many of which are international universities and organizations. Despite the community land endowments, UGB coordinators noted that the UAF operation has reached a point where it needs to reflect on its capacity to collaborate with partners and to be selective in the kinds of partnerships it wishes to engage in. In this regard, the *internationalization* of partnerships was a cross-cutting theme in almost all the case studies and represents a significant consideration for demand management. In fact, the authors of the UCAD case study commented that one of their main objectives was to give an "international dimension" to their engagement policies to acknowledge the many positive effects this could bring and to open the university in Senegal to perspectives that go beyond national and regional borders.



Figure 19: Students and staff involved in the Students' Community Service Programme (SCSP) at Kenyatta University

Kenyatta University's Students' Community Service Programme (SCSP) is another interesting example of a successful university-community linkage that is facing demand from a different source: demand is coming from university students to expand the current programme for greater participation opportunities. The SCSP has already trained 5,249 community youth and 2,842 Kenyatta University students. However, the authors of the case study noted that there are more Kenyatta University students interested in participating in SCSP, but that the available funds are not enough for all of them, making selection of the students very difficult. Furthermore, the project period of two weeks has been determined as insufficient time for students to undertake their service projects adequately. The SCSP selects and places students by geographic location, which results in a large geographic spread of participants and difficulties with supervision and performance evaluation of all parties involved. Fortunately, the future SCSP may be able to satisfy demand and achieve sustainable expansion given the narrative of success and the renewability of the MoU between Kenyatta University and Equity Bank.

(v) Provision of seed capital

The reality of all the successful projects showcased in the case studies are that securing an initial source of capital is essential during the incubation period of the initiative. In the case studies, this capital supported staff development, the purchase of materials and equipment, as well as the development of physical infrastructure. The capital was provided by a spectrum of different stakeholders. In the cases of KNUST and Kenyatta University, the initial injection came from single private corporations. In the cases of Makerere University and UCAD, the initial capital came from civil sector stakeholders. Makerere University received a USD300,000 grant from the Rockefeller Foundation in 2007 which led to the

establishment of the National Software Incubation Lab and the impetus for the creation of the Corporate Relations Office. With regards to UCAD, the University sees to the human resource and logistical issues of the Service Camp Scheme, whereas their numerous partners in any given year will amass the financial and material needs of the programme; there was a total of 17 civil sector partners in the 2010 edition (refer to Figure 16).

(vi) Moving from *informal* to *formal*, institutionalized arrangements

In several of the cases where there was a long-standing partnership struck between a university and an external partner, the university had a current strategic plan in effect to legitimize the activity. Furthermore, where there was a long-standing partnership with a dedicated sponsor or partner, a MoU was signed to legitimize the financial and legal partnership. For instance, under the leadership of its Vice-Chancellor, Olive Mugenda, Kenyatta University developed and signed a 5-year MoU with Equity Bank for the financing of the Students' Community Service Programme.

Under all such formal agreements is another kind of formalization: the creation of industry relations or community outreach offices towards the maturing of partner relations and implementation of initiatives informally inspired by individual staff members. For instance, the Corporate Relations Office of Makerere University was created as a one-stop-shop for corporations to liaise formally with computer science staff and students; the CRO became functional as a recognized part of the university structure in 2009 and has signed more than 15 MoUs with public and private sector stakeholders (60% of these MoUs were still active in 2012). The formal structure of the CRO also provided staff with the administrative "space" to develop a systematic stakeholder engagement framework that has proven effective at managing the routine process of engagement with a successive number of stakeholders. This framework enables the CRO to continually identify potential stakeholder needs and opportunities through proactive environmental sector scans. As the author for Makerere University stated, "It is imperative to have an ear to the ground and to keep in touch with what is happening in the sector...this requires time and effort to continually package the College as a potential partner".

The administrative entities institutionalized at each of the universities to formally manage partnership development vary in physical space allocation, title, autonomy, position within the institution (centralized or decentralized), and institutional financing, but they consistently represent the *critical management level* for implementation activities. The lessons gathered on making connections to a strategic plan, the use of MoUs, and the creation of appropriate administrative entities demonstrate the value of *formalizing*

informal arrangements in university policy and practice for the efficient allocation of resources and the strategic management of value produced.

7.0

Recommendations & Next Steps

The following recommendations are derived from the challenges highlighted in the case studies and the cross-cutting issues examined. They are also synthesized with insight from the proceedings of the Accra workshop.

(i)

Strategic planning led by university leaders and managers that provides direction on the sub-sets of stakeholders and the purpose of external linkages.

(ii)

Senior management support for the formalization of operational planning (i.e. the establishment of operational budgets and MoUs) and investment in administrative entities/staff for stakeholder engagement.

(iii)

Increase attention on the ethics of university-industry and university-community engagement in areas such as mainstreaming gender equity, gaining community trust, integrating environmental considerations, and realizing the continuity of benefit streams for all stakeholders.

(iv)

Further efforts to measure, monitor, and communicate the impact of African university partnership arrangements.

Although all are significant future steps, the fourth recommendation is particularly important to the development of a broader knowledge base on stakeholder theory in the context of higher education stakeholder relations in Africa and a more robust understanding of the innovative strategies already being undertaken. This document is meant to serve as a launch pad for the systematic management of information on stakeholder engagement initiatives by the universities themselves and by pan-African organizations including the Association of African Universities in service of sustainable socio-economic development solutions through education.

- Akomea. S. Y. *Kwame Nkrumah University of Science and Technology: KNUST-Vodafone Partnership: Internet Connectivity*. Association of African Universities: Accra, Ghana.
- Alexander, C., Miesing, P., & Parsons, A. (2005). How important are stakeholder relationships? *Academy of Strategic Management Journal*, 4, 1-7. Accessed via www.albany.edu/~pm157/research/stakeholders.pdf on 7th February 2012
- Alves H., Mainardes. W.E., & Raposo M. (2010). A Relationship Approach to Higher Education Institution Stakeholder Management. *Tertiary Education and Management*. Volume: 16, Issue: 3, Publisher: Routledge, pages: 159-181 accessed via <http://www.mendeley.com/research/a-relationship-approach-to-higher-education-institution-stakeholder-management/> on 28th January 2012
- Andrae-Marobela, K., Graham, K., Kakadia, D., Kiggundu, M.N., Mazonde, I.N., Neba, A., Rutherford, B., Totolo, O. (2012). *A Case Study of the University of Botswana's Centre for Scientific Research, Indigenous Knowledge and Innovations' (CesrIKi's) Partnership with the Indigenous Knowledge Systems (IKS) Community in Botswana*. Association of African Universities: Accra, Ghana.
- Béland, M., Ludwick, T. & Ssebuwufu, J. (2012). *Strengthening University-Industry Linkages in Africa: A Study on Institutional Capacities and Gaps*. Association of African Universities & Association of Universities and Colleges of Canada: Accra.
- Bryson, J. M. (2004). What to do when Stakeholders matter: Stakeholder Identification and Analysis Techniques. *Public Management Review*, Vol. 6, no. 1, pp. 21-53.
- Diack, M. & Razakamananifidiny, P. (2012). *The University Agricultural Farm at the Centre of Regional Development: The Case of the Gaston Berger University*. Association of African Universities: Accra, Ghana.
- Freeman, R. E. (1984). The politics of stakeholder theory: some future directions. In: Dienhart, J. W. (org.): *Business Ethics Quarterly*, Vol. 4, no. 4, accessed via http://www.sogra.pt/ficheiros_artigos/stk.pdf on 5th February 2012
- Glitho, R. & Niyitegeka, M. (2012). *Case Study of Makerere University College of Computing and Information Sciences*. Association of African Universities: Accra, Ghana.

Jongbloed, B., Enders, J. & Salerno, C. (2008). Higher education and its communities: Interconnections and interdependencies and a research agenda. *Higher Education*. 56:303-324.

Mugabe, J. (2009). *Knowledge and Innovation for Africa's Development: Priorities, Policies and Programmes*. World Bank Institute.

Mugenda, O.M. & Tumuti, D.W. (2012). *Students' Community Service Programme: A Case Study on Kenyatta University and Equity Bank Linkage for Strengthening Higher Education Stakeholder Relationships in Africa*. Association of African Universities: Accra, Ghana.

Robichaud, J. (2012). *Case Study Presented within the Framework of Component 2: Strengthening Higher Education Stakeholder Relations in Africa (Université Cheikh Anta Diop)*. Association of African Universities: Accra, Ghana.

UNESCO: United Nations Educational, Scientific and Cultural Organization. (August 2011). Global Investments in R&D, UIS Fact Sheet, No.15. Retrieved from http://www.uis.unesco.org/FactSheets/Documents/fs15_2011-investments-en.pdf