

Harnessing regional capacity to build agricultural capacity for Africa: The case of the Intra-ACP academic mobility project for 12 universities in Africa

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Abstract

The ACP-EU Academic mobility programme has awarded a grant of • 1,980,150 to Makerere University to support collaboration among 12 Higher Agricultural Education Institutions (HAEIs) in Africa with the aim of providing relevant and internationally competitive graduate training to enhance the application of knowledge, science and technology in agriculture for improved livelihoods. Specifically, the grant will enable eight RUFORUM member Universities (operating in Eastern, Central and Southern Africa) to work with each other and three universities in West Africa (both Anglophone and Francophone), and one South African University to share capacity and infrastructure for quality graduate training; support rebuilding the capacity of the HAEIs recently affected by civil strife; create opportunities for African young scientists to acquire Masters and PhD training in agricultural related disciplines; and provide platform for HAEIs to exchange and learn together for the purpose of improving their graduate training. The project will support training 68 students, 48 enrolled in Masters programmes and 17 in PhD programmes; and provide opportunities for mobility of eight staff in staff exchange. The anticipated outcomes of this initiative include capacity of partner HAEIs enhanced to offer better quality training programmes and research in agriculture; retention of highly qualified professionals and reduction on the brain drain; mechanisms and relationships for continued South-South collaboration to share and jointly strengthen capacities for graduate training and research; and consequently, increased quality of research and scholarship resulting from better training professionals within the African context.

Key words: Academic Mobility, ACP, Africa, Makerere University, Postgraduate training, RUFORUM

Résumé

Le programme de mobilité académique de l'ACP-UE a accordé une subvention de • 1,980,150 à l'Université de Makerere pour soutenir la collaboration entre 12 Institutions d'enseignement supérieur agricoles (HAEIs) en Afrique dans le but d'offrir une formation pertinente et universitaire compétitive au niveau international afin d'améliorer l'application des connaissances, de la science et de la technologie dans l'agriculture pour les moyens de subsistance améliorés. Plus précisément, la subvention permettra à neuf universités membres du RUFORUM (fonctionnant en Afrique de l'Est, centrale et australe) de travailler les unes avec les autres et trois universités de l'Afrique de l'Ouest (anglophones et francophones) pour partager les capacités et les infrastructures pour la formation universitaire de qualité; de soutenir le nouveau renforcement des capacités des HAEIs récemment touchées par la guerre civile; de créer des opportunités pour les jeunes scientifiques Africains d'acquérir la formation de niveau de maîtrise et de doctorat dans les disciplines en rapport avec l'agriculture ; et de fournir la plate-forme pour les HAEIs pour échanger et apprendre ensemble dans le but d'améliorer leur formation universitaire. Le projet appuiera la formation de 69 étudiants dont 52 inscrits dans des programmes de maîtrise et 17 dans les programmes de doctorat et offrira des possibilités de mobilité de huit membres du personnel académique dans le cadre d'échange du personnel. Les résultats attendus de cette initiative comprennent la capacité des HAEIs partenaires améliorées pour offrir de meilleurs programmes de formation de qualité et de recherche en agriculture, la rétention des professionnels hautement qualifiés et la réduction de la fuite des cerveaux, les mécanismes et les relations pour la collaboration continue Sud-Sud afin de partager et de renforcer conjointement les capacités pour la formation universitaire et la recherche, et par conséquent, l'augmentation de la qualité de la recherche et de bourses d'études résultant de meilleurs professionnels de formation dans le contexte africain.

Mots clés: Mobilité Académique, ACP, Afrique, Université de Makerere, formation post-universitaire, RUFORUM

Background

A USAID needs assessment of faculties of Agriculture in Kenya, Uganda and Tanzania in 2003 and the study by Bloom *et al.* (2005) noted that amidst declining support for higher education from both national governments and donors, there was significant growth of faculties of agriculture but they were also characterised by challenges of inadequate and/

inexperienced staff to teach and supervise graduate programmes, increased pressure for faculties to be more relevant and oriented towards problem solving. To-date, many universities in Africa have fairly good capacity to train at undergraduate level but the graduate training remains weak (Malcolm and Thangata, 2009). Because of this, many candidates prefer to undertake their Masters and PhD training overseas or in South Africa (Stads and Beintema, 2011). Whereas individual HEIs may not have adequate capacity in terms of human resources and infrastructure to offer internationally competitive graduate training, collectively their capacity can be strong enough to do so. This initiative seeks to harness this potential by sharing capacities and expertise of 12 African universities in the broad area of agriculture. These universities include: Makerere University in Uganda (lead coordinating university), Eduardo Mondlane University in Mozambique University of Malawi, Jomo Kenyatta University of Agriculture and Technology (JKUAT) in Kenya, University of Zambia, University of Burundi, University of Malawi, Haramaya University in Ethiopia, University of Cape Coast in Ghana, University d'Abomey Calavi in Benin, and University of Port Harcourt in Nigeria. RUFORUM will backstop the universities in implementing the action.

Objectives

The overall objective of the joint regional training is to promote collaboration of HAEIs in Africa to provide relevant and internationally competitive graduate training to enhance the application of knowledge, science and technology in agriculture for improved livelihoods. The specific objectives include:

1. To share expertise, and infrastructure among HAEIs in Africa to enhance the relevance and competitiveness of graduate training and research in agriculture and to produce high calibre graduates who can catalyse and sustain agricultural development
2. To rebuild the professional capacity of African HAEIs recently affected by conflict and create a mutual support system between the weak and strong ones within Africa through joint teaching and supervision of Masters and PhD training
3. To provide opportunities for bright young men and women to pursue graduate training (Masters and PhD) in a multi-cultural African context and to build a foundation for stronger

collaboration and networking of African professionals to solve agriculture development problems

4. To create a platform for joint learning among African HAEIs with respect to innovative learning approaches, quality standards and quality assurance in training and research
5. To exchange experiences and promote learning from among African universities through staff exchange for graduate training in agriculture related disciplines
6. To enhance the scholarship of African professionals through joint publications

It is hoped that the experiences gained from this collaboration will lead to mutual strengthening of capacity of the individual HAEIs to offer competitive graduate training programmes in the long-term. In addition it will enhance the capacity of the universities recently affected by civil strife (University of Burundi, University of Gezira and Eduardo Mondlane University) to rebuild their human resource to offer good quality academic programmes and conduct useful research in their respective countries.

The collaboration also provides a platform for joint learning among the partner HEIs on how to improve the quality and relevance of graduate training in agriculture. Every year, critical reflection meetings involving the key partners will be organised specifically for synthesizing lessons learnt and their implications for practice in HEIs. These events will be deliberate and facilitated to bring out lessons in a structured way and strategies for using the lessons to enhance the quality and relevance of graduate training in agriculture.

Literature Summary

Development of any nation depends on the quality of its human resource. In as much as agriculture is the major economic activity in sub-Saharan Africa (SSA) contributing about 35% GDP, 40% exports, and 75% employment the region is still unable to feed its growing population let alone being able to fully exploit its agricultural potential to create wealth (Carl, 2009). This reflects a weakness on the quality of the available human resource not only in the technical areas of agricultural productivity but also in mainstreaming agriculture in the national development agenda. Sub-Saharan Africa must strive not only to rapidly increase the number of professionals but also critically consider the quality of those professionals to champion agricultural development. In responding to this need, there has been proliferation of new public and private universities and as

well as exponential increase in enrolment in the old universities. These initiatives have had greater impact at under-graduate than graduate level training (McMahon, 2009).

To revamp and sustain agricultural development, graduate training is essential not only to strengthen management of the agricultural sector in the context of complexity but graduate training is also critical to produce relevant human resource in Universities and Colleges (FARA, 2006). Africa faces the challenge of providing relevant education and retaining the high caliber professionals as they are constantly searching for more gainful opportunities elsewhere, hence the “brain drain” (Salmi, 2003; World Bank, 2007). This level of training requires rapid expansion to cope with the increasing demand for critical and creative thinkers to make agriculture the driver of economic growth and development amidst social and environmental challenges. In response to this need, 29 universities in Eastern, Central and Southern Africa have created a joint platform, RUFORUM (see www.ruforum.org; www.ruforum.org/content/our-member-universities) to facilitate joint action by the member universities to marshal existing capacities in the member universities to train a critical mass of graduate students to support the agricultural sector in the continent. RUFORUM is working with its member universities to develop not only technical competence but also cross-cutting competences such as management/leadership, facilitation skills for change management, communication and networking skills, team development and management just to mention but a few. It is hoped that with this approach, the graduates will develop a new mindset that allow integration of disciplines, positive values and attitudes; they would also become strategic thinkers as well as social entrepreneurs. Given resource (human and financial) and infrastructural constraints, no single HEI in Africa is able by itself to produce graduates with all the requisite qualities. This then calls for collaboration to share and exchange expertise, capacities and experiences among staff and students in African HEIs.

To date, the network has trained over 800 MSc graduates and 92 PhD students, but these numbers are still too low to meet the market demand in the region. Moreover, some of the member universities are in countries emerging out of conflict, and have very limited capacity, human and institution and system within which the human and institutions are operating. The organisation is also keen to link with universities in West Africa,

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RUFORUM efforts**

as part of mobilising regional capacity to support agricultural development processes under the Comprehensive African Agricultural Development Programme (CAADP). Thus, the current efforts by RUFORUM need scaling up and out to other regions especially West Africa.

The Collaborative Academic Mobility seeks to establish and nurture collaboration of Makerere University with other HEIs in Africa to jointly improve the relevance of their training programmes and to produce relevant graduates (MSc and PhD) to contribute to higher agricultural productivity, environmental management and respond to Africa's development challenges. As a demonstration of African solidarity in Higher Agricultural Education Training (HAET), the initiative seeks to twin the relatively weak HAEIs (from countries emerging out of conflict) with their stronger counterparts to support each other in capacity strengthening for graduate training. The collaboration will be anchored in providing students the opportunity to access high quality training in a multi-cultural African context; staff exchange to complement and learn from each other through joint teaching and supervision; and sharing of facilities for training and research. Specifically, six Masters programmes and two PhD programme are targeted. The distribution of mobilities (academic exchanges) among the 12 universities is given in Table 1. Table 2 shows the various postgraduate programmes that will be offered by each partner university.

This combination of programmes targets some of the critical areas in agricultural productivity enhancement and environmental sustainability. The term productivity is used in a broad sense here to encompass a wide range of actors in the agricultural value chain. It is part of the effort to produce a diversity of professionals who need to work together to create the desired impact especially in the farming communities in Africa. The unique opportunity in the approach is the possibility to create interaction between the academic programmes so that the students begin to see the interrelationship between their different disciplines and to start nurturing relationships that will support their operation in an inter-disciplinary manner. In the same vein, the staff start to break their disciplinary barriers to promote cross-disciplinary interaction in training and research to be able to address complex development problems more effectively. The whole process will be documented and studied, to enable the RUFORUM network scale- out the initiative to other thematic areas of focus.

Table 1. Indicative distribution of outgoing/incoming mobilities within the countries of the Partnership.

	Type of mobility	Incoming mobilities		Outgoing mobilities
		TG1	TG2	
Country : Uganda	Partner 1: Makerere University			
	Masters	5	0	0
	Doctorates	10	0	0
	Staff	1	0	1
	Total Country Uganda	16	0	1
Country: Kenya	Partner 2: Jomo Kenyatta University of Agriculture and Technology			
	Masters	10	0	0
	Doctorates	0	0	1
	Staff	3	0	1
	Total Country Kenya	13	0	2
Country: Ethiopia	Partner 3: Haramaya University			
	Masters	10	0	3
	Doctorates	0	0	0
	Staff 2	2	0	0
	Total Country Ethiopia	12	0	3
Country : Mozambique	Partner 4: Eduardo Mondlane University			
	Masters	8	2	2
	Doctorates	0	0	1
	Staff	1	0	0
	Total Country Mozambique	9	2	3
Country: Malawi	Partner 5: Bunda College of Agriculture			
	Masters	8	0	3
	Doctorates	0	0	2
	Staff	1	0	1
	Total Country Malawi	9	0	6
Country: South Africa	Partner 6: Stellenbosch University			
	Masters	4	1	0
	Doctorates	4	0	0
	Staff	1	1	3
	Total Country South Africa	9	2	3
Country: Benin	Partner 7: University of d'Abomey Calavi			
	Masters	8	2	2
	Doctorates	0	0	1
	Staff	2	0	0
	Total Country Benin	10	2	3

Table 1. Contd.

	Type of mobility	Incoming mobilities		Outgoing mobilities
		TG1	TG2	
Country: Ghana	Partner 8: University of Cape Coast			
	Masters	6	2	2
	Doctorates	0	0	2
	Staff	1	1	1
	Total Country Ghana	7	3	5
Country: Burundi	Partner 10: University of Burundi			
	Staff	1	1	1
	Total Country Nigeria	1	1	13
	Masters	0	0	8
	Doctorates	0	0	2
	Staff	2	1	1
	Total Country Burundi	2	1	11
Country: Sudan	Partner 11: University of Gezira			
	Masters	0	0	10
	Doctorates	0	0	3
	Staff	0	0	2
	Total Country Sudan	0	0	15
Country: Zambia	Partner 12: University of Zambia			
	Masters	0	0	8
	Doctorates	0	0	2
	Staff	1	2	1
	Total Country Zambia	1	2	11

*Incoming: students and staff from outside countries coming to the host universities

*Outgoing: students or staff from the partner university going to another partner university

Table 2. List of Masters and Doctoral programmes to be offered by the partner universities.

Partner	MSc offered	PhD offered
1 Applicant- Makerere University	MSc Plant Breeding and Seed Systems	PhD Agricultural and Rural Innovation PhD Plant Breeding and Biotechnology
2 Jomo Kenyatta University of Agriculture and Technology	MSc Research Methods	Not offering PhD training under this arrangement
3 Haramaya University	MSc Agro-meteorology and Natural Risk Management MSc Agricultural Information and Communication Management	Not offering PhD training under this arrangement
4 Eduardo Mondlane University	MSc Agricultural Economics (with orientations in Agribusiness, Agricultural Development, policy analysis, Agricultural markets and Natural Resource Economics)	Not offering PhD training under this arrangement
5 University of Malawi, Bunda College of Agriculture	MSc Aquaculture and Fisheries Science	Not offering PhD training under this arrangement
6 Stellenbosch University	MSc Food Science	PhD Agricultural Sciences
7 University D' Abomey Calavi	MSc Management of Natural Resources and Biodiversity (RESBIO)	Not offering PhD training under this arrangement
8 University of Cape Coast	MPhil Agricultural Extension	Not offering PhD training under this arrangement
9 University of Port Harcourt	Not offering courses under this arrangement (to send out students for MSc and PhD training)	-
10 University of Burundi	Not offering courses under this arrangement (to send out students for MSc and PhD training)	-
11 University of Gezira	Not offering courses under this arrangement (to send out students for MSc and PhD training)	-
12 University of Zambia	Not offering courses under this arrangement (to send out students for MSc and PhD training)	-

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