

Research Application Summary

**Building Capacity for Food Security in Africa: Underlying issues, challenges and opportunities**

Kaaya, A.<sup>1</sup>, Karuhanga, M.<sup>2</sup>, Okori, P.<sup>3</sup>, Ntwali, C.<sup>4</sup>, Chindime, S.<sup>4</sup> & Osiru, M.<sup>4</sup>

<sup>1</sup>Faculty of Agriculture, Department of Food Science & Technology, P. O. Box 7062, Kampala, Uganda

<sup>2</sup>Faculty of Agriculture, Department of Agricultural Extension and Education, P. O. Box 7062, Kampala, Uganda

<sup>3</sup>Faculty of Agriculture, Department of Crop Science, P. O. Box 7062, Kampala, Uganda

<sup>4</sup>Regional Universities Forum for Capacity Building in Agriculture (RUFORUM), Plot 515 Garden Hill, Makerere University, P. O. Box 7062, Kampala, Uganda

Corresponding author: [ankaaya@agric.mak.ac.ug](mailto:ankaaya@agric.mak.ac.ug)

**Abstract**

Africa's development will depend largely on three key factors; political stability, a vibrant agricultural sector and a pool of skilled, innovative and entrepreneurial graduates able to spur innovations. This paper outlines the rationale for bringing together over 300 African M.Sc. and PhD students, together with their university peers and other mentors to a conference on "Building Capacity for Food Security in Africa". The conference was held 20 - 24 September 2010 in Entebbe, Uganda. The aim of the conference was to share lessons on on-going research and training being done at various African universities with the purpose of building capacity in support of the Comprehensive African Agricultural Development Programme (CAADP). The article provides the rationale and expectations for organising the conference.

Key words: Africa, CAADP, Capacity Development

**Résumé**

Le développement de l'Afrique dépendra en grande partie de trois facteurs clés : la stabilité politique, un secteur agricole dynamique et un pool des diplômés qualifiés, innovateurs et entrepreneurs, capables de stimuler des innovations. Ce document expose les raisons de rassembler plus de 300 étudiants Africains de maîtrise et de doctorat, en collaboration avec leurs pairs des universités et d'autres mentors à une conférence sur le thème "Renforcement des capacités pour la sécurité alimentaire en Afrique". La conférence s'est tenue du 20 au 24 Septembre 2010 à Entebbe, en Ouganda. L'objectif de la conférence était de partager les expériences sur les recherches en cours, la formation étant faite dans de nombreuses universités africaines dans le but de renforcer les capacités à l'appui du

Programme de Développement Agricole complet de l'Afrique(CAADP). L'article prévoit les motifs et les attentes pour l'organisation de la conférence.

Mots clés: Afrique, CAADP, développement des capacités

## **Background**

The Millennium Development Goals (MDGs) are a set of mutually reinforcing targets set by World Leaders in 2000 to reintroduce the urgency required in the fight against world hunger and poverty. In Africa, the African Union, followed up the MDGs commitments with formation of the New Partnership for Africa's Development (NEPAD) and subsequently designed the Comprehensive African Agricultural Development Programme (CAADP) as the blue print for revitalising African agricultural sector to stimulate economic growth in the continent. The NEPAD vision for agriculture is that the continent should, by 2015:

- Attain food security (in terms of both availability and affordability and ensuring access of the poor to adequate food and nutrition);
- Improve the productivity of agriculture to attain an average annual growth rate of 6 percent, with particular attention to small-scale farmers, especially focusing on women;
- Have dynamic agricultural markets between nations and regions;
- Integrate farmers into the market economy, including better access to markets, with Africa to become a net exporter of agricultural products;
- Achieve more equitable distribution of wealth;
- Be a strategic player in agricultural science and technology development; and
- Practice environmentally sound production methods and have a culture of sustainable management of the natural resource base (including biological resources for food and agriculture) to avoid their degradation.

These aspirations are guiding agricultural policy frameworks throughout the continent, including development of country-specific investment plans, commonly called country compacts.

Endowed by immense natural resources, over 70% of employment in sub-Saharan Africa is generated in the agricultural sector, and agriculture contributes over 35% towards

GDPs of almost all countries in SSA. The CAADP, built fully on the aspirations of NEPAD, recognises the central role that agriculture holds in the livelihood strategies of African farmers, and importantly, towards sustaining African economies. In light of this, CAADP sets an ambitious target of increasing agricultural production by at least 6% per annum till 2015 through agricultural led strategies. Unfortunately, since its inception, few countries have met this target and under current scenario, it is unlikely that a significant proportion of countries will meet this target consistently. African farmers still do not produce enough food for their populations and Africa still imports over 25% of its food. Populations continue to rise, and are expected to have more than doubled to 1.8 billion by 2050. The challenge remains how to spur agricultural development in SSA in a sustainable manner, while maintaining the natural resource base.

Despite the above, African agriculture still present good investment opportunities, some key aspects are highlighted below:

1. Agriculture employs a majority of African nation populations (most cases close to 80%), providing a potential strategy for systematically moving them out of poverty;
2. Various productivity enhancing technologies, including tools and approaches, are currently available that, if adopted, could immediately result in higher yields. For example, cereal yields in Africa still lag far behind those of other region such as in South and East Asia (2.5times higher), fertilizer rates are some of the lowest in the World, and various technologies still lie on shelf;
3. There are various new tools and approaches that can be adapted from northern and other southern countries to enhance productivity. Islands of success are commonly reported at project level, but little know how exists on how to up and out-scale this;
4. There is political will and commitment towards agricultural led development in many countries of SSA. African governments have pledged to increase funding towards agricultural research for development to up to 10% of GDP.
5. African institutions are largely weak, with inadequate physical and human capacity. With targeted capacity building (individual and institutional strengthening), much gain can be made from the available meager resources.
6. Africa has a wide range of diverse agro-ecologies that are littered with natural resources. This presents both a challenge, but also a mine that can be exploited for development.

However, in order for Africa to take full advantage of the above opportunities, there will be need for a critical mass of agricultural graduates able to work with farmers and other stakeholders and provide, through participatory approaches, increasing opportunity for local grown innovative solutions to farmer centred problems. The graduates required will be those that possess entrepreneurship skills and are able to solve farmer related problems; provide leadership in identifying and exploiting opportunities available at farmer level for increased productivity and income; and support farmer empowerment (Blackie *et al.*, 2009). To produce such a graduate, higher education institutions must make a clear 'shift' in current training approaches, beyond the current curriculum reviews. In line with this, several African universities have been supporting development and implementation of training and research to urgently produce human and institutional leadership in support of the CAADP process. Within Eastern, Central and Southern Africa, a consortium of 25 universities, under the umbrella of the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) has organised itself to rapidly re-build the human resource to support agricultural innovations in the continent (Ekaya *et al.*, 2010, this volume). RUFORUM has established networks of leadership, to provide strategic response in key development research and training needs in the region and in support of the CAADP process. The programmes, at Ph.D and M.Sc. levels, target imparting to students, university researchers and their partners skills that focus on ensuring greater social benefits to the community. RUFORUM encourages the students and their faculties to have more opportunity to network with one another and other professionals in similar fields. In addition, students are required to obtain further experience with presentation skills to ensure scientific robustness and communication skills for development.

In the career of a scientist working in agricultural development, the demands and responsibilities of communicating research will vary both in their scope and the intended audience. Young researchers will communicate research for which they are responsible differently from the way program leaders, for example, communicate work for which they are responsible. Whether young or not, the questions of "when" and "to whom" research needs to be communicated are fundamental. In Africa in particular, researchers at various stages in their career face the challenge of communicating their findings in peer reviewed journals and to the wider stakeholder communities. Preparing

articles for publication in journals is a complex task, requiring many different skills. The manuscripts are then subjected to a peer-review process during which many papers are rejected. Communicating to the wider audience, especially end user and policy is often even more challenging.

### **Conference Outcomes**

The 20 - 24 September 2010 conference on Building Capacity for Food Security in Africa, was organised by Makerere University with support from RUFORUM, with the purpose of providing a platform to reflect on the research and training being undertaken by African universities in support of the CAADP agenda. It drew over 300 participants from across Africa and beyond. It brought together young scholars, M.Sc. and PhD students, university researchers and other research actors and development practitioners. The key objective of the 20 - 24 September 2010 conference was to provide a platform for research for development stakeholders in the region to network, share experiences and lesson learn towards enhanced capacity for implementing innovative research and training initiatives in support of African agricultural development.

### **Conference Objectives and Organisation**

The conference addressed the following themes;

- Innovations and approaches for outreach and engagement with communities
- New approaches for capacity development
- Human Resource Development Strategies
- Agrotechnology development and markets
- Value addition for improved health and wealth creation
- Responding to emerging challenges such as climate change

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The Conference provided an opportunity for young and older scientists to network and lesson learn about Africa's development challenges and opportunities. Critically important was that the conference exposed young researchers to professional gatherings and provided avenue for communicating research findings while keeping them aware of current development trends in the African continent. It provided an opportunity for the old scientists to mentor and guide the younger scientists through discussions and deliberations. The contacts established during the conference and others have in the past resulted into longstanding institutional partnerships. It is an experience that transforms and broadens the thinking of graduate students, and opens up new vistas in them. The ultimate benefit of such networking is mentoring, information sharing, and resource sharing and mobilization for further research.

## References

- Blackie, M., Mutema, M. and Ward, A. 2009. ASARECA/RUFORUM THRUST 4: A study of Agricultural Graduates in Eastern, Central, and Southern Africa: Demand, Quality and Job Performance Issues. ASARECA and RUFORUM.
- Ekaya, W.N., Chindime, S.C., Osiru, M., Ochola, W., Dhlamini, N. and Adipala, E. 2010. Experiences and lessons from implementing RUFORUM supported regional MSc. and PhD programmes. Second RUFORUM Biennial Meeting, 20 - 24 September 2010, Entebbe, Uganda (this volume).