

Research Application Summary

**Linking African agricultural universities to research-users through the multi-stakeholder partnerships: Experience from PAEPARD**

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**Abstract**

Since 2010, the African European Partnerships on Agricultural Research for Development (PAEPARD) is promoting a multi-stakeholder partnership (MSP) approach, involving non-research stakeholders, as a new way of co-creating and using knowledge and improving the collaboration among actors in solving the challenges faced by smallholder farmers on the African continent. More than 24 MSP have been created along different value chains across 17 African countries through two brokering mechanisms: open calls and Users' Led Process (ULP) which is in itself a MSP approach. The MSP has shown advantage of serving as fora in identifying and expressing the real challenges of farmers and offers a space for knowledge co-creation in addressing those challenges and therefore ensuring the sustainability of actions. In this study, we bring out the experience and role played by 4 African agricultural universities engaged in 4 different MSP. These 4 case studies expose the significant role of African Universities in building capacity of non-research stakeholders. Although some European universities are playing a key role in the MSP promoted by PAEPARD they are referred to but not developed in this paper which focusses on African universities' experience. The purpose of this paper is to stimulate debate and call on African universities - using evidence from the PAEPARD experience - to increase their participation and engagement in MSP and integrate this approach in their research, teaching and outreach for the benefit of African farmers especially smallholder farmers thereby contributing to achieving the AU 2063 Agenda for Change and SDGs.

Key words: Co-creating, collaboration, multi-stakeholder partnership, Universities, value chains

**Résumé**

Depuis son lancement en 2010, la Plate-forme de Partenariats Afrique-Europe en Recherche Agricole pour le Développement (PAEPARD - en Anglais) fait la promotion de l'approche des partenariats multi-acteurs impliquant les non-chercheurs comme une nouvelle voie de concrétion et utilisation des connaissances et un mécanisme de collaboration entre différent

acteurs en vue de relever les défis que rencontrent les petits producteurs africains. En suivant cette approche plus de 24 partenariats multi-acteurs ont été formés sur différentes chaînes de valeur et sont opérationnels dans 17 pays d'Afrique comme résultant des deux mécanismes de courtage utilisés: appels à propositions ouverts et le processus guidé par les utilisateurs (PGU) qui est elle-même une forme de partenariats multi-acteurs. L'approche multi-acteurs présente l'avantage de travailler sur les défis identifiés par les producteurs eux-mêmes tout en offrant un espace de cocréation des connaissances par différents acteurs ce qui garantit la durabilité des actions. Le but de cet article est de lancer un débat et un appel - en s'appuyant sur les évidences renseignées de l'étude de cas de PAEPARD - aux universités d'augmenter leur participation et engagement dans les partenariats multi-acteurs; d'intégrer cette approche dans leurs programmes de recherche, d'enseignement et de vulgarisation agricole pour le bienfait des fermiers africains spécialement les petits producteurs contribuant à réaliser les objectifs de développement durable au bénéfice de petits producteurs africains. Ceci va contribuer à réaliser le programme de l'Union Africaine appelé « AU 2063 Agenda for Change » ainsi que les objectifs de développement durables.

Mots clés : Les partenariats multi-acteurs, la co-création, la collaboration, les universités, les chaînes de valeur

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### **Introduction on African universities**

African universities – including those having agriculture component – have a triple mission: (i) teaching; (ii) research conducted in all its forms (fundamental and applied research); and (iii) community engagement. If African universities struggle to fulfil the first mission, it is rare to see them playing the last two missions. There are several reasons which can be linked to historical ties with the West and inadequate funding and human resource capacity. The two worlds (university and the African society) are opposite and the university appears as a stranger corps in its society. Agricultural universities don't appear to participate sufficiently in addressing the real challenges of the communities; although this is changing. The observation is recognized by the Abuja Declaration on the Role of Higher Education (2009) which states that: *“The African Higher Education research agenda tend to focus on purely academic and scientific objectives in order to ensure publication in refereed journals, with little regard to developmental needs because of the ‘publish or perish’ syndrome. Most of the research works in Africa are rarely relevant to the search for continental solutions to health, education, water, climate change, energy and food security - all sustainable development indices. Where research has been conducted in relevant areas, the findings have remained largely on shelves and unavailable to those who need to take action or implement the often useful recommendations”*. Studying the policy of higher education in the Democratic Republic of Congo, Aurélie Maketa (2011) talks of *“encyclopaedic knowledge”* and a *“mismatch between training and real needs of the society”* which leads to the creation of *“parasite graduates”*.

### **Policies, programs and strategies bridging the gaps**

Since some years, efforts have been undertaken to get universities engaged with surrounding communities in addressing their challenges. According to the Council of High Education

(2010), in South-Africa, “Universities are involved in many activities structured around research, teaching and outreach that entail engagement with a wide range of communities, but these activities are uncoordinated and are the result of individual initiative, rather than of strategically planned, systematic endeavours”. To support these initiatives, bridge the gaps and ensure a common orientation to the continent’s education, the African Union Heads of State and Government during their Twenty-Sixth Ordinary Session on 31 January 2016 in Addis Ababa adopted the Continental Education Strategy for Africa (CESA 2016-2025) as the framework for transformative education and training system in Africa; in relation with objective 4 of the sustainable development goals. The strategy stipulates that those in charge of its implementation will reorient Africa’s education and training systems to meet the knowledge, competencies, skills, innovation and creativity required to nurture African core values and promote sustainable development at the national, sub-regional and continental levels. Amongst the 12 strategic objectives pursued by CESA the ninth is on to “Revitalize and expand tertiary education, research and innovation to address continental challenges and promote global competitiveness. Prior to the CESA, the African Heads of States in 2014 in Malabo adopted the Science, Technology and Innovation Strategy for Africa (STISA) 2024 to enhance the use of Science, technology and innovation to underpin social and economic development in Africa. They also during the same summit, showed their “Recommitment to the Principles and Values of the CAADP Process”.

Without intending an epistemological reflection on the changes occurring and the quality of services rendered by universities, this discussion paper focusses on the experience of some African agricultural universities (colleges and faculties of agricultural) involved in the implementation of PAEPARD projects.

### **PAEPARD project and its approach to the MSP**

The Platform for African-European partnership in Agricultural Research for Development (PAEPARD) is an eight-year project sponsored by the European Commission (80%) and partner’s own contribution (20%). It is coordinated by FARA who signed the contract agreement as the beneficiary with the EC on the 16<sup>th</sup> December 2009 initially for three years before a no-cost extension of one year (2013) and another extension of four years (2014-2017). The project aims at building joint African-European multi-stakeholder partnerships in Agricultural Research for Development (ARD) contributing to achieving the Millennium Development Goals (MDGs) now (since September 2015) Sustainable Development Goals (SGDs) with a complex institutional architecture as shown in Figure 1.

### **Brokering the MSP: open calls and the Users’ Led Process**

To achieve the specific objective of “Enhanced, more equitable, more demand-driven and mutually beneficial collaboration of Africa and Europe on agricultural research for development with the aim of attaining the MDGs” PAEPARD II launched calls for proposals in 2010 and 2011. From the two calls almost 151 MSP were formed around common innovation challenges (federating themes). These MSP received the name of **ARD consortium** defined by PAEPARD partners (2011) as “A group of partners formed to

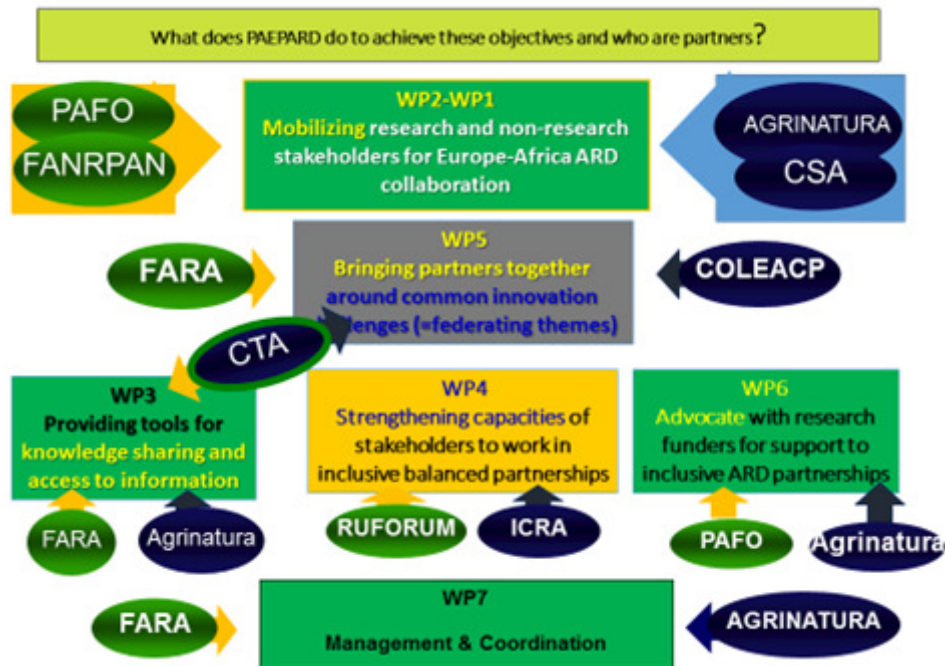


Figure 1. PAEPARD partners

address a common challenge that have formalized their agreement to collaborate through e.g. a series of bilateral Memoranda of Agreement or a joint consortium agreement. An ARD consortium is led by a lead-partner and composed of partners that complement each other and contribute each and together to clearly targeted development impacts”.

As PAEPARD could not support all these consortia, it undertook a rigorous selection process from which only the 9 and 10 best and promising concept notes were retained from call 1 and call 2, respectively. The selected MSP had to undertake a brokerage partnership process defined in partnership formation, inception workshop and write-shops (depending on availability of calls).

Kibwika and Clavel (2010) describe the process in three steps: partnership exploration, partnership building and partnership maintenance. This process was still going on in some consortia when PAEPARD non-research stakeholders expressed their concern saying it (process) was a top down approach which doesn't ensure the ownership and the needs of farmers. Moreover, the process was, according to them, a kind of competition between them and research scientists. The same partners questioned the sustainability of the process as well because partnerships were opportunistically and ad hoc created around the PAEPARD open call instead of being based in long term cooperation. Based on these criticisms PAEPARD partners agreed to reflect on a new partnership brokerage that could address the issue put on the table by non-research stakeholders. Reflections and consultations led to a definition of a new brokerage mechanism named the Users' Led Process (ULP) because

it gives a prominent role and time to users in the definition of the ARD agenda. The ULP was defined in six steps as shown in Figure 2.

The concept of the ULP as presented in the above diagram was refined along the implementation process to make it more clear and understandable by all partners. To operationalize the concept of the ULP, five PAEPARD non-research partners engaged, with others actors, in the process around the five following themes piloted in specific countries:

- (i) Extensive Livestock value chains in Eastern Africa with Specific focus on Kenya and Uganda. EAFF
- (ii) Urban horticulture crops value chain with specific focus on Congo Brazzaville, DR Congo & Cameroon. PROPAC
- (iii) Rice value chain in Benin, Burkina Faso and Mali. ROPFA
- (iv) Ground nut value chain in Zambia and Malawi. FANRPAN
- (v) Adding value to Mango non-food uses in West Africa (Burkina-Faso, Cote d'Ivoire, Senegal). COLEACP

Later in the extension phase two funding instruments was given to PAEPARD consortium to enhance the MSP. Those are the Competitive Research Fund (CRF) and the Incentive Fund (IF). The first one was made of 4 pilot projects to support the implementation the MSP and document the process for a period of three years. The second one more ponctual was made to support consortia to achieve inception workshops, write-shops, exchange visits and studies. Whether in first or the second instrument, African and European universities are playing a key role in the MSP.

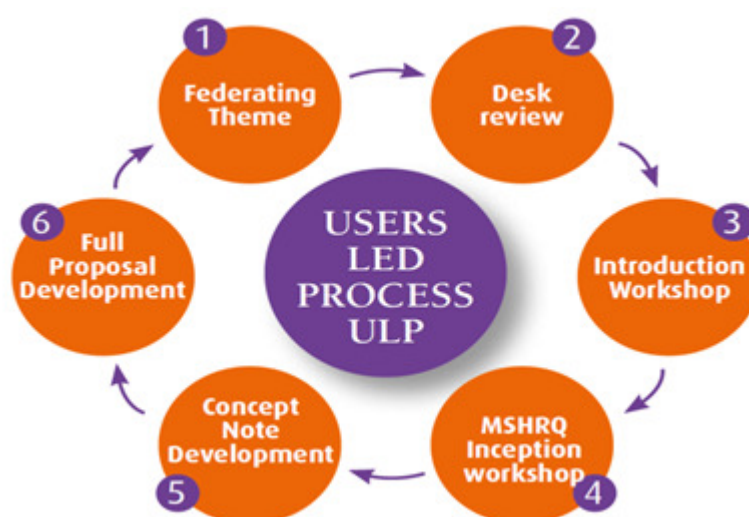


Figure 2. The partnership brokerage based on the Users' Led Process

## **Involvement and role of African universities in the MSP**

During the two calls launched by PAEPARD in 2010 and 2011 many African universities joined other actors to form the MSP around different value chains. Out of 150 concept notes received from the two calls, 21 were led and submitted by universities from which 6 were selected out of a total of 19 that got PAEPARD support. This represents 31.6%. Likewise the concept notes, 6 Agricultural Innovation Facilitators (AIFs) from African universities were selected (25%) to be trained in a cohort of 24 AIFs who received the facilitation training. Since then universities have been playing diverse roles in the consortia facilitated by PAEPARD such as helping non-research actors to better articulate their needs, developing competitive proposals and improving traditional technologies used by non-research stakeholders such farmers and private sector as is described in the four examples summarized in the following paragraphs. Although PAEPARD is about African and European partnerships this paper emphasizes on the role of some African Agricultural Universities.

**1. University of Abomey-Calavi.** This university, through the Faculty of Agriculture, has joined other actors notably Sojagnon which is a national Non-Governmental Organization (NGO), the Federation des Unions de Producteurs (FUPRO) du Benin in which we have Union Communale de Producteurs de Zogbodomey to which belongs the Association des Femmes Transformatrices de Zogbodomey who are processing soybean milk and Afitin using traditional technologies to create a consortium on soy-bean processing. Last but not least to complete the list is the Institut National des Recherches Agricoles du Benin (INRAB). All this setting around “*Re-engineered Soybean Afitin and Soybean Milk processing technologies in South and Central Benin*”. The University of Abomey-Calavi is engaged in improving a local soybean spicy known as “Afitin<sup>1</sup>”. It is produced by women in rural area of Benin and especially in South and Central of Benin but in non-hygienic conditions which is source of allergies and gastro-intestinal infections. Five MSc students are working from production to commercialization adding value to the product (Afitin). The University of Abomey-Calavi has mobilized its team of microbiologists and food scientists to carry out the research in collaboration with the University of Wageningen and the University of Lisbon. At the same time the university has been very pro-active in resource mobilization and they have won the PAEPARD CRF of 300,000• and other three projects from the Dutch Applied Research Fund (ARF) with an envelope of 300,000• each project. The new technology used by the women of Zogbodomey to process soy-bean milk has increased the shelf life from one day to six months. At the soy-bean Afitin spicy has completed the consumers’ validation stage and will be very soon put in the market.

**2. University of Ghana.** The University of Ghana, through the Crop Science Department and its Forest and Horticultural Crops Research Centre based at Kade in East Region, is involved in a consortium that in 2011 submitted a concept on *Angular Leaf Spot disease* of citrus. The consortium comprised other partners including Citrus Growers and Marketing Association of Ghana (CIGMAG), Plant Protection and Regulatory Service Directorate (PPRSD), Pinora Limited (Citrus processor) and Instituto Valencia no de Investigaciones Agrarian of Spain. Since, the consortium has been meeting to reflect on the issue of Angular Leaf Spot disease of Citrus, train farmers and other stakeholders on how to minimize the

damages caused by the disease and how to gain access to markets. To reach the objective, the University of Ghana has helped citrus producers to set up a strategic innovation platform at national level and 3 regional innovation platforms (with a total of 1,550 members) used to reach producers. The strategic innovation platform operating at national level involves some members of the parliament of Ghana who have played a big role in creating the awareness on the issue that was considered as the most devastating element of the citrus industry in Ghana. In 2014, the strategic innovation platform got a support from the Sub-Saharan Challenge Program (SSA CP) to build the capacity of stakeholders in working together. The disease is about to be controlled with the use of the concept of the Innovation Platform (IP) in scaling out the technology developed by scientists of the university of Ghana and other stakeholders including producers. Also the IP has attracted other partners such as GIZ who are dealing with marketing of citrus and the Fruit Fly project funded by the World Bank via CORAF.

**3. Uganda Christian University.** The Uganda Christian University (UCU) is a young university whose headquarters are established in Mukono District in the periphery of Kampala city. The university has a faculty of Science and Technology in which the department of agriculture is operating. At the same time UCU has ambitions to become a centre of excellence in linking with rural communities. It is with this idea that the university went out from its laboratories and classrooms to engage with communities of vegetable producers in Jinja (Central Uganda) and Mbale (Eastern Uganda) on *'Enhancing nutrition security and incomes through adding value to indigenous vegetables in East and Central Uganda'*. Beside the improvement of production, UCU with partners that include Makerere University, a private sector and a local NGO, are searching for technologies – affordable and adoptable by farmers - that minimize post-harvest losses and prolong the shelf life which are big challenges in vegetable production and marketing. The post-harvest losses and the shelf life pass through the selection of the germplasm with relevant characteristics and the improvement of the germplasm via plant breeding, good handling and storage practices (Kizito, 2016). At Makerere University and UCU two 2 postgraduate students are carrying out research post-harvest losses and germplasm characterization.

The team involved in the project has been using radio station notably Radio Simba 97.3FM to create awareness and mobilize producers and marketers around the theme. The format of the radio-shows allows vegetable producers to ask questions and this has helped the project team to identify some of the critical challenges facing the growers. The shows have proved to be very popular and are now being broadcast once a week. The project team has also produced a video documentary on indigenous vegetable production which is available online.

**4. University of Burundi.** Like other African universities, the University of Burundi does not have a tradition of working in a MSP involving research-users until they decided, with the national confederation of farmer organizations (Confederation des Associations Agricoles pour le Developpement\_CAPAD), to respond to the call launched by PAEPARD in 2010. The two partners were then joined by other actors including the Institut des Sciences Agronomiques du Burundi (ISABU), a private sector organization (PHYTOLABU) and a

European partner (Wallon Centre for Irish Potato Research, Belgian) to create a MSP around «*Participatory Development of Irish Potato Technologies and Promotion of Gender and Environmentally-Friendly Innovations in Burundi* ». Since then the Irish potato MSP has been active in availing improved seeds to producers, building their capacity in the use of new technologies and developing proposals in response to different calls. In 2014 the consortium has been granted - with the support from PAEPARD - 300,000• from the Dutch Applied Research Fund (ARF). The main activities of the consortium have been the capacity building in high quality potato seeds production, seeds supply and marketing, storage etc.

### **Conclusion**

Using the example of PAEPARD, we have described how some African universities are involved in the MSP promoted by PAEPARD and therefore delivering their full mandate of technology development and capacity building of producers. Thanks to the experience of universities in proposals development and their capacity of intervention management, some of the MSP have secured further funds. We expect those universities to document their place and roles played in the MSP so as to be shared through RUFORUM network to benefit all universities. Also the successful use of postgraduate students is one way in which universities can make a very effective contribution to development-oriented research. The PAEPARD case studies when well documented can feed in the reflection around the curriculum change.

### **Acknowledgement**

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