

Research Application Summary

Aligning University graduates and agribusiness opportunities to African agricultural transformation

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Abstract

African universities provide tremendous expertise in the areas of agricultural science but too many of their graduates have difficulty in applying these skills within business workplaces. This is attributed to disparity between the growth of universities and the economies they are intended to reinforce, focus on technologies rather than accompanying business skills, and employment opportunities being less determined by merit than other factors. The net effect is that skilled graduates find it difficult to land meaningful employment, causing many to accept lifestyles well below their expectations. At the same time, decades of agricultural research have now resulted in new technologies and innovations that offer opportunity to improve agricultural production and profits, but these breakthroughs remain under-adopted. Ironically, these same marginalized youth are urgently needed to modernize African agriculture in a way that achieves food and nutritional security and revitalizes rural economies. How best can we align these graduates to unfolding agribusiness opportunities related to proven agricultural technology breakthroughs? A pathway is to promote agribusiness start ups that incorporate these technologies into rural-based profitable enterprises that provide decent incomes for their entrepreneurs and that grow to provide additional employment for others. Recognizing this prospect, the International Institute of Agriculture (IITA) launched its Youth in Agribusiness programme (often referred to as Agripreneurs) where under-employed graduates of different disciplinary backgrounds participate in pilot agricultural enterprises in a manner that provides balanced experiential learning needed to create their own successful business. Also included in this empowerment model is training in business planning, leading to grant and credit opportunities for agribusiness start up, backstopped by a range of support services. Starting with a single agribusiness incubation in Nigeria in 2012 of 40 youth operating six pilot enterprises, the Agripreneurs have grown into a movement in 13 countries. Technology-led enterprises particularly attractive to youth include production of improved and newly released grain and legume seed; vegetative production of cassava, yams and sweet potato; fish and poultry raising; farm mechanization; production of high-value vegetables; and value-added processing. In addition, youth-led agribusiness innovation was also shown capable of reviving stalled rural development projects and stagnating commercial farms. The strength of this approach was recognized by the African Development Bank that launched the ENABLE Youth country loan programme to further scale up this youth-led effort. So too, the recent Technologies for African Agricultural Transformation Programme has included a “Youth Enabler” to backstop efforts to advance nine key agricultural commodities that quickly resulted in 54 youth-led agribusiness start ups. But the Agripreneur Movement was never intended by IITA to become a permanent feature of the international research landscape, rather universities and vocational schools are expected to adopt

the principles that have led to its success within both curricular and extra-curricular activities. All graduates in agricultural science should have advanced understanding of agribusiness sufficient for them to start their own enterprise. Graduate placement could also include credit institutions as well as perspective employers. So too, universities can launch their own agribusiness incubations where participating students both develop experiential skills and obtain modest incomes. Many universities have launched agribusiness curricula, but how well balanced are scholarly and practical knowledge, and how closely is learning linked to the breakthrough technologies expected to modernize African farming? And what are the universities learning from their graduates who then go on to form their own successful or failed agribusinesses? Indeed, a paradigm shift in agribusiness perspectives must start with the Universities themselves and this could be led by the RUFORUM.

Key words: Agribusiness incubation, agripreneurs, business skills, employment opportunities, experiential learning, youth

Résumé

Les universités africaines fournissent une expertise considérable dans les domaines de la science agricole, mais un grand nombre de diplômés arrivent difficilement à appliquer ces compétences au sein de leurs entreprises. Ceci est dû à la disparité entre la croissance des universités et les économies qu'elles sont censées renforcer, l'accent sur les technologies plutôt que sur les compétences en business, et les opportunités d'emploi moins déterminées par le mérite que par d'autres facteurs. L'effet net est que les diplômés ont du mal à trouver un emploi intéressant, ce qui pousse beaucoup à accepter des styles de vie bien inférieurs à leurs attentes. Dans le même temps, des décennies de recherche agricole ont abouti à de nouvelles technologies et innovations qui offrent la possibilité d'améliorer la production et les profits agricoles, mais ces technologies ne sont pas adoptées. Ironiquement, cette même jeunesse marginalisée est nécessaire pour la modernisation de l'agriculture africaine, assurer la sécurité alimentaire et nutritionnelle et revitaliser les économies rurales. Comment positionner au mieux ces diplômés sur les opportunités agro-industrielles liées aux avancées technologiques dans le domaine de l'agriculture? Une voie à suivre consiste à promouvoir les nouvelles entreprises agroalimentaires intégrant ces technologies dans des entreprises rentables basées en milieu rural. Conscient de cette perspective, l'Institut international de l'agriculture (IITA) a lancé son programme «Les jeunes dans l'industrie agroalimentaire» (souvent désigné sous le nom d'Agripreneurs). Ce modèle inclut également une formation en planification d'entreprise, qui offre des possibilités de subvention et de crédit pour le démarrage d'entreprises agroalimentaires. A partir d'une seule incubation d'agro-industries au Nigéria de 40 jeunes exploitant six entreprises pilotes, le réseau d'agripreneurs s'est étendu dans 13 pays. Les entreprises axées sur la technologie, et attractives pour la jeunesse, comprennent la production de semences de céréales et de légumineuses améliorées et nouvellement libérées; production végétative de manioc, d'igname et de patate douce; élevage de poisson et de volaille; mécanisation agricole; production de légumes de grande valeur; et traitement à valeur ajoutée. En outre, il a également été démontré que l'innovation agroalimentaire dirigée par les jeunes, pouvait relancer des projets de développement rural en panne et des exploitations commerciales stagnantes. La Banque africaine de développement a reconnu la force de cette approche en lançant le programme de prêts «ENABLE Youth » afin de soutenir cet effort. De même, le récent programme Technologies pour la transformation de l'agriculture en Afrique a considéré «Youth ENABLER» pour appuyer les efforts de promotion de neuf produits agricoles clés, ce qui a rapidement permis la création de 54 entreprises agroalimentaires jeunes. Les universités et écoles professionnelles devraient plutôt adopter les principes qui ont conduit à ces succès. Tous les diplômés en sciences agricoles devraient avoir une connaissance approfondie du secteur agroalimentaire leur

permettant de créer leur propre entreprise. Le placement des diplômés pourrait également considérer les établissements de crédit ainsi que des employeurs potentiels. Les universités peuvent également lancer leurs propres incubations dans le secteur agroalimentaire, pour que les étudiants développent des compétences expérientielles et obtiennent des revenus modestes. De nombreuses universités ont lancé des programmes agroalimentaires, mais les connaissances théoriques et pratiques sont-elles bien équilibrées et l'apprentissage est-il étroitement lié aux technologies de pointe qui devraient permettre de moderniser l'agriculture africaine? Et qu'est-ce que les universités apprennent des diplômés qui ont créé, réussi ou échoué dans leurs propres agro-industries? En effet, un changement de paradigme dans les perspectives de l'agro-alimentaire doit être initié par les universités elles-mêmes, et cela pourrait bien être mené par le RUFORUM.

Mots clés: incubation d'entreprises agroalimentaires, entrepreneurs agricoles, compétences en affaires, possibilités d'emploi, apprentissage par l'expérience, jeunesse

Introduction

The pressing issue of widespread unemployment among youth across Africa and their larger economic marginalization results from many years of “jobless growth” and is linked to civil unrest and a host of social ills (FAO, 2014; AGRA, 2015). This is especially true among rural youth upon graduation from secondary, vocational and tertiary schooling where few employment opportunities exist and graduates are discouraged from entering into farming because of its perceived lowly status and unlikely possibility of meeting expected livelihood aspirations (White, 2015). Ironically, agricultural transformation is viewed by development planners as the frontier for economic growth in Africa (IITA, 2017; AfDB, 2018) but its greatest asset, the ambition, enthusiasm, and energy of youth, is not being effectively mobilized in this direction. As a result, far too many African youth find themselves in despair and idleness or adopting dangerous lifestyles (White 2015; Ripoll *et al.*, 2017). In response to this dilemma, the International Institute of Agriculture (IITA) pioneered the Agripreneur movement that led to a youth empowerment model built around experiential learning and entrepreneurship that has proven successful to impart mindset change and stimulate agribusiness start-up (Ohanwusi *et al.*, 2018).

Setting the stage. Indeed, African universities provide tremendous expertise in the areas of agricultural science but too many of their graduates have difficulty in applying these skills within business workplaces. Various explanations are offered for this situation including disparity between the growth of universities and the economies they are intended to reinforce, focus upon technologies rather than accompanying business skills, and employment opportunities being less determined by merit than other factors (AGRA, 2015). Some infer this to result from a mismatch between curricula and the skill sets demanded by employers (Brooks *et al.*, 2012). The net effect is that skilled graduates find it difficult to land meaningful employment, causing many to accept lifestyles well below their expectations. At the same time, decades of agricultural research have now resulted in new technologies and innovations that offer opportunity to improve agricultural production and profits, but these breakthroughs remain under-adopted. Ironically, these same marginalized youth are urgently needed to modernize African agriculture in a way that achieves food and nutritional security and revitalizes rural economies. How best can we align these graduates to unfolding agribusiness opportunities related to proven agricultural technology breakthroughs?

Enter the Agripreneurs. A pathway is to promote agribusiness startups that incorporate these technologies into rural-based, profitable enterprises that provide decent incomes for their entrepreneurs

and that grow to provide additional employment for others. Recognizing this prospect, IITA launched its Youth in Agribusiness programme, often referred to as the IITA Youth Agripreneurs (IYA) where under-employed graduates of different disciplinary backgrounds participate in pilot agricultural enterprises in a manner that provides balanced experiential learning needed to create their own successful business. Indeed, the Agripreneur Movement is based upon iterative problem solving by providing recent university graduates the means to identify and achieve their livelihood goals. The International Institute of Tropical Agriculture does not act as an impartial observer as do too many others intent on merely documenting youth marginalization (Ripoll *et al.*, 2017), but rather applies its expertise “real world” engagement with modern agriculture (Owoeye *et al.*, 2016), and for this reason IYA has proven itself to be a good fit within many rural development programmes (Ohanwusi *et al.*, 2018).

Since its very beginning, the role of youth within technology transfer and agricultural transformation were considered essential features within IYA. Opportunities for youth span the entire value chains of numerous agricultural commodities and are best advanced through its unique approach to agribusiness incubation, experiential learning, and mentoring that results in business skill sets and creditworthiness. This in turn leads to agribusiness start up and self-employment, and employment of others as youth-led businesses grow. Opportunities for these businesses abound across many commodity value chains in terms of production, aggregation, processing, marketing, and service provision. Also included in this empowerment model is training in business planning and management (Woomer *et al.*, 2015), leading to grant and credit opportunities for agribusiness start up backstopped by a range of support services.

IITA Youth Agripreneurs have become a high-profile mechanism toward strengthening youth participation in agricultural transformation through agribusiness establishment and growth.

Since its exploratory startup as one group in 2012, it has grown to 13 groups with over 385 members operating 36 learning-by-doing enterprises in six countries, with six more countries in advanced stages of development (Ohanwusi *et al.*, 2018). All members hold university degrees with 84% drawn from agriculture, business and science, and women constitute 48% of membership. A majority (66%) are pursuing the expected entrepreneurial track, but many others seek employment as business and marketing managers (10%) or regard their internships as a means toward working in rural development (15%). All of these outcomes are considered positive but only business startup offers opportunity for direct economic growth and increased employment. Technology-led enterprises particularly attractive to youth include production of improved and newly released grain and legume seed; vegetative production of cassava, yams and sweet potato; fish and poultry raising; farm mechanization; production of high-value vegetables; and value-added processing (Owoeye *et al.*, 2016). In addition, youth-led agribusiness innovation was also shown capable of reviving stalled rural development projects and stagnating commercial farms (Ohanwusi *et al.*, 2018).

Expansion of the Agripreneur model. Two major African Development Bank Programmes (AfDB), ENABLE Youth and Technologies for African Agricultural Transformation (TAAT) greatly increase the reach of IYA. AfDB launched the ENABLE Youth country loan programme to further scale up youth-led agribusiness startups. These loans were issued to Cameroon, Kenya, Madagascar, Malawi, and Sudan, with many other countries in the process of application. So too, the recent AfDB TAAT Programme has included a “Youth Enabler” to backstop efforts to advance nine key agricultural commodities that quickly resulted in 54 youth-led agribusiness start ups. TAAT is also funding youth advocacy campaigns in 19 countries during 2018-2019 that are organized and led by recent university

graduates. It also includes Food Basket Outreach where recent breakthroughs in the area of nutritional security through the release of biofortified bean, cassava, maize and sweet potato varieties are being examined by youth in 10 countries within the context of agribusiness startup. Universities are coming onboard; in Kenya this effort is being backstopped by the University of Nairobi and in Nigeria similar support is provided by the Imo State Polytechnic.

Next steps. But the Agripreneur Movement was never intended by IITA to become a permanent feature of the international research landscape (Ripoll *et al.*, 2017), rather universities and vocational schools are expected to adopt the principles that have led to its success within both curricular and extra-curricular activities. This transition is included within some of the ENABLE Youth grants, and already changes in curricula have occurred, particularly at the vocational level. All graduates in agricultural science should have advanced understanding of agribusiness sufficient for them to start their own enterprise. Graduate placement could also include credit institutions as well as perspective employers. So too, universities can launch their own agribusiness incubations where participating students both develop experiential skills and obtain modest incomes. Many universities have launched agribusiness curricula, but how well balanced are scholarly and practical knowledge, and how closely is learning linked to the breakthrough technologies expected to modernize African farming? And what are the universities learning from their graduates who then go on to form their own successful or failed agribusinesses? Indeed, a paradigm shift in agribusiness perspectives must start with the Universities themselves and this could be led by the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) (www.ruforum.org).

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