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Large-scale Agricultural Land Investments and Employment Creation in Africa: Qualitative Insights from University Farms in Nigeria[1]

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Abstract

There has been an increasing interest in large-scale agricultural land investments (LALIs) in many African countries. Although higher education institutions play a significant role, there remains a lack of comprehensive research on the effects that large university farms have on households in the surrounding communities across Nigeria. Given this knowledge gap, this study investigates the effects of large scale university farms on employment in the host communities. The study provides qualitative insights into the implications of LALIs on employment. It was conducted at three university farms in Nigeria, chosen for their substantial agricultural landholdings. Data were collected through field observations, key informant interviews, and focus group discussions. Relevant findings, including access to and acquisitions of land, diverse employment, remuneration patterns, and implications are documented for the selected farms. The study concludes that although LALIs can create employment opportunities for their host communities, focusing on other areas such as improved remuneration, processing and packaging of farm produce, and social projects will boost their employment creation abilities.

Keywords: agricultural land investments; employment; processing and packaging; university farms; value chain

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Résumé

Les investissements fonciers agricoles à grande échelle (LALIs) font l'objet d'un intérêt croissant dans de nombreux pays africains. Bien que les établissements d'enseignement supérieur jouent un rôle important, il n'existe toujours pas d'études approfondies sur les effets des grandes exploitations agricoles universitaires sur les ménages des communautés environnantes au Nigeria. Compte tenu de ce manque de connaissances, cette étude examine les effets des grandes exploitations agricoles universitaires sur l'emploi dans les communautés d'accueil. L'étude fournit des informations qualitatives sur les implications des LALIs sur l'emploi. Elle a été menée dans trois fermes universitaires nigérianes sélectionnées en fonction de leur superficie et de la taille de leurs opérations. Les données ont été recueillies à partir d'observations sur le terrain, d'entretiens avec des informateurs clés et de discussions de groupe. Les résultats pertinents sur l'accès à et l'acquisition de terres, les divers modèles d'emploi et de rémunération et leurs implications pour les exploitations sélectionnées sont documentés. L'étude conclut que, bien que les (LALIs) sont en mesure de créer des opportunités d'emploi pour leurs communautés d'accueil, des domaines tels que l'amélioration de la rémunération, la transformation et le conditionnement de produits agricoles et les projets sociaux pourraient renforcer leurs capacités de création d'emplois.

Mots clés : investissements fonciers agricoles ; emploi ; traitement et conditionnement ; fermes universitaires ; chaîne de valeur.

Introduction

There has been a rapid increase in large-scale agricultural land investments (LALIs) in many African countries (Amanor 2012). However, there is limited evidence on the implications of such LALIs on households within the communities, especially with respect to employment creation. Given this gap, this study sought to explore the implications of such LALIs on employment creation in Nigeria, which is one of the top 10 LALI destinations in Africa (LMGO 2017; Osabuohien 2014). Similar research has been undertaken in a number of countries in Africa that are LALI destinations, such as Ethiopia, Ghana, Mozambique, South Sudan, Tanzania, and Zambia, (Ahlerup and Tengstam 2015; Barbanente and Aisbett 2016; ElHadary and Obeng-Odoom 2012; Osabuohien et al. 2019; Schoneveld et al. 2011). However, comparatively fewer comprehensve studies in Nigeria have been undertaken, especially in the context of university farms. Recent related studies include Edafe et al. (2023a) and Edafe et al (2023b). The former focuses on female employment outcomes associated with LALIs, while the latter examines food security implications. In

contrast, this present study concentrates on employment creation dynamics within university-managed agricultural farms (LALIs), using qualitative insights that are neither central nor developed in the extant studies.

More so, there is a new policy by the government implemented by the National Universities Commission (NUC), that all universities in Nigeria should develop a curriculum that embraces entrepreneurship and agricultural programmes (Olorundare and Kayode 2014). Consequently, the knowledge gained by undergraduate students makes them potential job creators, rather than job seekers. This is believed to lead to improved employment and economic development in Nigeria.

Furthermore, most of the research efforts that have been carried out on LALIs have hitherto focused on those owned by foreign investors either in part or wholly. The reason is not far-fetched as most databases (such as LMGO, Grain, Oxfam, International Land Coalition) that report investments on LALIs report mainly foreign investors' perspectives. Foreign investors also attract media attention compared to LALIs that are fully owned and operated by domestic investors, which are also contributing to the agricultural transformation taking place in many African countries (Karakara et al. 2021). Another aspect that is not often heard is the involvement in LALIs by institutions of higher learning, especially universities.

Universities are significant actors in regional and national development. The role they play are becoming increasingly important, especially with the privately-owned universities, which are established with core mandates, vision, and missions that drive their activities (Oanda et al. 2008). Private universities in Nigeria are becoming significantly innovative in carrying out their role of knowledge transfer, research, community impact initiatives, and economic, cultural and social development.[2] It is in this light that some private universities have moved beyond owning farmlands for demonstrative (or research) purposes to commercial and industrial activities to create employment and contribute their quota to ensure food security, among others.

Some universities in Nigeria have a primary focus on agriculture. There are also faculties of agriculture in most of the conventional universities. However, with the increase in the number of private universities in the country, there has been a paradigm shift. The increase in private universities has been supported mainly by the involvement of religious organisations in the delivery of higher education. Many of these institutions are set up to tackle perceived skill gaps in society, such as agricultural expertise. Previously, universities involved in agricultural activities (farming) were primarily set up for research purposes and to provide demonstration farms for training and

research.[3] The emergence of private universities[4] has brought a new phase to tertiary agricultural education in Nigeria as some of them not only have research farms but also have commercial farms, which operate as LALIs.

This study explores how LALIs owned by these universities contributed to employment creation in host communities. The hypotheses tested in this study, stated in the alternate, are:

i. LALIs provide employment opportunities for members in their host communities;

ii. LALIs improve the welfare of the individuals in their host communities. This is achieved using a qualitative technique based on field observations, key informant interviews (KIIs), and focus group discussions (FGDs).

The focus of the study on the employment aspects of LALIs was intuitive. This was because employment creation is usually an important factor in the promises made by potential investors when making negotiations (Nolte 2014; Osabuohien 2014; Osabuohien et al. 2015).[5] Another reason is the issue of unemployment in Nigeria – despite the increasing number of LALIs – as well as somewhat commendable economic growth experienced by the country prior to the 2016 recession and subsequent recovery (see Figures 1 and 2).

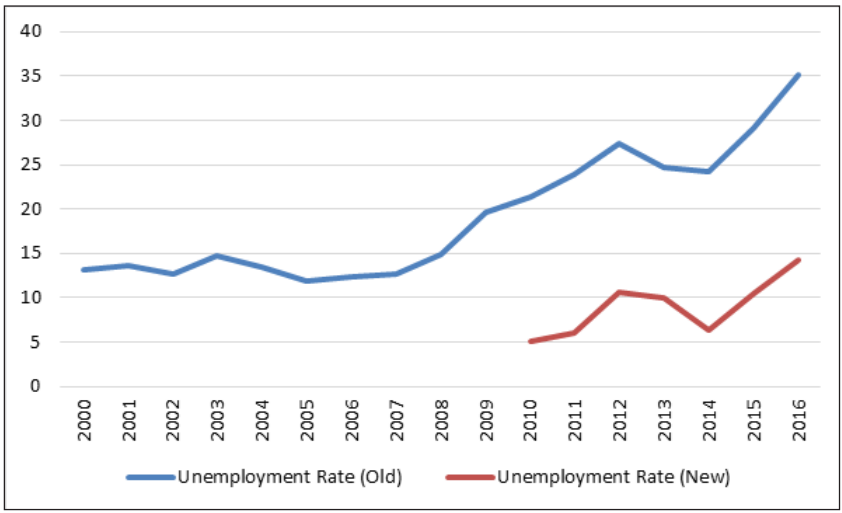

Figure 1: Unemployment rate in Nigeria

Note: unemployment rate (old) is based on the former calculation used before 2010, which combined both unemployed and underemployed individuals, while unemployment rate (new) is based on the current calculation that separates unemployed individuals from those who are underemployed.

Source: computed by the authors using data from the National Bureau of Statistics (2017)

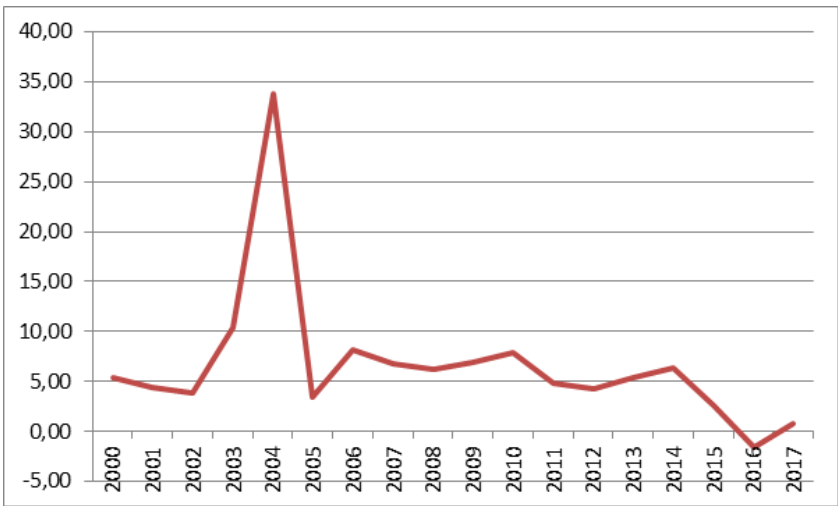

Figure 2: Nigeria's GDP growth (annual %)

Source: computed by the authors using data from the World Bank's World Development Indicators (2018)

Literature and Theoretical Framework

Understanding LALIs and their drivers

LALIs are the acquisition of 200 or more hectares of land through lease or purchase, for the primary purpose of agricultural use (LMGO 2017).[6] It differs from the term 'land grabbing', which often means taking possession of and/or controlling a scale of land for commercial/industrial agricultural production that is disproportionate in size in comparison to the average landholding in the region (Hall 2011). Land grabbing in simple form is a situation where locally used land is leased or sold to foreign investors (Daniel 2012; Osabuohien et al. 2019; Zoomers 2010).

A recent land rush to middle and low-income countries has resulted in the negotiation of an estimated 50 to 80 million hectares of land by international investors (African Union 2011; HLPE 2011; Wily 2012). This rise in LALIs has been motivated by various incidences such as food price crises, an increase in commodity prices, and the failure of financial markets as seen from the global economic crisis. Others include support for the use of biofuels and the relatively low prices of land on the continent (Anseeuw et al. 2013; Borras et al. 2010; Cotula et al. 2009; Deininger et al. 2011; Nolte et al. 2016). Population growth has amplified the global

demand for food, while volatile oil prices have redirected most countries towards opting for alternative energy sources (Aabø and Kring 2012). These have aggravated the investments in land, particularly in Africa.

LALIs: Peril or Promise

There have been considerations about the socio-economic impact of LALIs on households and smallholder farmers in the communities in which they are located, such as the rural areas. Some studies have alluded to the benefits of LALIs, including rural development, increased agricultural production, and employment creation. One such study was carried out by the Food and Agricultural Organization (FAO 2012), in which they concluded that investments in the agricultural sector (i.e., LALIs) in Ghana contributed to more than 180,000 jobs between 2001 and 2008. Zhan et al. (2015) examined the impact of larger-scale agricultural investments on communities in South-east Asia and observed that direct employment amounted to about 7,000 people, while indirect employment totalled an estimated 47,000 people. Cotula et al. (2009) noted the potential of LALIs to increase government revenue and gross domestic product (GDP) growth, as well as leading to economic development and improved livelihoods in rural areas. Finally, Odhiambo (2011) suggested that LALIs could create links with the international market for agricultural produce, stabilise global food prices, and enhance opportunities for employment in agriculture.

However, while Cotula et al. (2009) acknowledged the positive benefits that land investments could engender, their work also cautioned that where host governments do not negotiate favourable terms for their citizens, LALIs may yield adverse outcomes instead. In the same vein, concerns about the possible risks of LALIs have been identified to include the infringement on the rights and livelihoods of the rural poor who depend on the land for their subsistence (Aabø and Kring 2012; Osabuohien et al. 2019). One noteworthy example in the Nigerian context was put forward by Aigbokhan and Ola (2015), who submitted that Presco Industries' agricultural land investment in Edo State failed to enhance the livelihoods of nearby community households through employment. Relatedly, Schoneveld et al. (2011) noted that LALIs in Ghana instigated increased rural poverty, especially for women, due to their focus on the acquisition of customary land, thereby depriving households of their livelihoods. Okuro (2015) observes that LALIs could jeopardise the welfare of the rural poor by robbing them of the safety net they enjoyed from farming on their lands.

In order to address the potential threat to poor rural communities in developing nations due to increasing interest in their farmlands, some studies have been conducted to guide policymaking on the employment and welfare effects of LALIs. In this context, Ahlerup and Tengstam (2015) focused on the short-term and long-term relationships between agricultural investments and farm wage incomes from commercial farms. They found that there was moderately positive long-run effect of agricultural investments on commercial farm wage incomes for smallholders in Zambia. The study identified that on average households that were 'land-poor' were able to gain from agricultural investments, at least in terms of employment opportunities. Christensen et al. (2017) explored the welfare implications of LALIs on prior land users. The authors employed the difference-in-differences approach to compare changes in land investment before and after the 2007/2008 global food crises across private property rights and customary system regimes in Liberia. The study concluded that farmers tend to lose out in customary systems where local authorities serve as middlemen, who siphon off rents by driving a wedge between the land prices paid by investors and the sums received by farmers. Other studies like Khadjavi et al. (2017), Nolte and Ostermeier (2017), and Barbanente and Aisbett (2016) addressed both the employment and welfare implications of LALIs and found LALIs to have a more significant effect on the employment nature of communities with a high level of LALIs than communities with a low level. Similarly, the welfare implications were observed to be more pronounced in areas with a high level of LALIs than in areas with a low level.

Empirical studies with precise reference to Nigeria include the works of Mustapha (2011) and Odoemene (2012), which focused on Shonga, Kwara State, and in which the activities of white Zimbabwean farmers, food and human security issues were examined. In another study, Aigbokhan and Ola (2015) focused on Edo State and investigated the impact of LALIs on household livelihood by considering Obaretin and Ologbo communities. In Olokoyo et al. (2015), the impact of land deals on income sustainability of smallholder farmers and landowners was studied in a rural community in Ogun State. Finally, Osabuohien (2014) conducted a nationally representative analysis in which the author emphasised the role of local institutions in influencing the location of LALIs in Nigerian communities. In contrast to these primarily quantitative studies, this present study takes the literature on LALIs forward by providing qualitative insights into the implications of LALIs in Nigeria. Furthermore, this study brings a different perspective to the debate on LALIs by considering the employment effects of university-based LALIs on households in host communities using both qualitative and comparative modes.

Theoretical Framework

The theories that this study engage as the framework for the analysis are highlighted in this sub-section.

Land tenure and university – host community relations

For centuries universities have been engaged as teaching, knowledge generation, and research centres across the globe. However, in recent times, universities have been challenged to consider their role in society and the type of relationship that they develop with their 'various constituents, stakeholders, or communities' (Jongbloed et al. 2008). This has spurred the relationship between universities and the host communities. For example, when the government asks for land to site a university, host communities are denied large tracks of land. As a result, community members and authorities have high expectations that such institutions will offer opportunities (employment, amenities, corporate social responsibility, socio-economic development, among others) to them. Universities could therefore use their farm investments to expand and improve their role in host communities further.

There are different theories about the implications of LALIs on the local people who reside where such land deals are located. Some theoretical approaches conclude that the type of land tenure system influences the effect of land acquisitions. The enclosed model has it that a shift from communal to private property will lead to the displacement of smallholders and lower their standard of living and job opportunities (Mutopo et al. 2015). Platteau (1996) in the evolutionary theory concludes that there is movement from communal to private property and that once land assumes a scarcity value, its demand increases, thus strengthening the land security for smallholders.

Welfare-enhancing Theory

The welfare-enhancing approach is another theory on LALIs. This theory, as espoused by Deininger et al. (2011) assumes that the property rights system is already established and land investment can lead to mutually beneficial outcomes for investors and community members. Smallholders can benefit from the land rental and contract farming, on the one hand, while, in the other hand; wage payment would allow landless members of the community, such as women, to benefit from their labour supply. LALIs can improve infrastructure, market access, boost production, lead to rural development, create employment opportunities and increase welfare.

De Soto Theory

The De Soto Theory, as described by Castellanet and Diepart (2015), advocates that land privatisation encourages access to credit. It opines that privatising land facilitates investments and increases production and productivity. However, the link is not always demonstrated in practice as land privatisation tends to encourage speculations on peri-urban lands and seems to benefit the urban middle class rather than the farmers. More so, in a situation where communities manage common-pool resources (i.e., land) in an efficient way, their privatisation might cause a long-term decline of the resources. The private investors may also face insecurity if the concession contracts on the land titled are not respected by the host community.

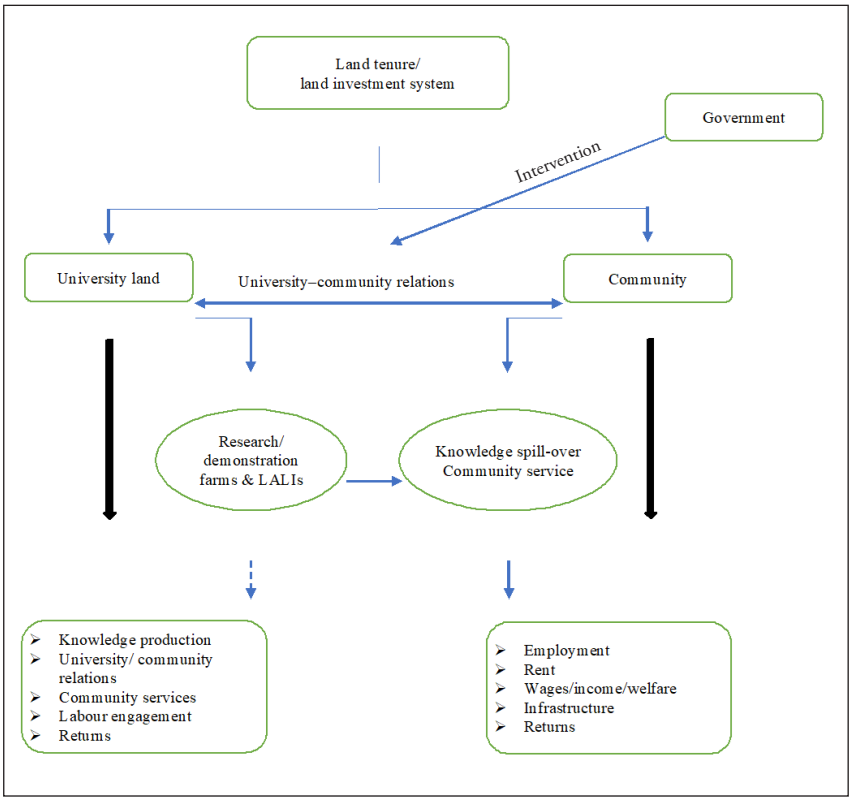

Figure 3: Land tenure system and university-host community

The theoretical framework for this study follows that of the welfare-enhancing theory, in that the agricultural land that these universities acquired have promises that will benefit the host communities. Hence, these land deals can enhance welfare and create employment, as depicted in Figure 3. This theoretical framework assumes that property rights are already defined, the market for lands functions, and information is accessible. The relationship between the community and the university can thus be welfare enhancing. However, where some of the conditions are not met or there are rising tensions between the community and university, the government will need to intervene to resolve any impasse.

As depicted in Figure 3, if the land contract system is good, and there is good collaboration between the university farm and community members, the university stands the chance of enhancing the relations they have with the community. University farms could enhance the creation of knowledge as they engage in farm experiments and make returns on farming activities. Such farms tend to also benefit host communities. For example, they create employment for members of the host community,[7] landowners enjoy rents, wages are paid to labourers, and incomes are earned. Smallholders may enjoy agricultural technology spill-over (e.g., improved seedlings, methods of farming, fertilisation) from the university farm and other infrastructural provisions as universities may engage in social responsibility projects beyond the farm. Where such benefits are not forthcoming or where such land contracts raise tendencies, the government intervenes.[8]

Method of Analysis

This study adopt qualitative analysis to explore not only the number of persons employed but, more importantly, the nature of employment provided by LALIs, which cannot be captured with quantification as 'not everything that counts can be counted' (Albert Einstein quoted in Toye 2015: 7).

Sample Size

The study presents the case of three private universities with sizable farms that can be classified as LALIs based on the fact that the farms operated on a commercial basis, unlike most public university farms that operate mainly as demonstration/research farms. The selected university farms are Afe Babalola University Farm (ABUAD Farm), Landmark University Farm (LMU Farm), and Covenant University Farm (CU Farm). Each of the three university farms has agricultural land that spans over 700 hectares and all institutions are vigorous proponents of agricultural entrepreneurship.

Interview Instruments

The workers at each of the three farms were part of the respondents for the study. They included (a) farm labourers (wage workers), (b) farm supervisors, (c) farm managers, and (d) others (e.g., former workers).[9] The interview guides[10] included questions on socio-demographics, educational status, households, employment, income, expenditure, welfare details, and about the farms.

Some of the respondents were also interviewed (in each of the categories) to obtain further information, which the questionnaire may not have covered. This was done to address some questions on LALIs that only the farm managers were required to answer. Some of the information entailed the ownership of the farm, date and mode of acquisition, commencement of operations, activities engaged, expansion plans, staffing, organisational policies, the proportion of land under cultivation, compensation for former land users, and relationship with the community.

In selecting the participants for the FGDs, non-probability sampling technique (purposive sampling) was used. This technique was used because the probability of other stakeholder groups cannot be determined. Hence, individuals are left to choose whether to participate in the study or not. Similarly, for the KIIs, individuals interviewed were those deemed to have sufficient information on the farm as well as their operations. Hence, the respective farm managers (or assistant farm managers), other officers in the farm such as unit/departmental (marketing/accounting, and processing) heads were interviewed. FGDs were also conducted among the respondents in small groups between five and seven persons (with the females alone, the males alone, and both males and females) as well as community association leaders. The KIIs and FGDs allowed the respondents to speak freely on other concerns about employment and remuneration related to the farms. Texts from the qualitative data were transcribed, identified, and analysed through thematic analysis. The thematic analysis focuses on the respondents' perception of the farms' contribution to employment, nature of employment, wages, and welfare outcomes.

Results and Discussions

This section reports the results and discusses the findings from the analysis carried out. Table 1 provides a summary of the main information and activities of the three farms.

Land access and acquisition

In this sub-section, the location, processes involved in the land acquisition, and sizes of the selected university farms are briefly discussed.

ABUAD Farm

ABUAD Farm has a total size of about 2,000 hectares of land, located in Ado-Ekiti of Ekiti State (South-west Nigeria). The farm commenced operations in 2010 around the time the university opened up to its students. A second farm at Ikere started before the university but has now become a part of the university's farms. The land used for farming activities was acquired from the original owners who were then employed as workers on the farm.

CU Farm

CU Farm spans over 2,000 hectares of land located within four communities in the Ota area of Ogun State (South-west Nigeria). The farm commenced operation in 2009, seven years after the university was established. This farmland was acquired as part of the total land owned by a religious organisation, which is to be used for various purposes including the university facilities, housing estate, and other church facilities. In the interim, however, it was essential to keep the land in use to prevent encroachment from indigenes. This spurred the start-up of farm operations, which includes perimeter fencing with the aid of palm oil trees to create a natural boundary for the farm.

LMU Farm

LMU Farm was acquired in the year 2000. It is located in Omu-Aran, Kwara State (North-central Nigeria) and began its operations in 2010, just one year before the university opened up its campus to students. The farm is 1,100 hectares, with 295 hectares located at Landmark University comprising 80 per cent cultivation activities. Over the years, other farmlands were acquired in Eleyin (385 hectares) and Agbonda (390 hectares). 'Both Eleyin and Agbonda farmlands were acquired and fully paid for in 2016', says a former farm director. The farm was purchased from the community based on consensus. There were several promises made to the landowners that incentivised them to offer their land at a highly discounted price. In fact, to date, some community members are of the belief that the land was virtually given 'free' to the university due to the 'give-away' prices at which the land was bought.

The largest of the three farms is CU Farm, while the smallest is LMU Farm. All farms have their farming activities in more than one location. CU Farm commenced operation one year before both ABUAD and LMU farms, and while both CU and LMU farms are owned by a religious organisation, a private individual whom the university is named after owns ABUAD Farm.

Table 1: Summary of key findings from the university farms

Details	University farms		
	ABUAD Farm	CU Farm	LMU Farm
Location	Ado-Ekiti; Ekiti State; South-west Nigeria	Ota; Ogun State; South-west Nigeria	Omu-Aran; Kwara State; North-central, Nigeria
Ownership	Private – Individual	Private – Religious organisation	Private – Religious organisation
Year of acquisition	2009	1998, on a continuous basis	2000, 2016
Year university started	2010	2002	2011
Year farm operations commenced	2010	2009	2010
Size acquired	2,000 hectares	2,000+ hectares	1,100 hectares
Current size of operations	hectares	725 hectares	880 hectares
Major activities	Crops; poultry farming; fish farming; woodworks; processing of produce	Crops; processing of produce	Crops; poultry farming; fish farming; processing of produce
Major crops	Maize; cassava; vegetables: okra; pepper; rice; soya beans; watermelon; plantain; palm oil; moringa; mango; wheat; tomato; pawpaw; mushroom	Maize; cassava; vegetables; okra; pepper; watermelon; plantain; palm oil; cucumber	Maize; cassava; vegetables; okra; pepper; rice; soya beans; pineapple
Animals	Fish; chickens; quails; pigs	None	Fish; chickens; turkeys
Processed products	Moringa range of products; mango juice; plantain chips; furniture; smoked fish; fish pepper-soup; eggs; poultry feed; fish feed	Plantain chips; palm oil	Smoked fish; smoked chicken; frozen chicken; eggs; poultry feed; garri

Current employment	Up to 500 workers	Up to 80 workers	Up to 130 workers
Qualification for tenured staff	Secondary school certificate; Bachelors; National Certificate for Education (NCE); Ordinary National Diploma (OND); Higher National Diploma (HND)	Graduates in agricultural related disciplines	Bachelors; Masters; Ordinary National Diploma (OND); Higher National Diploma (HND)
Qualification for casual staff	No qualification	No qualification	No qualification
Type of workers	Tenured (full-time); casual; Industrial Training (IT)	Tenured (full-time; regular & non-regular); casual; Industrial Training (IT)	Tenured (full-time); casual; Industrial Training (IT)
Working hours	7:00am–4:00pm	8:00am–5:00pm	7:00am–5:00pm
Wage structure & career prospects	Same as university structure	Different from university structure	Different from university structure
Wage range[a]	₦35,000–₦ 94,000 (US$98.59–US$264.79)	₦16,000–₦70,000 (US$45.07–US$197.18)	₦16,000–₦100,000 (US$45.07–US$281.69)
Employment density[b]	0.50	0.11	0.15
Pension plan[c]	Available for tenured staff	Not defined	Not defined
Incentives	Live animals (fish or chickens) Bonuses (if target is exceeded)	Farm products can be sold at discounted prices to members of staff	Live animals (chickens); 1%–5% commission on bulk purchases (chicken 200kg; eggs 200 crates)

Note: [a]The average exchange rate was ₦355 to US$1 at the time the fieldwork was conducted. [b]Employment density is computed by dividing the current employment by the current size of land in operations. [c]The Pension Reform Act of 2014 has the provision that private sector employers with a minimum of 15 employees should subscribe to the contributory pension scheme where the employer and employee contribute a minimum of 10% and 8%, respectively of the employee's monthly emolument (see KPMG 2014; Pension Reform Act 2014; for details)

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Status of Farm Operations

This sub-section briefly highlights the operational status of the selected university farms as well as the kind of activities that they are engaged in.

ABUAD Farm

ABUAD Farm engages in both crop and animal husbandry (see Table 1). Units at ABUAD farms include: two fish farms, a poultry farm, a piggery, a feed mill, a moringa farm and factory, a mango juice factory, a plantain chips unit, an export division, a furniture unit, a mushroom farm, a bee farm, silos, and the ABUAD Tourist Village. The ABUAD Tourist Village is where the staff of the university, as well as outsiders, come to relax and are served freshly prepared catfish in pepper soup. At the export division, wood is prepared and exported to countries like South Africa and South Korea. This division obtains wood from the farm, which is processed as intermediate goods to be exported. The bee farm produces honey for commercial purposes. The furniture unit (carpentry and joinery unit) uses some of the farm's wood to produce all the furniture used by the university. These products represent the final goods from the wood obtained on the farm. The research unit at ABUAD Farm was able to decipher the essential

latent attributes of the moringa plant and 'this is processed to consumer products', stated the farm manager enthusiastically. The products from the moringa plants include moringa oil, which is an antioxidant, moringa tea, moringa hair shampoo, moringa hair conditioner, moringa body butter, moringa hair cream, moringa bathing soap, and moringa powder, which may be used as food spice. The farm has numerous customers within and outside the state. They have suppliers who come to buy their products on a large scale and sell to retailers. Most of the farm's products are also consumed within the university.

CU Farm

CU Farm is engaged in the cultivation of various crops (Table 1). The primary outlet of the farms' products is local markets (CU cafeteria and eateries around the community, especially plantain, watermelon, and vegetables). In recent times, some companies regularly come to buy maize and cassava. At the onset of the farm's activities, community members would come to buy fresh maize for consumption. However, the maize is now left to dry and sold to companies that need them for further production as flour, which is far more profitable and sustainable for the farm. The plan is to focus on the production of maize, cassava, and palm oil as these have better financial returns. There are also plans to have a processing plant for plantains and cassava. The one for making plantain chips is already in place, and it supplies to shopping malls around the area. The farm depends heavily on rainfall as well as skeletal irrigation using hose/pipe due to the mandate of not erecting permanent structures as there are plans underway to use part of the land for real estate purposes.

LMU Farm

Like ABUAD Farm, LMU Farm is involved in both crop farming and animal farming (poultry and fish). Animal husbandry (high-breed goats and cattle breeding) was yet to commence due to high cost and adaptability. 'There was an initial plan to import high-breed goats from Zimbabwe, but the plan was dropped due to high cost and adaptability of the animals', as told by one of the interviewed personnel. The mandate crops are cassava, rice, and maize tailored to providing foods to student population, the immediate community, and industrial sector. Given that cassava has four different varieties used for households and industrial consumption, its cultivation is often determined by demands from both markets (that is, availability of off-takers). Manual labour is used to peel cassava for a mechanised plant to

process it into *garri* (dried and coarsely ground cassava). While most crops are planted at the farms within the university, cassava is planted at Eleyin, which has only 50 per cent cultivation activities. Farming activities were yet to commence at Agbonda. For its operations, the farm used tractors for planting and the application of fertilisers, while pesticides with herbicides were used for weeding.

The target markets for LMU Farm's produce are Lagos, Ilorin, Ondo Oshogbo, and its host community. However, the road network to the farm was a negative psychic for customers wanting to purchase products directly from the farm. Most of the marketing for LMU Farm was done by word of mouth as the farm's website was still under development. However, ABUAD Farm had a functional website that showcases the products the farm has to offer.

Of the three farms considered in this study, ABUAD Farm had a wider variety of products and more finished products that had been processed for final consumption, particularly the range of moringa products, mango juice, plantain chips, and even the fish pepper-soup served at the ABUAD Tourist Village.

Employment Creation by the Farms

How the selected university farms contributed to employment creation in their host communities as well as the type of employment created are discussed in this section.

ABUAD Farm

ABUAD Farm had about 500 workers. There were about 18–20 workers at the fishery, with the feed mill having 11 workers who worked daily from 7 am to 4 pm. There were four workers at the plantain unit who were assisted by IT students from time to time. When extra hands were required, the farm employed '*mallams*' (casual/cheap labour) to assist with the workload. In terms of employee qualification, the manager responded, saying, 'We employ all categories of staff at ABUAD Farms. The qualification of staff ranged from school certificate holders to bachelor's degree (BSc.) holders. Some workers had the National Certificate for Education (NCE), Ordinary National Diploma (OND) and Higher National Diploma (HND) qualifications'. All full-time workers paid tax to the Ekiti State government, making the founder of ABUAD the highest taxpayer in the state. However, the farm manager pointed out that ABUAD did not enjoy any support from the state.

CU Farm

The employees at CU Farm were categorised as tenured (regular and non-regular) and casual. The regular tenured workers were those in the administrative arm, including the manager, assistant manager, and supervisors. The non-regular tenured workers were those with some technical skills comprising the storekeeper, cleaners, and mechanics. The difference was that the regular tenured staff were always needed while, depending on the situation, the non-regular tenured would be replaced. The tenured workers employed were graduates with a background in agricultural-related disciplines and their working hours were usually from 8 am to 5 pm.

The casual staff are also known as labourers and they are paid based on a given task. They are categorised as either skilled or unskilled contract workers. They are usually comprised of migrants from neighbouring countries like Togo and Benin, and they have some expertise in a given farming operation such as weeding and harvesting. They are usually given the job per hectare on a fixed amount, and they determine their own time to start and finish work. However, their leader motivates them to work as their speed determines how soon they finish the allocated work; if they get it done swiftly, they may get an extra reward. One of the supervisors usually oversees their operations to ensure that it is carried out as agreed. The unskilled contract workers are those recruited to do a particular task. Trainings are conducted for casual workers in-house. The vendors can also be categorised under this group as they receive their income on commission. 'There are more of women working on the farm, although we also have some youths and a few university students on industrial training', said one female worker.

LMU Farm

The university appointed the farm director at LMU Farm (who reported to the Chancellor through the Vice-Chancellor). At the same time, the full-time workers were engaged by the university, which include seven graduates of Landmark University. There was, however, no preference for employing LMU graduates as workers were employed as and when needed. Casual workers were engaged on a three-month working period subject to renewal based on expertise and good behaviour. The farm also employed graduates from other universities for industrial attachment (that is, IT). At the time of this study, the farm was being managed by a consultant, and as at April

2018, a farm Board was not in place', said a one-time manager at the farm. The staff strength in some of the units were: 10 workers and one supervisor in the processing and cold room; six workers in the feed mill; 10 staff working with the broilers and 20 staff working with the layers in the poultry farm and 14 staff at the cassava unit.

Regarding academic quaalifications of staff, supervisors had a BSc., with other staff having master's degrees (MSc.), HND, and OND qualifications. The farm's workforce included 38 workers who were unit heads, supervisors, accountants, and managers. There were also casual staff and contract staff who are mostly unskilled workers. Most of the workers at the unskilled level learnt on the job (e.g., feeding of birds, cleaning of the pens, ascertaining when birds are ill) and so there were no particular qualifications required for employment. For instance, some of the cassava peeling was done manually (mostly women). The official working hours at LMU Farm were from 7 am to 5 pm but often extend to about 10 pm during exigency periods. Shifts (i.e., rotation) occur at the poultry unit.

ABUAD Farm employed considerably more workers (500 staff) than the other farms in this study. Working hours were similar among the three farms at nine hours each for ABUAD and CU farms, and 10 hours for LMU Farm daily. However, the staff at LMU Farm pointed out that they sometimes had to stay for up to 15 hours a day in cases of urgent demand. All farms engaged skilled and unskilled labour in their operations. Besides, the information in Table 1 reveal that ABUAD Farm had the highest employment density, which was about 4.55 and 3.33 times more than those of CU Farm and LMU Farm, respectively. This was because ABUAD Farm had more varieties of processed products compared to others. This implies that emphasis on the processing of products by LALIs will go a long way in increasing their employment levels.

Impact of university farms on employment creation

The university farms in this study had increased the level of employment in their host communities. This is because most of the workers were people who were formerly unemployed, or who practised subsistence farming before the establishment of the farms. For instance, some of the farmworkers at ABUAD Farm were subsistence farmers who had no land but were trespassing and illegally cultivating land not belonging to them. These lands are part of those that were later acquired by ABUAD. However, rather than sending the farmers away, ABUAD absorbed them into their operations to on the farm legally. Further, several other workers had been

employed since the commencement of the farm's operations. There were less than 100 subsistence farmers on the land before the farm started in 2010, but as of 2018, the farm had 500 workers. There were also some casual employees who worked at the farm from time to time. Similarly, CU Farm and LMU Farm provided job opportunities for some of the unemployed within their vicinities, although on a smaller scale. In two of the three farms studied, the employment of females was lower than that of males mainly due to the laborious nature of farm work.

It can be noted that the three farms tended to employ some contract or casual workers as direct labourers. In contrast, the more experienced workers were engaged as farm supervisors, machine operators, salespersons, handle processing, and packaging of by-products. These were not necessarily from the indigene youths in the community as some of the experienced workers, particularly the skilled workers, migrated from other communities. Aigbokhan and Ola (2015) observed a similar concern that the LALI owned by Presco Industries in Edo State mainly employed contract workers. The findings of this study on employment creation lend some credence to the welfare-enhancing theory, which posits that land investment can lead to mutually beneficial outcomes for both investors and community members. For the community, there is increased employment of members formally engaged in small-scale farming (usually at the subsistence level). The findings, however, contradict the prediction of the enclosed model but support the evolutionary theory.

Concerning the relationship among the university farms and the host communities, the Ota youth leader (where CU Farm is located) stated that employment generation, food availability, and communal development were some of the benefits enjoyed by the community. Such benefits strengthen the relationship between the university and community members. This also follows the supposition of the welfare-enhancing theory as both parties involved become better-off. To improve community relations with LMU Farm, a key informant advised that the university should embark on small projects for the community, employ more indigenes at the skilled level, and grant scholarships to the youth. This serves as a form of corporate social responsibility by the university to the community. It is important to note that the farms had more to do to improve university–community relations, to enhance the goodwill of the universities. This is essential because cordial community relations with LALIs (universities in this case) is vital to the overall success of the farms (LALIs).

Remuneration and Welfare

ABUAD Farm

When asked about the salary structure on the farm, the manager explained that, 'All the workers at ABUAD Farms were paid a monthly salary using a similar structure to that of the university'. This implies that a BSc. holder was on a similar salary scale (level 8) as staff in the university, while an HND holder was on level 7 as obtained in the university (ABUAD). The least qualified staff earned ₦35,000 (US$98.59), and the highest qualified staff earned ₦94,000 (US$264.79). The workers were paid between 26th and 27th of each month and were never owed any arrears from their salary. This was a contrast to the Ekiti State government, which at the time of this study owed about eight months of its workers' salaries. All staff were permanent, and enjoyed a pension contribution from their employer. Further, staff were given various unit/departmental bonuses whenever they generated more beyond expectation. For example, during festive seasons (e.g., Christmas), staff received a part of the produce from their unit as gifts. These included rice, oil, pig, chicken, and fish. Where a unit did not produce perishable edible items (e.g., feed mill), they received a live chicken each.

CU Farm

The regular tenured workers (including the manager, assistant manager, and supervisors) had fixed salaries. A former assistant farm manager noted that salaries at this level ranged from ₦50,000 (US$140.85) to ₦70,000 (US$197.18). The non-regular tenured workers also had fixed salary per month, although they were not always actively engaged. The unskilled contract workers are paid usually between ₦800 (US$2.25) and ₦1200 (US$3.38) per day, depending on their skills skill (e.g., mechanics, driver of farm machinery). The vendors got who old produce (such as vegetables) on behalf of the farm were paid through commissions. Staff members were allowed to purchase products from the farm on discounted price.

On speaking with one of the staff at CU Farm, one woman complained that work is not guaranteed as workers are called and dismissed at any time. There was also little or no incentive, making workers unhappy. Further, she mentioned that there had not been any pay rise for some workers who had worked for more than three years at the farm. It was also gathered that there was once a reduction in the supervisors' pay, and there were differences in pay among the same level colleagues.

LMU Farm

The university determine the salary and allowances of the director and full-time staff. The average salary for full-time staff was about ₦100,000 (US$281.69). The supervisors were paid at a little less than ₦2,000 (US$5.63) daily, amounting to an average of ₦54,500 (US$153) monthly. The highest-paid supervisor earned a little above ₦80,000 (US$225.35). The casual staff were paid ₦1,000 (US$2.81) per day, which totalled ₦25,000 (US$70.42) per month and contract staff were paid on an 'on-the-job' basis. 'Contract staff were employed on a need basis, and they are paid off once they get the job done', said a former manager at LMU Farm. The unskilled workers earned an average of ₦600 (US$1.69) to ₦700 (US$1.97) daily payable at the end of each month. For example, the workers at the Cassava Processing Unit earned ₦700 (US$1.97) for peeling 300 kg of cassava tubers in a day. This amounted to ₦2.33 per 1 kg peeled. This sums up to between ₦16,000 (US$45.07) and ₦18,000 (US$50.70) for most workers, and up to ₦22,000 (US$56.34) for some, depending on the number of days worked. Most of the workers worked seven days a week, particularly those who worked at the animal section. However, work on weekends was limited.

When asked by management staff at LMU Farm to compare their wages to other farms, he complained that the pay was not good enough. To use his words, 'It is terrible'. He, however, assured that proposals had been made in that respect, but approvals and implementation had been slow so far. He mentioned that because the farm reports to the university rather than directly to the proprietor base, he had limited authority in implementing specific changes, including the amount workers were paid.

Although there is no Christmas allowance, workers received a live chicken and/or fish at the end of the year to celebrate the Christmas holidays. 'This was stipulated in everyone's employment contract, so they were aware of their annual entitlements', said a management respondent. According to the staff at LMU, there were no staff incentives for meeting or exceeding targets. The farm manager, however, gave a contrary response stating that there was a commission of 1–5 per cent on bulk purchases made to the workers who brought in customers. Bulk purchases were calculated as any sales from 200 kg and above for chicken, and from 200 crates and above for eggs. Noting the issue of leave allowances, a staff hinted that, 'Since the inception of the farm, leave allowance had only been paid twice to workers'. Also, for the first time since inception, workers were enjoying the annual leave. The pension scheme for the full-time staff at the farm was applicable to all staff of Landmark University but did not apply to casual staff.

There was no staff canteen on the farm where workers can buy their meals. There was also no medical clinic and workers had to find a means to get to the LMU hospital located within the university campus, which took several minutes walking. On the remuneration structure of the three farms, it was observed that ABUAD Farm proved to be the highest paying of the farms. All farms provided pension only for full-time staff. All farms provided some form of incentive in terms of gifts and/or commissions, even though these were deemed insufficient by the workers, and the farms could do better to boost workers' commitment.

Summary and Conclusion

This study has brought some insights to light on the nexus between LALIs and employment creation using the case of university farms, which makes it unique and different from extant studies. The summary of the key findings is highlighted herein.

Aligning the results of this research with the hypotheses stated, it was established that LALIs had created employment opportunities for the members in their host communities and improved the overall welfare of the individuals through wage payments, food production, and communal development. However, there remain some other issues to be addressed by the LALIs. The conversations with staff at CU Farm and LMU Farm suggested that there was a need for attention to the welfare package of the staff, which is crucial to their job satisfaction. Without this, there will be a high turnover rate due to migration to other sectors with better welfare packages. Notably, there is a need for improvement in the pay structure of university farms. Other farms can take a cue from ABUAD Farm, which paid its workers based on the same salary scale as the university. This is likely to encourage more individuals with a flair for farming to engage in farming activities, as an unfavourable pay structure does not disadvantage them. Further, better pay will serve as an incentive to workers to deliver enhanced results that will, in turn, increase the productivity of the farms. Were more agriculturally inclined jobs to pay wages and salaries similar to what obtains in the white-collar jobs, the agricultural sector will be able to attract more workers into the sector.

In addition to an excellent pay structure, the provision of pension plans for workers would provide a sense of belonging and a form of job security for employees. Thus, a pension plan (for example, the contributory pension scheme that is operational for firms employing a minimum of 15 employees as contained in the Pension Reform Act of 2014) for LALI jobs will make it more attractive and enhance the employment effect of LALIs, and the

productivity of the agriculture sector, in general. This should be encouraged among university farms, mainly based on the fact that the universities whose name they bear are formal establishments with more than 15 employees.

The line of reporting on the farm can affect the progress of its activities. Notably, ABUAD Farm reported directly to the proprietor base of the university, and this helped improve processing times in the farm's activities. This is unlike LMU Farm where the manager complained of having to report through the university, rather than directly to the proprietor base, which has caused a number of delays due to bureaucracy.

In conclusion, this study concludes that LALIs could employ a sizable number of individuals in their host communities as well as those in the neighbouring communities. However, the extent to which this can take place depends largely on their employment density, which is closely related to the level at which they are able to engage in the processing and packaging of their farm produce. The implication is that placing emphasis on the processing and packaging LALI products will boost their employment creation abilities. Added to the above is the need for the LALIs to do more in the area of workers' remuneration, particularly in their pay structure, which is essential in increasing employee commitment. Lastly, LALIs should embark on more social and infrastructural projects that will benefit their host communities.

As a suggestion for future research, it will be essential to compare the employment level (intensity), remuneration package, as well as the productivity of university farms with other LALIs that are not university-owned to further explore the issue. This can be done using mixed of analysis to complement the findings documented in this present study.

Notes

1. Two related papers, notably, Edafe et al., (2023a; 2023b) that built upon the CODESRIA–MRI project idea have been published elsewhere. The views expressed are the authors'.
2. During the COVID-19 lockdown that resulted in the closure of schools, available evidence indicated that many private universities where able to engage their students through virtual learning unlike their counterparts in public universities.
3. In many private universities, they use the term 'research farms' for where they teach practical skills on agricultural practices to students and researchers; conventional universities generally call them 'demonstration farms'.
4. As of September 2018, 75 out of the 165 universities in Nigeria are private (http://nuc.edu.ng/#). In 2019, the Times Higher Education Ranking of Universities designated a private university as top of three Nigerian

universities listed in the global ranking (https://www.timeshighereducation.com/world-university-rankings/covenant-university; https://www.premiumtimesng.com/news/top-news/286731-three-nigerian-universities-ranked-among-worlds-best.html).

5. This was also noted in interviews with the workers in the farms as well as the community and youth leaders.
6. Some others like Cotula et al. (2009) conceptualised LALIs as deals/acquisitions involving outright purchases and lease of land areas over 1,000 hectares. This study follows the definition by LMGO (2017) of LALIs as above 200 hectares because 200 hectares is quite sizable enough given the recommended land per household of 2 hectares in Africa (Africa Union 2011).
7. There is also the possibility of indirect employment opportunities; however, we are not able to accommodate this in our present study. Empirical analysis of indirect employment would therefore benefit from future research.
8. Local institutions can also play a role in this regard (see Nolte 2014; Osabuohien 2014; Osabuohien et al. 2018). However, this is not the focus of the present study.
9. The former workers were able to provide some background information on the farm history and also give some insights to the conditions that warranted their leaving work on the farm.
10. The respondents were duly informed that their responses are solely for research purposes. Detailed questionnaires are not included for space but are available upon reque

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