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## EFFECT OF LAND TENURE ON FOOD SECURITY AMONG FARMING HOUSEHOLDS IN OGO-OLUWA LOCAL GOVERNMENT AREA, OYO

**Abstract.** The study examined the effect of land tenure on food security among farming households in the Ogo-Oluwa Local Government Area, Oyo State. Purposive sampling procedure and simple random sampling were used to select 120 households through 50% proportionate sampling in the study area. Data were collected with the aid of a well-structured questionnaire and interview section. Data were analysed with both descriptive statistics and inferential statistics. The study showed that about 52.5% of respondents were within the age range of 46–55 years, 93.3% were married, 45.8% had primary school education, and about 53.3% primarily cultivate maize, cassava, and yam, with 56.7% having a household size of 6-10 members. The study further exemplified that 60.0% of respondents were using inherited land for farming. The study also showed that 93.3% of respondents often feed their households. The personal characteristics of the respondents ( $p < 0.05$ ) were significantly related to food security. Accessibility to communal land ( $r = 0.128$ ,  $p > 0.05$ ) was not significantly related to food security among the households in the study area. Institutional innovations introduced by the government agencies and research institutes are essential for improving the welfare, providing incentives for farming, and building the capacity of rural households to ensure adequate and affordable food production accessible to people.

**Keywords:** land tenure, access, farming households, food security, Ogo-Oluwa LGA

### INTRODUCTION

Land tenure consists of the social relation and institutions governing access to and ownership of land and other natural resources. It is termed a bundle of rights and specific right to do certain things with land or property (Bruce, 1995). In Africa, land tenure reform typically refers to evolutionary or legal changes in the form of land tenure. The impacts of land reform, therefore,

bring about a number of outcomes that potentially affect food security, reduction in social polarity, increased investment, more transparent production incentives, poverty reduction, increased employment and equity (Thiesenhusen, 1995). The land is the basis for every form of physical development and constitutes the primary medium for food production (Lasun, 2006). Securing and ownership of land is vital to ensuring food security this millennium. The disparity of wealth and

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land ownership is not a new phenomenon. The degree to which agricultural lands are owned within food insecurity areas makes the food sovereignty factor as vital as food security (Cochrane, 2011). However, the land tenure system in Nigeria favours men more than women due to the land administration and management by clan and family heads which makes access to land difficult. According to Oluwatoyin et al. (2019), access to land is limited as family and community heads still manage to control land, thereby determining access to land.

In Nigeria, agriculture has been a major source of economic advancement for many decades by providing food for the teeming population in the country, raw materials for the agro-allied industries and foreign exchange earnings (FAO, 1996). However, to meet up with food production and engendering food security, access to lands is an essential determinant to food availability, accessibility, utilisation, food sufficiency and food preferences. Therefore, the ways in which land tenure and food security are linked comprise a dynamic system concerning production, marketing and investment that drive structural change over time in the distribution of resources among households (Stanbury, 1995).

Food security is a current issue in Nigeria, as it applies to other African countries. Hence, as the population of countries across Africa grows, food security becomes challenging and difficult to achieve due to scarce agricultural lands (FMARD, 2016). Food security is obtainable when all people, at all times, have physical and economic access to sufficient, safe and nutrient food to meet their dietary needs and food preferences for active and healthy life (FAO, 1996). Food security also means access to sufficient food for improving good health. In terms of food security, sufficiency is measured in terms of caloric intake relative to physiological requirements for a specified period (Kakwani and Son, 2016). Furthermore, according to FAO (2007), the commonly used methods of measuring food security are national calories available per capita per day, household income and expenditure survey or index, individual dietary intake, anthropometry nutrition intake, and experience-based food insecurity scales. The World Bank (2008) identified three pillars underpinning food security as food availability, accessibility, and food utilisation, meaning that a nation whose food production level is unable to satisfy these criteria is food insecure. According to Abdullahi (1999), predominant poverty among the rural population in Nigeria indicates low agricultural productivity

and relatively low income. However, the impact of land tenure on food security and sustainable natural resources management is complex (UNECA, 2004). Nevertheless, the rising population and industrialisation have increased the pressure on land resulting in reduced farm output that is insufficient to meet national food demand (FGN, 2004). In the last three decades, the land tenure system was confronted with a myriad of problems, including a fast-growing population and competitive use of agricultural lands, which resulted in scarce land through its intensified utilisation by industries and estate developers (Adesina et al., 1997). In most of the world, especially in developing countries, food security and its related issues are germane for poverty reduction (Kuwornu et al., 2013). Attainment of food security is a core problem confronting every household member, mostly women and children, due to low productivity of staple crops, seasonal variation in the food supply, and price fluctuation (Bellman et al., 2013). This problem facing households results from the inaccessibility of land for rural people for agricultural production, which is the prime concern for policies and strategies to reduce food insecurity and poverty among the rural population. In addition to the foregoing, this research sought to examine the effect of land tenure on food security among farming households with the following objective:

1. To examine the personal characteristics of the households in the study area;
2. To identify respondents' access to land in the study area; and
3. To assess the farming households' access to food in the study area.

## MATERIALS AND METHODS

### Study area

The study was carried out in the Ogo-Oluwa Local Government Area of Oyo State in southwestern Nigeria. Its seat is located in Ajaawa, a few kilometres away from Ogbomoso. It shares boundaries in the east with Ejigbo LGA of Osun State, and in the south with Oyo East and Afijio LGAs, and in the north with Ogo-Oluwa West Local Council Development Area and in the west with Oriire LGA. There are 10 wards in Ogo-Oluwa which are Ajaawa I, Ajaawa II, Ayede, Ayetoro, Idewure, Lagbedu, Mowolowo/Iwo-ate, Odo-oba, Opete, and Otamokun. The Ogo-Oluwa LGA is situated at geographic latitude 8°00'N of the equator and longitude 4°00'E of the

Greenwich meridian. It has an area of 369 square kilometres with a population of 65,184, according to the 2006 population census. The climate of the area favours the production of crops like maize, yam, cassava, and permanent crops, especially cashew and mango. The study population is made up of rural farming households in the Ogo-Oluwa Local Government Area of Oyo State. The majority of the Ogo-Oluwa community (about 66%) practice farming as their primary occupation and engage in other livelihood diversification in non-farm activities with low mean per capita income (Olawuyi and Raufu, 2012). Also, there is high food insecurity among the farming households of Ogo-Oluwa communities as the household size increases (Olaoye and Adewole, 2015).

### Sampling procedure and data analysis

A purposive sampling procedure was used to select farming households in the study area. Proportionately, about 30% of the wards representing one-third of the wards in the local government area were selected. The selected wards with farming households were Ajaawa I, Ajaawa II, and Ayetoro, respectively, due to the concentration of farming activities in these communities. The population of farming households from these three (3) selected wards was 80, 95 and 64, and the population was determined through the household listing method, respectively. However, 50% proportionate sampling was used to select sample size from the population of the farming households, which gave rise to 40, 48 and 32 from the selected wards. Hence, the total sample size selected was 120 farming households. Data were collected with the aid of a well-structured questionnaire and key informant interview. Data were analysed with both descriptive statistics (frequency distribution and percentage) and inferential statistics (chi-square and the Pearson product-moment correlation).

## RESULTS AND DISCUSSION

### Personal characteristics of respondents

Table 1 reveals that half of the respondents (52.5%) in the study area are involved in farming, and they are aged between 46 and 55 years. It implies that about half of the respondents in the study area are a little above middle age. The implication is that there is a limit to which people in this age category can work on the farm, thereby reducing their level of productivity. This is corroborated by Aina and Salau (1992) that the food situation

**Table 1.** Respondents' distribution by personal characteristics

Personal characteristics	Frequency	Percentage
<b>Age</b>		
20–35	2	1.7
36–45	25	20.8
46–55	63	52.5
56–65	29	24.2
66 and above	1	0.8
<b>Marital status</b>		
single	2	1.7
married	112	93.3
divorced	6	5.0
<b>Education</b>		
informal	43	35.8
primary	55	45.8
secondary	13	10.8
tetriary	8	6.7
adult education	1	0.8
<b>Household size</b>		
<5	26	21.7
6–10	68	56.7
11–15	22	18.3
16 and above	4	3.3

Source: Field Survey, 2020.

gets worse because farm work is being abandoned to the elderly for off-farm jobs. The result also shows that the majority (93.3%) of respondents are married. This implies that married people in households are more involved in farming practices in the study area, signifying that they have dependants in the households who helped them in production activities on the farm. This is in line with Nyunza and Mwakaje (2012) that marital status influences the social organisation and economic activities such as agriculture and resource management within a household. The result also shows that about 45.8% of respondents have primary education. This implies that an average respondent has a minimum level of education, i.e. graduated from a primary school and understands agricultural innovation, which could help

their farming operations and promote the importance of food security. This is in line with Muro and Burchi (2007) reposition that, more specifically, the education of rural people improves agricultural productivity leading to food security. The result further reveals that 56.7% of respondents have between 6 and 10 members in their household. It implies that a large number of people in the households is germane and enhances production processes but imposes competition on food intake, signifying that the larger the family, the lesser food availability in the households. This finding corroborates with Olayemi (2012) submission that a large family size with a mean size of seven negatively impacts the food security of a household due to quantity reduction of food intake among the household members.

Table 2 shows that 60% of respondents owned land through inheritance. This indicated that the majority of respondents in the study area become landowners by inheritance. This result corroborates with Oluwatayo et al. (2019) submission that the land tenure system is practised in most communities in Nigeria by inheritance.

**Table 2.** Distribution showing respondents' access to communal land

Access to land	Frequency	Percentage
Land source		
purchase	4	3.3
inheritance	72	60.0
rent	33	27.5
gift	10	8.3
community	1	0.8
Farm size (acre)		
1–3	6	5.0
4–6	39	32.5
7–9	33	27.5
>10	42	35.0
Duration of rent		
6 months	10	8.3
1 year	91	75.8
>2 years	19	15.8

Source: Field Survey, 2020.

Also, the table reveals that 35% of respondents had access to 10 or more acres of land in the study area. This implies that the level of farming households' access to land in the study area guarantees food sufficiency. This is in line with Omole (2009) reposition that land is an asset and factor contributing to food production among farming households in Nigeria. However, this finding does not corroborate with the submission of Brown (2003), who opined that an individual's food security is not guaranteed by the availability of food or access of households to the land resource. However, access to land is certainly germane to food production, which is the nexus of food security for dwellers of the rural areas of the Ogo-Oluwa Local Government Area. It is also important to note that food security can be measured by indicators such as sufficiency, availability, affordability, utilisation, and food preferences (World Bank, 2008).

Table 3 reveals that the majority of respondents (93.3%) could afford a feeding regime of three daily meals. This implies that most of the respondents are food secure in the study area. Peasant agriculture mainly takes care of the food needs of farm families and produces a little surplus for sale (Attah, 2012). Table 3 also shows that 67.5% of respondents in the study area said it is rare for them to access food in large quantity in the market. It implies that most of the farming households in the study area produce food at the subsistence level. This corroborates with Agada and Igbokwe (2016) submission that most households in north-central Nigeria practised subsistence farming. Based on categorisation,

**Table 3.** Distribution showing respondents' access to food in the study area

Access to food	Often	Rare	Never
Affordable feeding regime (3 daily meals)	112 (93.3)	7 (5.8)	1 (0.8)
Availability of food in the market	39 (32.5)	81 (67.5)	–
Lack of food in storage	19 (15.8)	88 (73.3)	13 (10.8)
Non-affordability of preferred meals	14 (11.7)	91 (75.3)	15 (12.5)
Lack of food in the household	8 (6.7)	21 (17.5)	91 (75.8)
Inability to access adequate meals	8 (6.7)	75 (62.5)	37 (30.8)
Skipping some meals daily	8 (6.7)	19 (15.8)	93 (77.5)

Source: Field Survey, 2020.

the level of respondents' access to food is high at 62.5%. This is because the majority of respondents have access to adequate meals as a result of the production of food on a subsistence basis in the study area.

### Relationship between respondents' characteristics and the effect of communal land access on food security

Table 4 reveals that except for the age of respondents, there was a significant association between respondents' marital status, occupation, household size, farm size and effect of land tenure on food security ( $p < 0.05$ ). This implies that respondents' socio-economic characteristics positively influence the effect of land tenure on food security. This indicates that marriage, occupation, household size, and farm size contribute to how land tenure affects food security. The result is in line with Bamire (2010) submission that age, family size, farm size, and use of land were significant determinants of households' food security in rural areas of Nigeria. However, this finding contradicts the assertion of Musemwa et al., (2013) that majority of the households in the Eastern Cape Province of South Africa have limited access to sufficient food supply as a result of land tenure challenges.

**Table 4.** Respondents' characteristics and the effect of communal land access on food security

Personal characteristics	$\chi^2$ -value	p-value
Age	35.377	0.063
Marital status	37.006	0.00037
Education	26.460	0.330
Occupation (farming pattern)	44.128	0.007
Household size	52.788	0.000
Farm size	31.170	0.026

Significant at  $p < 0.05$ .  
Source: Data Analysis, 2020.

### Relationship between respondents' access to land and food security

The result in table 5 shows that there is no significant relationship between respondents' access to communal land and food security ( $r = 0.128$ ,  $p > 0.05$ ). The result implies that despite households' access to land in the

study area, it never formed the basis for absolute satisfaction regarding preference and nutrient intake. This result corroborates with the submission of Brown (2003), who opined that an individual's food security is not guaranteed by the availability of food or access of households to the land resource. This could indicate that full ownership of land by households should be encouraged to ensure food security in the study area. This is supported by Oluwatoyin et al. (2019) findings that food security depends on the availability of land and that farming operations remain subsistent due to inadequate access of farmers to the land. It is noteworthy that food security is usually measured in terms of nutrition intake, which is corroborated by FAO (2007) that the commonly used methods of measuring food security are national calories available per capita per day, household income and expenditure survey or index, individual dietary intake, anthropometry nutrition intake and experience-based food insecurity scales.

**Table 5.** Respondents' access to communal land on food security

Variable	r-value	p-value	Decision
Effect of communal land access on food security	0.128	0.168	not significant

Significant at  $p < 0.05$ .  
Source: Data Analysis, 2020.

## CONCLUSIONS AND RECOMMENDATIONS

From the foregoing, it can be concluded that about half of the respondents in the study area are above middle age, which is significant for their productivity. The study shows that married people are more involved in farming practices, signifying that they have dependants who help them produce arable crops on their farms. It further shows that the minimum level of education, i.e. primary education, could enhance their farming operations. The result shows that a large number of family members in the household would enhance production processes. The land is also found to be owned by inheritance among most households, and that access to land guarantees food security. Many households in the study area are food secure. Therefore, the food security of households is influenced by socio-economic characteristics such as

marital status, occupation, household size or farm size. However, the household access to land never formed a basis for absolute satisfaction in food preference and nutrient intake in the study area.

It is, however, recommended that

1. Government agencies, research institutes, and non-government agencies should focus on innovations and welfare improvement of the people to increase the level of food production and livelihood sustainability;
2. Programmes concerning the capacity building of the farming households in the area of skills acquisition in terms of adequate meals and nutritional intake should be carried out and;
3. Incentives are provided by ministries of agriculture at the federal, state, and local government levels to ensure food sufficiency, availability, affordability, and accessibility.

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## WPŁYW PRAWA WŁASNOŚCI GRUNTÓW NA BEZPIECZEŃSTWO ŻYWNOŚCIOWE GOSPODARSTW DOMOWYCH W OGO-OLUWA LOCAL GOVERNMENT AREA, OYO STATE

**Abstrakt.** W pracy badano wpływ prawa własności ziemi na bezpieczeństwo żywnościowe gospodarstw domowych w Ogo-Oluwa Local Government Area, Oyo State. Próba badawcza wybrana w sposób celowy objęła 120 gospodarstw domowych (przy 50-procentowym proporcjonalnym doborze próby na badanym obszarze). Dane zebrano za pomocą kwestionariusza badawczego oraz wywiadu, a następnie przeanalizowano przy użyciu statystyk opisowych oraz inferencyjnych. Charakterystyka respondentów wskazała, że około 52,5% respondentów miało 46–55 lat, 93,3% było w związku małżeńskim, a 45,8% posiadało wykształcenie podstawowe. Ponad połowa badanych gospodarstw (53,3%) uprawiała głównie kukurydzę, maniok i bataty, przy czym 56,7% badanych gospodarstw domowych liczyło 6–10 osób. Ponadto 60% respondentów uprawiało ziemię odziedziczoną. W badaniu wykazało również, że dla 93,3% respondentów ziemia ta stanowi źródło wyżywienia gospodarstwa domowego. Cechy osobiste respondentów ( $p < 0,05$ ) były istotnie związane z bezpieczeństwem żywnościowym. Natomiast dostępność do ziemi gminnej ( $r = 0,128$ ,  $p > 0,05$ ) nie była istotnie związana z bezpieczeństwem żywnościowym gospodarstw domowych na badanym obszarze. Przeprowadzone badanie dowodzi, że dla poprawy sytuacji w tym regionie zarówno z punktu widzenia agencji rządowych, jak i instytucji badawczych niezbędne są szeroko rozumiane innowacje instytucjonalne. Istotnym z punktu widzenia poprawy dobrobytu jest też dostarczanie bodźców zewnętrznych dla rolnictwa oraz budowanie potencjału wiejskich gospodarstw domowych, co umożliwi im dostęp do odpowiedniej i przystępnej cenowo żywności.

**Słowa kluczowe:** prawo własności gruntów, dostęp, gospodarstwa rolne, bezpieczeństwo żywnościowe, Ogo-Oluwa LGA