Research Article

Effect of Land Rights and Tenure Systems on Livelihoods of Igede Households in Ogun State Nigeria

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Abstract | The relocation to the rural area has an impact on livelihoods, especially where access to land is required. The freedom of movement has encouraged many non-indigenes to settle in different parts of Nigeria, as exemplified by the Igedes whose major livelihood activity is agriculture. The study assessed the Igedes' form of land rights/tenure system and its perceived effects on livelihoods. The descriptive and binary logistic regression model were used to analyze data. Findings revealed that 90% of the respondents were married, with a mean age of 41 years. The average annual income was ₦151, 841.67 ($112.22). The main source of livelihood activity was arable crop cultivation (97%). More than 50% of respondents perceived that land rights and tenure system affected their livelihoods. Most (65%) obtained land use rights and leasehold (40%) as tenure systems. The major problems encountered were communal disagreements on land rights and grabber activities. The result of the regression revealed that land use (β = 0.858), tenure system (β = 0.062), and income (β = 0.000) significantly influenced livelihoods at $p<0.05$. The study concluded that the land rights and tenure system affected the agricultural activities of the Igedes and recommended that the relevant government agencies and communities should review the land rights use of non-indigene for better access to land for agricultural purposes.

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Introduction

The land is a natural resource with diverse productive uses, depending on the complementary elements and resources found in such land. These complementary elements include water bodies, crude oil, precious stones like diamonds and gold, coal, rock, soil quality, and natural vegetation, which are used for crop and livestock production, industrial and residential purposes. Land resources provide over ninety percent of the food supply, clothing, and forest needs (Wang, 2022). Industrial revolutions have

witnessed oil and mineral substitution alongside coal for some fuels, fiber needs, and construction; however, societal dependency on land's natural resources is yet to be replaced, therefore, land is essential to humankind.

Land as a natural resources, consists of soil, rocks, ecosystems and vegetation, It is not totally free because its usage, rights, and transfer are subject to the administration's comprehensive policy (Azumah and Noah, 2023). Based on this study, land tenure will be defined as how a party holds or occupies an area of land within a community or society. Land tenure laws regulate landowners' behaviors and distribute property rights, obligations and constraints across communities. The global discourse on land rights is dynamic and influenced by national tenure systems. Property rights govern aspects of land ownership affect how natural resources are managed in agriculture. Protected land rights provide farmers with enough motivation to increase output and preserve the environment. Farmers exhibiting strong land attachment are reluctant to relinquish it because it serves as economic and security purposes (Zhang *et al*., 2022). However, private land ownership is politically significant and strongly associated with authorities in countries with agricultural employment, as land is governed by an entrenched private-property regime, highlighting the divergence between human relationships with land and individual control (Becher, 2023).

Equal access to land ownership and societal acceptability depends on land laws and rights. However, social acceptance and cultural customs might hinder a group's ability to acquire land property. Nigeria's Land use act of 1976 governs land ownership within its territory, requiring government permission. Rights are usually conferred on the first inhabitants or descendants, thereby affecting non-indigenes' livelihoods. Acosta, (2019) opined that land is regarded as a living being that also merits rights and could bolster the protection and prosperity of natural ecosystems and all organisms that depend on them. Indigenous people and local communities in West African countries are confronted with significant underdevelopment, conflict, and environmental degradation due to the gap between formally recognized and customarily held land. Secure land tenure is vital for achieving human rights, economic growth, and cultural integrity. Achieving human rights, economic expansion, and cultural integrity all depend on secure land tenure. In addition to being essential for the advancement of human rights and socioeconomic development, securing community tenure rights is also required to reduce global warming, support sustainable development, and advance peacekeeping efforts (Pearce, 2016).

If African nations and their communities can modernize the intricate government processes that regulate land ownership and management, they may effectively put an end to land grabs, and give more access to agricultural lands thereby increases food abundance in the area, and change their prospects for growth (Boone, 2019). Formalization of land tenure management system has been requested for as necessary condition for economic growth in industrialized nations. The formalization encourages farmers to engage in improving their land because of the expected benefits from the land tenure management system, which include better access to loans and enhanced tenure security. The application of land tenure laws in most rural communities ignore other people's rights to land especially migrants and vulnerable groups like Igede tribe who are being denied land ownership access in some communities.

Ikramullah and Jan, (2023) asserted that the majority of the population directly or indirectly depends on agriculture and related sectors for their livelihoods. In Nigeria, the livelihood of rural people and migrants (Igedes) depend primarily on agriculture and other agriculture related enterprises as income generating activities for daily sustenance. It was observed that the land tenure systems and /or inadequate finance prevented the migrants access to land ownership within the settled communities. This makes land owners to sometimes exploit land seekers especially the non-indigene. Despite the above-mentioned issues, securing individual land rights will increase incentives to undertake productivity-enhancing land-related investments. Moreso, people who have extensive land rights are able to enjoy a more sustainable livelihood than those who have only limited land rights; those who have limited rights are, in turn, often better off than those who are landless (FAO, 2002). Upon this premise, this study analyzed the land tenure system and land rights and their effects on the livelihoods of Igede households in Ogun State. The study specific objectives identify the livelihood activities of the Igedes, examine their land rights and tenure systems, assess perceived effect of the land rights and tenure system on livelihoods

and examine problems encountered in accessing land rights and tenure systems in the study area.

Materials and Methods

Study area

The research was carried out in Ogun State, Nigeria. The land area is covers about 16,726 square kilometers, with the majority lying within the country's agro - ecological rainforest zone and the remaining portion in the Southern Guinea Savanna zone. Ogun State lies between latitudes 7^0 01′ and 7^0 00′ as well as longitudes 2^0 45′ and 3^0 55′. The projected population for Ogun State according for year 2023 was approximately 6,445,275 (National Bureau of Statistics, 2023). The agro-climatic conditions of the state are characterized by a bimodal rainfall pattern, thereby making it possible for farmers to cultivate arable crops. Aside from mineral resources for mining and the presence of rivers for fishing and forests for hunting, there is a large expanse of fertile land for agricultural purposes. The study area accommodates different ethnic groups, in which Igedes are one of the prominent tribes. The Igedes engage in agricultural activities, which prompt their relocation to the agrarian communities in Ogun state, where there are large expanses of fertile agricultural land.

Sampling procedures and sample size

The population of this study was the Igede households in Ogun State. A multi-stage sampling technique was used to select the sample size for this study. The stages were described below:

- **Stage 1:** Ogun State consists of four (4) zones according to Ogun State Agricultural Development Programme (OGADEP), two (2) zones were selected using purposive sampling technique for the location where the Igedes were settled.
- **Stage 2:** From the chosen zones, two (2) blocks were selected using simple random sampling to make a total of four (4) blocks.
- **Stage 3:** Each of the block consists of cells; one (1) cell was selected to make a total of four (4) cells using simple random sampling.
- **Stage 4:** Each of the cell consists of villages; two (2) villages were selected from four (4) cells to give a total of eight (8) villages.
- **Stage 5:** A simple random sampling technique was used to select fifteen (15) respondents from each of the eight villages to make a total of 120 Igede households.

Data sources and collection

Primary data was obtained directly from the respondents through the use of an interview guide for the study. The interview guide was divided into several sections to elicit information from the respondents. These include the socioeconomic characteristics of Igede households, livelihood activities, the land rights and tenure systems, problems encountered in obtaining the land rights and tenure system, and the effect of the land tenure system and land rights on the livelihood of the Igede in the study area.

Measurement of variables

Livelihood activities were measured at the nominal level as Yes and No, with Yes = 2 and No = 1. Land tenure and rights were also measured at the nominal level as Yes = 2, No = 1. Perception of the Igede on the effect of the land tenure system and land rights on their livelihood was measured with 20 items on Likert's rating scale based on five-point responses of Strongly Agree = 5, Agree = 4, Undecided = 3, Disagree = 2, and Strongly Disagree = 1 for positive perceptual statements while reversed scoring of the points were used for negative perceptual statements. Problems encountered in accessing land rights and tenure systems were measured using a 12-item rating scale of 3 points for responses to Major Problem = 3, Minor Problem = 2, and Not a Problem = 1.

Data analysis

Data were analyzed using binary logistic regression and descriptive statistics. Results were presented in tables and charts with percentages and frequency counts, The binary logistic regression analysis was used to test the hypothesis. The probability that land rights and tenure systems have effect on livelihoods recorded as 1, otherwise, 0. P is the probability that livelihoods is affected by land rights and tenure systems (favourable) =1, (1-P) is the probability that livelihoods is not affected by land rights and tenure systems. (Non- favourable) =0.

The formula for binary logistic regression model is written below:

The probability that land rights and tenure systems have effect on livelihoods recorded as 1, otherwise, 0.

Hence, the model is therefore stated in equation 1:

$$\text{Log } (Pi/1- Pi) = a + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \ldots\ldots\ldots \beta_{11}X_{11} + \varepsilon \ldots\ldots\ldots\ldots (1)$$

Where
a = y-intercept
β = regression coefficients
ε = error term
$X_1 - X_{11}$ = independent variables (.....)

Independent variables are stated as follows:
X_1 = Age (in years)
X_2 = Sex (male=1, otherwise=0)
X_3 = Marital status (If married=1, otherwise=0)
X_4= Household size (number of persons in the household)
X_5 = Level of education (If No formal education=1, otherwise=0)
X_6 = Total income (Naira per annum)
X_7 = Farming (Yes=1, otherwise =0)
X_8 = Land use right (Yes =1 No =0)
X_9 = Land control right (Yes =1 No =0)
X_{10} = Land transfer right (Yes =1 No =0)
X_{11} = Land tenure systems (Lease=1, otherwise =0)

Results and Discussion

Socioeconomic characteristics of the respondents

Entries from Table 1 show that more than half (52.5%) of the respondents were within the age range of 31-40 years, which implies that the respondents are young and active, therefore, they are capable of engaging in diverse income-generating activities. The result also showed that 70.0 percent of the respondents were male. This agrees with the assertion positing that customarily, household leadership is conferred on the males and hence, the responsibility of sustaining the household economy (Acosta, 2019). The findings also reveal that 90 percent of the respondents were married, while 10 percent were single. It can be deduced from this finding that married men and women are more likely to seek access to land rights and secure land tenure systems than unmarried. This is because the married were saddled with more responsibility to earn and to take care of their families.

The respondent's educational level revealed that 46.7 percent had only primary education, 30.0 percent had secondary education and 5.8% of had tertiary education. The implication is that the respondents low educational level could hinder them from obtaining high-paying jobs when compared or competing with those with high educational qualification. Education improves living standards, drives rural development, and accelerates the adoption of new ideas and innovations. This motivates migrants to move to new areas where they can find better livelihood opportunities (Ji *et al.*, 2023; Shen *et al.*, 2024). The mean annual income of the Igede households was ₦151,841.67($112.22), while only 10 percent earned above 300,000 naira per annum. To earn more, the Igede tend to look for earning opportunities that require land resources to create income-generating activities. Mukaila *et al.* (2021) opined that the majority of the rural household heads in Nigeria sourced their income from agricultural and allied activities but majority earned a monthly income lower than the minimum wage in Nigeria.

Table 1: *Socio-economic characteristics of respondents (n = 120)*

Variables	Frequency	Percentage	Mean
Age (years)			
Less than 41 years	63	52.5	41 years
41-50 years	48	40.0	
Above 50 years	9	7.5	
Sex			
Male	84	70.0	
Female	36	30.0	
Religion			
Christianity	66	55.0	
Islam	42	35.0	
Traditional	12	10.0	
Household size			
<6 persons	54	45.0	6 persons
6-10 persons	66	55.0	
Level of education			
No formal education	21	17.5	
Primary level	56	46.7	
Secondary level	36	30.0	
Tertiary level	7	5.8	
Marital Status			
Single	12	10.0	
Married	108	90.0	
Annual income			
150,000 and below	78	65.0	₦151,841.67
150000-300,000	30	25.0	
Above 300,000	12	10.0	

Table 2: *Livelihood activities of the igede in the study area (n = 120)*

Livelihood activities	Frequency	Percentages
Arable crop farming	117	97.5
Hunting	89	74.2
Farm labour	102	85.0
Cassava processing	76	63.3
Sales of agricultural produce	99	82.5
Commercial bike riding	97	80.8
Food vendor	44	36.7
Petty Trading	56	46.7

Multiple response

Identification of livelihood activities in the study area

Table 2 shows that many of the Igede mainly engaged in arable crop farming (97.5%), farm labor (85.0%), sales of agricultural produce (82.5%), and commercial bike riding (80.8%) as their major livelihood. This implies that the primary occupation of the Igede households in the study area is farming. The livelihood of rural people depend primarily (directly or indirectly) on agriculture and other agriculture-related enterprises to generate income for their daily upkeep. Giller *et al.* (2021) opined that rural people are mainly into subsistence farming and also depend on other land resources to generate their livelihood to make income for the survival of their families. The reason Igede farmers plant only arable crops such as cassava, pepper, yam and vegetables, among others, which are either annual or biennial crops, cannot be unrelated to the land tenure system and the rights available in the study area. A short-term land tenure system does not encourage the planting of tree crops that require longer years for their growth (Molua *et al.*, 2023).

Results in Table 2 also show that the respondents are engaged in off-farm and non-farm activities such as hunting (74.2%), petty trading (46.7%), and food vendor (36.7%), as sources of livelihood among others. This implies that the respondents could not possibly depend on a single source of livelihood, especially farming-related sources. It could also be due to the seasonality of farming operations and their products, which make the producers, engage in alternative non-farming economic activities to meet up with their needs during off-seasons. Limited access to land use rights encourages livelihood diversification to protect farming households from threats of total failure of single investment in agriculture (Agegnehu, 2023).

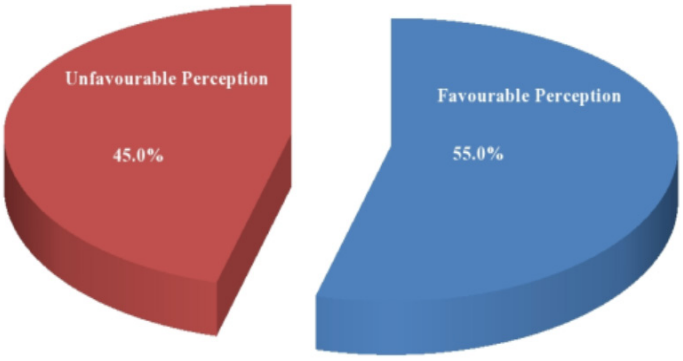

Figure 1: *Overall perception about effect of land tenture amd rights on livelihoods of igedes*

Identification of land tenure system accessed by respondents in the study area

Figure 1 shows that 40 percent of the respondents had a leasehold land tenure system, which enhanced more time in the utilization of land for livelihood activities, which are mainly farming activities. Akram *et al.* (2019) opined that agricultural investment is influenced by land lease agreements and it affects farmers' decisions regarding sustainable growth in terms of soil conservation and agricultural productivity. The lengthy time of the leasehold land tenure system is a determinant factor that attract people which is it was considered better than rent. This explains why only 15 percent of the respondents reported rentage as their access to land. Land tenure by rent discourages long-term planning; such land can only be used for planting food crops or mostly arable crops, as depicted in the livelihood activities of the respondents. Land owners can revoke the tenancy when the rent period expires; and land cannot be used as collateral for a loan from financial institutions. Twenty percent of the respondents use the free informal land tenure system, which entails the use of available lands within the communities that are free from the hold of any entity except the owner. The use of the open-access land for farming activities is not sustainable because the land owner can retrieve the land before the crop matures. Mastoi *et al.* (2021) asserted that land holding is one of the most influencing characteristics among farming communities. The landlord has better access to land than tenants and leaseholders.

Furthermore, 11 percent of the respondents had access to a communal land tenure system, wherein the village chief determines how to distribute land and manage the land resources among the community members. The Igedes in the community who are the main

migrants enjoin communal access to the land and other land resources for their livelihood activities. Land held under communal and often customary tenure arrangements is disproportionally affected by Large-Scale Land Acquisition (LSLA), with detrimental effects on smallholders' livelihoods (Dell'Angelo *et al.*, 2021). Only 8% had a land tenure system as a gift, and those with tenancy at will of the government were 6 percent. The tenant at the governments will allow the members of the community to obtain access to land for agricultural purposes. This is a good idea because it encourages a massive food production program, supports large-scale farming activities, and is cheap to acquire but cannot be used as collateral for a loan. This method of land acquisition encourages subsistence farming or small-scale farming on small plots at different locations (land fragmentations), which is unproductive or results in lower productivity and hence affects the livelihood of the respondents in the study area.

Table 3: *Land right obtained by Igede in the study area (n = 120)*

Rights	Frequency	Percentage
Use right	78	65.00
Control right	30	25.00
Transfer right	12	10.00

Identification of land rights secured by the respondents in the study area

Entries in Table 3 indicate that 65 percent of the Igedes have the right to land use; this involves the freedom to use the land for a restricted purpose. Although the right has a stipulated usage, it still grants access to land resources that could support the activities of the land users. Many of the Igedes have this type of land right, which encourages them to engage in agricultural activities, but they only have access to use the land, but transferring actual ownership of the land is prohibited. Navarro, (2023) opined that several households lack ownership rights or owner-like rights on the land they till or cultivate, especially the non-indigenes. Access to land is a fundamental requirement for human shelter, food production, and other economic activities, including natural resource usage of all kinds.

The control right of the land was obtained by 25 percent of the Igedes in the study area. This implies that the Igedes can exercise their rights in deciding on how the land will be used, determine the kind of crop that can be cultivated, and as well make a profit from the sales of produce from the land. Only 10 percent had the transfer right; this could be a result of the interaction and relationship between the Igede and the indigenes. The transfer of land management rights cannot meet the need for agricultural productivity at present (Wang *et al.*, 2018; Ricker-Gilbert and Chamberlin, 2018). Rodriguez *et al.* (2016) opined that to achieve agricultural development, it is important to allow the transfer of land contract rights within a certain range and realize the effective allocation of rural land resources.

Perceived effects of land tenure system and land right on livelihoods

Results in Table 4 show that sixty percent of the respondents strongly agreed that the land without documentation can hinder access to bank loans to raise capital for livelihood improvement. The implication is that the kind of land tenure and rights that people have could influence their capacity to acquire financial access, which requires land as collateral. Murken and Gornott, (2022) opined that tenure insecurity can demotivate long-term investment into livelihoods and the adoption of improved farming practices; it might constrain farmers' ability to use their land as collateral for credit. About 50 percent of the respondents strongly agreed that scaling up their livelihood activities, which are mainly agriculture, is affected by land tenure and rights. The kind of land rights and tenure system accessed by Igedes in the study area prevents their desire to cultivate larger agricultural land in their farming activities, and that could affect their earnings and food supply. Nigeria's agricultural development level limits the ability of farming households to plant cash crops, limiting their income generation potential due to poor land availability (Akanwa, 2023).

Many 82.5 percent of the respondents retorted within the disagreement scale that tenancy at will of the government is available to all farmers. This implies that many of these farmers do not have access to land at the government's will, which is supposed to give more chances to land resources that could support their livelihoods. Also, the respondents indicated within the agreement scale that having landed at different places (land fragmentation) makes farming difficult and less profitable (57.5%), and government land policies can limit agricultural

Table 4: *Perceived effect of land tenure system and land right on respondents livelihood.*

Perceptional statements	Strongly agree %	Agree %	Undecided	Disagree %	Strongly disagree %
Land without proper documentation constrained procurement of bank loans for livelihood expansion and improvement.	60	22.5	10	5	2.5
Poor right and access to land hinders large scale of agricultural production	45	20	15	10	10
The lease duration given by the land owners does not support planting of long time crops.	35	30	17.5	12.5	5
Land tenure system practiced in the area makes farming systems to be difficult for those into agricultural livelihoods	30	37.5	10	15	7.5
Land right and tenure system encourage access to land in different places hence improve crop yield and income.	25	50	7.5	12.5	5
Practicing of freehold, Leasehold and Rent land tenure system helps farmer to save more money he would have spent on buying more lands.	30	45	20	2.5	2.5
Bush fallowing can be practiced since farmer has other lands he can cultivate, which helps him to sustain his livelihood.	60	20	12.5	5	2.5
Land fragmentation makes farming to be more laborious and uneconomical to work.	32.5	25	17.5	10	15
Government land policies sometimes constrain agricultural activities	62.5	12.5	15	5	5
Acquisition of government owned land unknowingly can threaten livelihoods.	27.5	30	12.5	20	10
All the land tenures and rights system encourage mechanization	0	5	10	35	50
Free informal land tenure is the best practice for farmers.	5	5	12.5	22.5	55
Communal land tenure system is free for all there is no need obtain authority to access the land.	0	0	7.5	25	67.5
Disagreement between land owners and users does not affect development and land use	7.5	12.5	15	35	30
Livelihood cannot be threatened if a land owners suddenly revoke tenancy.	5	12.5	10	27.5	45
Tenancy at will of Government is available to all farmers.	5	10	2.5	60	22.5
Land tenure by inheritance is common among migrant farmers.	2.5	2.5	20	40	35
Migrants and indigenes have the same land right to communal lands and that reduces the cost of land and livelihood improvement.	10	22.5	10	22.5	35
Access to land and agricultural livelihood are independent and they did not affect each other.	10	5	20	27.5	37.5
The small portion of land available to migrant farmers due to land rights can still encourage and support commercial agriculture.	17.5	12.5	20	17.5	32.5

activities (62.5%). Land tenure issues are important components of developmental discourse (Zoysa, 2015). The respondents further affirmed that poor rights and access to land hinder large-scale plantation farming, and a short time of lease from land owners does not support the planting of long-duration crops. They also disagree that mechanized farming is easily practiced among community farmers due to different land tenure systems and rights (67.5%). This is because the available farmlands in the communities are controlled by different rights and tenure systems, and even large hectares of land that can accommodate farm mechanization are not close to the village center. Farmers have to travel long distances to acquire large expanses of land for commercialized farming. Oluwatayo *et al.* (2019) opined that lands are small and fragmented, which imparts significantly on the mechanization potentials of farming households.

The results in Figure 2 show that 55.0 percent of the respondents had a favorable perception of the submission that the land tenure system and land rights of the Igedes have implications on the livelihoods. This indicates that income-generating activities and diversification of livelihoods depend on the available rights and tenure system operating in the community. Land rights control land resources, which can be used to establish or create source of living for individuals and households. The rights of the people to land resources such as forest, wildlife, water, rock, and other minerals dictate the kind of livelihood that can be created from the land resources to earn income for survival. It is estimated that about a billion individuals worldwide are under insecure tenure arrangements, which has a significant impact on their ability to make a living (Feyertag *et al.*, 2020).

Problems of land rights and tenure system encountered by the respondents

Results in Table 5 show that more than sixty percent of the respondents indicate that activities of land grabbers and scamming agents hinders livelihood activities regardless of the type of rights and tenures. The grabbers prevent the smooth running of livelihood activities; sometimes hold the respondents to ransom and make high demands on the land that is being used for income-generating activities. Stenberg and Rafiee (2018) opined that traditional livelihood, based mainly on cultivation, fishing, gathering and hunting have been threatened by several impacts from land grabs. These include deforestation, diminished access to resources, environmental harm, land loss and a lack of substitute strategies for ensuring food security.

Most (72.5%) of the respondents also said that loss of produce on free informal land is due to poor understanding of land owners, but it is just a minor problem, probably because there are other means that the land owners can be convinced, before it can lead to loss eventually, In fact, 30 percent of the respondents pointed out that the activities of landlords and families were never a problem, while 55 percent said that it was just a minor problem. The problems encountered in obtaining land rights and land tenure affect the activities that can be done on land as well as discouraging the people, especially the non-indigenes and migrants from obtaining the right and tenure system. For instance, once the Igedes and other migrants, who are presently the main laborers engaging in farming activities, are frustrated because of poor land rights and tenure systems, then the possibility of reduction in food production and

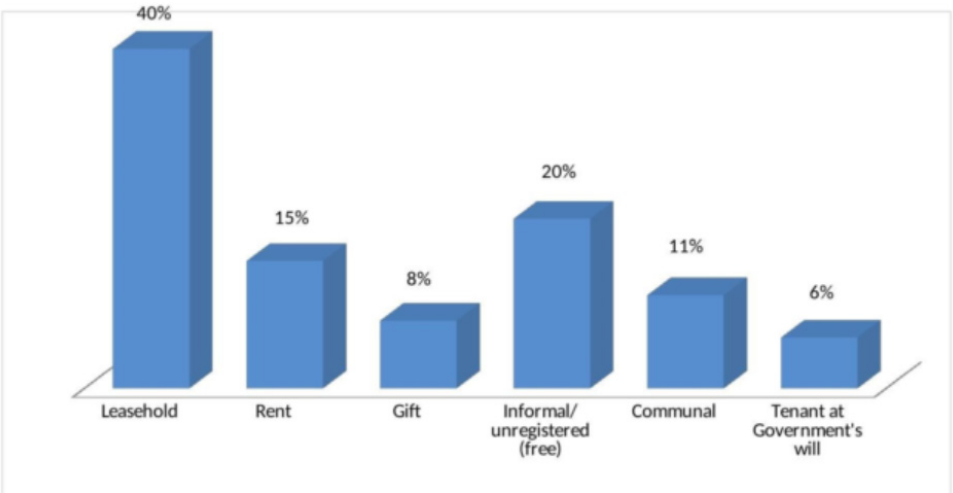

Figure 2: *Type of land tenure systems accessed by igede in the study area*

Table 5: *Distribution of respondents based on the problems of land rights and tenure system*

Problems	Major problem frequency (%)	Minor problem frequency (%)	Not a problem frequency (%)
Land grabbers eviction and obstruction of activities on land.	78(65.0)	36 (30.0)	6(5.0)
Activities of scamming land agents.	66(55.0)	45(37.5)	9(7..5)
Conflicts and disagreement about the right to use land	84 (70.0)	24(20.0)	12(10.0)
The process of acquiring certificate of occupancy and other land documents is too long and time taking.	48(40.0)	60(50.0)	12(10.0)
High cost of land lease and rent for migrants.	51(42.5)	54(45)	15(12.5)
Communal land are constrained by several changing instructions from local authorities	90(75.0)	30(22.0)	00 (0.0)
Loss of produces on freehold land due to land owner lack of understanding.	27(22.5)	87(72.5)	6(5.0)
Members of the community do not lend land to non-indigenes.	72(60.0)	48(40.0)	00(0.0)
Land is issued out for specific purposes which prevent usage for other purposes.	69(57.5)	42(35.0)	9(7.5)
Activities of land lords and their families	18(15.0)	66(55.0)	36(30.0)
Community biasedness in allocating plots of land.	33(27.5)	63(52.5)	24(20.0)
Multiple sale of same piece of land	45(37.5)	60 (50.0)	15 (12.5)
Disputes on boundaries among member of the communities			

Table 6: *Result of binary logistic regression of perceived effect of land rights and tenure system on livelihoods*

Variables	B	S.E.	Wald	Sig.	Exp(B)	Decision
Age	.037	.029	1.537	.215	1.037	NS
Sex	.066	.449	.022	.883	1.069	NS
Marital	.157	.761	.043	.836	1.170	NS
Household Size	-.094	.069	1.862	.172	.910	NS
Level of education	.661	.589	1.257	.262	1.936	NS
farming	-.196	.514	.146	.703	.822	NS
Total income	.000	.000	.796	.032	1.000	S
Land use right	.858	.420	4.179	.041	.424	S
Land control right	-.568	.468	1.474	.225	1.764	NS
Land transfer right	.843	.683	1.527	.217	2.324	NS
Land tenure system	.062	.102	.367	.045	1.064	S
Constant	-.834	1.407	.351	.553	.434	NS

food supply is inevitable. Mbudzya *et al.* (2022) opined that the security of land tenure among rural households is an integral part of achieving high agricultural productivity. Access to secure land tenure is considered as one of the key drivers to rural development and poverty reduction reducing poverty (Higgins *et al.*, 2018). Policymakers all over the world have prioritized securing the land tenure of their citizens (Alban and Willen Ertsen 2020).

Result of hypothesis

Results in Table 6 show that among other variables, total income, land use rights, and land tenure system were significant at $p<0.05$ affecting the livelihoods of the respondents in the study area. This indicates that changes that occur in these variables led to a contributory effect on the livelihoods of the people. The implication is that as income increases, the livelihoods of the respondents also increase, but at a very low rate. The increasing income of the respondents could probably be used to acquire assets that can support the improvement of their livelihoods. The results show that the kind of tenure system and land rights acquired by the respondents have significantly impacted their livelihoods. The more the respondents tend to obtain better tenure systems and

land rights, the more the impact on their livelihoods. The livelihoods increase marginally by 6.2% with the type of land tenure system, while an increase in land use rights increases the livelihoods of the respondents by 85.8 percent.

Conclusions and Recommendations

The study concluded that Igede households within the agrarian communities are young, with an average household size of six persons, and many of them earn below one hundred and fifty thousand naira per annum. Among others, farming was the prominent livelihood, and the land use right was obtained to have access while the leasehold tenure system was granted to Igede households. More than half of the respondents had favorable perceptions on the fact that land rights and tenure systems affected their livelihoods. The kind of land rights and tenure system will determine the duration and pattern of use of the agricultural land by the Igedes, who are presently more involved in the cultivation of arable crops in the study area. The communal disagreements on land rights, the tenure system, and the land grabber obstructions are the major challenges encountered by the Igede households in obtaining land rights and tenure systems. The total income of the Igedes households plays a significant role in the kind of land rights and tenure system they can afford, which invariably influences their livelihoods. The influence of land rights use and leasehold tenure systems is directly related to their effect on livelihoods. It is therefore recommended that community leadership should intervene by protecting both the indigene and non-indigene against land rights issues and grabbing activities in the agrarian communities. Local authorities should create structures for monitoring, reporting, and resolving land conflicts and disagreements to give more rights and access to land resources for the people especially the Igedes to improve food production and livelihoods.

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Novelty Statement

This study established that for non-indigenous farmers in rural Nigeria, having secure and reliable access to land is central to improving their livelihoods. It highlights that land access does more than increase income but strengthens food systems and overall well-being within farming communities.

Author's Contribution

Aromolaran Adetayo and Sodiya Comfort: Conceptualized research ideas and formulated the objectives, writing, coordination, and supervision.
Tolorunju Esther and Aromolaran Adetayo: Design of methods, models, data analysis, and writing.
Atata Scholastica and Tolorunju Esther: Data cleaning, management, review, and editing.
Obie Victoria and Bassey Inibom: Fieldwork, data collection, provision of study materials, and initial draft writing.

Generative AI and AI-assisted technology statement
The authors declare that no generative AI and AI assisted technology was used in the creation of this manuscript.

Conflict of interest
The authors have declared no conflict of interest.

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