
LAND TENURE SYSTEM AND FARMING MANAGEMENT PRACTICES: A CASE OF ILAROI OGUN STATE

Adedayo, Vide, Adeaga, Olusegun, Nkwuka, Nnamdi, Odunnga Shakirudeen and Amure Kemi
Department of Geography
University of Lagos, Akoka, Lagos

ABSTRACT: *This paper examined the implications of land tenure system on farm layout and management practices in a rural economy. In addition to the synthesis of the existing literature, key informant interview (KII), Focus Group Discussions (FGD), personal observations and questionnaire administration were used in data collection. Simple statistical tools were used to analyze the land tenure features, farm layout and farm management practices. The results revealed that 58% of farmers have use right to land, 25% have right to trade off their land, 17% use family land and 50% have right to lease their land. Sun shade and storage barn were observed farm facilities with foot part used for layout. About 70% practice mixed cropping while 30% practice mono-cropping with no significant long term investment on farming due to existing tenure system. The paper recommends a review of the existing land tenure to accommodate land right to encourage long term investment to ensure sustainable agriculture.*

KEYWORDS: land, tenure system, farm, layout, management, practice

INTRODUCTION

Land is an important natural resources and key factor of production of the agriculture sector and its tenure system which determines method of administration, acquisition and use is a complex one. Although defined variously, land is a specific area of the earth surface including forest, surface and underground water (Famoriyo, 1980; Adedipe, et al., 1991; Baltazar and Peter, 2015.). Land constitutes a significant index of man's wealth, wellbeing and economic activities and plays a central role in human development within the urban and rural communities. It is a means to mitigate the many manifestation of deprivation and a significant ingredient in the achievement of food security, poverty alleviation and sustainable development as its role in agricultural productivity cannot be under estimated. In Nigeria, however, this productivity role of land is dictated and controlled by the land tenure system and land uses. Therefore, understanding the land tenure system will enhance the activities toward agricultural improvement. Land tenure system determines land rights, duties, roles and responsibilities for its use, transfer, ownership, and security (Malinowski 1935; Adams, 2001; Eze et al 2011.), and further provides rules for the administration, accessibility and utilization, apart from connecting with a given local values, laws

and customs making them highly susceptible to customary law of the different traditional segments (Famoriyo, 1980).

With a land area of about 98.3 million hectares, Nigeria has a cultivable area of 71.2 million hectare of which only 37.33% are arable leaving over 50% uncultivated (World Bank, 2014, Daramola, 2004).). In spite of this, access to land resources for farming has been associated with a number of challenges of which the land tenure system in operation has been reported to put serious limitations on the amount of land that is available and accessible for agricultural production (Kamla-Raj, 2008) even in less favoured economy. Thus, the Nigeria agricultural sector has not fared well as it is characterized by low yields with over 70% of the farming systems predominantly small scale and subsistence-based, with the consequence of depriving the sector of the distinguished features it played in the regional economic development over the years (Oji-Okoro, 2011). Agriculture initiatives such as Agricultural Development Programmes (ADP), Directorate of Food, Road and Rural Infrastructure (DFRRI), Nigerian Vision 20: 2020 (NV20: 2020), Agricultural Transformation Agenda (ATA) and the Agriculture Promotion Policy (known as the Green Alternative) launched in 2016 for reshaping the direction of agricultural development in Nigeria have not yielded the desired outcome possibly due to silent performance of the existing land tenure system which have received less attention for review and has been argued to be behind land use limitations and its attended fragmentation (FAO <http://www.fao.org/nigeria/fao-in-nigeria/nigeria-at-a-glance/en/>, Hristov 2016).

In addition, competition over land has been more intense in frequency and severity (Chikaire et al (2017) due to increasing scarcity of land as a result of increased population and high land values. There are also repeated and recurrent land conflict and disputes recorded in most part of Nigeria (Fasona and Omojola 2005) due to weak farm layouts and farm configuration which are hardly commensurate with international standard farming practices that ensures safety and security of farm lands and long term farm practices. Again, the state of the existing land tenure system has manifested in different socio-economic rights and entitlements in a form that denies not only women but more youth as well as skilled individuals sufficient access right to own land for long term investment thereby denying people means of wealth creation and economic empowerment particularly in the less favoured rural communities (Ajala, 2017, Byers, 2001, Shivji, 1998).

The imbalances in access to land have also activated discrimination and divisions along class, social and gender lines creating wider unequal and inequitable access to and use of land. The existing features of land tenure system in operation apart from subjecting rural community members to poverty, further exposed farmers to various form of less productive farm management options and choices in the face of challenging issues of climate change and degrading environmental conditions, such as delayed and slow-onset rain, drought or flood which often times disrupt existing land use, tenure patterns and rights-related issues and consequently affect farming output (Mitchell 2011, Dyer 1998). Apart from the afore mention, Idoma and Ismail (2014) have also suggested that inalienability, insecure of tenure system, land fragmentation and atomization of holdings due to customary law of inheritance have been responsible for the growing small scale

and subsistence farming systems which no longer meet the food and industrial demand of the present growing population.

The need to understand the land tenure system and its management practices amid rapidly rising population, increasing demand for food, effect of climate change has prompted the concerns for this paper. Consequently, the paper examined the implications of land tenure system on farm management practices. Specifically the study identified the land tenure types and the characteristics of farmers, it examines the feature of the land tenure system and farm layout and lastly analyzes the relationship between the existing land tenure forms and farm management practices adopted in Ilaro, South West Nigeria.

Study Area

Geographically, the study area (Ilaro and environs) lies between latitude $6^{\circ} 53' 43''$ and $6^{\circ} 53' 52''$, Longitude $3^{\circ} 00' 45''$ and $3^{\circ} 00' 58''$ E with an elevation of 73.455m above mean sea level. It lies within the tropical climate with average temperature of 26.9 Degree Celcius and average precipitation of 1257mm per annum. The soils are mostly loamy and humus, rich in manure. The Area is about 50km from Abeokuta, the Ogun State capital, and about 100 km from Ikeja, the capital city of Lagos State. Neighbouring communities around Ilaro are Ilaro-Ajilete, Oke-Odan Owode, Ibese, Oja Odan, Pahayi, Idogo-Ipaja, Papa-Alanto, and Imasayi. The major occupation of the Ilaro people is mostly farming growing crops like cocoa, coffee, kola cassava, yam, okra, plantains, water leaf, and spinach. There are several timber milling industries spread at the outskirts of the town for the production of planks and plywood for both local consumption and exportation. Local processing industries include the local fufu and gari processing industries, the timber/plank making industries and the local Aso-Oke weaving industry. Dangote Cement Industry located some few kilometers from the Ilaro town at Ibese town is the major manufacturing industry in the area. Figure 1 shows Ilaro in Yewa South LGA, Ogun State.

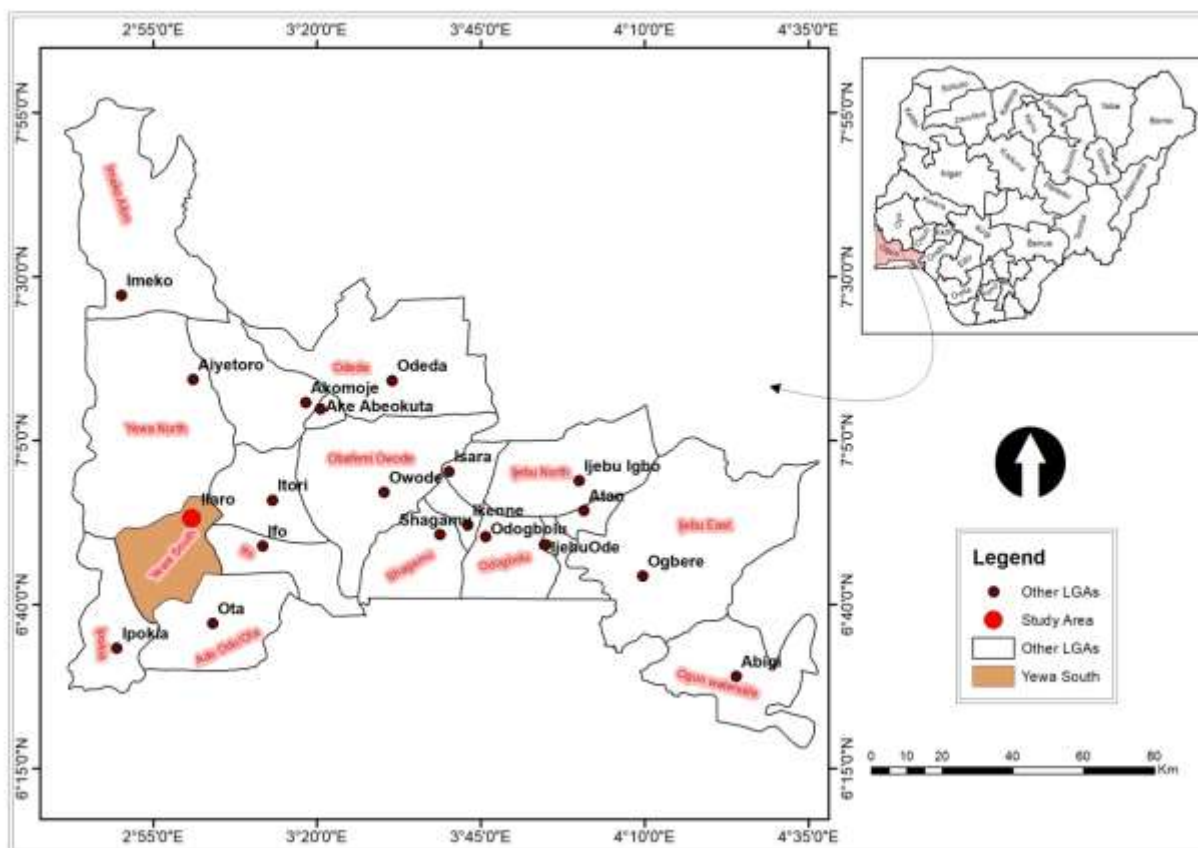


Figure 1: Ilaro in Yewa South LGA, Ogun State, Nigeria

2.0 Literature Review on Relationship between Land tenure and Farming Practices

The complexity in understanding land tenure operations in Africa particularly in Nigeria is a huge task and has been a subject of interest and study across disciplines due to its relevance and importance not only to agriculture but also to the economic development at large. These various interests have further subjected land tenure systems to various definitions and types with the most common understanding being a system of rights and institutions that govern access to, use of land and providing the terms and conditions under which land is held, used and transacted (Adams, 2001). Thus, there are different types of tenure systems exercised over land to express ownership, possession, access, and regulate uses, right and transfer (Amasiatu 2010; Liz Alden Wily, 2011). Therefore, the synergy between land tenure system and farm practices can be seen from different perspectives.

Atte (1985) examined the structure of the land tenure system in the Okun Area of Kwara State, Nigeria, and its influence on the farming system. His study revealed that despite the fact that the area is predominantly an agrarian rural community, the operation of the land tenure system is exceptionally liberal and only marginally affects both the size of individual farm holdings and the

way the land is cropped. The situation, according to the study showed that, the Okun people perceive land as a God-given entity and therefore held it in trust for God and the population density is very low, with plenty of land to go round. Tenaw et al (2009)'s work on the effects of land tenure and property rights on agricultural productivity in Ethiopia, Namibia and Bangladesh stated that the main obstacle to increased agricultural output is shortage of land and population pressure. They however, noted that it is not only the shortage of land that affects the output of agriculture but also the structure of land tenure, lack of proper land ownership as well as lack of improved agricultural technology, changing climatic conditions and lack of credit facilities. This lack of access to credit facilities accordingly forces them to go for traditional land-use practices, despite their willingness to change (Rasul, 2003) and adopt mechanized farming.

In the same vein, Lawry et al (2017) argued that land tenure systems generally provide poor people access to land free of charge, and it is rather seen as a social right in most Africa societies. According to this study, household resources and income in many places are much lower among poor farmers and so, if one is going to do something with any land, it's just not about land as an asset but instead, it should be about labor and capital. This according to the author implies that practitioners must have huge income to invest in farming enterprise. However, low income among farmers would constrain their ability to make better use of their land. The paper further suggest an effective land tenure reform which not only provide secure land rights to the people but also provide affordable access to farming inputs and markets and investment in roads, cooperatives, farming training as well investments that enables farmers to capitalize on their secure land rights. UNECA (2003) also explained that providing security of tenure is often seen as a precondition for intensifying agricultural production and is now increasingly stressed as a prerequisite for better natural resource management and sustainable development. Rural people generally according to the report need both secure individual rights to farm plots and secure collective rights to common pool resources upon which whole villages depend.

Furtherance to the above, Ojo (2008) examined the effects of land acquisition for large scale farming on the performance, productivity and technical efficiency of small-scale farming in Nigeria. He revealed that farmers in a certain group had long distant farms that are in small, highly fragmented and produced mainly arable crops that yield smaller revenue compared with the farmers in another group. The study further revealed that large scale farms are more productive in the allocation of resources and are more technically efficient than small scale farms. He opined further that the main problem with respect to land for cultivation is land availability which involves a complexity of interacting variables such as population, land tenure system, level of technology and the stage of the country's development (Ojo and Afolabi, 2003). Accordingly, the variables, especially land tenure systems put serious limitations on the amount of land that is available for both small and large scale agricultural productions because land is communally owned in the various communities and no single person has exclusive right over the piece of land he is using for agricultural purposes. Land tenure systems affect agricultural productivity by influencing the efficient use of inputs and adoption of modern technology.

The connections between land tenure system and farming practices empirically revealed multifaceted and multidirectional perspectives that suit various interest and disciplines. While the paper, agrees with the works of Ojo (2003) and Atte (1985) on the influence of the local customs,

ideas and belief on land tenure and consequently on farming practices, the lack of attention on the farm layout and farm management options create a vacuum that requires the focus of this paper.

MATERIALS AND METHODS

Methods and Materials

An integrated approach to examine land tenure assessment was carried-out in the contexts of access and acquisition of land for farming and the right to transfer. Farm layout and land tenure characteristics as well as the implications of the land tenure system on farm management practices were carried out. The data for this research was collected from farmers (farm labourers and owners of farms) within the study areas using well-structured questionnaire, observation, Focus Group Discussion (FGD) and Key Informant Interviews (KII) methods. A total of 120 questionnaires were randomly administered within three farm settlements, namely Town planning farm settlement (Planning area), Igbonla area farm settlement (Igbonla area) and Yewa south agro-allied services farm settlement (Yewa area). The locations were identified prior to the commencement of the survey. The questionnaires solicited for information on socioeconomic characteristics of farmers, access to land for farming and farm management practices. The questionnaire was distributed to respondents based on farmers' availability and presence at the time of the survey. However, more farmers were found in Igbonla area which accounted for a larger population of the respondents. Thus, the number of respondents' from Town planning farm settlement, Igbonla area farm settlement and Yewa south agro-allied services farm settlement were 30, 60 and 30 respectively.

Inferences from related literature enabled compilation of the basic criteria used for evaluating the land tenure system. Interviews with local government officers on agriculture, farmers' representatives, community leaders, consultants, and academics also provide necessary information on the types of land tenure systems and agriculture practices, the farm sizes and layouts, and productive capacity as well as other basic information as regards agricultural practices within the study area were also solicited for from relevant government agencies, physical inspection and the use of high resolution imageries. Chi square (χ^2) test was adopted to examine the implications of land tenure system on farm management practices because of the classified nature of the data sets. The land tenure data set was classified into hired land, family land, inherited land, community, and purchased land, while the farm management data set was classified into seasonal farming, integrated farming, full time farming, part time farming and crop rotation farming. The results were presented in both tabular and graphical formats.

RESULTS AND FINDINGS

Characteristics of farmers

The analysis of the data collected revealed that 75% of the farmers are males while 25% are females. It also shown that 58% of the farmers were within the age bracket of 36 to 60 years, 25%

were within 26-35 years, 12% were less than 25 years while 4.2% are 60years and above. The study also revealed that about 16.6% were single, 66% were married, 8.3% were widow and 4.2% were divorced. About 25% of the respondents have tertiary education, 25% have secondary education, 33.2% have primary while 16.6% have no formal education but are equipped with vocational and Islamic training (see Figures 2a-d).

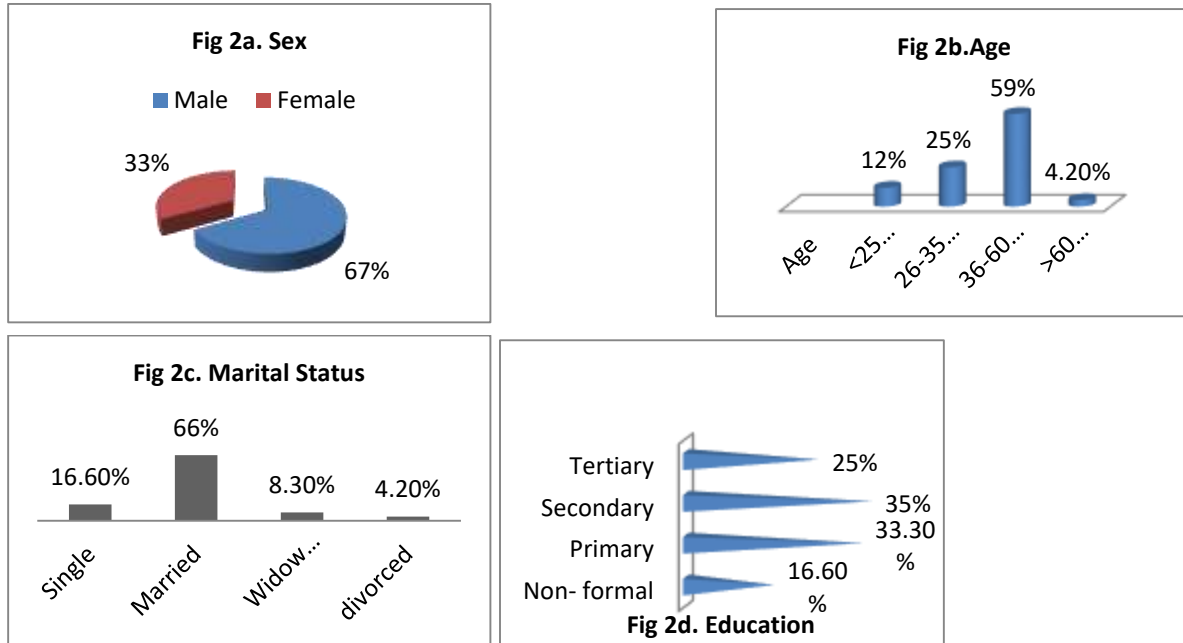


Figure: 2a- d

Land Tenure Characteristics

The characteristics of the land tenure in the study area are as presented on Figure 3, which shows the five ways farmers have access to land for farming in the study area. As presented, 50% of the farmers agreed to have use right, usufruct or hire right, 17% have access through outright purchase, 14.1% have access through family land, 2% through inheritance and 17% through community access. Further analysis revealed that about 70% of the land in Ilaro is used for small scale farming activities at subsistence level while 30% are used for large scale production at commercial level. The land for small scale farms were majorly accessed through usufruct, community land and family land and were used for annual crops, poultry and livestock production while large scale production farmers were accessed majorly through outright purchase and family land (see Figure 4).

Traditionally, the customary land tenure in the study area is such that land belong to all community members including those living now, those yet unborn and many more generations to come. The community head is the sole administrator and trustee of the land and whoever wants to use it seeks his consent. The community Head has the function to distribute and redistribute the land, grant lease to strangers and prevent wanton alienation of vacant land. Allocation of land to interested users by

Household heads depends on the approval of the community head. Average land size per farmer was found to be 0.5 ha for small scale holding, while large scale holding was found to be about 3.0ha. Only 4.1% of the farmers claimed to have Certificate of Occupancy (C of O) and thus can out rightly sell off their farmland. These categories of farmers are those engaged in large scale farming. Over 70% of the farmers can only lease their farms and this category of farmer includes those who have also hired their land. While about 27% can neither lease nor sell their farm land. Farm layouts were generally the same across all the farm settlements. Footpaths were observed to be used for farm demarcations in most cases as farm fences were not found in the study area.

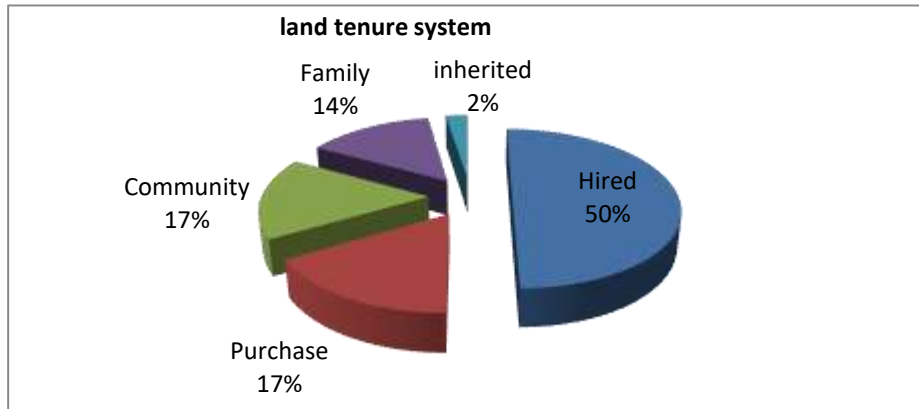
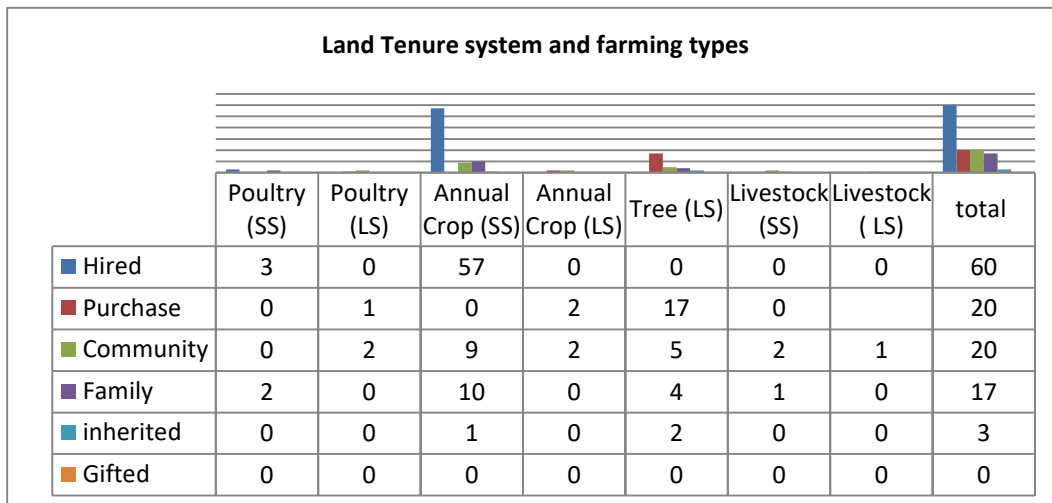


Figure 3: Allocation of land tenure system



Where SC= small scale farming; LS = large Scale farming.

Figure 4: Land tenure system and types of farming practices

The observed farm layout was not in accordance with standard farm layout as described by the Director of Agriculture at Yewa South Local Government. There ought to be a proper

demarcation with appropriate fences, security posts, storage spaces, administrative spaces, functioning boreholes and disinfectant/ quarantine sections. None of the farmlands within the study area had any of these facilities except the storage barns and sun shade tents made of raffia palm found according to 42% of the respondent and as observed.

Table 1: Relationship between Land Tenure system and Farm Management Practices

Tenure system	Farm management Characteristics	value (P2)indices Chi-square	Table value (PV)	p-stand	Remark
Hired Land	Land fragmentation	8.936	0.177	0.05	PV>p Significant
	Integrated farming	0.527	0.913	0.05	PV>p Significant
	Crop rotation	4.260	0.039	0.05	PV<p Not Significant
	Full time farming	9.964	0.126	0.05	Pv>p Significant
	Part time farming	15.520	0.001	0.05	PV<p Not Significant
	Seasonal farming	6.936	0.187	0.05	PV>p Significant
Purchased Land	Land fragmentation	0.329	0.002	0.05	PV<p Not Significant
	Integrated farming	2.25 0	0.523	0.05	PV>p Significant
	Crop rotation	15.52	0.001	0.05	PV<p Not Significant
	Full-time farming	12.224	0.201	0.05	PV>p Significant
	Part-time farming	11.52	0.001	0.05	PV>p Significant
	Seasonal farming	7.964	0.126	0.05	Pv>p Significant
Community land	Land fragmentation	12.934	0.321	0.05	Pv>p Significant
	Integrated farming	10.681	0.032	0.05	Pv>p Significant

Family Land	Crop rotation	8.462	0.866	0.05	Pv>p Significant
	Full time farming	0.946	0.623	0.05	Pv>p Significant
	Part time farming	8.92	0.435	0.05	Pv>p Significant
	Seasonal farming	3.450	0.633	0.05	Pv>p Significant
	Land fragmentation	13.872	0.323	0.05	Pv>p Significant
	Integrated farming	8.303	0.554	0.05	PV>p Significant
	Crop rotation	4.920	0.504	0.05	PV>p Significant
	Full time farming	6.987	0.123	0.05	PV>p Significant
Inherited	Part time farming	2.661	0.342	0.05	PV>p Significant
	Seasonal farming	8.765	0.056	0.05	PV>p Significant
	Land fragmentation	8.523	0.004	0.05	PV<p Not Significant
	Integrated farming	15.52	0.001	0.05	PV<p Not Significant
	Crop rotation	32.634	0.002	0.05	PV<p Not Significant
	Full time farming	0.527	0.913	0.05	PV>p Significant
	Part time farming	10.391	0.065	0.05	05 PV>p Significant
	Seasonal farming	10.832	0.287	0.05	PV>p Significant

If pV>p: Significant; if PV<p: Not significant

Cropping Pattern and Implications of Land Tenure on Farm Management Practices

The analysis further revealed that several farm management practices are adopted to sustain production and maximize profit in the study area. For example about 8% of the farmers agreed to practice single or mono-cropping at rather large scale and the crops grown were predominantly perennial. About 42% of the farmers practice 2 crop combination and 33% practice 3 crop combination while 17% practiced 4 crops or more combination. The data also revealed that farmers engaged in mixed cropping were majorly those who have access to farm land through lease. They combine the crops cultivated in order to make profit at every harvest period, provide food for farm families and make payment for their rent. They often times give their products and cash as payment for rents to the community chiefs who hired out the farmlands to them. Mono-cropping was equally observed to be practiced by respondents who purchased their farmlands. In order to assess the implication of the land tenure system on farm management practices adopted in the study area, the subset of land tenure (Hired, family, inherited community and purchased), and farm management practices (full-time, part time, land fragmentation, integrated farming, seasonal and crop rotation) were analyzed using chi-square technique. The result as depicted on Table 1 show a significant relationship between hired land tenure type and integrated farming, full time farming and seasonal farming. The results depict significant relation between hire land tenure and integrated and seasonal farming practices.

DISCUSSIONS

The data presentation obviously shows that majority of the farmers are males, married, fall within the age bracket 26 to 60 years and have education level above primary school. This implies that farmers in Ilaro are mainly middle aged, fairly literate and are economically active stage and as such, can possibly undergo the rudiment of farming practices. These attributes could also be interpreted as potentials for agricultural opportunities that may come the way of the community especially in the face of challenges in communication and adoption of new technology and crops. However, the fact that over 50% of the farmers have access to small land holding (< 0.5ha) through hired tenure system, practice subsistence (70%) and are into small scale farming and cultivate crops with short gestation period raise concern for high yield, export, foreign exchange earnings and provision of raw materials for industries. Apart from its implications for the growing population, the need for more food in Nigeria and sustainable agricultural development cannot be over emphasized, thus the need to reorganize the land tenure system for a more efficient and effective services. The finding thus agree with the studies by Adams *et al.*, (1999) and Deininger, (2003) which reports that where property rights are absent and land tenancy is insecure, farmers do not care much about the land use. Only 17% of the farmers operate on large scale mono-cropping including poultry farmers and forestry.

The fact that the community farm layouts do not have standard fence, functioning borehole, storage space, security post and quarantine sections suggest concerns about the insecurity of farmlands despite the huge potentials of farming in the area. It can also be attributed to numerous reported farmer/header conflicts experienced in most part of the country. Absence of security posts and fences results into encroachment into farmlands, produce theft, uncontrolled movements of herds and associated devastated effects on the farming communities in terms of loss of crops, herds and

lives, lack of confidence among farmers and low production. Within the existing land tenure system, the study revealed that farmers have devised and intensified some form of farm management practices to enhance production and profit some of which are integrated farming, engaging, full-time farming and employing more labourers who are mostly seasonal farm operators. This finding further agrees with Clay and Reardon, (1994) who observed farming operations in a fast growing economy aggravated by community land tenure system that empowers the community head to be the sole administrator of land distribution and redistribution and over 95% of the farmers do not have farm land tenure security.

Implications for Research and Practices

With the current state of the Nigerian growing population and state of agricultural production, the government needs a more vigorous effort to increase food production to meet up food demand to ensure food security and sustainable rural livelihood. The agricultural initiatives which dwell more on the provision of agricultural loans to farmers, agricultural inputs and technology without a review of the existing land tenure system have not only achieved less but have also enhanced more small scale and fragmented agricultural production when compared to the past. Meeting the need for more food will therefore mean a consideration for an urgent review of the current land tenure system in addition to the provision of other agricultural inputs. Reviewing the land tenure system could encourage conditions for long term access to farmland, larger scale production for export and foreign exchange earnings. Sufficient efforts and more deliberations should be made to enhance safety and security of farm lands through standardization of farm layouts and configuration to enhance farmer's confidence and loss of farmland, life and properties.

CONCLUSION AND FURTHER RESEARCH

Easy access to land for farming affects farming systems, farm configuration and layouts, and food security. Land tenure security impacted substantially on investment on the farmland which promotes long term investment. Therefore, land tenure insecurity among arable farmers is a hindrance to adequate investment. Land is cultivated intensely and on a continuous basis in the study area and therefore improving land tenure systems in a manner that secured longer term access to farmlands is a pre-requisite for sustainable agriculture, which is itself a necessary condition for economic growth, poverty reduction and food security.

The following recommendations are critical;

- ✓ A review of the community land tenure system to enable easy access to land for a long time production. This is necessary, as the present land tenure system cannot sustain the growing demand for farm produce, food security and sustainable rural livelihood in Nigeria.
- ✓ Encourage proper farm layouts even under subsistence arrangement. This should be to enhancing provisions of farm infrastructure as fences, security posts, storage spaces, administrative spaces, functioning boreholes and disinfectant/ quarantine sections to minimize conflict over farmland, increase interest of youth in farming and work security.

Further research opportunities on the determinant and willingness of farmers to adopt large scale farm production and increase investment in farming; Estimating the average cost implication of standardizing farm layouts and configuration in rural communities are recommended.

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