

## AN EXAMINATION OF TENURE SECURITY FOR URBAN CROP FARMING IN LAGOS, NIGERIA

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### Abstract

*The study examined issues surrounding tenure security of land for urban crop farming and identified constraints that must be dealt with in order to facilitate land accessibility and productivity of urban crop farmers in the Lagos metropolis. 475 respondents of seven communities were selected through simple random sampling and administered with structured questionnaires. 348 of the questionnaires were returned. Data collected were analyzed using descriptive statistics while regression analysis was used to investigate the research hypothesis. The study showed that contractual or tenancy agreements that should give security of tenure over land were lacking among the respondents. It established that only 1.7% respondents in all the farming communities possessed written agreements while 59.2% had no agreement (written or oral) over their farmlands. They consequently gained access to land through squatting or land grabbing (60.1%) while some 28.7% rented. The regression analysis established that tenure security constraint (an independent variable) accounted for 4.6% of farmers' productivity (a dependent variable). The study therefore presents a policy blueprint for enhanced productivity of urban crop farmers in the Lagos metropolis. The study researched into security of tenure of crop farmers in an urban area and identified critical issues that must be dealt with to enhance productivity among the farmers.*

**Key Words:** *Urban crop farming, Farmers' productivity, Lagos, Nigeria*

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### Introduction

Urban crop farming is recognized worldwide in towns and cities of both developing and developed countries. In this study, the term is used interchangeably with urban agriculture and urban farming which has been variously defined as an industry located within (intra-urban) or on the fringe (peri-urban) of towns, urban centers or cities, which grew or raised, processed and distributed a diversity of food and non-food products, reusing mainly human and material resources, products and services found in and around that urban

area, and in turn supplying human and material resources, products and services largely to that urban area (Mougeot, 2000; Deelstra and Girardet, 2000; Knowd *et al.*, 2006). Urban crop farming is known to afford households self-sufficiency in food provision thereby enhancing food security, income and employment generation. In augmenting the urban food systems, various households in the low-income cadre particularly, women are found in the urban landscape roasting maize, plantains and yams to generate income for the household, thus constituting a veritable

means of poverty alleviation. This position was also re-affirmed by UN-Habitat (2008) that between 15 and 20% of the world's food was produced by some 800 million urban and peri-urban farmers and gardeners. It is obvious from the foregoing that access to land by urban crop farmers will play a vital role in poverty eradication, food and nutrition as well as the quality of life of those involved in it.

Land as an important factor in urban food production is obviously outside the reach of these urban crop farmers as most of them are generally poor (van Veenhuizen, 2006) and are unable to afford or compete with other uses for land. They also do not possess formal land ownership documents such as certificates of occupancy and therefore are unable to secure bank loans to improve on productivity, purchase agricultural inputs (fertilizers, insecticides, etc.) or to build more permanent structures such as concrete fence walls and deep wells or to engage in perennial crop production. As a result, they resort to the use of marginal land with less productivity potentials or they occupy land informally - which may lead to ejection without notice. Salau and Attah (2012) also noted that most urban farmers operated on less than one hectare farm land because most of them were operating on subsistence level due to difficulty of acquiring land for farming in the city. Security of tenure is a critical factor in land accessibility generally and by urban crop farmers in particular as it provides incentive to invest in farm inputs on long term basis. They generally carry out the activity on arrangements based on customary or informal tenures precipitating tenure security problems.

Moyo (2013) examined role and contribution of urban agriculture to household food security, employment creation and income generation among low-income working class and urban poor

households in Bulawayo townships and established that the constraint of land tenure insecurity affected urban farmers which discouraged ploughing of capital into plot mechanization and improvement or investment in farm equipment and development. Tenure security can be affected by gender status, threat of eviction, high demand for land, ownership and documentation of land rights. The 2006 national population census exercise puts the population of Lagos state at 9,013,534 while Lagos State is currently claiming that its population is over 21 million (LSG, 2015). Thus, the distribution of the available land mass of 109,840 hectares entails competition for the various land uses without any official land zoning for the informal sector activities. Consequently, urban crop farming as an informal sector activity (Howorth *et al.*, 2001; Ndi, 2009) is not considered in the scheme of things and has no official land use zoning. This study therefore examines issues of tenure security over land by urban crop farmers and constraints that must be tackled to enhance land accessibility and thus, evaluating the effect of tenure security on the productivity of urban crop farmers in the study area. The hypothesis that tenure security has no significant effect on urban crop farmers' productivity will be resolved.

The study of Velez-Guerra (2004) in Bamako, Mali identified multiple means of accessing land for urban agriculture. The study showed that access to land could be through formal, informal and semi-formal means. These modes are further manifested through customary, statutory and hybrid laws. Informal access through customary law involves spontaneous occupation, renting or borrowing by urban crop farmers while informal access through statutory law is also through spontaneous occupation, tolerating and borrowing. Velez-Guerra (2004) further noted that informal access conferred paralegal

arrangements that offer different degrees or perceptions of tenure security.

He added that producers rights were socially recognized and mediated and that, the landowner was not legally accountable to the producer nor were the producers' tenure rights protected. Formal access by urban farmers can further be through customary law manifested by customary allocation (borrowing and inheriting), leasing and renting. Thus, literature shows that many urban farmers do not have secure tenure to land and this has tremendously impeded the development of the activity in most urban centres. Asiama (2005) in his study in Freetown, Sierra Leone also confirmed that one of the greatest impediments to urban crop farming was access to land, as urban land was considered too valuable to devote to agriculture. This is against the backdrop of the argument that urban crop farming is not a legalized land use activity and yet, it is known to be thriving in cities and towns of both developed and developing countries. The lack of good access to suitable and usable land has made urban farmers resort to marginal lands such as wetlands, riverbanks, those with poor topography and road buffers. van Veenhuizen (2006) also reiterated that many people who lacked land ownership rights gained access to land in unwanted marginal areas such as wetlands, road and railway reservations or waste disposal sites and there, grew annual crops. Redwood (2009) noted that the poor are relegated to marginal lands due to lack of access to land, thus, locating in areas near polluted rivers, waste dumps and flood-prone areas where they engage in livelihoods to make ends meet. A typical land-use plan of any urban area easily depicts all uses of land which are zoned for housing, commercial use (offices and shopping centres) and industrial uses while there is hardly any area within the urban land mass that is zoned for urban farming.

Drechsel and Dongus (2009) in their study on dynamics and sustainability of urban agriculture noted that the risks in urban agriculture comprised tenure insecurity, lack of subsidies, official support or extension services, high land competition with non-agricultural land use, poor soils and possible prosecution due to illegal or water use. Thus, farmers are not able to secure bank loans as they lack statutory rights nor can they purchase agricultural inputs like pesticides and insecticides that will otherwise improve their productivity.

Simatele and Binns (2008) examined the extent to which urban crop farming was being supported or marginalized in Lusaka, Zambia in the context of evolving strategies for achieving sustainable urban development, poverty alleviation and food security. They further noted that despite the negative attitudes towards urban crop farming in Lusaka, the activity was remarkably resilient and remained an integral part of the urban landscape, providing vital food and income to a large number of urban households of varying socio-economic status. Arku *et al.* (2012) also affirmed that apart from backyard or patio farming, formal land acquisition of urban land for agriculture generally remained problematic throughout African cities given the low profile of urban agriculture in planning policies and agendas. Thus, the potentials of urban crop farming in the Lagos metropolis have not been properly tapped and neither has it been accepted as an urban land use in its own right due to substantial tenure security constraints.

Urban crop farming is commonly known to be useful as a coping strategy for the urban poor and a key concept in urban development (Adedeji and Ademiluyi, 2009), an ameliorating factor for socio-environmental problems (Odudu, 2009), waste water re-use (Ruma and Sheikh, 2010) while its productivity status has

hardly been discussed in literature. An earlier attempt to link urban farming to entrepreneurial or market-oriented strategy was the study of Ezedinma and Chukwezi (1999) which identified commercial vegetable producers in metropolitan Lagos and who invested in labour for land preparation, planting, weeding, irrigation and harvesting. Discussing the entrepreneurship or level of productivity of urban farming, Hovorka (2004) stressed that most of the past studies mainly focused on livelihoods of poor urban dwellers while some others linked it with urban poverty, poverty alleviation as well as income and employment generation. Thus, Hovorka (2004) using empirical evidence gathered between 2000 and 2001 and interviews conducted with registered and/or self-identified enterprise owners of 109 (out of 114) existing urban agriculture operations showed (a) substantial commercial entrepreneurial agriculture, (b) substantial number of subsectors within urban farming, and (c) a high level of participants in the various subsectors especially poultry and horticulture. The study concluded that growth in entrepreneurial agriculture was due to government initiatives through positive land-use planning, financial incentives and agricultural diversification facilitated by the emergence of entrepreneurial agriculture. Mubvami *et al.* (2003) on the other hand, succinctly stressed that the poor productivity of urban farmers was because land for the activity was either not available or when available it might not be accessible, and when accessible it might not be useable for a particular form of agriculture. Namwata *et al.* (2015) noted that the negative effect of land tenure insecurity on “optimizing plot productivity” and lack of political will to promote access to land. Although land for the activity appears scanty because of difficulties of accessibility, crop farmers make concerted efforts to improve on the

quality of their lands in a bid to enhance their level of productivity. Thus, lack of access to land is bound to affect urban farmers’ investments and their level of productivity. The current study was conducted as discussed in the next part.

### **Study Area**

The study is limited to metropolitan Lagos which is home to many companies and industries and located in the south-western part of Nigeria. Oni (2001) defined the boundaries of metropolitan Lagos as consisting of the territory within Latitudes 6° 23' N and 6° 41' N and Longitudes 3° 09' E and 3° 20' E. The Lagos lagoon stretches through the eastern boundary; bounded in the south by the Atlantic Ocean while the northern boundary has the landmass of Ikorodu local government area and Alagbado towards Abeokuta axis in Ifako-Ijaiye local government area (Olayiwola *et al.*, 2005). Badagry and Republic of Benin define the Western boundary. Metropolitan Lagos constitutes over 1,140km<sup>2</sup> (or one-third) of the total land mass (3,577km<sup>2</sup>) of Lagos State. Lagos has since ceased to be Nigeria’s capital but still has great impact on the nation’s economic development. It is still the commercial nerve centre of Nigeria as more than half of Nigeria’s industrial capacity is located here. After the 1989 structural adjustment programme (SAP) era, many of the companies and industries closed business and this led to continuous retrenchments by both private and public sectors, thus, increasing the population of people in the informal sector as well as making metropolitan Lagos a good location for this study. The pressure on land by the various uses is overwhelming and distribution of land in the metropolis is relatively uneven against urban crop farming. As regards spatial distribution of urban farming communities, the Lagos State Agricultural Development

Authority (LSADA) demarcated Lagos State into three agricultural blocs as eastern, western and far western blocs. The western bloc which lies within the Lagos metropolis has a high population of urban crop farmers distributed in ten agricultural circles and each circle consisting of three

cells or farming communities. Communities identified included Adiyin, Iju/Grailland, Ayobo/Aboru, Idimu/Powerline, PWD Ikeja, Volkswagen/Ojo and Festac Town. (Figure 1).

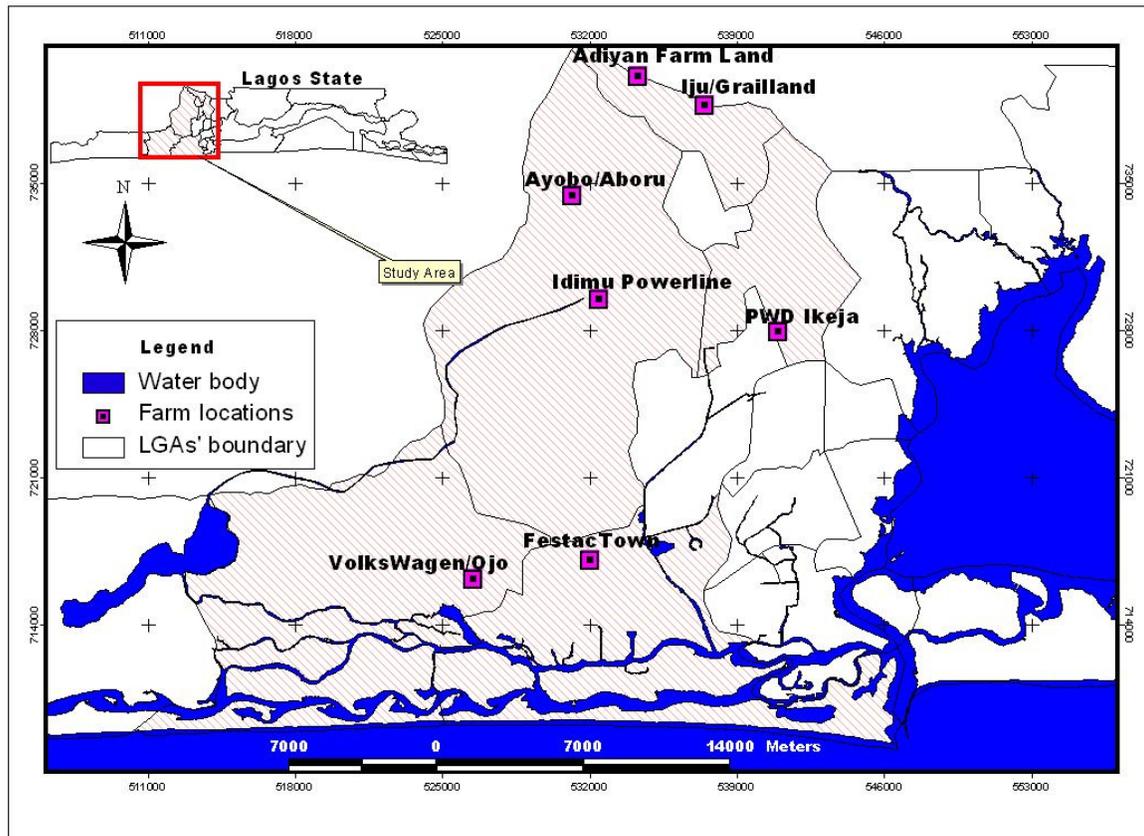


Figure 1: Metropolitan Lagos Showing the Study Locations. Source: Geography Department, University of Lagos, 2012

### **Methodology**

The study population consisted of all the practitioners of urban crop farming in the western agricultural bloc (Figure 1). Multi-stage sampling was adopted for the selection of sample size because of the complexity of the population of farmers which was distributed all over the Lagos metropolis. Purposive sampling was firstly used in this study to select seven agricultural circles from the ten circles in the metropolis. Secondly, a cell or farming

community was randomly selected from each circle of three cells. This gave a total of seven farming communities.

Lists of registered urban crop farmers in each farming community were obtained from the Lagos State Agricultural Development Authority Headquarters in Oko-Oba, Agege to enable the determination of the sample size in each farming community (Figure 1). The elements or respondents in each farming community were selected through simple

random sampling from each stratum. Thus, the sample size for each population of farmers in a farming community was determined using Kish (1965) equation (Moore *et al.*, 2003; Nirab, 2007) which noted as follows:

$$N = n' [1 + (n'/N)]$$

Where:

N = total population (of each farming community) is recorded in the register

n = sample size from finite population

n' = sample size from infinite population calculated from the formula  $[n' = S^2/V^2]$  in which,

$S^2$  = standard error of population elements,  $S^2 = P(1-P)$ ; maximum at  $P = 0.5$

$V^2$  = standard error of sample population equals 0.05 for the confidence level of 95%=1.96

$$n' = S^2/V^2 = (0.5)^2 / (0.05)^2 = 100.$$

Table 1: Urban farmers' population, sample size and response rate

Farming Communities	Population	Sample size	No. of Questionnaires
Adiyan	120	55	26
Iju/Grailland	56	36	17
Ayobo/Aboru	45	31	17
Idimu/Powerline	55	36	17
PWD Ikeja	150	60	44
Volkswagen/Ojo	325	77	98
Festac Town	430	81	129
Total	1,181	376	348

Presented in Table 1 is the sample frame, sample size and questionnaires returned by the farmers. Copies of structured questionnaire were administered to a total of 376 respondents in the farming communities. Interview schedules with the farmers were carried out by the researcher and eight extension officers of the Lagos State Agricultural Development Authority which took place during meeting days of the various farming communities. Data collected were analyzed using descriptive statistics such as cross tabulations, frequency and percentages while the hypothesis was tested using linear regression analysis. Tenure security variable was investigated via gender status, threat of eviction, vacation of land, ownership of land and documentation of land rights. Vacation of land was measured in Likert scale; gender status was measured in nominal scale, threat of eviction was measured in nominal scale, documentation of land rights was measured in nominal

scale while ownership of land was measured in nominal scale.

## Results and Discussion

### Tenure Security and Land Holdings

The study found that the method of accessing land by urban crop farmers in the Lagos metropolis was largely by squatting (60.1%). Also, 28.7% of the farmers rented land while 8.1% occupied land through owner's permission and less than 1% was either on lease or outright purchase (Table 2). The finding on squatting confirmed the opinion that urban farmers simply expanded onto unused public or private land or worked out an informal agreement with the owner, taking over land that was planned or set aside for other purposes (UNDP, 1996). The Table further showed that farmers in Ayobo/Aboru were all squatters while squatters in Iju/Grailland and Festac Town constituted 94.1% and 88.4% respectively. Farmers who rented were mainly in Volkswagen/Ojo (82.7%). These findings corroborated the identified

multiple means of access to land for urban agriculture through renting, inheritance, borrowing, squatting, leasing and spontaneous occupation (Velez-Guerra, 2004; Crush *et al.*, 2011). The hazardous modes of accessing land by urban crop farmers in the metropolis were further exacerbated by findings in Table 3. The study thus, established that 59.2% of the urban crop farmers in all the farming communities did not possess written or oral agreements over their farmlands. This

mode of documentation of land holding was rampant in all the communities except in Volkswagen/Ojo community with 20.4%. The need for a written agreement did not obviously arise as most of the farmers were squatters on their farmlands while 23.9% had oral agreements especially in Volkswagen/Ojo farming community. Only 1.7% of all the farming communities had written agreements particularly in the Volkswagen/Ojo community.

Table 2: Land Ownership in Farming Communities

Farming Communities	Private organization	An individual	Public body	Don't know	Other
Adiyan	0%	0%	24(92.3%)	0%	1(0.3%)
Iju/Grailland	1(5.9%)	0%	15(88.2%)	0%	1(5.9%)
Ayobo/Aboru	0%	0%	17(100%)	0%	0%
Idimu/Powerline	0%	16(94.1%)	0%	0%	1(5.9%)
*PWD Ikeja	0%	2(4.5%)	40(90.9%)	1(2.3%)	0%
Volkswagen/Ojo	80(81.6%)	5(5.1%)	13(13.3%)	0%	0%
Festac Town	1(0.8%)	2(1.6%)	120(93%)	0%	3(2.3%)
Total	82(23.6%)	25(7.2%)	229(65.8%)	1(.3%)	6(1.7%)

\*PWD = Public Works Department

Table 3: Documentation of Land holdings by Respondents in Farming Communities

Farming Communities	Yes and Written	Yes but Unwritten	None
Adiyan	0%	2(7.7%)	23(88.5%)
Iju/Grailland	0%	0%	10(56.6%)
Ayobo/Aboru	0%	0%	15(88.2%)
Idimu/Powerline	1(5.9%)	3(17.6%)	12(70.6%)
*PWD Ikeja	0%	2(4.5%)	42(95.5%)
Volkswagen/Ojo	5(5.1%)	72(73.5%)	20(20.4%)
Festac Town	0%	4(3.1%)	84(65.1%)
Total	6(1.7%)	83(23.9%)	206(59.2%)

\*PWD = Public Works Department

These findings agreed with other studies that lack of written or oral agreement obviously contributed to the level of insecurity of tenure over farmland. It was noted that many farmers lacked land ownership rights pushing them to access marginal lands (van Veenhuizen, 2006). This also precipitated rampant ejection of urban farmers at unexpected times.

### Hypothesis Testing

The hypothesis that tenure security constraint affected productivity of urban crop farmers was tested using regression analysis as shown in Table 4. The study showed that tenure security accounted for 4.6% of farmers' productivity. It also showed that a fall of 0.540 in farmers' productivity could be expected for a unit increase in tenure security constraint while

4.726 represented the mean of farmers' productivity should tenure security constraint be completely eliminated. Consequently, farmers' productivity could be enhanced by removing all factors

relating to tenure security constraint such as gender status, eviction threat, marital status, ownership and documentation of land rights.

Table 4: Regression Result of the Effect of Tenure Security Constraint on Crop Farmers' Productivity

Variable	Estimate	Std. Error	t	Sig.
(Constant)	4.726	0.248	19.056	0.000
Tenure Security	-0.540	0.151	-3.578	0.000*
R	0.215			
R <sup>2</sup>	0.046			
Adjusted R <sup>2</sup>	0.043			
Std. Error	1.218			
DW	1.527			
F	12.799			0.000

\* Significant at 0.05 level

### Conclusion and Recommendations

The study highlighted the importance of urban crop farming in urban development in the towns and cities of both developed and developing countries. It stressed the importance of land to practitioners and the constraints affecting land accessibility for urban crop farming. The farmers did not possess formal land ownership documents and therefore lacked security of tenure over their farmlands. They consequently resorted to marginal lands that might not be productive. The study showed that most of the farmlands for urban crop farming were owned by public bodies (65.8%), private organizations (23.9%) and individuals (7.2%). The study further established that 59.2% of the farmers did not possess written or oral documents over their lands but 23.9% had oral agreements while only 1.7% of the farmers had written agreements. The research hypothesis also established that farmers' productivity could be enhanced by improving substantially on their tenure security. This could be achieved by granting temporary title documents to urban crop farmers with lease periods of up to twenty years or leases that could be renewed periodically. This could

be further addressed by the formal recognition of urban crop farming as a legal land use in line with other land uses.

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