



Vol. 14, No. 2, 2020

DOI: 10.2478/jgp-2020-0015

Damilola Blessing Olufemi

Obafemi Awolowo University (Ile-Ife, Nigeria)

Olusola Joseph Adejumo

Obafemi Awolowo University (Ile-Ife, Nigeria)

Gender, Productive Resources and Agricultural Development in the Urban Area

ABSTRACT. The Nigerian society is a patriarchy society where men dominate over women most especially in access and control over productive resources and decision-making process. This limitation often has negative impacts on food security; most especially in urban areas where more than half of the world's population now dwells. This study aimed at documenting the experiences of urban women farmers in accessing critical agricultural productive resources. The study engaged both quantitative and qualitative methods in designing the research. Multistage sampling technique was used to select 250 respondents, and information was elicited through the use of questionnaire, Key Informant Interview (KII), and Focus Group Discussion (FGD). The study revealed that the urban female farmers in the study area have inadequate access to critical agricultural productive resources and are still making use of crude and traditional implements in their various agricultural activities. Likewise, through usufructuary rights, in reference to access to land the urban status quo is gradually weakening the patriarchal nature of the society.

KEYWORDS: access to, urban agriculture, urban women farmers, critical agricultural productive resources, social relations

Background to the Study

Urban Agriculture (UA) refers to any processes that produce traditional, subsistence, nutritional, or commercially profitable food, or other grown or raised products, cultivated within an urban area or in its surrounding peri-urban regions (Leshner, 2006). It is an essential source of support for both men and women which can improve their access to food and also meet the nutritional and medicinal needs of urban dwellers (Armar-Klimesu, 2000). The rate of migration from rural to urban area

in most developing countries has led to decrease in population of rural dwellers and increase in population of urban dwellers (Deshingkar, 2004). The resultant effect of this is an increase in demand for food in urban areas, malnutrition, hunger, decrease in food supply from the rural areas, increase cost of supplying food from the rural areas, high rate of unemployment and increased poverty in the urban centres (Baker, 2012). The limited and unavailability of cold and storage facilities in most developing countries have restricted the type of agricultural produce that can be supplied from the rural areas to the urban areas. Also, the costs of supplying agricultural produce from rural areas to the urban areas or to import food for the urban areas are incessantly increasing (de Zeeuw, 2004). Hence, UA is being promoted in urban areas as it is increasingly becoming more difficult for middle income and poor urban dwellers to adjust to this unfavourable condition (Olayioye, 2012).

The exquisiteness of UA activities is not just limited to agriculture professionals alone but can be practised by both women and men, young and old, locals and immigrants, wealthy and poor, commercial and subsistence farmers. Mougeot (2000), stated that majority of urban farmers are low-income men and women who grow food primarily for household consumption on small plots of land that they do not own and have little, if any, support or protection. Together with the men, women perform significant roles in production of agricultural produce for consumption as well as generating income. There might not be a general consensus to the level of contribution of women to urban agriculture, but it has been empirically proven that women contribute significantly to agricultural production and food security in the urban area (Mougeot, 2000; de Zeeuw, 2004; Kutiwa et al., 2010; Adedayo & Tunde, 2013). Women's roles as farmers, labourers and entrepreneurs, are often not recognised (World Bank, 2009). In fact, women have been observed to face more serious limitations than men in access to agricultural productive resources (SOFA Team & Doss, 2011). The agricultural sector in many developing nations of the world is underperforming due to many reasons, especially because women who represents a crucial and fundamental resource in the sector are often being marginalised (Food and Agriculture Organisation, FAO, 2011).

The persistent existence of wide gender gap between women and men in access and control over resources, and the discrimination against women through history, are presently comprehended as a hindrance in both national and international development agendas (Aina, 2011). Women limited access to agricultural productive resources such as land, labour, entrepre-

neurial skills, among others is a great limitation to agricultural productivity in Nigeria and in some other nations of the world. This limitation in manufacture of agricultural produce has negative impacts on food security; most especially in urban areas since more than half of the world's population now dwell in urban area (United Nations Department of Economic and Social Affairs [UNDESA], 2010). Not astonishingly, women apparently represent the larger proportion of the world's poor in both rural and urban sectors (World Bank, 2009, 2012; Spieldoch, 2007). They also constitute larger proportion of people in the informal sector such as petty trading, subsistence agriculture, services, among others (Spieldoch, 2007; Ajani, 2008).

The Nigerian society is a patriarchy society where men dominate over women (Aina, 1998). Gender gaps have been identified in access and control over productive resources in six major agricultural resources and inputs: land, labour, credit, extension services, information, and technology (World Bank, 2012; Sheahan & Barrett, 2014). Ajani (2008), asserted that if female farmers were given the same essential agricultural productive resources as well as same enabling environment as their male farmers, female farmers would equally utilize these agricultural productive resources to increase their production and earn greater profits.

One of the major economic constraint militating against women farmers is the lack of access and control over land (Ogunlela & Mukhtar, 2009). Traditionally, women in Nigeria do not usually have direct and easy access to land, their main access to land is often through their male relatives and they are usually bound to the decision of the land owners (Aluko & Amidu, 2006). In both patrilineal and matrilineal societies, men are usually favoured by rules for inheritance and ownership of land. Iruonagbe (2009), asserted that in some societies in Nigeria, a girl child does not have access to land even after her father's death and a widow does not receive land; she only acts as a caretaker until her sons are grown. In some instances, a widow is willed along with the land to her deceased husband's brother. She can only continue to use the land for agricultural purposes only if she marries the new owner; but if she declines she may lose access to the land and her source of income. In all of these, a woman with only female children or a childless woman is in a perilous position as she will not have access to any form of land within the family. This often results into lower access to other productive resources such as credits, agricultural inputs and reduction of yields (United Nations, 2015).

According to the National Bureau of Statistics, only 10% of land in Nigeria is owned by women, and because of this restricted access to land, fe-

male farmers find it more difficult to undertake commercial scale farming. Likewise, high population of urban dwellers generates a high competition for land for several uses i.e. residential, commercial and industrial. Moreover, the demand for land in the city of Lagos is overwhelming for other use, and allocation of land in the metropolis is rather uneven against urban crop farmers. Therefore, as more women take option in urban farming against all these odds, to ensure food security, availability and sustainability in the urban areas, it is important to examine the state of urban women farmers, documenting their experiences in access, and control over critical productive resources in the urban area, hence this study.

Objectives:

1. Examine the sources of agricultural productive resources used by the urban female farmers.
2. Examine their level of access to critical productive resources (land, labour, capital, management skills).
3. Examine the social relations of production to critical agricultural productive resources.

Methodology

This is a descriptive cross-sectional study that was conducted among urban female crop farmers in Lagos metropolis. The study was limited to crop farmers because of the overwhelming demand of land for other use within the metropolis which might lead to an uneven distribution against urban crop farmers. A multistage sampling technique was used for the study because of the complex distribution of urban crop farmers within the study area. At the first stage, purposive sampling technique was used to select Ojo LGA, Kosofe LGA, and Surulere LGA, from the three senatorial district within the state, based on their agrarian nature (Figure 1). At the second stage, purposive sampling technique was also used to select Ojo, Alapere, and Tejuoso farming community from the previously selected LGA respectively. Finally, snow balling sampling technique was used to select 255 urban female crop farmers.

Data Collection Instruments

Data for the study was collected by using questionnaire, FGD, KII and IDI guide designed to obtain information from the respondents on urban

agriculture on empowering the women farmers. The self-administered questionnaire solicited information on urban women's farmers socio economic and demographic characteristics and inquired the empowerment of women involved in urban agriculture. Although the IDI, KII and FGD followed a formal guide, the interviewees were given the opportunity to express their views independently and were probed further through questions that arose from the discussion. The interview explored themes relating to Women in Agriculture (WIA), policy, and special intervention for female urban farmers. This was done by tape recording and taking notes without losing important details. The quantitative and qualitative guides were structured in-line with the specific objectives of this study. This provided an opportunity to probe deeper on issues the questionnaire was not able to deal with extensively, also, to complement data generated through questionnaire.

Univariate analyses were used to present data through frequency distribution and simple percentages while the Qualitative data was analysed along the study themes. These entailed categorizing responses from interviews and questions in the questionnaire into themes as outlined in the study objectives. Other emerging themes were also documented. Responses were audio recorded and notes were taken to enable for further analyses and interpretation without losing details. The responses were transcribed and verbatim quotations utilized to describe the responses from the qualitative instrument. The FGDs respondents were given pseudo names for easy identification and proper analyses.

The Lagos State Ministry of Agriculture was consulted for permission to carry out the study in the area. The farming communities' heads were also informed as the gatekeepers to the communities. Anonymity was ensured through use of pseudonyms where no direct or indirect identifiers were used. Rights and integrity of respondents were respected in the course of the research. Respondents for this study were informed that their participation is voluntary, and no one was put under duress to provide relevant information to this study.

Results and Discussions

Socio-demographic Characteristics of the Respondents

Table 1 shows that the age range of the respondents is between the age of 25 years to 65 years, while their mean age is 43 years with the standard devia-

tion of 7.316. The respondents were classified into three different age categories. Urban women farmers aged 40–50 were the majority (46.2%), followed by those less than 40 years (35.9%) and age group more than 50 (17.9%). The proportion of the respondents married were more (86.1%) than those who were widowed (9.2%) and single (4.7%). The family size of the respondents ranges from 3 persons to 12 persons with average household size of 5 persons. About half of the respondents (45.8%) belong to the Igbo ethnic group. Cumulatively, majority of the respondents had access to formal education, most especially secondary (39.4%) and primary (29.5%) education.

Table 1. Demographic characteristics of the respondents

| Socio-demographic characteristics | Frequency (n=251) | Percentage |
|---|-------------------|------------|
| Age | | |
| < 40 | 90 | 35.9 |
| 40–50 | 116 | 46.2 |
| > 50 | 45 | 17.9 |
| Minimum age = 25 years; Maximum = 65 years; Mean age = 43 years; SD = 7.316 | | |
| Marital Status | | |
| Single | 12 | 4.7 |
| Married | 216 | 86.1 |
| Widowed | 23 | 9.2 |
| Family size | | |
| <5 | 89 | 35.7 |
| 5–7 | 148 | 59.4 |
| >7 | 12 | 4.8 |
| Minimum no = 3; Maximum no= 12; Mean = 5; SD = 1.381 | | |
| Ethnic group | | |
| Yoruba | 47 | 18.7 |
| Igbo | 115 | 45.8 |
| Other ethnic (Edo, Delta, Calabar, Rivers, Tiv, Benue) | 89 | 35.5 |
| Education qualification | | |
| No formal education | 23 | 9.2 |
| Primary | 74 | 29.5 |
| Secondary | 99 | 39.4 |
| Tertiary | 55 | 21.9 |

Sources of Productive Resources for Female Urban Farmers

Table 2 reveals the major sources of productive resources acquired by the urban female farmers. Results shows that the major productive resources acquired by the female farmers themselves were labour (97.6%),

fertilisers (92%), seeds (91%), and non-mechanized equipment (89.6%). On the other hand, labour (69.3) and credit (30.3%) were provided by the respondents' family members i.e. spouse, children, father, mother, among others. Furthermore, the data presented in table 2 reveals that agricultural land (81.7%) and extension services (57.4%) were mainly provided by the government. On the contrary, access to agricultural and technical training (29.5%), credit (23.5%) and improved seeds (21.9%) were the major productive resources accessed through the various associations the women farmers belonged to.

Table 2. Distribution of Respondents by their Sources of Agricultural Productive Resources

| Sources | Self Freq. (%) | Family Freq. (%) | Government Freq. (%) | Association Freq. (%) |
|---|-------------------|---------------------|-------------------------|--------------------------|
| Productive resources | | | | |
| Credit | 71 (28.3) | 76 (30.3) | 36 (14.3) | 59 (23.5) |
| Pesticides | 147 (58.9) | 46 (18.3) | 26 (10.4) | 31 (12.4) |
| Fertilizer | 231 (92) | 39 (15.5) | 43 (17.1) | 37 (104.7) |
| Seed | 229 (91) | 50 (19.9) | 35 (13.9) | 29 (11.6) |
| Irrigation equipment | 55 (21.9) | 28 (11.2) | 30 (12) | 38 (15.1) |
| Non mechanized equipment | 225 (89.6) | 37 (14.7) | 17 (6.7) | 36 (14.3) |
| Mechanized equipment | 24 (9.6) | 22 (8.76) | 10 (4) | 14 (5.6) |
| Storage facilities | 65 (25.9) | 31 (12.4) | 14 (5.6) | 32 (12.8) |
| Improved seed | 150 (59.8) | 51 (20.3) | 67 (26.7) | 55 (21.9) |
| Land | 75 (29.9) | 49 (19.5) | 205 (81.7) | 20 (8) |
| Labour | 245 (97.6) | 174 (69.3) | 2 (0.8) | 48 (19.12) |
| Agricultural skills/ Technical skills | 148 (59) | 58 (23.3) | 75 (29.9) | 74 (29.5) |
| Extension services | 17 (6.8) | 13 (5.2) | 144 (57.4) | 40 (16) |
| Aggregate source of productive resources | 129 (51.5) | 52 (20.7) | 54 (21.6) | 39 (15.7) |

Level of Respondents' Access to Agricultural Productive Resources

Table 3 presents data on level of respondents' access to agricultural productive resources. The mean scores show that the urban female farmers had more access to non-mechanised equipment ($\bar{X} = 1.486$; $SD = 0.641$), agricultural skills/technical training ($\bar{X} = 1.382$; $SD = 0.798$), fertilisers and pesticides ($\bar{X} = 1.347$; $SD = 0.635$), and labour ($\bar{X} = 1.274$; $SD = 0.651$) than other agricultural productive resources. The most inadequate productive resources in the study area were mechanised equip-

ment (0.175), irrigating machine, (0.390), extension services (0.610), storage facilities (0.713), and credit facilities (0.781). This result is similar to the findings of Toriro (2009), FAO (2011), and Adedayo and Tunde (2013) which submitted that access to credits, expensive and essential farming inputs, were the most pressing issue affecting urban women farmers. The findings also affirmed the study of Carr and Hartl (2010) and Perez et al. (2015) that women farmers often lack access to irrigation infrastructure and technologies. On the average, the level of access to productive resources among the respondents was inadequate (35.6%; $\bar{X} = 1.040$ SD = 0.697).

Table 3. Level of Access to Productive Resources

| Level of access to Productive resources | No access Freq. (%) | Inadequate Freq. (%) | Adequate Freq. (%) | Mean (\bar{X}) | SD | RANK |
|--|---------------------|----------------------|--------------------|--------------------|--------------|------|
| Agricultural land | 43 (17.1) | 134 (53.4) | 74 (29.5) | 1.124 | 0.674 | 5 |
| Capital | | | | | | |
| Credit | 95 (37.9) | 116 (46.2) | 40 (16) | 0.781 | 0.701 | 7 |
| Non-mechanised equipment | 20 (8.0) | 89 (35.5) | 142 (56.6) | 1.486 | 0.641 | 1 |
| Mechanised equipment | 214 (85.3) | 30 (12) | 7 (2.8) | 0.175 | 0.448 | 11 |
| Fertilisers and pesticides | 22 (8.8) | 120 (47.8) | 109 (43.4) | 1.347 | 0.635 | 3 |
| Irrigating machine | 180 (71.7) | 44 (17.5) | 27 (10.8) | 0.390 | 0.674 | 10 |
| Storage facilities | 119 (47.4) | 85 (33.9) | 47 (18.7) | 0.713 | 0.762 | 8 |
| Improved seeds | 83 (33.1) | 72 (28.7) | 96 (38.3) | 1.052 | 0.845 | 6 |
| Labour | 28 (11.2) | 126 (50.2) | 97 (38.7) | 1.274 | 0.651 | 4 |
| Extension services | 118 (47) | 113 (45) | 20 (8) | 0.610 | 0.631 | 9 |
| Entrepreneurial | | | | | | |
| Agricultural skills | 50 (19.9) | 55 (21.9) | 146 (58.2) | 1.382 | 0.798 | 2 |
| Aggregate level of access to productive resources | 87 (35) | 89 (35.6) | 75 (29.4) | 1.040 | 0.697 | |

Figure 1 shows respondents level of access to the various factors of production. The figure shows that the respondents had more access to entrepreneurial skills ($\bar{X} = 1.382$; $SD = 0.798$), and labour ($\bar{X} = 1.274$; $SD = 0.651$) than to the other factors of production. This can inhibit women effective performance in urban food production. According to various studies, inadequate access to agricultural productive resources implies inadequate exposure to agricultural value chains which signifies lesser productivity.

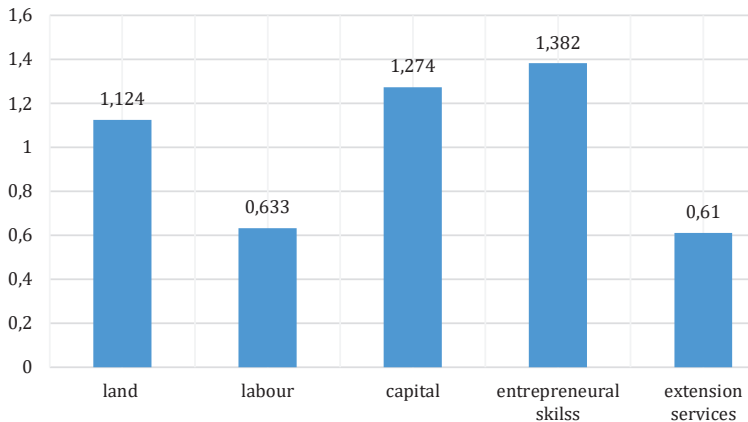


Figure 1. Level of access to the various factors of production

Social Relations of Production

The quantitative data is also corroborated by qualitative evidence in table 4 which presents key findings from the FGD sessions, documenting women's experiences with securing critical productive resources (land, capital, farm inputs, extension services and innovative agricultural technology). Data presented in the table indicated that both urban male and female farmers have similar problem in accessing critical agricultural productive resources though the female farmers seems to be more affected. It also tends to support respondents' inability to access appropriate agricultural productive resources.

Access to Land

Due to high rate of industrial growth and unprecedented urbanisation in the study area (Akinmoladun & Adejumo, 2011; Adedayo, 2014),

there is severe competition for different land uses; thus, many of the urban farmers could not afford high rents or high land prices. Larger proportion of the female farmers across the three LGAs have their farmland located within the military barracks, unused public lands, along the road, drainage channels, undeveloped housing properties, river banks, and Government staff quarters. Nevertheless, the women have no control over the land as higher proportion of them, most especially in Ojo LGA are wives of military officers who can be told to vacate the military barrack upon the death of their husband on the warfront or are either squatters who have usufruct rights for cultivating crops but can be ejected from the land without prior notice whenever any urban development is to take place.

Corroborating findings from the FGD sessions, it was established during the Key Informant Interviews with Extension officers that vast majority of lands cultivated in the study area belongs to the government, while access to such government land does not present overt gender gaps. This implies that procedurally, both men and women could apply to government for agricultural farmland within the city of Lagos. It is therefore interesting to note that urban conditions/situations are gradually ruling out patriarchal culture and traditions or at least making them less relevant.

Excerpt 1. KII with a 40-year old Female Block Extension Supervisor

...so far it is for agricultural purposes, the Lagos State Agricultural Land Holding Authority supports farmers to get easy access to farming lands within the state, although it might not necessarily be within the state metropolis ...while the Lagos State Agricultural Input Supply Authority (LAISA) provides fertilisers, seeds, pesticides for the farmers within the state (not for free though) ... in the beginning of this year, some of our female farmers were given re-usable plastic crates for them to carry their vegetables rather than using baskets or sacks.

Excerpt 2. KII with acting Head of Department of Agriculture Surulere LGA, Lagos

...there is no payment for the use of the land for any agricultural activity. The land belongs to the Federal Government under the Nigerian Railway Co-operation. ...farmers there are mostly staff and retired staff of the Ministry and others are Hausas. ...the women there are either members of staff of the Ministry, wife of a staff member or the portion of land was passed down to her by her father who was a member of staff.

Excerpt 3. KII with Head of Department of Agriculture Kosofe LGA, Lagos

...land for farming in our local government? There are many FADAMA female farmers farming along the stream behind the Local Government Office here, some are also along the road on the other side, while very few who are indigenes inherited the land from their families.

Findings from interviews also revalidate the outcomes of the study that attributed the difficulty of acquiring land for agricultural activities to the growing urban populace and sequential high demand of land for other land-use activities in the urban area i.e. commercial, residential, industrial, and recreational use. It was inferred from the study that urban female farmers have difficulties accessing land for urban farming. The difficulties in accessing adequate and secured land for farming within the city have led many of the urban female farmers to different modes of accessing lands. In this regard, it was gathered from the interview that vast majority of land cultivated by farmers were unused public lands which were set aside for other purposes and can lead to sudden ejection from such lands without prior notification and compensation. The implication of which can lead to increase in feminization of poverty in the urban areas as more female headed households and women who find difficulty in accessing waged labour are becoming more dependent on urban agriculture for survival.

Access to Credit

The data from the table also established that the major source of credits for farmers were through informal sources like their family and various farmers' group. Many of the respondents were compelled to resort to informal lenders such as friends and relatives. They unanimously stated during the FGD session that this has limited them from adopting new innovative technologies, most especially the use of pumping machines, and also from undertaking new investments. The implication of this result is that access to and purchase of essential farm inputs will be difficult. In essence, access to credit facilities plays a significant role in economic development.

Access to Labour

Majority of the urban female farmers depend on hired labour augmented with self, but with little or no assistance from their children, which makes their agricultural production more expensive and unprofitable. In essence, their children render little assistance because of the quantity of time they spend in school.

Table 4. Social relations of production

| Experience securing critical productive resources | Ojo LGA FGD (F) | Ojo LGA FGD (M) | Kosofe LGA FGD (F) | Kosofe LGA FGD (F) | Suru LGA FGD (F) | Suru LGA FGD (M) |
|--|-----------------|-----------------|--------------------|--------------------|------------------|------------------|
| No access to innovative agricultural technology. Only use traditional farming methods | +++ | ++ | +++ | ++ | +++ | ++ |
| Land insecurity. This land does not belong to me | +++ | +++ | +++ | ++ | +++ | +++ |
| Land insecurity (can be ask to vacate the land anytime soon) | ++ | + | ++ | + | ++ | + |
| No access to irrigating machines. Only make use of watering cans | +++ | + | +++ | + | +++ | ++ |
| No access to storage facilities, we look for whatever means to sell off our vegetable | +++ | ++ | +++ | ++ | +++ | +++ |
| Poor access to farm inputs e.g. seedlings, fertilisers etc. | +++ | ++ | +++ | ++ | +++ | ++ |
| No access to loans. I have never borrowed money from the bank for my agricultural production | +++ | + | +++ | ++ | ++ | + |
| I have very easy access to extension agents | ++ | + | + | + | + | + |

| | | | | | | |
|--|-----|-----|-----|-----|-----|-----|
| I have only met with extension agents once | ++ | ++ | ++ | +++ | +++ | ++ |
| No financial support from Government | +++ | +++ | +++ | +++ | +++ | +++ |
| Government does not help in sourcing for farm inputs | +++ | +++ | +++ | +++ | +++ | +++ |
| Problem of farm labour | ++ | ++ | ++ | ++ | ++ | + |
| Very little assistance from children in area of labour supply because of schooling | ++ | + | ++ | ++ | - | + |
| Poor access to water for irrigation | ++ | + | +++ | + | ++ | + |

Key:

- + = where an opinion was expressed by 1-2 participants
- ++ = where an opinion was expressed by 3-5 participants
- +++ = where an opinion was expressed by 6+ participants
- = where that opinion was not expressed at all

Evidences from the qualitative data sources elaborated women's lack of access to agricultural critical resources, especially land, capital, extension services and innovative technology. Excerpts 4, & 5 shed more light on these findings.

Excerpt 4. FGD, a 49-year old female urban farmer in Ojo LGA, Lagos

... tractor? all the 15 years I have spent farming on this land, I had never made use of tractor. You can ask anybody around, I had never seen anyone use it in this area ... we work with our cutlasses, wheelbarrows, shovels and hoes, ... forget it, we only live and farm in the city, but we are not practicing city farming.

Excerpt 5. FGD, a 49-year old Women Farmers' Association leader in Ojo LGA, Lagos

...for example, all the women in my group are making use of watering can to wet our vegetable beds, we fetch water from hand dug wells not too far from us, ... sure, some of those Mallams (Hausa male migrants) have pumping machine that they use ... those pumps are just too expensive, though I need them but I cannot afford them.

Access to Water

In order to mitigate the negative impact of inadequate productive resources on their productivity, many of the respondents during the FGD sessions admitted that they often find substitutes for expensive and unavailable agricultural productive resources. For example, it was established that lack of regular source of water has compelled most of the urban female farmers to make use of any available source of water for irrigating their vegetables. It is interesting to note that across the three LGAs, not a single female farmer interviewed possesses irrigating machine, while it was commonly used among their male counterparts across the three LGAs. The most common source of water among the female farmers in Ojo LGA is shallow hand-dug well using watering can; while in Surulere LGA, female farmers make use of both drainage channels and shallow hand-dug well. The most common source of water among female farmers in Kosofe LGA is nearby streams, fetching with the aid of watering can.

Support from Government

The urban women farmers unanimously stated during the FGD sessions that they are faced with lack of access to extension services, loans, storage facilities, poor access to water for irrigation, and most importantly, lack of support from the Government. Lack of support from the Government remains a huge barrier to their productive activities as they need funding and support to be able to pay for farm labour, purchase fertilisers and organic manures, improved seeds, and other productive resources. The under listed FGD Excerpts 6 & 7 elaborate more on these findings.

Excerpt 6. FGD with a 48-year old urban female farmer in Ojo LGA, Lagos

...I am not happy, the government is not helping us... there is no financial support from the federal and state government whatsoever, despite the fact that we are the major suppliers of vegetable within the state, it is like they don't know that we exist. It is very discouraging.

Excerpt 7. FGD with a 50-year old urban female farmer in Surulere LGA, Lagos

The last time we received something from the Federal Government was during Buba Marwa time (Lagos State Governor, 1996), when they gave us fertilisers and we obtained it as groups. The only person helping us now in the government is Honourable Femi Gbajabiamila who constructed about 154 solar street lights and solar powered water tanks for us within the farm.

However, an interview with an acting Head of Department contested the result, suggesting that women farmers have adequate access to productive resources within the State (see Excerpt 8).

Excerpt 8. KII with the acting Head of Department of Agriculture, Surulere LGA, Lagos

Our farmers do not suffer to get farm inputs, regardless of the sex or tribe. Most of these farm inputs are made available, accessible, and even relatively at a cheaper price through the Lagos State Agricultural Input Supply Authority (LAISA).

Conclusions

The study revealed that urban female farmers do not have adequate access to appropriate agricultural productive resources. Formal ownership of land was not common among the urban female farmers, since majority of the land in use belong to the government, but through usufructary rights, they appear to have equal access to land with the men, and its utilisation as against the conventional way of unpaid labour on their husband farm or family land. This, however, represents a deviation from previous studies, most especially in the rural area, which submitted that difficulty in accessing land by women farmers were mainly because of patrilineal property inheritance. This urban status quo in reference to access to land is gradually weakening the patriarchal nature of the society. Hence, majority of the women earn income directly from their own farm. Thus, decision-making over agricultural produce and income is disproportionately concentrated towards women in the study area.

The government should encourage and promote the use of innovative technology in agriculture, such that urban female farmers can easily adopt

mechanized farming, hydroponic agriculture, Integrated Pest Management (IPM), greenhouses, vertical gardens, and the use of hanging gardens, as against the traditional methods of farming currently in use. Since land is one of the critical agricultural productive resources, Government should incorporate urban agriculture into the town planning for urban areas in such a way that it will be easier for women to access lands for farming. There is also need for more effective and enabling structures to ensure that urban agriculture becomes a successful enterprise, most especially for the women.

REFERENCES

- ADEDAYO, A. & TUNDE, A. M. (2013) Challenges of Women in Urban Agriculture in Kwara State, Nigeria. *Sustainable Agriculture Research*. 2 (3). P. 8.
- ADEDAYO, V. (2014) Potentials and Contributions of Urban and Peri-Urban Agriculture to the Lagos Megacity Region. *Journal of Agriculture and Sustainability*. ISSN 2201-4357, Vol. 5, No. 2. Pp. 171-187.
- AINA, O. I. (1998) Women, Culture and Society. In: Sesay, A. & Odebiyi, A. (eds.) *Nigerian Women in Society and Development*. Ibadan: Dokun Publishing House.
- AINA, O. I. (2011) *Promoting Gender Equality for Sustainable Development*. A Paper Presented at a 2-Day *Gender Summit* Organised by the Ministry of Women Affairs, Social Development and Gender Empowerment, Ekiti State, Adetiloye Hall, Trade Fair Complex, Ado – Ekiti (November, 2011).
- AJANI, O. I. Y. (2008) *Gender Dimensions of Agriculture, Poverty, Nutrition and Food Security in Nigeria*. Nigeria Strategy Support Program FAO – ILO-IUF 2005. (NSSP) Background Paper No. NSSP 005.
- AKINMOLADUN, O. I. & ADEJUMO, O. T. (2011) Urban agriculture in Metropolitan Lagos: An inventory of potential land and water resources. *Journal of Geography and Regional Planning*. 4 (1). Pp. 9-19.
- ALUKO, B.T. & AMIDU, A. (2006) *Women and Land Rights Reform in Nigeria*. Promoting Land Administration and Good Governance 5th FIG Regional Conference. Accra, Ghana, March 8-11, 2006.
- ARMAR-KLEMESU, M. (2000) Urban agriculture and food security, nutrition and health. In: Bakker, N. et al. (eds.) *Growing cities, growing food: urban agriculture on the policy agenda*. Feldafing (Germany): DSE.
- BAKER, J. L. (2012) *Impacts of Financial, Food and Fuel Crisis on the Urban Poor*. World Bank, Washington, DC. © World Bank. [Online] Available from: <https://openknowledge.worldbank.org/> [Accessed: 15 June 2018].
- CARR, M. & HARTL, M. (2010) *Lightening the Load*. International Fund for Agricultural Development and Practical Action Publishing Ltd.
- DE ZEEUW, H. (2004) The development of urban agriculture: Some lessons learnt. In: *Keynote paper for the International Conference Urban Agriculture, Agri-Tourism and City Region Development*. Beijing: RUAFA.

- DESHINGKAR, P. (2004) *Understanding the Implications of Migration for Pro-Poor Agricultural Growth*. A paper prepared for the DAC POVNET Agriculture Task Group Meeting, Helsinki, 17–18 June, 2004. Pp.1–20.
- FAO (2011) *Notes on livestock, food security and gender equity*. Food and Agriculture Organization Animal Production and Health Working Paper. No. 3, Rome.
- IRUONAGBE, C. T. (2009) Patriarchy and Women's Agricultural Production in Rural Nigeria. *Professor Bassey Andah Journal of Cultural Studies*. 2. Pp. 207–222.
- KUTIWA, S., EMMANUEL, B. & DIMITRI, D. (2010) Urban Agriculture in Low Income Households of Harare: An Adaptive Response to Economic Crisis. *Journal of Human Ecology*. 32 (2). Pp. 85–96.
- LESHER, C. W. (2006) *Urban Agriculture: A Literature Review—Urban Agriculture: Differing Phenomena in Differing Regions of the World*. United State Department of Agriculture, Alternative Farming Systems Information Center, National Agricultural Library, Beltsville, MD.
- MOUGEOT, J. A. L. (2000) Urban agriculture: Definition, Presence, Potentials and Risks, and Policy challenges. In: Bakker, N., Dubbeling, M., Gundel, S., Sabel-Koschella, U. & de Zeeuw, H. (eds.) *Growing Cities, Growing Food, Urban Agriculture on the Policy Agenda, A Reader on Urban Agriculture*. Feldafing, Germany: Deutsche Stiftung Internationale Entwicklung (DSE). Pp. 1–42.
- OGUNLELA, Y. & MUKHTAR, A. (2009) Gender issues in agriculture and rural development in Nigeria: The Role of Women. *Hum. Soc. Sci.* 4 (1). Pp. 19–30.
- OLAYIOYE, J. T. (2012) *Urban agriculture in Ilorin*. Kwara State, University of Ibadan, Nigeria.
- PEREZ, C. et al., (2015) How resilient are farming households and communities to a changing climate in Africa? A gender-based perspective. *Global Environmental Change*. 34 (September). Pp. 95–107.
- SHEAHAN, M. & BARRETT, C. B. (2014) Understanding the Agricultural Input Landscape in Sub-Saharan Africa: Recent Plot, Household, and Community-Level Evidence. *Policy Research Working Paper 7014*. World Bank, Washington, DC.
- SOFA Team & DOSS, C. (2011) *The role of women in agriculture*. ESA Working Paper NO. 11–02. Agricultural Development Economics Division, The Food and Agriculture Organization of the United Nations.
- SPIELDOCH, A. (2007) *A row to hoe. The gender impact of trade liberalization on our food system, agricultural markets and women's human rights*. Institute for Agriculture and Trade Policy (IAIP)/ International. Gender and Trade Network (IGTN): Friedrich- Ebert-Stiftung Geneva, Switzerland.
- TORIRO, P. (2009) The impact of the economic meltdown on urban agriculture in Harare. *Urban Agriculture Magazine*. 21. Pp. 26–27.
- UNDESA (United Nations Department of Economic and Social Affairs). (2010) *The World's Women 2010: Trends and Statistics*. New York: UN.
- World Bank. (2009) *Gender in Agriculture Sourcebook. Agriculture and rural development*. [Online] Available from: <http://siteresources.worldbank.org/intgenagrliv-soubook/Resources/CompleteBook.pdf> [Accessed: 29 July 2017].
- World Bank. (2012) *World Development Report 2012: Gender Equality and Development*. Washington, DC: World Bank.