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## THE RURAL FARM-FAMILIES' PERCEIVED IMPACTS OF URBANISATION AROUND AKURE METROPOLIS, ONDO STATE, NIGERIA: A GENDER PERSPECTIVE

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## **ABSTRACT**

The study examined the impacts of urbanisation on rural farm families around Akure metropolis. It specifically discussed the perceived features of urbanisation by male and female respondents, examined the perceived effects of urbanisation on agriculture and the constraints encountered by farmers. Multistage sampling procedure was used to select 180 respondents in Akure North and South Local Government Areas. Structured interview schedule was used to elicit information from equal number of male and female respondents. Data were analysed using descriptive and inferential statistics. The findings included that most respondents were within the active age range (40 - 49 years) with more female, many inherited their farm land and the female respondents had more access to land than the male. The male and female respondents differ in most of their ranking of the features of urbanisation and the constraints encountered. The highly ranked constraints encountered by male and female respondents include reduction in farmland, family labour, rise in land conflicts and security issues with variation in types of crop cultivated between male and female respondents. Results of Chi-square analysis showed that sex ( $\chi^2 = 1.381$ , p = 0.040), marital status ( $\chi^2 = 20.05$ , p = 0.001) and educational status ( $\chi^2 = 6.312$ , p = 0.023) were statistically related to the perceived effects of urbanisation in farm communities. Also, farm size had significant (p<0.05) negative correlation with effects of urbanisation on agriculture for both male (r = -0.306) and female (r = -0.78) while farming experience was positively correlated for both male (r= 0.507) and female (r= 0.810). There exists significant difference between male and female respondents on the perceived effects of urbanisation on farm families while urbanisation had both positive and negative effects on rural farm families and rural development. Therefore, any planned intervention to reduce and mitigate the unplanned outcome of urbanisation should take advantage of the identified positive effects and minimise the negative consequences of urbanisation for the survival of the rural farm families and agriculture.

**Keywords:** Gender, Perception, Urbanization, Expansion, Agriculture and Impacts.

#### INTRODUCTION

Agriculture remains the mainstay of developing countries and majority of its activities are carried out in the rural areas by farm families. The Food and Agriculture Organisation (FAO) defined farm families as a means of organising agricultural, forestry, fisheries, pastoral and aquaculture production, its management and operation by families with absolute reliance on family labour including male and female (FAO, 2019). Farm families unlike in the past now occupy a central role in food production and security of many households and nations (HLPE, 2013; Silva, 2014). In Nigeria, the rural farm family is critical to agriculture, rural and national economic development. It constitutes over 70% of the total rural population and supports the livelihood of approximately two-thirds as well as employer of a critical mass (80 – 85%) of youth and some aged population (Davis et al., 2010; IFAD, 2020).

Rural farm families are directly involved in 80% food production in the country (Ollindo *et al.*, 2014; Davis *et al.*, 2017). Empirical analyses of the population of farm families, agricultural land area as well as calories produced showed that out of the 14,216,700 farms and 11,396,574 ha in Nigeria, farm family alone accounted for over 9 million farms and greater than 75% of agricultural land area, and producing about 80% of national food supply (Lowder *et al.*, 2015; FAO, 2019). This notwithstanding, the recent development in urbanisation have impacted the rural farm families. Urbanisation is defined by Singh (2013) as the series of natural occurrences of improving the level of material comfort of the rural lives, through agriculture and land development while providing free amenities and facilities of urban life. It has taken different dimensions which include the expansion of rural communities to cities and the expansion of existing cities to rural lands. Urbanisation as a double edged sword has produced several mixed impacts on the society. The transition of rural to urban structures have been reported to produce several impacts on the sustainability of farm families. For example, rural expansion /transition to urban lives requires land for many physical structures, depletion of water quality and agricultural land which is a major productive resource for agricultural activities.

Expansion of rural communities to cities has numerous impact some of which could be favourable or devastating. Some of the favourable effects of rural community expansion to cities include increasing access to health care and food, increased availability and access to job opportunities. Similarly, it enhances the establishment of public services such as access to adequate policing and health services, advanced citizen advice procedures and opportunities for appropriate counselling (Tellnes, 2005). Thus, the expansion of rural community to cities provides economic and commercial advantages to dwellers who ordinarily would have been living without any hope of economic improvement resulting from more profits and more jobs. Also, the growth in population arising from exodus from the suburban communities to cities often cause an upsurge in demand for food and other agricultural produce, providing market for rural farm produce, access to more improved tools and implements, acquisition of knowledge and skills on modern farming techniques and provides model for large-scale agricultural production and specialization (McGranahan *et al.*, 2014).

Apart from the economic advantages, the process of expansion of rural community to the city has natural and cultural effects on the environment, town planning and social networks, job and occupation, on both the city and the suburb rural communities (McMichael, 2013). For instance, the migrants in the suburb are faced with the challenges of housing, property rights and access to services (Tinashe, 2000). They are at high risk of diseases due to poor hygiene/environmental condition, and poor state of essential infrastructure such as potable water, electricity, sewage systems and roads (Rijks, 2014). Also important is the land degradation and pollution issue which plagues many urban areas. For instance, the series of dangerous fumes emitted to the atmosphere from industries, vehicles and production plants, mostly located in surrounding farming

communities, has implications on the health status of inhabitants (Lyndon, 2005) and farming communities. Urbanisation could be injurious to farm families with variation in severity and reduction in the size of fertile farmlands, destruction of woodland areas, loss of biodiversity and reduction in farm family labour (Haas, 2008) which is capable of adversely affecting food production, its availability, and the economy of farm families.

The severity of the effects of urbanisation on farm families differs by gender. One major effect of urbanisation on farm families is the migration of the youth and middle-aged male from rural agriculture to seek low paid jobs in cities (Anamica, 2010; Radhakrishnan and Arunachalam, 2017). Migration of the male from rural farming will adversely affect production quantity and yield since the departure of the male would increase the number and burden of female-headed household whose traditionally assigned gender roles include sowing/planting of seeds/crops, harvesting, marketing and household chores. The labour gap created by the absence of the male are either met by other family members (wives and children), hired labour or the tasks were modified or not performed (UNECA, 2017). The overall effects of the labour gap/absence of the male in rural farming is indicative of impending food shortage, hunger and famine which portends danger to sustainable agriculture.

Also, integration of the numerous rural migrants into the work demands of the urban centres may not be total, thus leaving many migrants jobless with the possibility of increasing the trends of immoral deals such as stealing, robbery, drug abuse, kidnapping and other forms of social vices (Mitlin, 2008). In addition, expansion of cities to rural communities/urbanisation increases the incidence of land grabbers and land related conflicts among family members which endangers lives and properties (Marina d'Engelbronner, 2001). For instance, the height of moral decadence has been linked to increasing female-headed households or single parenting to necessitating change in gender ascribed roles of women from child management to family bread winners (Mokomane, 2012). Thus, urbanisation is not only a gender issue, it is also location specific. In the light of these, this study was designed to assess the perceived effects of urbanisation on rural farm families in selected communities around Akure North and South Local Government Areas in Ondo State, Nigeria based on gender.

## RESEARCH METHODS

## Location of study

The study was carried out in Akure North and South Local Government Areas (LGAs) of Ondo State. The study area has two distinct seasons (rain and dry) with mean temperature of 29°C and an annual relative humidity of 80 per cent. The mean annual rainfall is 1,524mm, with absolute reliance on rain-fed agriculture. The population of Akure in 2006 was 239,124 and rose to 747,333 in 2021 (Ondo State Bureau of Statistics, 2021; NPC, 2006). The increase in annual growth of the population is attributable to the administrative role of the city as the state capital that attracts a large spectrum of migrants and expansion to cover surrounding agricultural lands.

## Sampling procedure and sample population

Multistage sampling procedure was used for sample selection. At the first stage, two LGAs were purposively selected based on their nearness to and the current level of expansion of Akure as a capital city. Next was the random selection of three rural communities from each of the two LGAs. The selected communities were Igunsin, Oke-odo, and Owode in Akure North LGA and Ipinsa, Aponmu and Aule in Akure South LGA. At the second stage, 30 farmers comprising of male and female were randomly selected from each of the six communities to make a total of 180 respondents.

#### Measurement of variables

The perceived effects of urbanisation on rural communities and agriculture were measured on a five-point Likert scale of very severe (5), severe (4), moderately severe (3), least severe (2) and not severe (1) for the positive perception statements and reversed for negative perception statements. The mean score for each perception statement was obtained by multiplying the frequency by the scale divided by the actual population. The maximum obtainable score was five and the least was 1. The midpoint score was obtained as 2.5. Mean score below the midpoint score of 2.5 was adjudged to be low while above it was adjudged high perceived effects of urbanisation.

## Data collection and analysis

Structured interview schedule was used to elicit information from the respondents. Data were analysed using descriptive (frequency, percentages, mean, and standard deviation) and inferential (Pearson correlation, Chi-square and Analysis of Variance) statistics.

## RESULTS AND DISCUSSION

## Personal and Socio-economic characteristics of the respondents

The results in Table 1 show that the mean age of the female and male respondents was within the active age of between 40 and 49 years which is an indication of a very versatile, active and vibrant age group that could be willing to take risks in any lucrative enterprise. Also, some (35%) of the respondents were single while about half (48.9% male and 51.1% female) were married. Only very few (3.3% male and 1.1% female) were divorced. This corroborates the findings of Adegoke (2010) that the traditional Yoruba setting rarely divorce once married. Almost equal number of male and female respondents had formal education and a few had no formal education. This finding is in consonance with those of Abdulrazaq (2012) and Aina (2012) that gender sensitisation is closing the gender inequality in students' enrolment in Nigeria.

Importantly too, land acquisition by inheritance was the dominant acquisition method by both male and female. This supports the report of Famoriyo (2012) that land ownership by inheritance remains the most common in farming communities of Nigeria. However, further findings revealed that more (76.7%) female than male (48.9%) inherited their farm land. This is a departure from common knowledge that the male children have the sole land ownership right by inheritance in Yoruba land and in most parts of Nigeria. In addition, majority (78.9% and 97.8%) of male and female respondents planted arable crops while fewer (34.4%) female than male (47.8%) planted tree crops. This may imply that attention was mainly on crops planted to service the neighbouring urban demand for food. Furthermore, over half of the respondents produced mainly for commercial purpose. It thus infers that if urbanisation which often affect land used for agricultural purposes is not controlled more rural families may abandon farming for lack of land, particularly, tree crops.

Table 1: Personal and socio-economic characteristics of male and female respondents (n = 180)

-	Male		Female		
Variables	Frequency	Percentage	Frequency	Percentage	
Age	•		•		
<30	25	27.8	33	36.7	
30-59	34	37.8	40	40.4	
60 and above	31	34.4	17	18.9	
Mean and Std. Deviation	49.4±24.3		40.2±19.6		
Religion					
Christianity	53	58.9	60	66.7	
Islam	31	34.4	20	22.2	
African tradition	2	2.2	2	2.2	
Atheists	4	4.4	8	8.8	
Marital status					
Single	32	35.6	32	35.6	
Married	44	48.9	46	51.1	
Divorced	3	3.3	1	1.1	
Widowed	11	12.2	11	12.2	
Ethnicity					
Yoruba	72	80.0	73	81.1	
Hausa	3	3.3	1	1.1	
Igbo	15	16.7	16	17.8	
Educational status					
No formal education	22	24.4	25	27.8	
Primary school	17	18.9	21	23.3	
Secondary school	39	43.3	43	48.9	
Tertiary education	12	13.3	1	1.1	
Land acquisition					
Lease	3	3.3	0	0.0	
Rent	18	20.0	11	12.2	
Gift	9	10.0	4	4.4	
Government land	2	2.2	2	2.2	
Communal land	0	0.0	0	0.0	
Inheritance	44	48.9	69	76.7	
Purchase	14	15.6	4	4.4	
*Type of crops grown					
Arable crops	71	78.9	88	97.8	
Tree crops	43	47.8	31	34.4	
*Purpose of cultivation					
Consumption	10	11.1	5	5.6	
Commercial	60	66.7	52	57.8	
Both	85	94.4	80	88.9	

<sup>\*</sup> multiple responses

Source: Field survey, 2014

## Perceived features of urbanisation by male and female respondents

Respondents perception of the features of urbanisation were shown in Table 2. The top ranked features of urbanisation by both male and female respondents included the presence of schools, potable water supply, major roads, government hospitals and electricity supply. These social amenities were perceived by the respondents to be the fulcrum upon which quality life revolves but are often not adequately found in rural communities. For instance, Ekong (2010) listed the features of urban centres to include many schools, hospitals, the presence of police and fire stations. Both male and female

respondents' highest rankings were banks, industries, police and fire services, hotels as well as housing estates. This may imply that the presence of these features could enhance their livelihood. The least perceived features of urbanisation by male and female respondents were petrol stations, modern shopping centres, private clinics and entertainment/recreational facilities. The low ranking of these features may be attributed to the importance/immediate needs for survival. and the erroneous belief that entertainment and recreation facilities are symbols of immoralities. The identification and recognition of the features of urbanisation are capable of providing information for prioritising rural family needs and help in the formulation of policies that would help to mitigate the negative effects while the highly valued positive features could be improved so that more male and female youth would be retained in farming communities and be attracted to improved agricultural practices.

Table 2: Distribution of respondents based on perceived features of urbanisation (n = 180)

	Male			Female			
*Features of urbanization	Freq.	%	Rank	Freq.	%	Rank	
Schools	90	100	1 <sup>st</sup>	90	100	1 st	
Potable water supply	87	96.7	$2^{\text{nd}}$	89	98.9	$2^{nd}$	
Major roads	86	95.6	$3^{\rm rd}$	88	97.8	$5^{\rm rd}$	
Government Hospitals	85	94.4	$4^{ ext{th}}$	89	98.9	$2^{\rm nd}$	
Electricity supply	84	93.3	$5^{\rm th}$	89	98.9	$2^{\rm nd}$	
Banks	78	86.7	$6^{ ext{th}}$	80	88.9	$6^{th}$	
Industries	73	81.1	$7^{\mathrm{th}}$	75	83.3	$7^{\mathrm{th}}$	
Police and fire services	72	80.0	$8^{th}$	74	82.2	$8^{th}$	
Hotels	72	80.0	$8^{th}$	63	70.0	$10^{\text{th}}$	
Housing estate and modern residents	71	78.9	$10^{\rm th}$	79	87.8	9 <sup>th</sup>	
Petrol stations	68	75.6	$11^{\rm th}$	68	75.6	$11^{\mathrm{th}}$	
Modern shopping centre	65	72.2	12 <sup>th</sup>	68	75.6	$11^{\mathrm{th}}$	
Private clinics	63	70.0	13 <sup>th</sup>	62	68.9	$13^{th}$	
Entertainment and recreational facilities	56	62.2	$14^{\mathrm{th}}$	55	61.1	$14^{\mathrm{th}}$	

\*Multiple responses

Source: Field survey, 2014

## Perceived effects of urbanisation by rural farm families

The results of 12 perception statements by respondents on the effects of urbanisation were shown in Table 3. For the positive perception statements, all the six were highly ranked by the male with mean scores ranging from 3.2 to 4.5 out of the expected maximum score of 5.0. The three most ranked positive statements in descending order are: urbanisation is a good thing, urbanisation is inevitable and urbanisation is the only way we can have better life. Similarly, the female ranked the six statements high (3.4 to 4.2). The three statements with the highest ranking are: urbanisation is inevitable, urbanisation has no negative effect on farm families and urbanisation is a good thing. This implies that both male and female had high positive perception about urbanisation. This finding may not be unconnected with the perceived features of urbanisation (Table 2) which they viewed as capable of enhancing their livelihood and wellbeing.

For the negative perception statements on the effects of urbanisation, both male and female respondents had mean scores of 2.3 and 1.6 respectively. These mean scores are below the midpoint (2.5), an indication of low perception about the negative effects of urbanisation and the females were more affected. This variation between male and female disposition to the negative effects of urbanisation could be due to the special capability of the female to engage more in non-farm activities which closeness to urban centres provided (Adepoju and Obayelu, 2013; Wole-Alo and Alo, 2021). However, the identified negative consequences of urbanisation should be adequately addressed in order to avoid the total erosion of its positive effects on farm families.

Table 3: Distribution of male and female respondents according to their perceived effects of urbanisation (n = 180)

Perception statements	M	<b>Tale</b>	Female	
•	Mean	Rank	Mean	Rank
Positive perception statements				
Urbanization is a good thing	4.5	1 <sup>st</sup>	3.8	$3^{\text{rd}}$
Urbanization is inevitable	4.4	$2^{nd}$	4.2	$1^{st}$
Urbanization is the only way we can have a better life	4.2	$3^{rd}$	3.5	5 <sup>th</sup>
Urbanization has no negative effect on farm families	3.4	4 <sup>th</sup>	4.2	1 <sup>st</sup>
I prefer urban life to rural life	3.3	5 <sup>th</sup>	3.6	$4^{th}$
Urbanization process must be embraced by everybody	3.2	$6^{th}$	3.4	$6^{th}$
Mean	3.83		3.78	
Negative perception statements				
Urbanization takes away our culture, tradition, and practices	0.3	$6^{th}$	0.4	$6^{th}$
The urban areas are full of crime and social vices	1.5	$5^{th}$	1.1	5 <sup>th</sup>
The urban people lack access to the natural environment	2.2	4 <sup>th</sup>	1.7	$3^{\text{rd}}$
I can never live in urban centres	2.6	$3^{\text{rd}}$	1.4	$4^{th}$
Urbanization should be discouraged	3.4	$2^{nd}$	2.3	$2^{nd}$
Urbanization brings evils to the society	3.8	$1^{st}$	2.7	$1^{st}$
Mean	2.3		1.6	

Source: Field survey, 2014

## Perceived effects of urbanisation on agriculture

The results in Table 4 show the respondents' perceived effects of urbanisation on agriculture based on gender. Out of the 19 perception statements, ten were positive while nine were negative. For the male respondents, the positive perception statements were all ranked high with mean scores of 3.8 to 4.8 and a grand mean score of 4.55 out of the expected maximum of 5.0. Similarly, all the statements were ranked high (4.1 to 4.8) by the female with a grand mean score of 4.57. This affirm the findings of Singh (2013) that urbanization brings about job opportunities, available and easy transportation, better facilities, infrastructure and changes in environment. Importantly, both male and female recorded high favourable disposition to the perceived effects of urbanisation on agriculture, scoring almost 5.0 out of the expected maximum score of 5.0. However, there were observed variations in the ranking by the male and female respondents which may be due to the ascribed gender roles and their peculiar needs.

On the other hand, the male ranked all the nine negative perception statements high (4.2 to 4.7) with seven almost equally ranked statements (1<sup>st</sup> and 2<sup>nd</sup>) and a grand mean score of 4.55. The least rankings were recorded for urbanisation brings about refuse dumping and land grabbing. For the female respondents, there was similar high (4.2 to 4.6) ranking of the statements with a grand mean score of 4.54, and equal (1<sup>st</sup>) ranking in five of the nine statements. These findings are in agreement with those of Massey *et al.* (2007), Du Plessis (2005) and Kennedy *et al.* (2004) that rural-urban migration increases crime rate, social vices and loss of morals. Also, land grabbing, destruction of farmlands, loss of animal biodiversity and deforestation are common feature (Marina d'Engelbronner, 2001; David *et al.*, 2010) with many cases of land conflict among family members. There was also an observed variation in the ranking of the statements by the male and female respondents. The observed variations may largely be due to differences in gender specific roles and needs in rural farm families.

The inference from the observed equal grand mean scores for both positive and negative disposition to the perceived effects of urbanisation on agriculture is suggestive of the fact that urbanisation is a double edged sword and its gains by the farm

families could be wiped off and they could be poorer if a decisive intervention to reduce and mitigate the negative effects of urbanisation is not urgently embarked upon.

Table 4: Gender disaggregated data on the perceived effects of urbanisation on agriculture (n = 180)

Perception statements	N	<b>I</b> ale	Female	
•	Mean	Rank	Mean	Rank
Positive perception statements				
Urbanization brings an improved communication system	4.8	1 <sup>st</sup>	4.6	$3^{rd}$
It brings about easy access to market	4.8	1 <sup>st</sup>	4.6	$3^{rd}$
Creating access to social amenities	4.7	$3^{rd}$	4.8	1 <sup>st</sup>
It brings an easy transport system	4.6	4 <sup>th</sup>	4.6	$3^{rd}$
It creates more demand for farm produce	4.6	4 <sup>th</sup>	4.7	$2^{nd}$
It gives access to modern technologies	4.6	4 <sup>th</sup>	4.1	$10^{\text{th}}$
Urbanisation leads to modernization	4.6	$4^{th}$	4.6	$3^{rd}$
It gives rise to more agro-based industries	4.5	8 <sup>th</sup>	4.5	9 <sup>th</sup>
It brings rapid development to a suburban area	4.5	$8^{th}$	4.6	$3^{\rm rd}$
It gives access to improved tools	3.8	$10^{\rm th}$	4.6	$3^{\text{rd}}$
Mean	4.55		4.57	
Negative perception statements				
It causes rural-urban migration	4.7	1 <sup>st</sup>	4.6	1 <sup>st</sup>
Urbanisation brings about a high crime rate	4.6	$2^{\text{nd}}$	4.6	1 <sup>st</sup>
Urbanisation change moral values of people	4.6	$2^{nd}$	4.6	1 <sup>st</sup>
It encourages land grabbing	4.2	9 <sup>th</sup>	4.6	1 <sup>st</sup>
It brings about deforestation and destruction of wide life	4.6	$2^{nd}$	4.5	$6^{th}$
It brings diversion of manpower from agriculture	4.6	$2^{nd}$	4.5	$6^{th}$
Poor compensation on farmland for farmers	4.6	$2^{nd}$	4.2	9 <sup>th</sup>
It results in land disputes	4.6	$2^{nd}$	4.3	$8^{th}$
Urbanisation brings about refuse dumping	4.5	$8^{th}$	4.6	1 <sup>st</sup>
Mean	4.55		4.50	

Source: Field survey, 2014

## Constraints encountered by male and female rural farm families due to urbanization

Data in Table 5 shows 11 identified constraints and ranked by both male and female respondents. Majority (72.2 to 78.9 %) of the male respondents ranked four of the constraints (land conflict, security issues, inadequate family labour and separation of families) highest in descending order. More constraints (land conflict, separation of families, inadequate family labour, security issues and change in crop cultivated) were ranked highest (71.1 to 82.2%) by the female. Findings by Ahmed (2007) and Famoriyo (1973) revealed that competition for land among family members and communities often leads to conflict causing migration of family members especially the men to abandon their farmlands and farm produce. Interestingly, both male and female gender ranked land conflict first. With urbanisation, land being a crucial productive resource would become diversified for urban expansion such as building of roads, hospitals, industries, residential areas and service centres. Further analysis revealed that the other highly ranked constraints were closely related to farm families' welfare while the observed variations in the ranking of the constraints by male and female are related to gender roles and needs. The inference from these findings is that any intervention to reduce these constraints must focus on the identified constraints with gender in consideration.

Table 5: Distribution of the respondents according to constraints on urbanization

		Male			Female	
Constraints	Freq.	%	Rank	Freq.	%	Rank
Land conflict	71	78.9	1 <sup>st</sup>	74	82.2	1 <sup>st</sup>
Security issues	66	73.3	$2^{\text{nd}}$	64	71.1	$4^{th}$
Inadequate family labour	66	73.3	$2^{\text{nd}}$	65	72.2	$3^{\text{rd}}$
Separation of families	65	72.2	4 <sup>th</sup>	71	78.9	$2^{\text{nd}}$
Inadequate farmland	53	58.9	5 <sup>th</sup>	58	64.4	$6^{th}$
Change of crop cultivated	47	52.2	6 <sup>th</sup>	64	71.1	$4^{th}$
Multiple household responsibilities	42	46.7	$7^{\text{th}}$	37	41.1	$7^{\text{th}}$
Inadequate capital	31	34.4	$8^{th}$	17	18.9	$8^{th}$
Inadequate access to modern facilities	21	23.3	9 <sup>th</sup>	14	15.5	9 <sup>th</sup>
Inadequate access to extension services	21	23.3	$10^{\text{th}}$	9	10.0	$10^{\text{th}}$
Inadequate access to market	9	10.0	11 <sup>th</sup>	5	5.6	11 <sup>th</sup>

Source: Field survey, 2014

# Relationship between selected socio-economic characteristics and perceived effects of urbanisation on agricultural production

The results of Chi-square analysis in Table 6 show that sex ( $\chi^2 = 1.381$ , p = 0.040), marital status ( $\chi^2 = 20.05$ , p = 0.001) and educational status ( $\chi^2 = 6.312$ , p = 0.023) were statistically related to the perceived effects of urbanisation on farm families around Akure metropolis. Lesser female than male had low favourable disposition to the negative effects of urbanisation on farm families while both of them had equal positive disposition to its effects. Similarly, for the educated youth, there is an increase urge to migrate to the cities in search for white collar jobs.

The results of Pearson Moment correlation (Table 7) showed significant relationships between age of respondents, and farming experience. This implies that, the higher the age (r = 0.319, p < 0.05) and years of farming experience (r = 0.507, p < 0.01), the more the male respondents perceived the effects of urbanisation on agriculture. It also had negative correlation (r = -0.306, p < 0.05) with farm size of male respondents; meaning that the more the farm size, the less the effects on the farm families. For the female respondents, household size (r = 0.436, p < 0.05) and years of farming experience (r = 0.810, p < 0.01) had direct relationships with perceived effects on agriculture while farm size again had inverse relationship. The implication of this results is that, the larger the household size, the more intense is the perceived effects of urbanisation on agriculture. This may not be unconnected with the large number of female-headed household left behind by the migration of the men to seek better job opportunities in the city. Also, that farm size had inverse relationship with the perceived effects of urbanisation on agriculture by both male and female respondents is an indication that urbanisation takes their farmland causing a reduction in farm size. This finding supports those of Henderson (2002) and Fadayomi (1992) that reduction in the size of family land occurs as a result of urbanization while Okowa (1991) observed that the females usually face the reverberating effects of urbanization than their male counterpart. The results of Analysis of Variance (Table 8)

show the statistical significant difference (F = 23.37, df = 1, p < 0.05) between male and female perceived effects of urbanisation on farm families. This result agrees with the findings in Table 3 that the females were less vulnerable to the negative effects of urbanisation compared to their male counterparts.

Table 6: Chi-square analysis showing association between selected variables and perceived effects of urbanisation

Socioeconomic variables	χ² value	Df	p-value
Sex	1.381	1	0.040
Marital status	20.05	3	0.001
Ethnicity	0.850	2	1.554
Educational status	6.312	3	0.023

N = 180; df = degree of freedom;  $\chi^2$  = Chi-square

Table 7: Results of Pearson Correlation showing relationship between selected socio-economic characteristics of male and female respondents and perceived effects of urbanization on agriculture

	Male		I	Female
Variables	Correlation Coefficient (r)	Coefficient of Determination (r <sup>2</sup> )	Correlation Coefficient (r)	Coefficient of Determination (r²)
Age	0.319*	0.102	-0.089	0.008
Household size	-0.232	0.054	0.436*	0.190
Farming experience	0.507**	0.257	0.810**	0.656
Farm size	-0.306*	0.094	-0.78*	0.608

Source: Field survey, 2014

\*Significant at 0.05 level of significance

\*\*Significant at 0.01 level of significance

Table 8: Analysis of Variance between male and female perceived effects of urbanisation on rural farm families

	Sum of squares	df	Mean square	F	p-value
Between groups	352.44	1	352.44	23.37	0.035
Within groups	2684.20	178	15.08		
Total	3036.64	179			

N = 180; df = degree of freedom

#### CONCLUSION AND RECOMMENDATIONS

Based on the findings of this study, it could be concluded that the population of the study area were dominated by active youth workforce. Also, the rural transition to urban life has affected most activities of the rural farm families including focusing on arable crop production to supply the rising demand for food and the shift in ascribed gender roles/emergence of more female-headed household. Inherited land was the commonest mode of land acquisition and more female benefitting than their male counterparts represents a shift in the traditional norm in the study area.

Presence of schools, hospitals, potable waters supply, banks, police and fire stations, industries, hotels, major roads among others were highly perceived features of urbanization by both male and female respondents. Inadequate access to improved farm tools, market for agricultural produce, surge in social crimes, increase in land disputes, environmental pollution, indiscriminate dumping of refuse, among others were common effects of urbanization on agricultural production as perceived by both male and female respondents. Furthermore, both male and female respondents were aware of the effects of urbanization. However, the effects and constraints of urbanisation vary by gender.

Hence, the following were recommended:

- i. The dumping of urban waste on farmland should be discouraged with appropriate deterrent laws to sanction perpetrators and planned intervention projects should be initiated to build rural household capacity to create wealth from waste through public-private partnership.
- ii. There should be provision of more infrastructure and basic social amenities for the rural populace so as to discourage rural youth and the workforce from migrating to the cities in search of white collar jobs and better living conditions.
- iii. Alternative lands should be provided for farmers whose lands are taken over for urban expansion and renewal
- iv. Extension delivery services need to be intensified in the study area by ensuring improved extension-farmer ratio, the frequency of contact and better attention should be paid to female farmers.
- v. Effective laws and regulations should be put in place to protect the farm families from encroachment on their land and adequate compensation should be paid on land used for urban expansion/renewal
- vi. Government should guarantee access to land and tenure security for suburban farmers as a result of migration, competition and changing population dynamics.

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