

Effects of Youths Rural – Urban Migration on Arable Crop Production in Mubi-South Local Government Area of Adamawa State, Nigeria

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Abstract

The study examined the effect of youth's rural-urban migration on arable crop production in Mubi South LGA. Specific objectives of the study are to: identify causes of youth's rural – urban migration and to analyse effects on youth's rural – urban migration on arable crops production in the study area. Stratified random sampling and purposive sampling methods were employed for the study. A sampling population of 4,466 registered farmers was used as the sampling frame, from the 10 wards that constituted Mubi-South LGA. Farmers of the sampling frame were divided into two (2) clusters both of which youth farmers were purposely selected by probability proportionate to size (PPS) method. Three wards (Dirbishi, Mujara and Mugulbu) were purposely selected, due to high production of arable crops over the years as observed. Thus, a total number of 188 youth's arable crop farmers were selected by 10% proportionate to size method used on the three purposely selected wards. The main objective of the study is to evaluate effects on youth's rural – urban migration on arable crops production. The analytical tools used included descriptive and inferential statistics. The results of the Probit Regression Model estimating the effects of youths' rural-urban migration on arable crop production showed that specified explanatory variables were able to explain the effects of Youths' rural-urban migration on arable crop production in the study area. The results further showed that man power shortage was significant and positive at 1%. This implies that youths' rural-urban migration have effects on arable crop production, as it increases, man power needed for arable crop production decreases which definitely leads to a heavy drain on the supply of rural family labour. The study also revealed that reduction in labour force variable was positively significant at 5% suggesting increase in youth's rural-urban migration could lead to increase in reduction of labour force. On the contrary, high cost of labour, farm work become tedious and poor standard of living had no significant effects on arable crop production. The result of hypothesis tested revealed positive significance at 1%. Suggesting that youths' rural-urban migration had significant effects on arable crop production in Mubi South LGA. Conclusively, rural-urban youths' migration had significant effect on agriculture particularly arable crop production and rural development in Nigeria. Rural-urban migration has taken away the active population of rural areas, leaving behind the children and aged who are not actively engaged in agriculture.

Keywords: Effects, Youths', Rural – Urban Migration, Arable Crops

Introduction

Migration is a regular occurrence in the life of a nation (Ofuoku and Chukwuji 2012). Migration is the movement of people from one geographical location to another, either on a temporary or permanent basis (Ekong, 2010). Rural-urban migration is the dominant pattern of internal migration. The movement of people is a selective process that affects individuals or families with particular economic, social, educational and demographic characteristics (Ofuoku and Chukwuji, 2012). It is necessary to have a quick

glimpse on Nigeria's landscape as a vast agricultural country "endowed with substantial natural resources" which include: 68 million hectares of arable land; fresh water resources covering about 12 million hectares, 960 kilometers of coastline and an ecological diversity which enables the country to produce a wide variety of crops and livestock, forestry and fisheries products (Arokoyo, 2005). In view of the strategic role arable crop plays in bringing about development in the rural areas by way of food security and poverty reduction, attempts to hold back the labour force in

the rural areas is important. This would also bring about food security and poverty alleviation. Surpluses will be sold to meet other social needs such as children education, domestic needs and wants. This study will contribute enormously to the current debate on the rural-urban drift. It will provide database on rural-urban migration of LGA of the study. Findings based on empirical evidence could provide insights to policy makers on the appropriate choice of rural development strategies, which could make the rural areas attractive and offer the same opportunities to the youth out-migrants in the cities.

The problem of rural to urban migration is a relatively old and ubiquitous phenomenon globally. However, in recent years, it has become a cause of concern at the global, regional and national levels. The unprecedented levels of urbanization characteristic of most developing countries, Nigeria inclusive, have resulted in the movement of people from rural to urban areas subsequently resulting in the emergence of slums and informal settlements. Developmental challenges that include spread of disease pandemics (Cholera, Dysentery, and HIV/AIDS, Malaria and Typhoid fever and Covid-19 and 20 strains of recent), supply of unclean water, insecurity, poor infrastructures and poor service delivery are common in these regions. Furthermore, problems such as pollution, congestion and crime are linked to this concept (Siddiqi, 2014). Yet rural to urban migration is also sometimes seen as an important livelihood strategy for rural youths mostly domiciled in poor rural areas in developing countries, as they started looking down on agriculture related activities, especially farming, and they preferred white-collar jobs to farming. This resulted to loss of agricultural labour to other occupations that were mostly available in the urban areas.

Insufficiency of land within the farmer's own village, or ethnic territory has also been found to generate migration. In addition to economic motive, people migrate to improve their education and skills – which are equally an economic motive in the long run. People with higher education in rural areas tend to move out to find commensurate employments in the towns. People also migrate to escape from social and cultural imprisonment in homogenous rural areas. This is also closely related to level of education. In other words, those who are a little more enlightened as a result of the acquisition of

some formal education would want to see more of the world beyond their village boundaries (Ekong, 2010). The need to escape from social upheavals, violence, political instability, suspected or real persecution, may also lead to migration in either urban-rural, rural-urban, or rural-rural directions (Ekong, 2010).

Adverse physical conditions in the environment such as drought, land slide (erosion or earthquake), flood, the menace of wild beasts and insect pests, infertility of the soil, exhaustion of pasture (in the case of nomadic cattle rearers) have all made people to move to less perilous geographical locations. The influx of aliens from Niger Republic into Nigeria in the 1970s was partly due to the Sahelian drought (Rural migration). Since migration is often a response to unequal distribution of socio-economic opportunities, it follows that most governmental policies aimed at influencing migration are often closely linked to development efforts. The major strategies of development which governments in developing countries such as Nigeria have adopted in order to directly or indirectly influence migration for example in recent time is the farmers anchor borrower's scheme initiated by President Muhammadu Buhari All People's Congress (APC) led government.

However, it is difficult to strictly pin-point the causes of migration as such, since causation connotes absoluteness, whereas it is usually difficult to cite this or that factor as the absolute cause of an individual's decision to relocate (Ekong, 2010). Most rural-urban studies tend to conclude that people migrate for economic reasons, and the need to escape from adverse social and physical conditions (Ofuoku and Chukwuji, 2012). People tend to be pushed from areas of decline to areas of prosperity. Rural-urban migration negatively impacts on the quality of rural life, especially when such migrants carry away their needed productivity into the city. Migration of young adults from rural to urban areas places a greater burden on the farmers (Adewale, 2005). According to Ofuoku and Chukwuji, (2012) rural-urban migration is related to the more time the farmers spend to cover the same area of land than he or she spends on leisure time and involvement in other social activities.

Though rural-urban migration has been observed to affect agricultural production adversely, World Bank (2007) states that migration has been

identified as a pathway out of poverty for rural households in developing countries. This implies that remittances from rural-urban migrants will be used to hire migrant labour to work on farms, increase farm size, or purchase farm inputs or all of the aforementioned. Migration, by providing households with a source of income that is uncorrelated with agriculture, can facilitate investments in other activities, especially agriculture (World Bank, 2007). The effect of rural-urban migration among the youths in the agricultural sector cannot be but overemphasized. In Mubi South Local Government Area LGA of Adamawa State Nigeria, most social roles and status (attributed to gender and age, opportunities and constraints such as access to resources and the opportunity to migrate) are socially embedded.

Rural settlements in Mubi-South LGA lacks basic infrastructural facilities for development. Good roads which are major ingredient of development are lacking. Most of the rural feeder roads are bad and seasonal. This problem of accessibility inhibits the evacuation of farm produce from the rural areas to the urban parts of the region; hence forcing farmers in rural areas to produce little as excess are not consumed. There is equally the problem of portable water, as most of the rural communities in the region draw water from stream and rivers. Some villages are served by community hand dug wells while some few ones are served by boreholes with hand pump, drilled by the local council, State or Federal Government.

Educational and Health Services are also grossly inadequate in the rural areas (Adebayo, 2014). The major crops grown in Mubi South LGA are maize, groundnuts and cowpea; others are Irish potatoes, sweet potatoes and sorghum. With the sudden political upheaval due to Boko Haram insurgency in 2014, there was loss of land and animals for farming activities, total infrastructural neglect and decay, poverty, and insecurity as observed over the years in the LGA as a bedeviling factors that forced the inhabitants, especially the youths to move out of the Local Government Area. There has been dearth of empirical studies on migration of youths in Mubi South LGA to urban areas of Nigeria. Based on these, the likeable questions of the study are to: i identify or describe causes of youth's rural – urban migration in the study area and ii analyse the effects on youth's rural – urban migration on arable crops in Mubi – South LGA of Adamawa State. In other

words what are the effects on youth's rural – urban migration on arable crop production in the study area?

The main objective of the study is to evaluate effects on youth's rural – urban migration on arable crops production. Specific objectives of the study are to: i identify causes of youth's rural – urban migration and ii to analyse effects on youth's rural – urban migration on arable crops in the study area. The study hypothesized at null (H_0) level that there is no significant effect of youth's rural – urban migration in the LGA.

Materials and Methods

Study area

The study was carried out in Mubi South LGA of Adamawa State. The LGA is located in North eastern part of Adamawa State and lies on latitude 10°00' north and longitude 13°30' east on the altitude of 731.4m (Adebayo and Tukur, 1999). Mubi South LGA shares common border with the Republic of Cameroon and Maiha LGA of Adamawa State to the South. It also shares common border with Mubi North LGA to the north and with Hong LGA to the west. Mubi South LGA is characterized by tropical climate, with distinct dry and wet seasons. The wet season commences as early as May/June and attains its peak in July/August before it declines in September. Rainfall is more pronounced around the vicinity of Mandara hill, the average rainfall in the area is about 100mm/annum (Adebayo and Tukur, 1999). The mean temperature of the LGA in January and July is 25°C and 30°C respectively. Also, the annual temperature ranges between 25°C-30°C (Adebayo and Tukur, 1999). Crops like maize, cowpea, bambaranuts, groundnuts, sugarcane, guinea corn, and sweet potato are cultivated in the area. Loamy and sandy loam is the type of soil in Mubi South LGA According to 2006 census, Mubi South LGA has a population of 128,937 people, (NPC, 2006).

Method of Data Collection

Data for the study was collected from both primary and secondary sources. The primary source was collected through structured questionnaire while the secondary source was through journals, internet sources, past projects, text books, magazines, and other relevant printed materials. The structured questionnaire was faced validated by the supervisor of the study so as to ensure its validity. The instrument (questionnaire) was tested in the three

wards for the study by selecting five youths arable crop farmers totaling (15) farmers, which were randomly selected from 188 arable youth crop farmers in the study area. This served as pre-test respondents. The pre-test respondents were asked questions contained in the research instruments to determine the degree to which the questions were clearly understood when finally administered for actual data collection. Reliability test for the questionnaires employed test, re-test or the split-half method. The product moment correlation coefficient (r) was calculated and use to adjudge the reliability of the instrument or questionnaire.

The explicit form of the formula is as clearly stated

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n(\sum x^2 - (\sum x)^2)][n(\sum y^2 - (\sum y)^2)]}} \quad (i)$$

Data Analysis

The analytical tools used include descriptive and inferential statistics. The descriptive statistics were: tables, means, frequencies and percentages were used in analyzing objective i, while inferential statistics used were: product moment correlation coefficient (r); T – test for testing the hypothesis of the study stated as there is no significant effect of youth's rural – urban migration on arable crops production in the study area and probit correlation was used to analysed objective ii, of the study.

Model specification

$$Y_1 = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_n X_n + e \quad (ii)$$

Where

- Y = Dependent variable (Rural-urban migration)
- X₁ = Man power shortage
- X₂ = Reduction in labour force
- X₃ = Low agric. productivity
- X₄ = High cost of labour
- X₅ = Farm work tediousness
- X₆ = Reduction in annual income
- X₇ = Standard of living
- β₀ = Intercept term
- β₁ = Slope coefficient
- e = Truncated error term

T-test

$$t = \frac{\bar{X} - \mu}{\frac{S}{\sqrt{n}}} \quad \text{-----(iii)}$$

Where

- t = t- Statistic
- $\bar{X}$ = Mean of the group
- μ = Theoretical value or population mean
- S = Standard deviation of the group
- n = group size or sample size

Sampling Techniques

Stratified random sampling and purposive sampling methods were employed for the study. A sampling population of 4,466 registered farmers was used as the sampling frame, from the 10 wards that constituted Mubi-South LGA. Farmers of the sampling frame were divided into two (2) clusters both of which youth farmers were purposely

selected by probability proportionate to size (PPS) method. Three wards (Dirbishi, Mujara and Mugulbu) were purposely selected, due to high production of arable crops over the years as observed. Thus, a total number of 188 youth's arable crop farmers were selected by 10% proportionate to size method use on the three purposely selected wards (Tables 1 and 2).

Table 1: Distribution of registered farmers according to wards in Mubi South LGA

S/No	No. of Wards	No. of Registered Farmers
1	Dirbishi	703
2	Mujara	806
3	Duvu	501
4	Kwaja	409
5	Gella	135
6	Nassarawo	307
7	Lamorde	483
8	Mugulbu	370
9	Gude	214
10	Nduku	538
Total	10	4,466

Source: Department of Agriculture and Natural Resources Mubi South LGA, 2016

Table 2: Distribution and selections of farmers based on population and sample size

Selected wards	Registered number of farmers	Sample size 10%
Dirbishi	703	70
Mujara	806	81
Mugulbu	370	37
3	1879	188

Source: Survey data, 2019

Results and Discussion

Table 3: Causes of Youths' Rural-Urban Migration

Causes	Frequency	Percent	Ranking
Inadequate social amenities	134	17.4	2
Inadequate employment	152	19.8	1
Infertile land	98	12.8	5
Inadequate education	122	15.9	3
Poor business operation	86	11.2	6
Farming difficulties	102	13.3	4
Long dry season	74	9.6	7
Total	768	100.0	

Source: Survey data, 2019

Table 3 indicated that highest proportion (19.8%) of the respondents attested to inadequate employment (ranked 1st) as the remote and immediate cause of youths' rural-urban migration, high proportion (17.4%) indicated inadequate social amenities (ranked 2nd) was the cause, some proportion (15.9%) linked inadequate education (rank 3rd) to the cause, some proportion (13.3%) also stated farming difficulties (ranked 4th) as a cause, some proportion (12.8%) also stated infertile land (ranked 5th) as their point of view, few proportion (11.2%)

claimed poor business operations (ranked 6th) and very few proportion (9.6%) confirmed long dry season (ranked 7th) as the cause of rural-urban migration in the study area. This indicates that inadequate employment, inadequate social amenities and inadequate education were the major remote and immediate causes of youths' rural-urban migration in the study area. This is in line with the study of Kwankye and Anarfi (2009) and Mgbakor, *et al.* (2014).

Table 4: Parameter Estimates of Probit Regression on effects of Youths' rural-urban migration production

Variables	B	Std. error	Wald Chi-Square	Sig. level
Man labour shortage	2.268	.7222	9.860	.002***
Reduction in labour force	-1.149	.5511	4.347	.037**
Low agric. Production	-.137	.2799	2.939	.025**
High cost of labour	6.799	9753.2887	.000	.999
Tediousness of farm labour	1.168	.6313	3.423	.764
Reduction in annual income	-.691	.8356	2.883	.064*
Standard of living	-.158	.1316	1.445	.229
Likelihood Ratio	68.422			

Source: computed results, 2019

*** indicate significant level at 1%

** indicate significant level at 5%

* indicate significant level at 10%

The results of the Probit Regression Model estimating the effects of youths' rural-urban migration on arable crop production are presented in the Table 4 shows that the specified explanatory variables were able to explain the effects of Youths' rural-urban migration on arable crop production in the study area. Arable crop production were significantly affected by the following variables; man power shortage, reduction in labour force, low agricultural productivity and reduction in annual income. On the contrary, high cost of labour, farm work become tedious and poor standard of living had no significant effects on arable crop production.

The result further shows that man power shortage was significant and positive at 1%. This implies that youths' rural-urban migration have effects on arable crop production, as it increases, man power needed for arable crop production decreases which definitely leads to a heavy drain on the supply of rural family labour. This is in line with the finding of Albert, (2012). The study revealed that reduction in labour force variable was positively significant at 5% suggesting increase in youth's rural-urban migration could lead to increase in reduction in labour force. Finding is in consonance with Tuan, *et al.* (2000). Ekong (2003) opined that migration from

rural into urban areas tends to deplete the agricultural labor force the able-bodied young men who usually move.

The study also, found out that low agricultural production was positively significant at 5%. This implies that the higher youth's rural-urban migration the higher the reduction in low agricultural production because it pulls out the individuals who are essential elements for agricultural development programmes and also hinders rural productivity and growth of agriculture sector. This study agrees with the study of Mbah, *et al.* (2016) that revealed low agricultural productivity as one of the major effects of rural-urban youth's migration. Reduction in annual income was found to be significant and positive at 10%. This implied that rural-urban youth's migration affects arable crop production because youths who are the productive group in rural areas migrates to urban centers leaving behind the aged and children who are weak and cannot engage in farm work which could lead to reduction in annual income of farmers and thus, agriculture and rural development suffer set back as a result of the youth's migration, as reported by Chikaire, *et al.* (2012).

Table 5: T- test result of hypothesis testing

Effects	T- ratio	Mean difference	Significant level
Man labour shortage	16.795	.65132	.000***
Reduction in labour force	10.061	.40132	.000***
Low agric production	14.805	.59211	.000***
High cost of labour	13.477	.54605	.000***
Tediousness of farm labour	11.354	.46053	.000***
Low income earning	16.089	.63158	.000***
Standard of living	16.089	.63158	.000***

Source: Computed results, 2019

H₀: There is no significant effects of youths' rural-urban migration on arable crop production in Mubi South LGA.

H₁: There is significant effects of youth' rural – urban migration on arable crop production in Mubi South LGA

The result of hypothesis testing in Table 5 revealed that all the effect variables were positively significant at 1%. Suggesting that youths' rural-urban migration have significant effects on arable crop production in Mubi South LGA. There the null hypothesis is rejected which state that, there is no significant effect of youths' rural-urban migration on arable crop production in Mubi South LGA and the alternate hypothesis which states that there is significant effect of youths' rural-urban migration on arable crop production in Mubi South LGA was accepted.

Conclusion

Conclusively, rural-urban youths' migration had significant effect on agriculture particularly arable crop production and rural development in Nigeria. Rural-urban migration has taken away the active population of rural areas, leaving behind the children and aged who are not actively engaged in agriculture. Despite its negative impact, rural-urban migration has created an opportunity for migrants to secure non-agriculture jobs and in turn send remittances to their families left behind in the rural areas

Recommendations

Based on the findings of this study there is a dire need for all stakeholders in agricultural rural development to take a deep – breath and look inwards in finding a lasting sustainable solution to rural – urban youth's migration. The following were recommended:

1. Government should committedly enact a law by formulating policy on youth's rural – drift by reinforcing all structures

in place so as to accommodate all eventualities that might encourage migration.

2. All infrastructures that are obsolete, dilapidated, destroyed, and non-existing should be revamped and make functional
3. Awareness campaign on sustainability of agricultural production by all in the rural areas should be the watchword, and should be accompanied with commitment, sincerity and firmness. For any society that does not produce will go to extinction.

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