EFFECT OF RURAL URBAN MIGRATION ON AGRICULTURAL OUTPUTS IN DONGA LOCAL GOVERNMENT AREA OF TARABA STATE

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ABSTRACT

This paper studied the effect of rural-urban migration on agricultural output in Donga Local Government Area of Taraba State. The paper elicited relevant data from both the primary and secondary sources. Questionnaire was the main instrument for data collection. Four hundred (400) copies of questionnaires were administered to the respondents. Subsequently, the collected data were analyzed using descriptive statistics of mean and standard deviation; the hypotheses were also tested through chisquare (χ^2) . From the data presentation, analysis and discussion of results therein, the researcher arrived at the following findings: migration affect labour availability, influences agricultural performance and created more available farmland but underutilized. The study recommends that government, community leaders and stakeholders in the agricultural sector should make necessary effort in providing enabling environment at the rural level which will keep these able-bodied youths from migrating out of the area. Incentives and subsidy be granted to farmers. More lands which are inherited can be leased or rented out to help people who migrate because they lack farmland for agricultural production.

Keywords: Agriculture, Rural, Urban, Migration.

Introduction

Over two billion people around the world live in conditions of extreme poverty (UNDP, 2018). Approximately, about 75% of this population live in rural areas and are dependent on agricultural activities as their major source of livelihood (IFAD, 2017). Furthermore, Nigeria farming communities are not given adequate attentions in terms of basic infrastructures which can be used for productivity that can benefit the individual and country at large. Historically, before the discovery of crude oil in 1956 at Olobiri, Delta State, Nigeria, the Nigerian economy was solely depending on agriculture as it provides food for the teaming population, raw materials for the industries and also a source of employment for over 70% of the population (Olagunju, 2008).

The discovery of crude oil and its subsequent exploration shifted the attention of Nigerian government from agriculture to petroleum sector which encourages the drifting away of the

able-bodies youths from rural area to the urban centers leaving farming in the hands of the aged and the women as most of the wives were left behind in the villages. Subsequently, the number of farm land put into cultivation as a result of reduction in labour force diminished greatly, thus affecting agricultural output.

In Donga, agriculture is the major source of income. Evidence has shown that majority of the population in most rural areas are small scale farmers providing food for human consumption and raw materials for export and manufacturing industries. Agriculture also serves as a source of employment to most rural people. The major problems of agricultural development in Nigeria as a whole and among households in Donga particular include use of crude tools and implements, lack of finance or credit facilities, poor transportation network, and inadequate land due to land tenure system, problems of pests and diseases, lack of storage and processing facilities, inadequate agricultural education and extension services, negative attitude of people towards farming due to its low reward, rural youth migration.

Migration of young adults from Donga had placed a greater burden on the farmers. For farmers to cover the same area of land as when he had extra assistance, he must work much longer hours thus depriving him of some time for leisure or participation in various social activities. The trend of the movement of the rural people into the city has also militated against the agricultural development of Donga. The stage of agricultural development in Donga is labour intensive, able-bodied men who should till the land have abandoned their role in the farms, and have engaged themselves in petty trading in the urban areas.

In Nigeria and other developing countries, population in cities and conurbations is projected to increase from 1.9 billion in 2000 to 3.9 billion in 2030. This is principally due to rural to urban migration which is consequent upon the dichotomous planning and development which many developing countries adopted especially after independence.

According to Okhankhuele and Opafunso, people migrate into cities primarily to continue their education (2015). To a lesser degree, they also move in search of job opportunities, an absence of youth, insufficient farm labor, and to follow a trend of other young adults migrating for these reasons. Okhankhuele &Opafunso 2015; Adekola 2016. Mbah, Ezeano, and Agada 2016 stated that "major causes of rural-urban youth migration include inadequate employment opportunities, a lack of sufficient education, inadequate social infrastructure, poor health care, low agricultural productivity, high cost of labor, and others.

However, despite the fact that rural urban migrations threaten food security rural-urban migration contributes significantly towards the development of their rural communities through monetary remittances and the involvement of the rural-urban migrants' in community development projects. Furthermore, the migration far outstrips services and infrastructural deployment resulting in deepening crisis in basic municipal services, a situation which was later further worsened by the Structural Adjustment Programme of the 1980s to which Nigeria has hardly recovered from. Also in Nigeria, the rural populace moves out in large numbers temporarily or permanently to towns and cities to seek out new opportunities, improved livelihoods and better standard of living. Despite migration, farming is still the mainstay in rural areas. Among rural households, family members with higher

opportunity cost tend to migrate and the old, uneducated households live behind to manage farm operations resulting in labor shortage in the rural areas.

The mass exodus of youths into urban centres despite the fact that Donga is blessed with verse fertile lands is due to high level of unemployment been experienced there in, inadequate basic amenities such as good road, pipe borne water, hospitals. The out migration is also attributed to high level of insecurity affecting the area such as Tiv-Jukun clashes, Fulani-Tiv clashes, armed robbery, and kidnapping.

The teaming number of able-bodied youths exiting the study area as a result of the few problems outlined in the preceding paragraph calls for serious concern since the agricultural sector is best handled by these youths. The impoverishment of rural areas of Donga is partly explainable by out-migration of these able-bodied youths in search of white-collar jobs in other cities of the country. Since these youths have exited the study area to destinations they feel will help improve and better their lives, this study therefore seeks to find out the effect of rural-urban migration on agricultural outputs in Donga LGA.

Research Questions

Following the previous discussions, the study set out to answer the following research questions as presented below:

- i. To what extent does rural-urban migration affect agricultural labour availability in Donga Local Government Area, Taraba State?
- ii. To what extent does rural-urban migration influence agricultural performance in Donga Local Government Area, Taraba State?
- iii. To what extent does rural-urban migration affect the availability of farm land in Donga Local Government Area, Taraba State?

Objective of the Study

The general objective of this study is to examine the effect of rural-urban migration on agricultural output in Donga local government area of Taraba State.

However, the specific objectives of this study include:

- i. To examine the effects of rural-urban migration on labour availability in Donga Local Government area, Taraba State.
- ii. To examine the influence of out migration on agricultural performance in Donga local government area, Taraba State.
- iii. To evaluate the effects of rural-urban migration on availability of farmland in Donga Local Government Area, Taraba State

Hypothesis

Hypothesis is a tentative statement about the relationship between two or more variables (Kendre, 2013). Hypothesis is a specific, testable prediction about what a researcher expects to happen at the end of the study.

The main purpose of this study is to enable the researcher examine the effect of rural urban migration on agricultural output in Donga Local Government Area of Taraba State, Nigeria.

Therefore, the hypothesis to be tested in this study is the Null hypotheses (Ho) against the alternative hypothesis (H₁) at 5% level of significance. Thus,

 \mathbf{H}_{01} : There is no significant effect of rural-urban migration on labour availability in Donga Local Government area, Taraba State.

 H_{02} : There is no significant influence of out migration on agricultural performance in Donga Local Government Area, Taraba State.

 H_{03} : There is no significant effect of rural-urban migration on availability of farmland in Donga Local Government area, Taraba State.

Literature Review

Conceptual Clarifications

In this section, various concepts relating to rural-urban migration were made cleared for better understanding.

Rural Migration

The word rural is derived from a Latin "rus" which means open space (Woods, 2011). Rural is a condition of place-based homeliness shared by people with the same ancestry or heritage and who inhabit traditional, culturally defined areas or places (Chigbu, 2013). Rural areas have been classified using traits like zero public exercise, not well-connected to transportation network, Information Technology network and innovation, low agricultural activities as well as inadequate saving habitat (Linley, 2015).

However, rural areas are those areas with lack of basic needs and basic services to develop the wellbeing of man in a locality Ajaero and Onokala (2013). The rural area is accompanied by bad road, inadequate portable water supply, poor shelter, inadequate hospitals, schools, aged persons, and lack of infrastructures. In the rural area, life is simplistic, norms, cultures and folktales are strictly adhered to by the inhabitants. These contrasts with, the complex and indifference attitude, that prevails in the urban areas. The conditions of rural people can profoundly affect agricultural production and productivity. The rural areas are primarily sites of agricultural production. Therefore, rural migration refers to movement of people from one particular place into rural settlement.

Urban Migration

An urban area is the region surrounding a city; most inhabitants of urban areas have non-agricultural jobs. Urban areas are developed, meaning there is a density of human structures such as houses, commercial buildings, roads, bridges, and railways (Alex, 2013). Urban is a heavily populated environment that acts as a social, political, cultural and economic hub whereas urban studies as the analysis of society, politics, culture and economy within and how they work together in a heavily populated, urban space (Lindsey, 2015).

An urban setting can be defined broadly on the basis of population density, concentration of administrative bodies and infrastructure and a diverse set of livelihood and income generation activities. In an urban setting, the forms of livelihood and income generation

activities will be diverse and unlike rural areas not bound mainly to agricultural production. If the area in question fits some if not all of these basic characteristics, it can be regarded as urban (Center of Expertise for Urban Programming, 2016).

Migration

Generally, migration is a regular occurrence in the life of a nation (Ofuoku, 2012). Migration is the movement of people from one geographical location to another, either on a temporary or permanent basis (Ekong, 2003). Migration is the movement of people from one place to another with the intentions of settling, permanently or temporarily at a new location (World Migration Report 2018).

Migration is defined as the movement of people from one geographical region to another, People migrate based on the prevailing conditions and the reasons for it vary from one person to another depending on the situation that brought about the decision (Abdul-Azeez, 2011). Migration is defined as the movement of people from one place to another in search of employment, market, education, health and other means of livelihood (Chikaire, 2012).

Migration affects people with economic, social, educational and demographic peculiarities (Ojeh, 2016). Migration follows a variety of patterns on space dimension which include urban-urban; urban-rural; rural-rural and rural-urban (Eze, 2016). This study concentrates most on the rural-urban migration.

Rural-Urban Migration

Rural-urban youth migration can be seen as the physical transnational of young individuals or group of young people from rural areas to urban centers. Rural-urban youth migration is the most important aspect of labour migration because it affects the structures and composition of the population and this has been associated with decline in agricultural outputs (Mahama, 2013). Rural-urban Migration is the movement of people from the countryside to the cities in countries where amenities and opportunities are better in urban areas. This mainly happens in developing countries such as Nigeria. Rural-urban migration is the dominant pattern of internal migration. The movement of people is a selective process that affects individuals or families income, living condition (such as housing, sanitation), and access to job opportunity, and education (Ofuoku and Chukwuji, 2012).

Agriculture

Agriculture is the systematic raising of useful plants and livestock under the management of man (Rimando, 2004). Agriculture is the deliberate effort to modify a portion of Earth's surface through the cultivation of crops and the raising of livestock for sustenance or economic gain (Rubenstein, 2003). Agriculture often involves the cultivation of the soil to grow plants and the raising of animals for human needs. The words "crops" and "livestock" are also used. However, both words are special or technical terms. "Crops" should clearly mean plants (with exceptions, as in mushroom) which are useful to man (read Agricultural Crops Classifications) while "livestock" applies to both domesticated animals and poultry. However, cultivation which essentially involves disturbing the soil does not apply to crop production systems using soil-less media, as in hydroponic (Ben, 2010).

Agriculture is the cultivation of land and rearing of animals for production of food, raw materials for man and industrial uses. However, Livestock and crops are the main product categories of agricultural output. Agricultural output comprises: output sold (including trade between agricultural holdings); changes in stocks; output for own final consumption; output produced for further processing by agricultural producers; and intra-unit consumption of livestock feed products.

Theoretical Framework

Rural to urban migration has historically been an important part of the urbanization process and continues to be significant in scale in developing countries. In this study, this research is based on dependency theory.

Dependency Theory

The dependency theory arose as a result of the inability of the Modernization theory to properly explain why some countries are poor and some are rich, or why there are gross disparities between the rural and urban areas of the developing Nations of the world. The Modernization theory states that, there are certain factors that have helped some countries to develop, either at the individual level, cultural level, or at the level of the social structure. In addition, it states that to develop, underdeveloped countries must assimilate what is present in the developed world, such as its technology, institutions and ideas. It also defined development in terms of per capita income, measured simply by the Gross National Product (GNP) of a nation. There has however been a change in orientation because, in spite of physical growth, many people in developing regions live in abject poverty and squalor, making it difficult to talk of development in such areas.

The Dependency theory emanated from the Marxian school of thought. Its proponents are mostly Latin American and African Scholars, such as, Frank (1973), Furtado (1973), Amin (1974), and many others. The central theme of the Dependency theory is that, the current socioeconomic condition of Third World Countries are the products of certain historical forces, which have originated from European expansion of Economic dominance. Thus, he Periphery (Underdeveloped Nations) play a satellite role which Amin (1974) called 'hypertrophy of the tertiary sector'. The implication of this sketch of dependency model shows that historical dependency has been the root problem of Nigeria's underdevelopment due to the effect it has had on the peoples' customs and economy.

The dependency theory further contends that as a result of our colonial heritage, our indigenous system now exists peripherally as rural communities in relation to state capitals and Local Government headquarter, all of which are urban in character. In addition, the model sows clearly that due to the neglect of the rural areas despite their contribution to food security and raw materials for industrial purposes, there a continuous influx of people to the cities in search of white-collar jobs. It further shows that those at the helm of affairs do not see it as necessary to consult with rural people to know what their needs are, especially in areas requiring urgent attention. Policies of government are made by the elites, for the betterment of the elites, to the detriment of the masses majority of which reside in the rural areas, comprising mostly the vulnerable groups in society.

Empirical Review

In different parts of the world, Nigeria inclusive, research has been carried out on the effect of rural urban migration on the migrants' rural communities of origin. Some of these studies include the followings:

Alarima (2018) carried a research on Factors Influencing Rural-Urban Migration of Youths in Osun State, Nigeria using 240 youths as respondents from three Local Government Areas of the State. Data for this study were sourced primarily through the use of well-structured questionnaire. Both descriptive and inferential analyses were employed in the analyses of the data. The results revealed that inadequate basic and social amenities were they push factors driving the youth away from their communities into urban areas. Results further revealed that better employment opportunities, superior wages in the urban areas, improved living condition are pull factors that attract rural youths to the urban centres. Majority of the respondents were not willing to stay in the rural areas with or without improvement in the condition of living in their communities. The study recommends that government should provide basic social amenities in the rural areas as they are found in the urban so as to encourage the youth to stay. However, this study by Alarima (2018) used 240 youths as respondent while the current study which is on the effect of rural-urban migration on agricultural output will sample 399 respondents from Donga local government area in Taraba state.

Walter Ogar 2016 conducted a research on the socio-economic impact of rural urban migration on faming population in Zuru L.G.A of Kebbi state. The study tried to analyze the perceived causes of out-migration on faming population, perception of ways in which out-migration affects agricultural performance and strategies for reducing rural-urban migration. This descriptive study engaged fifty (50) respondents through the use of simple random sampling method. The study found that 50% of the migrants migrated out of Zuru due to unemployment. In addition, 66% of migrants migrate so as to join family members in the city. The study also found that movement out of Zuru affected hire labor, supply of farm operation and decreased farm incomes as a result of low productivity. The study recommended that provision of social amenities, incentives, micro credit, empowering youths, subsidizing prices of farm inputs and establishing bank of agriculture will help to reduce out-migration from Zuru. The current study was carried out in Donga LGA and used 400 respondents to see if the result with agree with that of Walter ogar 2016.

Mbah E.N, Ezeano E.N. and M.O. Agada (2016) also conducted research on Effects of Rural-Urban Youth Migration on Farm Families in Benue State, Nigeria. The study was assessed to determine the effects of rural-urban youth migration on farm families in Benue state, Nigeria during November 2014 to June 2015. Interview schedule was used to collect data from a sample of 80 respondents. Data were analyzed using frequency, percentage, mean scores and standard deviation. Results indicate that majority of the respondents were males, middle aged and married. Major causes of rural-urban youth migration indicated by the respondents include inadequate employment opportunities in rural areas, search for better education, inadequate social infrastructure such as schools, poor medical care services in rural areas, looking for money through labour, apprenticeship programme. Findings of the study also indicate that reduction of agricultural labour force, low agricultural productivity, high cost of

labour, reduction on demand for locally grown foods, decrease in dependency ratio in the rural areas, reduction on number of mouths to feed, among others were major effects of rural-urban youth migration among farm families. The study recommends that Nigerian government should provide adequate physical and social infrastructure in rural areas in order to encourage youths to remain in agriculture, reduce rural-urban youth migration as well as sustain agriculture for enhanced food security. The current study was conducted in Donga Local Government Area of Taraba State to determine whether the result of this study will agree with that of Mbah, Ezeano and Agada or not.

Olabode, Saidat and Oluyemi (2015) conducted a similar research on the effects of rural-urban migration to national development with a particular focus on the South western part of Nigeria. It analyzed the causes of rural-urban migration, past efforts of the government in reducing the rate of rural-urban migration in these areas and the socio-economic factors influencing rural-urban migration. The study identified lack of social infrastructure, neglect of the rural community, modernization and others as some of the factors responsible for rural-urban migration. The paper therefore proposes that for all round national development, the rural communities has to be developed to meet the standard of the urban centres in order to reduce the rate of rural-urban migration. This study will make use of labour availability, agricultural performance and land availability which can be measured against agricultural output of Donga Local Government Area.

A research on the Effect of rural-urban migrants' remittances on arable crop production in Delta state, Nigeria was conducted by Albert U. Ofuoku (2015). The major objective of this study was to investigate the effect or contribution of remittances from rural-urban migrants on or to arable crop production in Delta State, Nigeria. 131 respondents were used in the study. Questionnaire and structured interview schedule were used to collect data from the respondents. Descriptive and inferential statistics and contingency tables were used to treat the collected data. It was discovered that most of rural-urban migrants were in the 11–30 age bracket. The remittances from rural farm households were far higher than the remittances from rural-urban migrants. The little remittances from the rural-urban migrants were added to the funds of the rural farm household, farm labour and inputs. The remittances from rural-urban migrants did not make any meaningful contribution to arable crop production. It was recommended that governments should make the rural areas attractive to young school learners/graduates, embark on enlightenment programme to expose the youths to agriculture related self-employment opportunities in the rural areas; and create enabling environment for the youths to operate as self-employed individuals in the rural areas.

Another research was conducted by Bello, Lawan, Musa, Ruikaiya and Bashir (2015) on the socio-economic factors influencing rural-urban migration in Wukari Local Government Area of Taraba State, Nigeria. The specific objectives were to investigate the socio-economic factors affecting youth rural-urban migration, the prevailing condition that leading to youth migration to the urban area; the cities migrated to and activities engage in by migrating youth and the income generating by the migrating youth. A well-structured questionnaire was used to solicit information from sixty randomly selected migrants and was analyzed using descriptive statistics and chi-square analysis. The result of the study revealed that majority of the migrants were male (78.3%), single from 18years and above are literate. Based on findings

of the research it is concluded that, though migration of the youth to the cities has detrimental effect on the agricultural productivity but the income generated help a lot in solving some domestic financial problems. The study recommended that, government and non-governmental organization should encourage high quality rural labour force that provides high salaries and benefit, better housing, social amenities, low income tax rate and sanitation to the rural areas.

The above research was conducted in Wukari Local Government Area of Taraba State and the current work was done in Donga, a Local Government that shares demarcation with Wukari to see if the result will agree or disagree with that of Bello Lawan, Musa, Ruikaiya and Bashir (2015).

Ayinde, J. O., Torimiro, D. O. and Koledoye, G. F. (2014) carried research on Youth Migration and Agricultural Production: Analysis of Farming Communities of Osun State, Nigeria. The study investigated the causes and examined the effects of youth migration on agricultural production in Osun State, Nigeria. A two stage sampling procedure was used to select 295 farmers in selected farming communities in the state. Absence of social amenities, poverty and search for better education in the cities were the major causes of migration. Reduction in farm size, hired and family labour with negative consequence of food production were the predominant effects of youth migration on agricultural production. The findings also showed that agricultural production was negatively correlated with the effects of youth migration in Osun State. It is therefore, recommended that government and developmental stakeholders should ensure that social amenities are provided in farming communities of Nigeria in order to encourage youths retention in rural areas with the aim of enhancing rural and agricultural development in the State. the present research was on the effect of rural-urban migration on agricultural outputs in Donga LGA to see whether it will disputes the finding of Ayida et al. The above research was targeted Rural-Urban Migration And Agricultural Development In Nigeria, while the present research shall dwelled much on effect of rural-urban migration on agricultural output in Donga LGA, using data from primary source to see if the result will be as that of Tunde (2009) or it will dispute the outcome.

Methodology

The research adopts descriptive survey design. This type of survey design helps in better understanding of opinions, attitudes, or behaviours of people on a given subject.

The data for this research was derived from Primary and secondary source using structured questionnaires and existing literatures on rural–urban migration (Newspapers, Journals, internet materials and books) respectively.

The population of this study consists of the entire 183303 total population of people in Donga Local Government Area of Taraba State according to NPC projection 2016. Thereafter, a sample of 400 respondents was selected using Taro Yamane formula which is depicted below;

$$n = \frac{N}{1 + N(e)} 2 \tag{1}$$

Where

n = sample size

N = Population size

1 = Constant

e = Error of Limit (accepted error is 0.05)

$$\mathbf{n} = \frac{\frac{183303}{1+183303(0.05)}2}{n = \frac{183303}{1+183303(0.0025)}}$$

$$\mathbf{n} = \frac{183303}{1+458.3}$$

$$\mathbf{n} = \frac{183303}{459.3}$$

$$\mathbf{n} = \frac{399}{459.3}$$

Therefore, the sample for this study is approximated to 400.

The data were analyzed using descriptive statistics such as mean and standard deviation while chi square statistics was used to analyze the hypotheses. The data was analyzed based four point rating scale SA, A, D, and SD. The mean acceptable value of 2.50 was arrived.

Data Presentation and Analysis of Results

This section presents the results of the study. It explores the perceptions of respondents on the effect of rural urban migration on agricultural outputs in Donga Local Government Area of Taraba State.

Demographic data of the respondents

Table 4.1: Distribution of respondents by socio-economic characteristics

Variable	Frequency	Percentage		
Age of respondents				
Below 30yrs	47	12		
31-40yrs	257	64		
Above 40yrs	96	24		
Gender				
Male	280	70		
Female	120	30		
Educational status				
Informal	119	29.8		
Primary education	51	12.8		
Secondary education	116	29.0		
Tertiary education	114	28.4		

Occupation			
Farming	237	59.2	
White collar job	59	14.8	
Business	104	26.0	
Marital status			
Single	101	25.3	
Married	226	56.4	
Widowed	73	18.3	

Source: Field survey, 2022

Table 1 shows the age distribution of the respondents. Majority (64%) of the respondents were found within the age group of 31-40 years, those above 40 years were (24%) while below 30 years were few (12%), which implied that the food crop farmers in the study area were in their productive stage of life and have the capacity of carrying out agricultural production. Most of the respondents (70%) were male while about (30%) were female. This could be attributed to the fact that in most part of the country's policy makers, technology developers and administrators typically assumed in the face of empirical data, that men were the farmers and women played only a "supportive role" as farmers' wives.

Result on educational status showed that (29%) of the respondents have informal education, 12% primary education, 29% had secondary education while 28.4 had tertiary education indicating that majority of the respondents formal education. This result is in consonances with the findings of Awoniyi and Salma (2012) who pointed out that high educational level of farm household could increase income and also positive influence on agricultural performance.

Also, results from Table 1 on occupation revealed that majority (59.2%) had their primary occupation as farming; about 14.8 percent indicated that their primary occupation was white collar job while only 26 percent indicated their primary occupation as business. In addition, only 0.7 percent of the respondents were civil servants. This implies that majority (59.2%) were primarily farmers. Regarding marital status, result from Table 1 showed that majority (56.4%) of the respondents were married this is a result of complimentary role plays as husbands and wives in farming activities, also . married farmers need to grow more crops in order to take care of their family needs. 25.3 percent were single while only 18.3 percent were widowed.

Research question 1: To what extent does rural-urban migration affect agricultural labour availability in Donga Local Government Area, Taraba State?

Table 2: Mean and standard deviation of rating on effect of migration on labour availability

S/N	Item	Mean	SD	Remark
1.	Migration brings about a reduction in the number of labour force	2.95	1.12	Agree
2.	Migration of adult males forces the females to become major sources of farm labour	2.65	1.11	Agree
3.	Migration reduces human labour but increases mechanization	2.51	1.11	Agree
4.	Migration brings about reduction in hired/family labour	2.62	1.09	Agree
5.	Migration makes it difficult to secure labour at the right time	3.18	0.72	Agree
6.	Migration helps in increasing labour cost	3.40	0.83	Agree
7.	Migration makes hired labour unavailable and inaccessible	2.79	1.00	Agree
8.	Migration increases time spent to search for available labour force	3.16	0.82	Agree
9.	Migration promotes more quality labour	2.46	1.13	Disagree
10.	Migration encourages non-migrant labour force to help in supplying labour to migrant labour forces' parents	2.49	1.06	Disagree
	Grand mean	2.82		

Criterion mean: : $\overline{X} \ge 2.50 \rightarrow agree$ $\overline{X} < 2.50 \rightarrow disagree$

Results of Table 2 show the mean and standard deviation scores, rating items on how migration affects labour availability. Most of the items have mean rating scale above 2.50, including grand mean except for items 9 and 10 which indicate unanimous disagreement. This shows that migration certainly have effect on labour availability (grand mean = 2.82) in Donga local government of Taraba State.

Research question 2: To what extent does rural-urban migration influence agricultural performance in Donga local government Area, Taraba state?

Table 3: Mean and standard deviation of rating on influence of migration on agricultural performance

S/N	Item	Mean	SD	Remark
11.	Out migration reduces the number of available labour force and consequently low agricultural performances	2.53	1.12	Agree
12.	As a result of out-migration, agricultural output significantly reduces	3.21	0.94	Agree
13.	Out migration encourages many farmers to expand their farmlands	2.31	1.15	Disagree
14.	Out migration promotes better crop rotation by non-migrant farmers	2.82	1.14	Agree
15.	Out migration gives rise to more available unutilized farmland	2.52	1.12	Agree
16.	Out migration brings about increase in farm machinery for use by existing farmers	2.04	1.10	Disagree
17.	Out migration prompts available farmers to also search for a better means of livelihood, abandoning farming which results in low food production	2.93	1.14	Agree
18.	Out migration of men and women discourages hardworking on the part of the non-migrant farmers.	2.45	1.13	Disagree
19.	Rural youth emigration drains off skilled, strong and potentially-innovative people, which eventually contributes to low performance	2.97	1.20	Agree
20.	Youth emigration encourages acquisition of more advanced farm machinery to boost agricultural performance	2.60	1.17	Agree
	Grand mean	2.64		

Criterion mean: : $\overline{X} \ge 2.50 \rightarrow agree$ $\overline{X} < 2.50 \rightarrow disagree$

Results of Table 3 show the mean and standard deviation scores, rating items on how migration influences agricultural performance. The table showed that most of the items have mean rating scale above 2.50including grand mean. This shows the influence of migration on

agricultural performance is high (grand mean = 2.64) in Donga local government of Taraba State.

Research question 3: To what extent does rural-urban migration affect the availability of farm land in Donga Local Government Area, Taraba State?

Table 4: Mean and standard deviation of rating on effect of migration on availability of farmland

S/N	Item	Mean	SD	Remark
21.	Migration makes many available farmlands underutilized	3.07	1.11	Agree
22.	Migration subjects many farmlands to rentals/hiring	3.25	0.98	Agree
23.	Migration causes disputes among non-migrant farmers over available farmlands	2.44	1.14	Disagree
24.	Migration from rural to urban centre causes reduction in the size of farmland, under cultivation, thereby reducing the household income.	2.34	1.06	Disagree
25.	Youth emigration encourages adequate use of available farmland	2.30	0.92	Disagree
26.	Migration tends to promote peace among non- migrant farmers over sharing of available farmland	2.46	0.92	Disagree
27.	Migration of people frees more farmland for non-migrant farmers	3.19	0.99	Agree
28.	Migration discourages non-migrant farmer from dominating the farmland of migrant farmers for fear of being attacked	2.65	1.07	Agree
29.	Migration encourages trespassing of farmland by non-migrant farmers	2.69	1.27	Agree
30.	Migration promotes hatred among non-migrant farmers over available farmlands	2.98	1.11	Agree
	Grand mean	2.77		

Criterion mean: : $\overline{X} \ge 2.50 \rightarrow agree$ $\overline{X} < 2.50 \rightarrow disagree$

Results of Table 4 show the mean and standard deviation scores, rating items on the influence of migration on availability of farmland. All the items have mean rating scale above 2.50, including grand mean. This shows the influence of migration on availability of farmland is high (grand mean = 2.77) in Donga local government of Taraba State.

Hypothesis 1: There is no significant effect of migration on labour availability in Donga Local Government area, Taraba state.

Table 5: Chi-square test statistics of effect of migration on labour availability

	Scores on labour availability
Chi square (χ^2)	455.700°
df	9
assym. Sig.	.000

From Table 5, chi-square at 9 degree of freedom (χ^2 = 455.70, p = .000) signifies that there is statistically significant effect of migration on labour availability. Thus, null hypothesis that there is no significant effect of migration on labour availability in Donga local government of Taraba State is not retained.

Hypothesis 2: There is no significant influence of out migration on agricultural performance in Donga Local Government Area, Taraba State.

Table 6: Chi-square test statistics of influence of out-migration on agricultural performance

	Scores on agricultural performance
Chi square (χ²)	126.900a
df	9
assym. Sig.	.000

From Table 6, chi-square at 9 degree of freedom (χ^2 = 126.90, p = .000) signifies that there is statistically significant influence of out-migration on agricultural performance. Thus, null hypothesis that out-migration has no significant influence on agricultural performance in Donga local government of Taraba State is not retained.

Hypothesis 3: There is no significant effect of migration on availability of farmland in Donga Local Government area, Taraba State.

Table 7: Chi-square test statistics of effect of migration on availability of farmland

	Scores on availability of farmland	
Chi square (χ²)	429.250a	
df	9	
assym. Sig.	.000	

From Table 7, chi-square at 9 degree of freedom (χ^2 = 429.25, p = .000) signifies that there is statistically significant effect of migration on availability of farmland. Therefore, null hypothesis that migration has no significant effect on availability of farmland in Donga local government of Taraba State is not retained.

Discussion of findings

Result from research question 1 and hypothesis 1 all indicated that migration has significant effect on labour availability. This result corroborates the findings of Paris (2009) that as a result of migration, only the old, uneducated households are left behind to manage farm operations which in turn brings about labour shortage in the rural areas. The finding also agrees with Ayinde, Torimiro, and Koledoye (2014) who found that migration has positive effect on family

labour availability with negative effect on food production. Again, the present study supports FAO, IFAD, IOM & WFP (2018) that even though the region of origin may benefit substantially through remittances from its emigrants, but the emigrants' origin may also experience a reduction in labour and human capital.

In the same vein Pieńkowski (2020) noted that migration reduces labour supply and reduced labour supply diminishes revenues from labour taxes and social security contributions. The study also affirms the findings of OECD/Scalabrini Migration Center (2017) and Mbah, Ezeano and Agada (2016) who observed that emigration decreases labour availability within the household and potentially in the wider community. Still on the effects of rural migration on labour productivity, a survey's respondents in Nigeria indicated as main effects of rural-urban youth migration in the country reduction of labour force in agricultural sector and low agricultural productivity, which affects negatively the growth of agriculture sector (Mbah, 2016).

In contrary Taylor (2003) hold the view that loss in yield due to the reduction in available labour by out-migration may be compensated for partly by remittances from the migrants which are used to purchase additional inputs or hire labour substitutes for cropping. In general hired labour is used for the more tedious farm activities such as ploughing, weeding, and to limited extent transportation. Labour availability is very critical in the agricultural activities in the study area.

On the influence of migration and agricultural performance, the present study showed that there is great influence of migration on agricultural performance. The finding affirms Imran, Bakhsh and Hassan (2016) that productivity is positively related with rural-urban migration. This finding again supports the work of Goldsmith (2014) that, rural-urban migration and agricultural performance are tied together because rural workers compare their income with what they could obtain if they migrated to the cities. This means that migration may seem good to the migrant however; the level of agricultural output will definitely be affected since a number of agricultural labour forces may have been lost.

In similar manner, the study affirms the findings of Lacroix (2011) that migration particularly, labour movement and corresponding changes in relative wages due to migration, and other purposes are affecting agricultural performance. Migration seems to have a more negative impact insofar as women do not replace their husband leaving the household, and live on remittances. The study is also in line with Rozelle(1999) in Adaku (2013) who worked on the relationship between migration and agricultural performance and the findings showed that migration has a significantly negative effect on agricultural yields. So also, the findings of Ayinde, Torimiro and Koledoye (2014) showed that agricultural production was negatively correlated with the effects of youth migration.

On the contrary, Hossain (2011) reported migrant households hire labour to work on the farm or lease the land to poorer households and this system helps to have prevented the decline of agricultural production in sending areas. Again, the study disagrees with Jokinen (2018) in that there is a weak migration-induced change in agriculture and concludes that transnational migration does not necessarily accelerate an ongoing urbanization process.

Concerning the migration's effects on land availability, the current study found significant effects of migration and land availability. The more able-bodied men who were the vibrant labour force in the agricultural sector emigrates, the more land becomes available for the non-migrants to cultivate and expand crop production. This affirms the works of Martín, Nori and Bacchi (2017) who noted that land availability is strictly related to migratory dynamics, in that a growing number of plots get unutilized/abandoned by emigrating families, this way, different forms of land hire, rental and even (recently) sale of land plots ensued. Similarly, Mahama (2013) indicated that out-migration creates room for availability of farmland. That is to say, out-migration makes farm land more available to the non-migrants from the perception of the respondents.

However, the study tends to disagree with Gebeyehu (2014) who noted that in a predominantly agricultural economy, land unavailability accounts for one of the reasons for migration. That is to say if the migrants would be given adequate land for cultivation, they would not migrate in search of other means of livelihood. This study also disagrees with Nguyen, Raabe and Grote (2015) that migration has little or no effect on land availability.

Conclusion

The migration of rural youth to the urban area has always caused a lot of labour shortage in rural areas, due to the transfer of agricultural labourers to urban areas, leaving the aging men and women as well as children to labour on the farms. This has led to decrease in agricultural productivity, thereby reducing agricultural contribution to the Gross Domestic Product (GDP). Rural-urban migration has high influence on agricultural performance, Poor performance of agriculture results in low farm incomes. Any nation that ignores or does not check rural-urban migration must be ready to pay heavily to its citizens in terms of standard of living.

Recommendations

Results of the research study revealed several notable findings. Based on the findings, the following recommendations are made.

- i. The study recommends that government, community leaders and stakeholders in agricultural sector should create an enabling environment that will get the attention of the youths to settle in the rural area and continue with farming activities.
- ii. Since agricultural performance creates new jobs, incentives and subsidy be granted to farmers. This will reduce migration and increase productivity which multiplier effects cannot be quantified.
- iii. More lands which are inherited can be leased or rented out to help people who migrate because they lack farmland for agricultural production. In this way, they can settle down in the rural environment and continue agricultural production.

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