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THE EFFECTS OF RURAL-URBAN YOUTHS MIGRATION ON RICE PRODUCTION IN BAUCHI STATE, NIGERIA.

[1]ZAKARI, A., [1]MANUWA, A., [1]ABDULLAHI, A. G. AND [2]AISHA, H.Z.

[1]Department of Agricultural Extension and Rural Development, Faculty of Agriculture, Ahmadu Bello University Zaria, Nigeria. [2]Department of Plant Division, National Biotechnology, Research and Development Agency, Lugbe FCT-Abuja
Corresponding Author: alfydon51@gmail.com
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Abstract

The study analyzed the effects of rural-urban youth migration on rice production in Bauchi State, Nigeria. A multi-stage sampling technique was used to select 200 respondents that were proportionately drawn from three (3) zones and of the study area. Data were collected through the use of well-structured questionnaire and analyzed using descriptive. The result show that 42.0% the of respondents fell within the age bracket of 18-25 years with mean of 20 years and majority (76.0%) were males and (54.0%) of them were married. Majority (56.0%) of the respondent were pushed to migrate by poverty. The results further revealed that more than half (64.5%) of the respondents were pulled out of rural areas in search of higher education. The findings also reveal that youth migration had caused reduction in farm size ($\overline{X} = 2.6$), reduction in family labour ($\overline{X} = 2.7$) and reduction in formation of groups and cooperative societies among youths ($\overline{X} = 2.6$).

Keywords: Effects; Rural-Urban; Youths; Migration; Rice; Production.

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the result further revealed that mitigating strategies adopted in order to reduce youth rural-urban migration were provision of incentives such as microcredit for youths in agriculture ($\overline{X} = 2.5$), provision and integrating rural youths into agricultural-based activities($\overline{X} = 3.0$), encouraging formation of groups and societies ($\overline{X} = 2.7$), provision of improved varieties of crops and breeds of livestock ($\overline{X} = 4.2$), subsidizing price of farm input ($\overline{X} = 4.0$) and regular and timely provision of farm inputs ($\overline{X} = 3.0$). The study concluded that poverty, inadequate employment opportunities, absence of social amenities and desire for higher income were the factors influencing youth rural-urban migration in the study area. The study therefore, recommended adequate physical and social infrastructure such as good roads, electricity, schools and hospitals should be put in place in rural areas by Bauchi State government and other development partners in order to encourage youths to remain in agriculture.

Introduction

A unique characteristic of rural societies in many developing countries is the almost total dependence on agriculture for livelihood, (International Fund for Agricultural Development, IFAD, 2017). In Nigeria for instance, rural communities are completely agrarian in nature with crop farming being the major occupation of the majority. As a major source of income, (agriculture plays a significant role in rural and economic development process Thirtle *et al.,* (2018). It has however been observed that agriculture has changed dramatically in Nigeria, especially since the Independence in 1960. Food and fiber productivity has declined due to new emerging trends of rural-urban youths mobility. Although these changes have had many effects on agricultural productivity in many part of Nigeria, Prominent among these are the decline of family farms, continued neglect of the living and working conditions for farm labourers, increasing costs of production, and the disintegration of economic and social conditions in rural communities (Cummings, 2018).

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Migration in the developing world is an economic survival strategy and rural-urban migration as the dominant economic migration pattern is associated with push from rural restrictive poor economic environments and pull to urban areas with economic opportunities and possibilities (Ukwandu and Iroh, 2021). This movement of people from the rural areas to urban center has a double effect; both on the place from which they move and the settlements into they move. The most obvious of these is the receiving center witnessing an increase in population while the rural areas experience a reduction in population. Nigeria's agricultural production is highly labour intensive and the bulk of the production activities take place in the rural areas. The greater percentage of crop and livestock production on which the populace depends for her food needs, and the government for foreign exchange earnings and revenue by way of cash crops is carried out in rural communities. Agricultural production here relies on the labour supplied by family members, and in the absence of family labour, hired labour is usually employed to carry out farm work.

Youth migration is one of the key factors that affect farm labour supply in agricultural production (Oluyole *et al.,* 2018). Nigeria youths tend to look down upon farming but prefer to migrate from rural areas to urban centers where they hope to get job opportunities and other social amenities. This attitude is the main problem confronting the agricultural productivities of small-scale farming household in Nigeria. With fewer youths into agriculture, the future of the agriculture sector in Nigeria is questionable because a larger population of youths represents the link between the present and the future as well as a reservoir of labour (Okeowo *et al.,* 2019). Youth migration is one of the key factors that affect farm labour supply in agricultural production (Oluyole *et al.,* 2018). Nigeria youths tend to look down upon farming but prefer to migrate from rural areas to urban centers where they hope to get job opportunities and other social amenities. This attitude is the main problem confronting the agricultural productivities of small-scale farming household in Nigeria. With fewer youths into agriculture, the future of the agriculture sector in Nigeria is questionable because a larger population of youths represents the link between the present and the future as well as a

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reservoir of labour (Okeowo *et al.,* 2019). Despite numerous studies on youth rural-Urban migration, past studies have shown that, they are little empirical studies that assessed the effects of rural-urban youths migration in the Bauchi State. Thus, the need for this study to provide assess effects of rural-urban youths migration on rice production in Bauchi State, Nigeria. This study was aimed at: (i) describe the socio-economic characteristics of the rice farmers; (ii) examine the causes of youth rural-urban migration on rice production; (iii) examine the effects of rural-urban youth migration on the adoption of rice production technologies; and (iv) identify various mitigating strategies adopted for reducing rural-urban youth migration in the study area.

METHODOLOGY

The Study Area

The study was carried out in Bauchi State. Bauchi State lies between latitude 9.3° and 12.3° north of the equator and longitude 8.5° and 11° east of the Greenwich Meridian. The State is delimited by Yobe and Gombe States to the north-east; Taraba and Plateau States to the south, Kaduna State to the west, and Kano and Jigawa States to the north. Bauchi State covers a total of 49,119 km^2 which is about 5.3% of the total land mass of Nigeria (BSADP, 2003). It has a total population of 4,676,465 people based on 2006 population census (NPC, 2006); this was projected to be 7,793,041 people in 2024 at 4.03% population growth rate. The area experiences both dry and rainy seasons with a maximum rainfall of about 700 mm per annum in the north to about 1300 mm per annum in the south. The average monthly temperature ranges from 29.2°C in July and August to 37.6°C in March and April. The mean daily minimum ranges from about 11.7°C in December and January to about 24.7°C in April and May (NIMET, 2022).

The State is categorized by two distinct vegetative zones which include Northern Guinea Savannah and Sudan Savannah. The soil encompasses of loamy, clay, sandy loamy and sandy soil which are appropriate for cultivation of major crops like groundnuts, guinea corn, rice, root crops and tubers like sweet potato, cassava and cash crops such as cotton, soya beans etc (BSADP, 2017). Bauchi State consist of 20 Local Government Areas (LGAs) namely:

Alkaleri, Bauchi, Bogoro, Dambam, Darazo, Dass, Gamawa, Ganjuwa, Giade, Itas Gadau, Jama're, Katagum, Kirfi, Misau, Ningi, Shira, Tafawa Balewa, Toro, Warji and Zaki. However The LGAs were categorized based on Agro ecology into three zones by Bauchi State Agricultural Development Project (BSADP) (Western, Central and Northern Agricultural zones). The State is predominantly agrarian in nature with about 80% of the populaces engage in farming and its related occupations. (BSADP, 2017) thus the choice of the area was based on the fact that, it is typical demonstration of diverse socio-economic, cultural and rural urban setting obtained in Northern Nigeria; with the majority of populace engaged in farming at subsistence level. The people of the area are predominantly farmers, traders, fishermen, hunters and pastoralists. This was made possible by the advantageous climatic condition and other natural endowments of area. The state has diversities of tribes like Hausa, Fulani, Kanuri, Jarawa, Sayawa, Kare –Kare, etc.

Sampling Procedure and Sample Size

Multi-stage sampling procedure was used for the selection of the respondents. In the first stage, western Agricultural zone was purposively selected because of its large scale rice production. In the second stage, three local government areas were randomly selected from the zone because of there large scale in rice production which include; Toro, Tafawa Balewa and Dass. In the third stage, three districts were purposively selected from each of the selected local governments for administrative convenience. In the fourth stage, two villages were randomly selected from each of the selected district making a total of nine villages, viz; Tilden Fulani, Magama Gumau, Nabardo, Bula, Dull, lere south, Bagel, Dass Katanga and Lushi. In the final stage, it involves selecting proportionately 5% of rice farmers from each of the selected villages, making a total of 200 respondents as sample size for the research. The sample procedure is presented in table 1.

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Table 1: Sampling Procedure and Sample Size

Agricultural zone	L.G.A	Districts	Villages	Sampling frame	Sample size (5%)
Western Zone	Toro	Toro	Tilden Fulani Magama Gumau Nabarddo	307 982 524	15 49 26
	Tafawa Balewa	Bununu	Bula Dull Lere south	440 328 305	22 16 15
	Dass	Bajar	Bagel Dass/kantanga Lushi	405 362 388	20 18 19
Total				**4,041**	**200**

BSADP (2021)

Method of Data Collection

Primary data were source through administration of copies of structured questionnaire to the farmers and interview schedule.

Method of Data Analysis

Descriptive statistics were used for this stud. The descriptive statistics included mean, frequency distribution and standard deviation. Objectives i and ii were achieved using mean, frequency distribution and percentages, while objective iii and iv were achieved using mean and standard deviation

$$s = \sqrt{\frac{\sum(X-\overline{X})^2}{n-1}} \qquad \ldots.1$$

X= the value in the data distribution

$\overline{x}$= the sample mean

n=Total number of observation

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RESULTS AND DISCUSSION

Socio-economic Characteristics of the Respondents

This provides information on the descriptive analysis using frequency and percentage distribution of respondents. The socio-economic variables in the study included age, sex, marital status, household size and years of farming experience. Result in Table 2 shows about 42.0% of the respondents were within the age of 18-25 years, while 33.5% were aged between 26-32 years and about 19.0% were aged 33-39 years, among others with a mean of 28 years. It implies that the respondents were at young aged and in their productive and are likely to have the opportunity to migrate to urban centers. It also observed that most of the migrant were within their youthful stage of development, a stage when a youth could take decision in conjunction with their parents to travel outside the domains of their parents. It implies that young migrants have the strength and risk bearing ability associated with such population movement. The findings agreed with Bergelliot (2020) who stated that the incidence of migration is highest among the most productive age group of 15-30 years. The finding is also in line with (Gimba *et al*,. 2019) who stated that large number of migrants from villages to cities were young and energetic who can cope with the hurdles of activities faced in cities. The result also revealed that majority (76.0%) were male. This could be due to the fact that many cultures recognize men as the primary breadwinners. This expectation pushes them to seek better economic opportunities in cities where jobs may be more available and better paying compared to rural areas. It also revealed that Majority (54.0%) of the respondents were married, while 21.5% were single. This implies that there is greater involvement of married people in farming activities in order to ensure household food security. This is in agreement with Adegboye *et al.* (2018) who stated that involvement of married people in farming activities is because of the need to supplement family means of livelihood. It also in agreement with finding of (Lawal *et al,.* 2019) who declared that majority of Cocoa farmers in Ondo State were married which indicated more hands on the farm labour and this would consequently increase farm output. The result further shows that about 32.5% of respondents had farming experience between 21-30 years with a mean of

20 years. The result in Table 2 revealed that 62.0% of the respondents had farm size of between 0.5-1.5 hectares, with a mean of 1.73 ha. This portrayed their small-scale nature. But for the very few that have farm size between 2.5 ha. and above, means that they have established themselves in the business and so devoted more land in rice production.

Table2: Socio-Economic Characteristics of Respondents

Variables	Frequency	Percentage	Mean
Age			
18 – 25	84	42.0	
26 – 32	67	33.5	**28 years**
33 – 39	38	19.0	
40 – 46	11	5.5	
Sex			
Male	152	76.0	
Female	48	24.0	
Marital Status			
Single	43	21.5	
Married	108	54.0	
Divorced	29	14.5	
Widowed	20	10.0	
Farming Experience			
1– 10	46	23.0	
11 – 20	53	26.5	**20 years**
21 – 30	65	32.5	
31 – 40	36	18.0	
Farm size			
0.5-1.5	124	62.0	**1.73**
1.6-2.5	57	28.5	
2.6-3.5	19	9.5	
Total	**200**	**100**	

Source: Field Survey, (2024)

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Examine the Causes of Youth Rural-urban Migration on Rice Production

The push factors rural-unban migration are factors that compel a person, due to different reasons, to leave their homes and go to some other place. The common push factors are low productivity, unemployment and underdevelopment, poor economic conditions, lack of opportunities for advancement, exhaustion of natural resources and natural calamities.

Result in Table 3 revealed that more than half (56.0%) of respondents were pushed by poverty to migrate, majority (79.5%) of the respondents migrated as a result of inadequate employment opportunities in rural areas, most (57.0%) of the respondents were pushed to migrate due to absence of social amenities in rural areas, majority (56.5%) of the respondents migrated due to famine and drought resulting in hunger, while most (51.8%) of the respondents were pushed to migrate due to poor medical care service in rural areas, majority (54.0%) of the respondents were forced to migrate due to lack of interest in farming and about 50.5% were pushed to migrate due to displacement as a result of communal clashes. This implies that poverty and natural disasters, including famine and drought could influence the inflow of youth to cities in seeking for greener pastures. This finding is in accordance with (Mbah, 2022) who reported that poverty was the major factors responsible for youth migration in Ebonyi State.

Table 3: Distribution of respondents by perceived causes of rural –urban migration (Push Factors)

Push Factors	Yes (%)	No (%)	Total (%)
Poverty	112(56.0)	88(44.0)	200(100%)
Inadequate employment opportunities	159(79.5)	41(20.5)	200(100%)
Absence of social amenities	114(57.0)	86(43.0)	200(100%)
Famine and drought resulting in hunger	113(56.5)	87(43.5)	200(100%)
Natural disasters such as flood and fire outbreaks	33(16.5)	167(83.5)	200(100%)
Poor medical care services	106(53.0)	94(47.0)	200(100%)
Displacement as a result of communal crises	101(50.5)	99(49.5)	200(100%)
Escape from punishment as a result of crime committed	36(18.0)	164(82.0)	200(100%)
Lack of interest in farming	108(54.0)	92(46.0)	200(100%)
Poor chances of marrying	16(8.0)	184(92.0)	200(100%)
Poor agricultural productivity	50(25.0)	150(75.0)	200(100%)
Bad climate	28(14.0)	172(86.0)	200(100%)

Source: Field Survey, (2024)

Pull Factors are factors which attract migrants to an area. Opportunities for better employment, higher wages, facilities, better working conditions and attractive amenities are pull factors of an area.

Result in Table 4 revealed that majority (64.5%) respondents were forced to migrate by desire to search for higher education in cities, majority (83.5%) of the respondents were pulled to cities in search of higher incomes, similarly, majority (90.0%) of respondents were pulled out from rural areas to cities in search of better employment opportunities, most (68.0%) of respondents were forced to migrate due to urban facilities and ways of life, half (51.5%) of the respondents migrated to urban centers for better housing in the cities, majority (80.5%) of the respondents migrated to join family members in cities, while, 56.0% of the respondents were pulled in by the desire for more political or religious power, among others. Urban center are known to have better facilities for education and employment than rural areas which help migrant youths better able to improve their welfare and that of their family members. Thus, according to (Koko *et al,*. 2021) through migration, the capabilities of

individuals are improved in view of the fact that the migrant acquires some form of education and brings back home new ideas and new skills which could in some circumstances improve productivity in agriculture. Also, due to the concentration of industries, government offices, organizations and markets in the urban center, youths are moving to urban center in search of jobs and trade/craft apprenticeship as a means of improving welfare. Other Pulled factors included alternative sources of income during off-season and better employment opportunities and labour wages were major reason why rural youths settled in cities and ranked first and second, respectively.

Table 4: Distribution of respondents by perceived causes of rural migration (Pull Factors)

Pull Factors	Yes (%)	No (%)	Total (%)
Search for higher education	129(64.5)	71(35.5)	200(100%)
Higher incomes	167(83.5)	33(16.5)	200(100%)
Better employment opportunities	180(90.0)	20(10.0)	200(100%)
Urban facilities and ways of life	136(68.0)	64(32.0)	200(100%)
Better technology	92(46.0)	108(54.0)	200(100%)
Apprenticeship programs	108(54.0)	92(46.0)	200(100%)
Better housing in the city	103(51.5)	97(48.5)	200(100%)
Change of environment	57(28.5)	143(71.5)	200(100%)
Social status of one's parents	76(38.0)	124(62.0)	200(100%)
Better transport facilities in the urban areas	102(51.0)	98(49.0)	200(100%)
Desire for more political or religious power	112(56.0)	88(44.0)	200(100%)
Join family members in the city	161(80.5)	39(19.5)	200(100%)
Obtaining money through labor	146(73.0)	54(27.0)	200(100%)
Alternative sources of income during off-season	153(76.5)	47(23.5)	200(100%)

Source: Field Survey, (2024)

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Effects of Rural Urban Migration on Adoption of Rice Production Technologies

Like any other social phenomenon, migration has its positive as well as negative consequences or effects both on the donor and the destination areas. An increase in the migration of the active labour force actually leads to a decrease in farm output.

Result in Table 5 reveals that Major effects of rural-urban youth migration indicated by the respondents include, contribution to reduction in farm size ($\overline{X}$ =2.6), reduction in family labour ($\overline{X}$=2.7), reduction in household annual income ($\overline{X}$=2.3), reduction in hired labour ($\overline{X}$=2.5), leads to poverty among farming families ($\overline{X}$=2.4), reduces formation of groups and cooperative societies among youth ($\overline{X}$=2.6), leads to diversification into non-farm occupation ($\overline{X}$=2.3), food insecurity in household ($\overline{X}$= 1.7), farm work is mostly done by aged parent $\overline{X}$=1.6, reduces demand on locally grown foods ($\overline{X}$=2.1), fall in standard of living ($\overline{X}$=1.9), decreases the dependency ratio in the rural areas ($\overline{X}$=2.4), low community development activities =1.5, among others. This leads to a heavy drain on the supply of rural family labour and in addition pulls out the individuals who are essential elements for agricultural development programmes and also hinders rural productivity and growth of agriculture sector. It also implies that youth migration from rural to urban center causes reduction in the size of farmland under cultivation, thereby reducing household income. It also reduced the number of family and hired labours. These are all negative consequences on the farming communities in Bauchi State. This is in agreement with (Bello *et al*,. 2018) who stated that despite the sub-Saharan African's agrarian image, the rural peasant population is diminishing in relative size and significance. It is also in

agreement with Nnadi *et al.* (2020), who reported that majority of Nigerian youths migrate for improved standard of living.

Table 5: Effects of rural urban migration on adoption of technology of cereal production

Perception statements	(X)	SD	Decision
Reduction in farm size	2.6	0.8	HE
Reduction in household annual incomes	2.3	0.8	ME
Reduction in family labour	2.7	0.7	HE
Reduction in hired labour	2.5	0.6	HE
High cost of labour	1.9	0.8	ME
Low community development activities	1.5	0.6	ME
Fall in standard of living	1.9	0.8	ME
Low agricultural productivities	1.7	0.7	ME
Decrease the dependency ratio in rural areas	2.4	0.8	ME
Reduces demand on locally grown foods	2.1	0.8	ME
Farm work is mostly done by aged parents	1.6	0.7	ME
Food insecurity in household	1.7	0.8	ME
Leads to poverty among farm families	2.4	0.8	ME
Reduces formation of groups and cooperative societies among youths	2.6	0.7	HE
Leads to diversification in to non-farm occupation	2.3	0.9	ME
Poor yield of crops as a result of farm input	1.7	0.7	ME

Decision Rule: (2.5-3 HE-High Effect;1.5-2.49 MA-Moderate Effect ;<=1-5 NE-No effect)

Source: Field Survey, (2024)

Mitigating Strategies Adopted for Reducing Rural-urban Youth Migration

Dealing with the problem of rural development is pertinent for any meaningful agricultural development. Ekong (2019) had suggested that the spread of needed infrastructure and introduction of appropriate technology

in rural areas would markedly improve rural agriculture and reduce widening rural-urban income gap. Okoko (2020) and Babalola (2019) believed that investing in rural areas will slow down migration to cities in a remarkable way. The result in Table 6 revealed the strategies for reducing rural-urban youth migration which include provision of basic amenities such as schools, pipe borne water, electricity ($\overline{X}$=2.2), establishment of vocational training centers for skill acquisition ($\overline{X}$=1.9), use of improved modern technologies such as farm implements ($\overline{X}$=2.1), regular and timely provision of farm input such as fertilizers and agro-chemicals ($\overline{X}$=3.0), provision of incentives such as microcredits for youths in agriculture($\overline{X}$=2.5), empowering and integrating rural youths into agricultural based activities ($\overline{X}$=3.0), establishment of advocacy programmes such as youths employment in agriculture to encourage them ($\overline{X}$=1.9), encouraging formation of groups and societies such as young farmers clubs and cooperative societies for easy access to loans ($\overline{X}$=2.7.) Others are provision of improved varieties of crops and breeds of livestock ($\overline{X}$=4.2), establishment of agro processing center for value addition of farm produce ($\overline{X}$=3.5), subsidizing prices of farm inputs such as fertilizers, herbicides, pesticides etc. ($\overline{X}$=4.0), establishment of bank of agriculture in rural areas for easy access to loans ($\overline{X}$=2.8), use of improved method of farming in order to attract youths ($\overline{X}$=2.8), establishment of agro-allied industries in rural areas ($\overline{X}$=2.0). Provision of improved varieties of crops and breeds of livestock, subsidizing prices of farm inputs, establishment of agro-processing centers for value of farm produce, empowering and integrating rural youths into agricultural based activities and regular and timely provision of farm inputs had means of 4.2, 4.0, 3.5 and 3.0 with decisions of strongly agreed and agreed as strategies that could help reduce youth rural – urban migration. By implication, an adoption and implementation of the above mentioned strategies would go a long way in reducing the migration of youths from the rural to urban areas.

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Table 6: Mitigating strategies adopted for reducing youth rural urban migration

Perception statements	$(\overline{X})$	SD	Decision
Provision of basic amenities	2.2	0.8	D
Establishment of vocational training centers for skill acquisition	1.9	0.7	D
Provision of incentives such as microcredit for youths in agriculture	2.5	0.8	A
Empowering and integrating rural youths into agricultural-based activities	3.0	0.6	A
Establishment of advocacy programme	1.9	0.7	D
Encouraging formation of groups and societies	2.7	0.6	A
Provision of improved varieties of crops and breeds of livestock	4.2	0.6	SA
Use of improved modern technologies such as farm implements	2.1	0.7	D
Establishment of agro-processing center for value of farm produce	3.5	0.6	SA
Regular and timely provision of farm inputs	3.0	0.7	A
Subsidizing prices of farm inputs	4.0	0.7	SA
Use of improved method of farming in order to attract youths	2.8	0.5	A
Establishment of agro-allied industries in the rural areas	2.0	0.7	D
Establishing of Bank of Agriculture in rural areas for easy access to loans	2.8	0.8	A

Source: Field Survey, (2024)

CONCLUSION AND RECOMMENDATIONS

The study concluded that poverty, inadequate employment opportunities, absence of social amenities, search of higher education and desire for higher income were the factors influencing youth rural-urban migration in the study

area. It can also be concluded that the major effects of rural-urban youth migration on rice production in Bauchi State were reduction in farm size, reduction in family labour, reduction in household annual income, reduction in hired labour, poverty among farming families, it reduces formation of groups and cooperative societies among youth, it leads to diversification into non-farm occupation among others. The study therefore, recommended:

i. Adequate physical and social infrastructure such as good roads, electricity, schools and hospitals should be put in place in rural areas by Bauchi State government and other development partners in order to encourage youths to remain in agriculture.
ii. Government and relevant stakeholders should consider subsidizing price of farm inputs such as fertilizers, herbicides, pesticides to farmers, this will encourage youth to take part in agriculture and control rural-urban migration.

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EDITOR-IN-CHIEF
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