



Original Paper

Youth Migration and its Resultant Effect on Small-Scale Fish Farming in Southwest Nigeria

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Abstract—The study aimed at assessing the effects of rural youths' migration pattern on small-scale fish farming in southwest Nigeria. Primary data were obtained from 440 fish farmers with the aid of a well-structured questionnaire, using multi-stage random sampling technique. Data collected were analyzed using descriptive statistics and likert scale rating techniques. The results showed that majority of the fishers were married males with mean age, household size and fishing experience of 44 years, 6 persons and 14 years respectively. It was further revealed that scarce employment opportunities (89.1%), flood/drought (85.7%), poverty (79.8%) and insurgency/displacement (75.5%) were the major push factors triggering rural youth's migration in the study area while attractive wages/high income (98.0%), diverse employment opportunities (90.2%), alternative source of income during off season (86.1%) and availability of improved technologies (70.7%) were the major pull triggering youths' migration in the study area. Thus, provision of loan to fishers at flexible interest rate, availability of improved fishing equipment, establishment of vocational training centres, integrating rural youth into empowerment programmes and provision of improved fishing methods to attract youth were the main strategies that could be used to checkmate rural youth migration in the study area. It was therefore recommended that Bank of Agriculture should be encourage to give out minimal loan interest rate to fishers at flexible repayment plans, empowerment/skills acquisition/entrepreneurship programmes should be established.

Keywords— Fishers, likert scale, migration, push and pull factors, youth

I. INTRODUCTION

Migration among rural youth have been perceived as a global treat most especially on agricultural products resulting to food insecurity especially in developing nations [1]. [2] described migration as movement of people from one geographical location to another which could be either temporary or permanent settlement as a result of insecurity, insurgency, natural disaster, economic opportunity, better livelihood, quality education, family influence etc.

[3] and [4] opined that youth migration plays a significant effect on farm labour supply in developing countries where most of the agricultural activities are manually carried out. Today's youth often despise farming but desire to seek

cooperate jobs in urban centers where they enjoy social amenities, portable drinking water and quality health care. This has been identifying as one of the major challenges mitigating against agricultural productivity especially small-scale farming [5]. The prospect of food security in Nigeria is at bleak if these major challenges is not check on time [5], because youth represent the link between recent and future of food supply chain [6], leading to high cost of production, low productivity, reduction in annual income and a falling standard of living of the rural populace [3].

Farm labour which is the main and essential component of agricultural productivity in Nigeria. Most of the agricultural activities are manually carried out and small-scale farming in Nigeria depend mostly on family labour, which is provided by the youth. [7] revealed that poverty level, job scarcity and gross inadequacy of social amenities are the main factors influencing rural youth migration in Nigeria. Farm labour seasonal migration is often tremendous in magnitude and is widespread throughout the communities of Nigeria.

Nigeria youths have the potentials of participating in effective agricultural development unfortunately, agricultural policies and programs formulated in Nigeria do not consider constraints confronting youths involved in agriculture [8]. Lack of interest; start-up capital and competitive market for agricultural products, inadequate labour saving technologies and finance/credit among others have been identifies as a major problem encountered by Nigeria youths [3] thus, youth are faced with serious economic challenges which result in undue poverty and vulnerability [9].

Despite the advancement in improved fish farming technologies in Nigeria, human labour remains dominant in all small-scale fish farming activities. Farm labour supply, especially feeding, sorting, liming, fertilization, water exchange, weeding, harvesting etc still constitutes a serious bottleneck. Due to the labour intensive nature of fish farming, ageing farmers cannot culture fish but need to hire labour to substitute lost family labour.

The aforementioned challenges had one way or the other affected domestic fish supply in Nigeria. The study will serve as baseline for policy makers and agricultural programme planners on how best to address the problems of youth migration, making fish farming more appealing to the youth in order to boost fish supply, improve farmers income and reduce huge among spend on fish importation. Also, it will bridge literature gap on the impacts of youth migration on food security in Nigeria.

The study aim to determine the pattern of youths' migration and its implication on small-scale fish farming in southwest Nigeria. The following specific objectives were to be addressed, examine the factors (push and pull) of youth migration, ascertain the effects of youth migration on the productivity of small-scale fish farming, and examine various mitigating strategies adopted for reducing youth migration.

II. MATERIALS AND METHODS

A. The study area

The study was conducted in Oyo and Osun States Southwest Nigeria. The study areas Oyo and Osun states lie between 2°38.66'N and 4°38.325'N longitude and latitude 9° 8.74'E and 7°1.68'E; latitude 8°3.66'E and 7°0'25'E and longitude 4°1.52'N and 5°3.26'N respectively. The states are boarded in the south by Ogun State, Kwara State in the north, Republic of Benin in the west and in the east, it is bounded by Ekiti and Ondo States, respectively [5].

B. Sampling procedure and sample size

A multi-stage sampling technique was employed in the selection of respondents. First stage involved purposive selection of Oyo and Osun states in southwest Nigeria, follow by selection of ten (10) Local Governments Areas (LGAs) from each state. Twenty-two (22) small-scale fish farmers were randomly selected from each LGAs, choice of selected LGAs was guided by extension agents. A total of 440 small-scale fish farmers were randomly selected and interviewed by trained enumerators by administering well-structured questionnaire sectioned to cover the set objectives.

C. Statistical analysis

Data collected were analyze using descriptive statistics such as mean, frequency and percentage and likert scale rating techniques. The perceived effects of youth migration on small scale fish farming were analyzed using three-point Likert scale High effect (3), Moderate effect (2) and No-effect (1). The scores were weighed and the weighted average was use in ranking the perceived effects of youth migration equation.

$$\text{Mean} = \frac{\sum fx}{n}$$

Finally, a 5-point Likert type scale was used to elicit data on various mitigating strategies adopted for checking rural-urban youth migration. The scores were weighed and the weighted average found. The critical mean of 3.0 was used to accept or reject an item as a strategy in the study area. The strategy that score equal to or more than critical means of 3.0

was accepted as strategy that could be adopted in arresting rural youth migration in the study area or otherwise rejected.

III. RESULTS AND DISCUSSION

A. Socio-economic characteristics of fish farmers in the study area

Table 1 revealed that fish farming in the study area is not gender bias, both genders engaged in fish farming to boost local fish production and household standard of living but dominated by educated married males (85.9%). This agrees with the findings of [10] and [11] who revealed that fish farming in Nigeria is dominated by married males while their female's counterpart is mostly engaged in value addition. Male dominance might be due to laborious nature of fish farming operations. Age range of 41 - 60 years was dominant (69.0%), the mean age of the fish farmers in the study area was 44 years. This age bracket is termed active, innovative, early adopters, motivated and energetic age range. The mean household size was 6 persons. Household size could be related to the role played by individuals on the farm [5]. The implication of this is that there are adequate hands to assist in farm related work. The mean farming experience was 14 year. Experience is the number of active years spent in a particular work, characterized with continuous practice which influences (farmer's) managerial ability and decision making [12]. Majority (86.1%) were member of cooperative society. This findings consonance with the finding of [3] who stated that larger percentage of farmers in Nigeria were member of cooperative societies.

B. Push and pull factors associated with youth migration

Table 2 revealed the factors (push and pull) associated with rural youth migration in the study area. It was revealed that scarce employment opportunities, flood/drought, poverty and insurgency/displacement were the major reason why rural youth migrate to urban centers. These factors were ranked first, second, third and fourth respectively. This implies that inadequate employment opportunities, flood/drouth, poverty and insurgency/displacement influence rate of youth migration to urban centers. This finding was similar to the study of [3] and [13] conducted in Nigeria who reported that poverty was the major factor responsible for youth migration in Nigeria. Eleven pull factors were examined in this study. Attractive wages/high income was ranked highest followed by diverse employment opportunities, alternative source of income during off season and availability of improved technologies were major reason why rural youths settled in cities and ranked second, third, fourth and fifth respectively. The finding agreed with the study of [3] and [14], who reported that alternative sources of income and better employment opportunities were responsible for youth migration in Nigeria.

C. Perceived effect of rural youth's migration on fish production in the study area

Table 3. Revealed the perceived effect of rural youths' migration on fish production in the study area. It was observed that drastic reduction in standard of living was ranked highest followed by low productivity (fish), household food insecurity

and poverty among fisher's household were ranked second, third and fourth respectively were mostly affected by the migrants. The result agrees with the study conducted in Delta State, Nigeria by [15, 16] who reported that majority of Nigerian youths migrate for better standard of living.

D. Strategies in mitigating rural youth migration

Table 4 revealed the strategies in mitigating rural youth migration in the study area. Provision of loan to fishers at

flexible interest rate was ranked first with weighted mean of 4.01 followed by availability of improved fishing equipment (3.99), establishment of vocational training centers (3.67), integrating rural youth into empowerment programmes (3.58) and provision of improved fishing methods to attract youth (3.31). These factors were ranked second, third, fourth and fifth respectively.

TABLE 1. DISTRIBUTION OF FISH FARMERS' SOCIOECONOMIC CHARACTERISTICS

Variables	Frequency	Percentage	Mean
Gender			
Male	365	83.0	
Female	75	17.0	
Age (year)			
Less than 30	15	3.4	
30 – 40	85	19.3	
41 – 50	196	44.5	44
51 – 60	108	24.5	
61 and above	36	8.2	
Marital Status			
Single	13	3.0	
Married	378	85.9	
Widowed	49	11.1	
Educational status			
Primary education	65	14.8	
Secondary education	151	34.3	
Tertiary education	201	45.7	
Adult education	23	5.2	
Household size (number of persons)			
1 – 5	194	44.1	
6 – 10	165	37.5	6
11 – 15	81	18.4	
Years of experience in fishing			
Less than 10	95	21.6	
10 – 15	122	27.7	
16 – 20	153	34.8	14
Above 20	70	15.9	
Membership of cooperative society			
Member	379	86.1	
Non-member	61	13.9	

Source: Field Survey, 2021

TABLE 2. DISTRIBUTION OF RESPONDENTS ACCORDING TO PULL AND PUSH FACTORS ASSOCIATED WITH YOUTH MIGRATION

Factors	Frequency	Percentage	Rank
Push factors			
Scarce employment opportunities	392	89.1	1 st
Flood/drought	377	85.7	2 nd
Poverty	351	79.8	3 rd
Insurgency/displacement	332	75.5	4 th
Unpredictable and unfavorable climatic condition	309	70.2	5 th
Poor health facilities	286	65.0	6 th
Drought and famine	247	56.1	7 th
Lack of social amenities	231	52.5	8 th
Escape from family and pair group	201	45.7	9 th

Factors	Frequency	Percentage	Rank
Low chances of getting marry	177	40.2	10 th
Pull factors			
Attractive wages/high income	431	98.0	1 st
Diverse employment opportunities	397	90.2	2 nd
Alternative source of income during off season	379	86.1	3 rd
Advantage of quality education	329	74.8	4 th
Availability of improved technologies	311	70.7	5 th
Access to urban way of life and facilities	301	68.4	6 th
Access to improved means of transportation	298	67.7	7 th
Proximity to family members in the city	263	59.8	8 th
Better life/change of environment	221	50.2	9 th
Befitting housing	201	45.7	10 th
Change in social status	183	41.6	11 th

Source: Field Survey, 2021

TABLE 3. DISTRIBUTION OF RESPONDENTS ACCORDING TO PERCEIVED EFFECT OF RURAL YOUTHS' MIGRATION

Variables	Weighted sum	Weighted mean	Decision	Rank
Drastic reduction in standard of living	1176	2.94	High effect	1 st
Low productivity (fish)	1136	2.84	High effect	2 nd
Household food insecurity	1116	2.79	High effect	3 rd
Results to poverty among fisher's household	1084	2.71	High effect	4 th
Fishing activities is left for aged fishers	1072	2.68	High effect	5 th
Reduction in catch	1052	2.63	High effect	6 th
Reduction in fisheries household income	924	2.31	High effect	7 th
Lead to high labour cost	848	2.12	High effect	8 th
Results to diversification into non-farm occupation	768	1.92	Low effect	9 th
Youth involvement in groups and cooperative society is reduced	752	1.88	Low effect	10 th

Source: Field Survey, 2021

TABLE 4. DISTRIBUTION OF RESPONDENTS ACCORDING TO STRATEGIES IN MITIGATING RURAL YOUTHS' MIGRATION

Variables	Weighted sum	Weighted mean	Rank
Provision of loan to fishers at flexible interest rate	1764	4.01**	1 st
Availability of improved fishing equipment	1756	3.99**	2 nd
Establishment of vocational training centres	1615	3.67**	3 rd
Integrating rural youth into empowerment programmes	1575	3.58**	4 th
Provision of improved fishing methods to attract youth	1456	3.31**	5 th
Establishment of training centers for fishers	1404	3.19**	6 th
Provision of subsidized fishing inputs	1368	3.11**	7 th
Provision of incentives to youths	1324	3.01**	8 th
Provision of basic amenities	1272	2.89*	9 th
Encouraging formation of fisher's group/society	1219	2.77*	10 th

Source: Field Survey, 2021

Note: ** Relevant, * Not-relevant

IV. CONCLUSION AND RECOMMENDATION

Conclusively, majority of the fishers in the study area who migrated were within their active age, educated, married and highly experienced in fish farming. Scarce employment opportunities, flood/drouth and poverty were rated as the major push factors contributing to rural youth migration in Southwest Nigeria, while attractive wages/high income, diverse employment opportunities and alternative sources of income

during off season was rated as the major pull factors contributing to rural youth migration in the study area. It was further revealed that provision of loan to fishers at flexible interest rate, availability of improved fishing equipment, establishment of vocational training centers and integrating rural youth into empowerment programmes were the major strategies in mitigating rural youth migration in the study area. It was therefore recommended that Bank of Agriculture should

be encourage to give out minimal loan interest rate to fishers at flexible repayment plans. Empowerment/skills acquisition /entrepreneurship programs should be established to enable youths to stay in the rural area.

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