REMITTANCES AND INCOME GAPS OF FARMING HOUSEHOLD. EVIDENCE FROM FARMING HOUSEHOLDS IN SOUTHWEST, NIGERIA.

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Abstract
This study examined effect of remittances on income gaps status of farming households in Southwest region of Nigeria. The study looked at sources of remittances, purpose which remittances were used for. Also, the beneficiaries of the remittances and the influence of remittances on income gaps among respondents in the study areas. Multi- stage sampling techniques was used to select 160 respondents for data analysis. This study identifies different sources of remittances, and the results revealed that 68.8 % of the respondents that had access to external fund (remittances) outside their place of residence had farm expansion among others. Moreover, findings showed that the rate at which money received from abroad influenced increased farm inputs expenses. Results revealed that access to remittances households (38.8%) led to more income in meeting other household basic needs than those households without access to remittance. This implication of this finding is that remittances played a significant role in the improvement of farming households of beneficiary. The finding revealed that remittances not only narrow the income gap among rural poor households, but also disproportionately improve income of the poorest poor. Therefore, remittances serve as a solution for the absorption of rural surplus fund with an additional source of income, improving their living standards and narrowing income gaps as well.

Keywords: Remittances, Household survey, Income-gaps, Migration, Southwest, Nigeria.

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Introduction
Capital movement in the world has a great impact on developing economies where migration and remittances occur mainly (Mora-Rivera and Van-Gameren 2021)). Remittances of migrants' workers to their home countries are today seen as an important channel for economic growth, and can play an important role in reducing poverty, income inequality and could influence a wide range of economic decisions (Abdul-Nasser and Salifu 2021). It has been evidenced that remittances could improve entrepreneurial activities and assurance of transfer of newly developed skills and knowledge in the recipient's countries of origin. In the short run, migrants are now being increasingly considered as agents of development that can strengthen co-operation between home and host societies (Ogunniyi *et al*, 2020). Studies have shown that migration occurs mostly from the rural areas; where lack of basic-economic infrastructures, low access to the factors of production, poverty, natural disasters, and social conflict, has become strong 'push' factors for rural-migration (Abebaw, *et al*, 2020). Moreover, low level industries and government investment that cannot absorb the growing active young men and women into a lucrative livelihood, has force many indigenes to abandon the local terrain in search of greener pastures elsewhere (Obi *et al*, 2020). But whether remittances

truly represent flows of investment capital is an open question. It merits careful investigation, because of the significant implications for development policy.

There are several ways to approach this question, but a rather simple and direct way is to examine whether remittances behave in the same way as other capital flows. In particular, we expect that remittances would have a positive correlation with output growth if they are like other capital flows. Remittances have come to represent a substantial flow of financial resources, predominantly from developed economies to developing economies. For example, Djido and Shiferaw (2018) estimated that total remittances (plus compensation of employees) flow to developing areas averaged $81 billion per year during the 2010s. This was further estimated (based on data available), that remittances accrued which, peaked at over $59 billion per year in the mid-2010s (Ewubare and Okpani 2018). It is difficult to see these numbers and not think that remittances could be an important tool for economic development. Indeed, a common theme motivating much of the research on immigrant remittances is that if they can be better understood, then perhaps they can either be shown to promote development on their own, or they can be channeled into productive investment by wise policies (Abebaw *et al*, 2022). Evidence from past works divulge those remittances from abroad are increasingly crucial to the survival of communities and have a direct contribution to the improvement of livelihoods and survival of recipient's families left behind (IMF Country Analyses 2015, World Bank, 2017).

It is estimated that between 20 percent and 65 percent of family needs were met through international remittances (Iraoya and Isinika 2022). Records have shown that Africans in Diaspora living in developed economies have returned a considerable amount of their earnings to families in home countries (World Bank, 2017). It has been documented that Nigerians abroad has the largest remittances in the Sub-Saharan Africa (World Bank, 2010). This is a significant contribution to the Nigeria economy, as remittances to Nigeria were valued at 10% of exports and takes up to about 12 percent of the sender's household income (Olomola and Nwafor 2018). Remittances have grown in the large two decades and its size is counted as the second largest capital flow to developing countries.

Table 1 show that formal remittances have increased from US$10 million to US$3200 million between 1990 and 2020 Department of Economic and Social Affairs (World Bank, 2020), Evidence has shown that these values were not translated to improvement in the development of local economy (Olomola and Nwafor 2018). Moreover, data obtained from various publications of Central Bank of Nigeria (CBN 2020) revealed growth of inflow of remittances to Nigeria from different countries particularly, from Europe and America. With regards to the uses of remittances, it influences on the local economy remains insignificant; probably, that these resources have not been put into productive uses. Although the work of Taylor (2007) reported that remittances were put to some household and community uses which mention or describe some of the impact: increasing household income to buy non-farm goods, completion of residential building, construction facilities like event centres for community uses among others.

Most times; these remittances are spent on foods and non-food items such as: building new houses acquiring more farmland, starting a small trade and /or enterprise, and marrying new wives, among many other material acquisitions (Agwu *et al*, 2018). The study intends to use the theoretical construct of Abebaw *et al*, (2020) that remittances influence local economy and rural livelihoods. Therefore, the scope of this study is to examine the economics of migration and remittances and it influence on farming household's income gaps in southwest, Nigeria. In addition, it has been discovered that over the last decade, Nigeria is the single largest recipient of remittance in sub–Saharan Africa. Remittance from Nigerians in various parts of the world was 6.8 billion USD in 2007, ranking second only to oil exports as a source of foreign exchange earnings. However, despite the ever-increasing size of remittances, both on internal and international scene, there has been little effort to analyze its effect on economic development especially on household income gaps among farming households in Nigeria particularly in the southwest region. Are remittances correlated to decrease income gaps? This is the rationale of the study. Therefore, analyzing the economics of remittances and its effects on farming household income gaps can give a policy direction on welfare improvement.

Labour Migration and Economic Development

Labour migration is a pervasive feature of economic development. People mobility can be for temporary or permanent and sometimes may be a routine part of agricultural activity (Funkhouser 1992). There are significant migration flows in some developing areas, with considerable impacts on individuals, households and regions of rural areas (Giuliano and Ruiz-Arranz 2005).

Table 1.1 Global Remittances

US$ billions	1995	2000	2004	2005	2006	2007	2010	2015	2020
Inward remittance flow	101.3	131.5	237.0	274.9	317.9	385.0	443.2	416.0	440.1
All developing countries	55.2	81.3	159.3	192.1	226.7	278.5	324.8	307.1	325.5
Outward remittance flows	97.5	108.5	168.0	185.3	213.7	255.2	295.7	282.5	200.8
All developing countries	10.4	9.5	28.5	33.0	41.0	52.7	67.3	58.7	37.6375

Sources: World Bank (2020) "Migration and Remittances Factbook 2020" The International Bank for Reconstruction and Development / The World Bank, 2nd Edition.

Table 2: Resource Flows to Nigeria US$ millions

	1995	2000	2004	2005	2010	2015	2020
FDI	1079.27	1140.14	1874.03	4982.53	8824.80	6033.00	4876.45
Remittance	804.000	1391.80	2272.70	3328.70	5435.00	9221.00	9584.75

Note: FDI is foreign direct investment

Despite the growing debate about motivations and impacts of recent migration flows, costs and returns of this global phenomenon are still unclear. This is true especially with respect to migration of people from rural areas of developing countries. Consequently, this study intends to review key issues related to rural labour migration and remittances therefore its linkages to economies development at origin. i.e. (rural community). Table 2 indicated that there were huge remittances flows to developing countries. What is then the impact of remittances from both internal and international, on rural, agricultural development and household welfare? At theoretical level, the economic analysis offers some answers to this question, even though they are not clear-cut *a priori*. Past studies have stated that empirical evidence helps in shedding some light, on this issue insightful literature that reveals the complex ways in which migration influence rural economies at the origin is just beginning and much is left to further exploration (Gupta *et al*, 2009). A further intention of this study, then, is to depict lingering questions to explain determinants and consequences of remittances

Theoretical Framework

Many migrants send remittances back to their home country. Some do it in favour of themselves and some do it in favour of their family and friends in the home country. In order to understand remittances, there are two main approaches for analyzing remittances: the 'portfolio' approach and the 'altruism' approach (IMF, 2005). These approaches present two main channels for remitting behaviour. The portfolio approach sees remittances as a self-interest that controlled capital transfer between home and host country to diversify the migrant's savings. Portfolio motives come out of investment opportunities and saving. Portfolio motives come out of the investment opportunities and saving differentiation between home and host country (Chami *et al*, 2005).

Therefore, macro-economic factors can explain the size of this kind of remittances. Empirical research on this subject has not agreed on how macro-economic factors affect the amount that exchange rates and interest rates have (Dehesa, *et al*, 2007). The altruistic approaches see remittances as a transaction that benefits the receivers in the home country without and demand on the receiver for performance in order to get the remittances (Ahmed, 2018). Altruistic motives start in ties with or for caring in the family income and are expressed as either repayment of an old loan or some kind of aid to the receiver. Among the various models attempting to explain why migration from sub-Saharan Africa begins, four major approaches are discernible (Mora-Rivera, *et al*, 2019). They include;

a. Neoclassical economics in Europe and Africa (Macro and Micro). Macro theory views geographic differences in the supply and demand for labour in origin and destination countries as the major factors driving individual migration decisions.
b. Neoclassical micro economic theory focuses on the level of individual rational actors such as the numerous sub-Saharan Africans who make decisions to migrate based upon a cost-benefit calculation that indicates a positive net return to movement.
c. Dual labour market theory holds that demand for low-level workers in more developed economies such as Western Europe, is the critical factor shaping migration from sub-Saharan Africa to Europe.
d. World systems theory focuses not on labour markets in national economies, but on the structure of the world market; notably the "penetration of capitalist economic relations into peripheral, non-capitalist societies," which takes place through the concerted actions of neo-colonial governments, multinational firms, and national elites.

The weakness of migration theory is paramount and visible. Migration is a process that responds to a variety of stimuli (push and pull factors) and has a variety of consequences, depending on the context. These diffused patterns have made it almost impossible to create a unified theory of migration (Jones *et al*, 2019). Couching from the central premise of economic theory, people tend to move from places of labour surplus (i.e. low wages and high unemployment) to areas of labour scarcity (low unemployment and high wages exists). This is considered almost tautological by many in the field of the migration studies (Crush and Caesar 2018). The economic theory of migration seems to be supported by analysis which is based on the scenario that people leaving low- or middle-income countries to seek refuge in core prosperous states (Durão, *et al*, 2020). From this perspective, further questions arise, how are migrants helped in meeting the need of recipients in the home countries? The economic perspective of this concept is reinforced by Arends-Kuenning *et al* (2019) that examines the micro-economic effects of remittances on receiving countries? These studies highlighted that with declining foreign aid and foreign direct investment, the importance of remittances as main sources of foreign exchange becomes visible. Remittances have come to represent a substantial flow of financial resources, predominantly from developed economies to developing economies. For example, Berloffa and Giunti, (2019) estimated that total remittances (plus compensation of employees) flow to developing areas averaged $81 billion per year during the 1990s.

This was further estimated (based on data available), that remittances accrued which, peaked at over $59 billion per year in the mid-2010s. It is difficult to see these numbers and not think that remittances could be an important tool for economic development. Indeed, a common theme motivating much of the research on immigrant remittances is that if they can be better understood, then perhaps they can either be shown to promote development on their own, or they can be channeled into productive investment by wise policies (Berman, 2005).

Remittances Distribution and Income Inequality

The impact of rural out- migration upon the distribution of household income by size in rural areas is central to the relationship between economic growth and equity in less developed countries (LDCs). As long as a larger proportion of the population resides in the rural areas, rural income inequalities must constitute an important source of overall income inequality. Changes in rural income inequality therefore can have important implications for both social welfare and economic development. To the extent that rural incomes are lower than incomes in other sectors, concerns for issues of poverty highlights the importance of rural component of national income distribution. In addition, deterioration in the national income distribution caused by an increase in inequalities at the low (i.e., rural) end may have different economic implications, particularly with regards to investment and consumption patterns, than a deterioration caused by either an increase in inequality at the high (i.e. urban) end or raise in inequality between the sectors. A focus on the rural income distribution is also a prerequisite for understanding which households, at which segments of the rural income spectrum would be most affected by changes in migration policy, migrant labour market conditions, or the rural employment and production environment (Ssozi *et al*, 2019).

Despite these considerations and the number of studies on remittances and income gaps there is still no consensus about the general or typical effect of migration from rural areas on the distribution of rural income by gaps. Bellon *et al* (2020) argued that migrants' absence from rural areas generates negative externalities of various types; these externalities are responsible for worsening income gaps. In Bittencourt (2011) view, migrants' remittances do not compensate for this adverse impact because, in net terms, the remittances are either very small or go disproportionately to those better off. Thus, the impact of migration and remittances on income distribution in source regions remain a matter of interest in the literature but also attached along with dispute on the advantages of remittances.

Migration and Local Economy

The effect of rural out-migration on economic welfare in the affected areas depends critically on how emigration affects the local capital ratio among non-migrants- that is, on the distributional effects of migration (Narayanan 2020). Moreover, an important concern of the literature on migration is that the poorest are rarely found as the major beneficiaries of remittances, at least directly. This is due to the inability to finance expensive moves, such as those overseas or those requiring some degree of education, but also to the largely recognized exchange motive of remittances to protect an inheritance, to insure property, or to repay education costs which make larger remittances flowing to better-off some farm families in the rural community. Investigations into the existence of a correlation between well-being (i.e asset ownership in rural areas) and migration arrive at apparently conflicting conclusions about causality (Levine and Smith, 2001). On the one hand, people are in a position to and aspire to migrate because they are better off; on the other hand, migration improves the economic position of those who migrate and as a consequence increases inequality.

This issue of inequality and poverty is not only affecting the rural areas; the urban areas are beginning to be over crowed due to migration (urbanization). No developing country can afford to ignore the phenomenon of urbanization, which will be one of the strongest social forces in coming years, especially in developing countries. Urban population in the developing countries is growing faster than that of the rural population. This has been attributed among others, to rural-urban migration and the rapid transformation of rural areas to urban places. There is the possibility that urban population growth rate will increase by almost twice that of the world's population growth rate between 2003 and 2030 (World Bank, 2020). According to Zoli (2007) estimates from the data of eight countries deduced that two-thirds of the developing world's people is shifting from rural areas to urban areas. However, there seems to be consensus, that remittances influence income gaps of beneficiaries' households.

Methodology

Area of Study

The study area is Southwest region of Nigeria, Southwest region of Nigeria has six states which are Ekiti, Lagos, Ogun, Ondo, Osun and Oyo states respectively. However, Ekiti state and Osun State are selected for this study. Ekiti state is chosen as the study area because data from CBN 2020 revealed that remittances flow to the state in recent times has increased tremendously and the state received second highest after Lagos in the south west region. However, Osun State received the least among the states in the south west region. The study area lies between latitude 7º15! and 8º07! North of the equator and longitude 4º47! and 5º45! East of the Greenwich meridian. It has a mean annual temperature of about 27ºC, and a mean annual rainfall of about 1400 mm with vegetation mainly rainforest. The soil of the selected states is largely rich in organic minerals thereby making the study area a major producer of food crops such as rice, cassava, yam, and maize. Southwest region is made up predominantly of the Yoruba ethnic group with a few other ethnic groups. The indigenous populations are more or less homogenous groups who speak same language with minor dialects differences. There are other tribes that co-exist with each other. In addition, majority of the people engaged in agriculture and agricultural related livelihoods and pocket of others are into paid employment with both the government and private establishments.

Sampling Technique

Multistage sampling technique was used for data collection. The first stage of the selection was done through random sampling of two local government areas in Ekiti state and Osun state. Local government areas selected in Ekiti state are Ido-Osi and Ikere-Ekiti. Osun state local government areas selected are Ife south and Ilesa west. Second stage entails selection of two towns/ villages from each local government. In the final enumeration, selection of twenty-five respondents in each town / village on the final stage to give 200 respondents, but only 160 data (80% response rate) were useful for data analysis. The rest of the unused questionnaires were discarded due to insufficient information, improper filled, missing information and lost in transit.

Table 3: Selection of respondents in the identified communities of the study area.

		Ekiti	Osun	
Town/State	Igbole	20	0	20
Ekiti State	Orin	20	0	20
	Ikere	20	0	20
	Ise	20	0	20
Osun State	Abiri ogudu	0	20	20
	Ayesan	0	20	20
	Igbogi	0	20	20
	Ilaje	0	20	20
Total		80	80	160

Source: Field survey, 2022

Method of data collection

Questionnaire was administered mainly to households' heads, but other household members were allowed to provide relevant information which could not be adequately supplied by the households' heads. Data were sourced from two main sources - primary and secondary data. Primary data came from those identified houses that had records of access to remittances and those who did not in the last two years. Data collected were through personal interviews with the aid of structured questionnaire. Secondary data came from journals, books, and other secondary sources.

Analytical Techniques and Estimation Process

The Choice of analytical techniques is to provide a good explanation for the research problem and consequences of the identified dependent variable. In order to analyze the effect of migration of able-bodies men on socio-economic characteristics, descriptive statistics was used. Descriptive statistics like mean, coefficient of variation, standard deviation among others. Also, data were analyzed through the use of Logistics regression model to measure the cause and effect of remittances on income gaps of respondents.

Logistics Regression model:

Assume an income equation is defined as:

$$Y = X\beta + \varepsilon \qquad (1)$$

Where Y is the per capita income (₦) and X is an n x M matrix of independent variables with the first column given by the vector ε (residuals)

β is an M-vector of regression co-efficient, and ε is an n-vector of residuals.

The M co-efficient will be estimated by using appropriate econometric techniques with specification corrections as required.

To allow for the most flexible form of interaction between migration and rural production, the study separately consider two income regimes; households with access to remittances (1) households with no access to remittances (0).

The study is interested in predicting the total income for each household i in regime 0, Yo, and remittances access household i in regime 1, Y_1,

$1\ P_1^{0=\alpha} Z_{1+}\varepsilon_1 \quad P_{1=}1 \Leftrightarrow \quad P_1^0>0; P_{1=}0 \Leftrightarrow P_1 \leq 0$

$Log\ y_{0i=} B_0X_{i+}\mu_{0i}$ observed for $P_{1=}0$ (2)

This distributional assumption on the unobserved terms conditional on group participation implies that:

$E(logy_0/ P_1)= \beta_0X_i+y_0\lambda_i,$ $\quad P_i= 0$

$With\ \lambda= E(\varepsilon/ P_i)= \{-\phi(Z_i) (1-\phi(AZ_i)$ $\quad P_{i=}1$ (3)

The log-income in regime 0 is then estimated on the group $P_{i=} 0$

$With\ E\mu_0 /P_1)=\sigma^2{}_{0.}$ For this sub-sample of observations y_{oi}, *for all households i.* Equation (3) includes two terms: a conditional expected value of farm log-income in regime 0 is given by:

$ElogY_{0i=} \beta X_{i+}y_0\lambda_i$

Combining these two terms gives a predicted log-income in regime 0 *fo*r all households:

Log $y_o= \{log\ y_{i=} \beta_0Xi+y_0\lambda_i+\mu_0$ $\quad P= 0$

$\{E\ log\ y_{0i} + \mu_0=\beta_0X_I+_{y0}\lambda_i+\mu_{0i}$ $\quad P=1$ (4)

$$Y = f\ (X_1, X_2, X_3, X_4, X_5, \ldots\ . X_8, \epsilon_i\ ) \tag{5}$$

Where Y = Household income

Where: X_1 = Sex dummy variables (male 1 otherwise female =2)
X_2 = Age (years)
X_3 = Educational level (years)
X_4 = Marital Status (married =1 and 0 otherwise)
X_5= Household size (number)
X_6= Religion (Christianity =1, others=0)
X_7 = Access to extension services
X_8 = Access to credit facilities
εi= error term

Maximum Likelihood Estimates (MLE) was used as an estimation technique

Result and Discussion

Descriptive statistics of the selected socio-economics variables of the respondents

The survey revealed that the majority of people involved in farming are male 76.3% and female are 23.7%. This implies that we have more men than women engaged in farming, while women assist in marketing the products. The distribution of the respondents according to their marital status revealed that 76.3 % are married, 8.8% are widow 12% are widower (Table 4). Household size is an important variable in agricultural activities because it affects the availability of labour for production. Table 4 reveals that minimum of two children are outside the community and total number of children on the average are eight, mean number of children living with farmers are three.

Education is an important socio-economic factor that influences people's decision because of its influence on people's awareness, perception, reception and adoption of innovation that can bring about increase in profit margin of enterprise. The educational status of the respondent is presented in the table 4 below. It shows that those who have higher education (University degree) do not depend on remittances because they have sufficient income. Education plays an important role in the degree of remittances to farmers. Table 4 shown that the rate at which remittances are available to farmers and that most of this money comes from abroad. Percentage of money received from abroad is 53.8% and local is 15.0%. Results of the region where remittances are coming from and the category of sender analysis revealed that the bulk of the remittances come from Europe (53.8%) and from relations (46.3%). This implies that bulk of the remittances available to farmers come from abroad (Europe). Table 4 shows that the estimate of money received from the respondent are mostly above 50,000 naira per send, while remittances received were used for expansion of farmland and acquisition of farm inputs (37.5%). Others uses of remittances are fishing enterprise (30%), poultry (8.7%), business enterprise (6.2%) as well as meeting basic needs (5.6%) (Table 4).

Table 4: Description of Selected Socio-economics variables of the respondents

Description	Frequency (%)
Sex: Male	122 (76.3)
Female	38 (23.7)
Marital Status: Single	12 (7.5)
Married	122 (76.3)
Divorced/Separated	16 (10.0)
Widowed	10 (6.2)
Education: Primary	26 (16.3)
Secondary	48 (30.0)
Post-secondary	72 (45.0)
University	14 (8.8)
Age-grouping: 41-50	12 (7.5)
51-60	102 (63.8)
61-70	23 (28.8)
Household size (No.)1 – 3	38 (23.8)
4 – 6	76 (47.5)
7 – 9	22 (13.8)
10 – 12	24 (15.0)
Remittances access: Access yes	110 (68.8)
Access No	50 (31.2)
Access remittances thru: Children	36 (22.5)
Relations	74 (46.3)
Friends	50 (31.3)
Remittances location: Nigeria	24 (15.0)
Europe	86 (53.8)
America	50 (31.3)
Remittances access duration: Monthly	50 (31.3)
2 – 4 months	72 (45.0)
5 – 6 months	38 (23.7)
Remittances amount: ₦10, 000 – ₦20,000	26 (16.3)
₦20, 001 – ₦50,000	36 (22.5)
₦50, 001 – ₦100,000	60 (37.5)
Above ₦100, 000	38 (23.7)
Remittances received used for: Fishing enterprise	48 (30.0)
Farmland expansion and input acquisition	60 (37.5)
Poultry	14 (8.7)
Business	10 (6.2)
Meet basic needs	9 (5.6)
Remittances proportion in household income: Less than 1-24%	22 (13.8)
25 – 50%	60 (37.5)
51 – 75%	64 (40.0)
Above 75%	14 (8.7)

Source: Field survey, 2022

Results from Table 5 indicated that education and remittances access enhance remittances receipt. As the majority (76.4%) had formal education. However, those with higher education do not believe in receiving remittances. This probably explains that they have sufficient access to fund that can take care of their basic needs.

Table 5: Highest education * Access to remittances Crosstabulation

		Access to remittances		
		Yes	No	Total
Highest education	No formal Education	26	0	26
	Primary School	48	0	48
	Secondary School	36	36	72
	Post-Secondary	0	14	14
Total		110	50	160

Source; Data analysis results, 2022

Moreover, those household that had access to remittances indicated that access has really enhances buying a new thing like buying properties, cars (29%) and developing or venturing into a new enterprise (54.8%) among others (Table 6).

Table 6: New activity as remittances come in * Access to remittances

		Access to remittances		
		Yes	No	Total
New activity as remittances come in	Establishing a new farm	14	0	14
	Buying new things	24	26	50
	Developing new agricultural enterprise	46	0	46
Total		84	26	110

Source: Field Survey 2022.

Logistics regression model results and discussions

Logistics regression model was used to assess patterns of remittances received by house heads from children, relations and friends local and abroad. Logistic regression model approach used here is appropriate as the data captured households with migrants who had not remitted and otherwise treated as censored data. Also, how remittances indices influenced income gaps households. Households with better educated labor are more likely to participate in migration for two reasons: in terms of capacity, the better-educated are in general more likely to find a job in urban sectors (see also Agwu *et al*, 2018). Abebaw *et al* (2020) deduced that when living standard improved due to an exogenous shock, such as economic reforms, labour with median level of skills are more likely to migrate because of the relaxation of financial constraints, while the high-skilled labour may be less willing to migrate because of the high opportunity cost.

Using logistics regression model as the selection equation, the study estimates the income gap equation of the remittances non-grant households as well as grant households. The results suggest that religion does have significant impacts on household income (Table 7). However, better schooling is associated not only with higher probability of participating in migration, but also with higher household income. The effect of education on remittances access is positive and significant (Table 7). This study thus explains that the strong impacts of remittances on the depth of income gaps of the identified households. As the study suggests that remittances reduce the income gap of the receiver households. The study observed that households that choose to concentrate on local production are usually those with comparative advantages in rural areas and with higher expected income earnings.

Table 7: Estimates of the Logistics Regression Coefficients

Variables	Coefficient	Standard error
Maximum likelihood estimates		
Constant	3.967***	0.290
Age	0.079*	0.071
Education	0.010***	0.009
Marital status	0.033	0.022
Household size	0.097**	0.046
Religion	0.173	0.193
Access to extension services	0.1062**	0.3416
Access to credit facilities	0.1026**	0.0417
# Observations 160		
Log-likelihood -1016.8		

Source: Data analysis results, 2022
*, **, *** signify significance at 10%, 5% and 1% levels, respectively.

Conclusion and policy implications

The study revealed that remittances have played an important role in reducing the income gaps of beneficiary households. In this line, education plays an important role in the degree of remittances received, however, those with higher education do not believe in receiving remittances. Moreover, those household that had access to remittances indicated that access has really enhances buying a new thing like buying properties, cars and developing or venturing into a new enterprise. Remittances not only provide household with inflows of resource to invest in farming activities but also serve as an insurance system to mitigate income fluctuations. The finding of this study is in line with the study of Agwu *et al* (2018) that deduced that households with larger labour endowment relative to land resources, are more likely to participate in migration as their opportunity costs are in general lower. Remittances not only narrow the income gap among rural poor households, but also disproportionately reduces income gaps of the poorest poor. Therefore, remittances provide rural households with an additional source of income, improving their living standards and narrowing income gaps well.

The study has shown the significant of remittances in reducing the income-gaps of benefitted households, hence, the study suggests that good financial infrastructures for remittances should be put in place. As many remittances go through informal channels and discourage their use for saving and investment. Rural development policies should recognize remittance for policy initiatives to develop financial structures and infrastructures for smooth inflow of remittance of the local economy. This study revealed that remittance can boost household income, by making money available to meet basic needs then policy makers should make relevant policies that will embrace the linkage between migration, remittances and income generation particularly in the rural areas.

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