

EFFECTS OF CASH AND NON-CASH REMITTANCES ON LAND ACQUISITION AND AGRICULTURAL LAND USE AMONG RURAL HOUSEHOLDS IN ABIA STATE, NIGERIA

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Abstract

This study investigated the effects of cash and non-cash remittances on land acquisition and agricultural land use in Abia State, Nigeria using cross-sectional data. A multi-stage random sampling technique was used to select 120 respondents, but information from 114 of them was complete and useful for the analysis. A structured questionnaire was used to obtain the required information from the selected respondents. The analytical techniques used involved the multinomial logit and the probit models. The study shows that the average year of schooling is 8.5 years. The average household size is about eight persons. The multinomial logit model result shows that age, educational level and the presence of school children significantly and negatively influence land acquisition by inheritance among the respondents, while household size, cash remittance, and non-cash remittance significantly and positively influence land acquisition by inheritance. In the same vein, age and educational level significantly and negatively influence land acquisition by purchase, while household size and non-cash remittance significantly and positively influence land acquisition by purchase. The estimates of the probit model shows that age, educational level of the household head, presence of school children in the household, years of receiving remittances by the household, cash remittance and non-cash remittances increase the likelihood of using the land acquired for agricultural purposes significantly different from zero. Also household size and expenditure on education of members of households decrease significantly the probability of using the land acquired for agricultural purposes. Therefore, community development programmes and projects with components that address households' welfare have to be put in place; and public institutions and facilities needed for receiving cash remittance by the households should be provided for easy inflow which will enhance proper data documentation of remittances at the macro-level for national policy formulation.

Keywords: remittance, land use, land acquisition

Introduction

The term remittance refers to the money that migrant workers send back to their communities of origin (Hare, 1999). Migrants are considered as compensation (brain gain) for the loss of human capital (brain drain) by a net labour exporting country (Ratha & Xu, 2006).

However, Experts believe that financial transfer is one form of remittances. There is also another form of transfer which has to do with the transfer of skills and technology, ideas and attitudes, often referred to as technological remittances (Nicholas, 2002). Remittances are also not always in cash form; at times, they are

sent as clothing and basic food items. International remittance has a vital role in most developing countries on poverty, income distribution and economic development, especially in rural areas.

Studies indicate that the use of remittances for the acquisition of productive assets, such as agricultural land and business ownership is less prevalent than other uses (houses, cars, etc), and more closely tied to the local economic context. Remittance flows surpass official development aid receipts in many Developing countries (Ratha, 2003). Remittances are now a key macroeconomic factor in the so-called Third World. In many developing countries, remittances are comparable to, or greater than, total export earnings, official development assistance, and foreign direct investment (Gammeltoft, 2002), and have the potential to become the largest source of foreign exchange earnings (Glytsos 2002; Seddon, 2004). Remittances are obviously linked with migration. People migrate in order to ensure their own survival and to improve the economic wellbeing of their families. Once in their new host countries, many migrants often send money home to provide for the basic needs of their family or to support community development projects. In the past couple of years, international migrants' financial flows, known as remittances, have doubled worldwide and constituted the fastest-growing and most stable capital flow to developing countries (Kapur, 2004). It is increasingly recognized that remittances constitute an invaluable resource for development and poverty reduction in home countries (Hare, 1999). Moreover, remittances from migrants' relatives, either internal or international, are often the main component of rural households' income. Unlike aid, remittances flow directly to individual households and unlike a loan, they incur no debts (Reardon & Taylor, 1996). Besides contributing to household livelihoods, remittances can foster - long-term development through investment in land (Cotula, 2004).

Remittances sent by migrants can be used to purchase land in their country, as a safety net and to maintain ties with their place of origin (Taylor, 2000). As an important source of hard currency, international remittances may contribute to changes in land relations by enabling migrant households to improve their access to land through purchases, rentals and a variety of other arrangements. Within the highly diversified livelihood strategies of rural households, land constitutes a key asset. Studies from across the world show that purchases of agricultural land constitute a form of remittance use. They can take different forms, from land purchases funded through remittances to a variety of other land access mechanisms (rentals, administrative allocations, loans). Agricultural land purchases may be a formal transfer of land ownership or informal transactions where the seller is not the legitimate owner or has no land title to prove his right. They raise a lot of issues, such as effects on land use patterns, land competition and land access for non-migrant households (Cotula, 2004). At a global scale, land prices are increasing and land is also becoming a scarce resource, asserting the need for more efficient land use (Adams, 1991). One of the ways to finance investments in the form of land and housing acquisition is through remittance (Adams, 1991; Dustmann & Kirchkamp, 2002; Mesnard, 2004; OSili, 2007; Woodruff & Zenteno, 2004). Recipients of remittances are in a better position to purchase or lease land. Some even change the use of land from agriculture to other use like building residential buildings for commercial purposes (Maxwell, 2000). A lot of Abia citizens have travelled abroad for a better standard of living. They send money home to their relatives to purchase mostly landed properties. This has significantly affect the demand for and the use o land in Abia State. Hence, the study is embarked upon to investigate the effects of cash and non-cash remittances on land acquisition and agricultural land use in Abia State, Nigeria. Specifically, the following objectives guided this study: (i). to determine the effects of cash and

non-cash remittances on land acquisition in the study are; and (ii). to investigate the influence of cash and non-cash remittances on agricultural land use in the study area.

Methodology

Study area: The study was carried out in Abia State, Nigeria. The state is administratively divided into 17 Local Government Areas. It is situated in the Southeast of Nigeria and is bounded by Imo-State at the western boundary, Ebonyi/Enugu State at the North, Cross River/Akwa-Ibom State at the East and Rivers State at the South. The state has a relatively high population density of 328.075 persons per square kilometers, given its population of 2.833.999 million with a total land mass of 5.883.775 square kilometer (NPC, 2006; ABSG, 2006). The basic economic activity in the state is agriculture and over 80% of the indigenes are engaged in it, both for subsistence and income. Apart from Agriculture and mineral resources, there is indigenous entrepreneurial capacity, abundant skilled and unskilled labour in the state; all of which find expression in the existence of active formal and informal activities in the two major urban towns of Aba and Umuahia. The State is divided into three agricultural zones namely, Umuahia, Aba and Ohafia agricultural zones (ABSG) and the state produces a large number of internal and international migrants who provide remittances to their families back home.

Sampling Procedure: The study employed multistage sampling technique in the selection of the respondents. The three agricultural zones in Abia state were purposively selected. Two LGAs were randomly selected from each of the agricultural zones. From each of the six selected LGAs, two communities were randomly selected to make 12 communities. Ten households were selected at random from each community, making one hundred and twenty respondents in total from all the villages. The sampling unit was the household heads selected from the sampling frame.

Method of Data Collection and Analysis:

Data were collected the primary source. The questionnaire was designed to capture information on socio-economic characteristics like age, education, gender, income level, amount of remittances received, sources through which the remittances were sent, types of remittances internal or international remittances), the size and number of lands bought, and the use to which the lands are put. Data were analyzed using Multinomial logit and the probit models.

Model Specification:

The Multinomial Logit Model

A multinomial logit model was employed in this study to estimate the effects of remittances on land acquisition, which determines the odds of a household being in one of the three categories of land acquisition, (inheritance, rental or lease and purchased). This is so because the dependent variable (land acquisition type) was coded with the following values: 1 for inheritance, 2 for purchased and 3 for rental or leasehold. This assigning of value is categorical in nature, with numbering arbitrarily assigned so that it does not imply an order of magnitude. Additionally, in situations where the respondents have more than one form of land acquisition, the major form of land acquisition used for agricultural activities was considered for such respondent.

Enete (2003) reported that in multinomial logit model, a set of coefficients $\beta^{(1)}$, $\beta^{(2)}$, $\beta^{(3)}$, are estimated as;

$$\Pr(Z = 1) = \frac{e^{\beta^{(1)}}}{e^{\beta^{(1)}} + e^{\beta^{(2)}} + e^{\beta^{(3)}}} \quad \text{-----(1)}$$

$$\Pr(Z = 2) = \frac{e^{\beta^{(2)}}}{e^{\beta^{(1)}} + e^{\beta^{(2)}} + e^{\beta^{(3)}}} \quad \text{-----(2)}$$

$$\Pr(Z = 3) = \frac{e^{\beta^{(3)}}}{e^{\beta^{(1)}} + e^{\beta^{(2)}} + e^{\beta^{(3)}}} \quad \text{-----(3)}$$

Multinomial logit model is a choice between two or more alternative response (Kartels, Boztug & Muller, 1999). The model, however,, is unidentified in the sense that there is more than

one solution to $\beta(1)$, $\beta(2)$, $\beta(3)$ that lead to the same probabilities for $Z = 1$, $Z = 2$, and $Z = 3$. To identify the model, one of the $\beta(1)$, $\beta(2)$, $\beta(3)$ is arbitrarily set to 0, which will be referred to as the reference or base category. That is, if we arbitrarily set $\beta(1) = 0$, the remaining coefficients $\beta(2)$, $\beta(3)$, will measure the change relative to the $Z = 1$. In other words, we compared the case of inheritance (1) of land acquisition type with other possible forms of land acquisition (2 and 3).

Therefore, using three category response as in the model for this study and setting $\beta^{(3)} = 0$, the equation becomes.

$$\Pr(Z = 1) = \frac{e^{\beta^{(1)}}}{e^{\beta^{(1)}} + e^{\beta^{(2)}} + 1} \quad \text{-----(4)}$$

$$\pi_i = \Phi(\eta_i) = \Phi(\alpha + \beta_1 X_{i1} + \beta_2 X_{i2} + \dots + \beta_k X_{ik})$$

$$\Pr(Z = 2) = \frac{e^{\beta^{(2)}}}{e^{\beta^{(1)}} + e^{\beta^{(2)}} + 1} \quad \text{-----(5)}$$

$$\Pr(Z = 3) = \frac{e^{\beta^{(3)}}}{e^{\beta^{(1)}} + e^{\beta^{(2)}} + 1} \quad \text{-----(6)}$$

The relative probability of $Z = 1$ to the base

$$\log_e \frac{\pi_i}{1 - \pi_i} = \alpha + \beta_1 X_{i1} + \beta_2 X_{i2} + \dots + \beta_k X_{ik}$$

category is

$$\Pr(Z = 1) = e^{\beta^{(1)}} \quad \text{-----(7)} \quad \Pr(Z = 3)$$

If this is called the relative likelihood and assume that X and $\beta_k^{(1)}$ are vectors equal to $(X_1, \dots, X_n)$ and $(\beta_1^{(1)}, \dots, \beta_n^{(1)})$ respectively, the ratio of relative likelihood for one unit change in X_i relative to the base category is then stated as;

$$\frac{e^{\beta_1^{(1)} x_1 + \dots + \beta_1^{(1)} (x_1+1) + \dots + \beta_k^{(1)} x_k}}{e^{\beta_1^{(1)} x_1 + \dots + \beta_1^{(1)} x_1 + \dots + \beta_k^{(1)} x_k}} \quad \text{-----(8)}$$

Enete (2003) citing Stratacorp (1999) reported that the exponential value of a coefficient is the relative likelihood ratio for one unit change in the corresponding variable.

The explanatory variables for this study are;

HhAge = age of household head (years); *Edu* = level of education (years of schooling); *Hhsze* = household size (number of persons); *Schchildren* = the presence of school children in the household (number); *Yearsremit* = the number of years the respondent has been receiving the remittance; *Extension contact* = Number of visits of agricultural and home extension workers during the period; *Farm income* = annual income (in naira); *Cashremit* = cash remittance received by the household (Naira); and *Non-cashremit* = A dummy, 1 if household received non-cash remittance, 0 otherwise.

The Probit Model

The probit model was used to estimate the effect of remittance on land use for agricultural activities by the respondents in the study area. The specification of the probit model with several explanatory variables is as stated below:

$$= \Phi(X_i' \beta) \quad \text{----- (9)}$$

$$= \frac{1}{1 + e^{-X_i' \beta}} \quad \text{-----(10)}$$

$$\quad \text{----- (11)}$$

or, equivalently

$$\quad \text{-----(12)}$$

$$= X_i' \beta \quad \text{-----(13)}$$

Where:

$\Phi(\cdot)$ = Distribution function for the Standard Normal Random Variable; α and β_i = are parameters to be estimated; π_i = conditional probability; β_i = coefficient of the explanatory variables and

X_i = the explanatory variables

The probit model in the analysis can be written implicitly as:

$$Y_i^* = X_i \beta + \varepsilon_i \quad \text{-----(14)}$$

It can be explicitly stated as,

$$Y_i^* = \beta_0 + \beta_1 Age + \beta_2 Educ + \beta_3 Hhsze + \beta_4 Schchd + \beta_5 Expedu + \beta_6 Socpart + \beta_7 Yrsremit + \beta_8 Cshremit + \beta_9 Nocremit + \varepsilon_i \quad \text{---(15)}$$

$Y_i^* = \{1 \text{ if respondent's household uses the land for agricultural purposes, } 0 \text{ if respondent's household does not use the land for agricultural purposes. The explanatory variables included in the probit model are: } Age = \text{age in years, } Educ = \text{level of education (years of schooling), } Hhdsze = \text{household size (number of persons in the respondent's household), } Schchd = \text{Number of school children in the household, } Expedu = \text{expenditure on education during the period under consideration in naira, } Socpart = \text{Social participation (dummy, if the respondent belong to association, } 0 \text{ otherwise), } Yrsremitt = \text{the number of years the respondent has been receiving the remittance, } Cshremitt = \text{cash remittance received by the household (Naira), and } Nocremt = \text{Dummy, } 1 \text{ if the respondent received non-cash remittance within the period under consideration. } \beta_1 \text{ to } \beta_9 = \text{parameters of the explanatory or independent variables. } \beta_0 = \text{intercept. } \varepsilon = \text{error term.}$

Results and Discussion

Effects of Remittances on Land Acquisition in Abia State, Nigeria

The estimation of the multinomial logit (MNL) model for this study was undertaken by normalizing one category, which is referred to as the “reference state,” or the “base category.” In this analysis, the base category is leasehold form land acquisition. The result of the multinomial logit (MNL) model indicate that remittances (cash and non-cash) and other factors (age of the household head, years of schooling of the household head, household size, number of school children in the household, years of remittances, extension contact, farm income and household expenditure on education of members of household) have significant effect on land acquisition methods in Abia State, Nigeria. Results of the parameter estimates (the estimated coefficients along with the robust standard errors) from the multinomial logit (MNL) models are presented in Table 2. The likelihood ratio statistic, as indicated by χ^2 statistics, was highly significant ($P < 0.0000$),

suggesting that the model has a strong explanatory power. The R^2 that shows the goodness of fit of the regression (i.e. the explanatory powers of the specified variables), estimated at 13.4%, seems to be low, but this is common in the cross-sectional analysis. Other works with a similar coefficient of determination include Nweke (1996), Enete & Onyekuru (2011) and Enete (2003).

However, this is not the only indicator that makes a model to be econometrically plausible. As indicated earlier, the parameter estimates of the Multinomial logistic model provide only the direction of the effect of the independent variables on the dependent (response) variable. In all cases the estimated coefficients should be compared with the base category (leasehold), this is only used as the reference point against which other land acquisition methods are contrasted. **Age:** Age is significantly and negatively correlated with the probability of acquiring land by either inheritance or purchase at 1% level of significance (Table 2). This is in line with the *a priori* expectation. It shows that young people could acquire land through inheritance and purchase than through leasehold when compared to the older recipients of remittances. A unit increase in the age of recipients of remittances would decrease acquisition of land through inheritance and purchase by 0.14 (14%) and 0.109 (19%), respectively (Table 2).

Education: Education of the recipients of remittances has an inverse relationship with the probability of acquiring land through inheritance (0.01 level of probability) as shown in Table 2. It implies that a unit increase in years of education would lead to 0.124 (12.4%) decrease in the probability of acquiring land through inheritance. Also, those that are educated would acquire land more possibly through leasehold. This is in line with the theoretical criteria because land is best given out in civilized economies through leasehold.

Table 1: Summary statistics of the variables used in the study

Variable	Mean	Standard Deviation	Minimum Value	Maximum Value
Age (years)	59.34	11.13	32	81
Years of schooling	8.46	6.05	1	20
Household size (Number)	9.01	3.09	1	15
School children (Number)	4.38	2.78	0	10
Years of remittance	3.96	2.76	0	10
Non-farm income (Naira)	117728.1	86768.13	0	450000
Extension contacts/visits	1.52	1.68	1	8
Number of Remittance during the year	3.19	2.03	0	8
Cash remittance (Naira)	79817.98	80714.92	0	320000
Expenditure on education during the period (Naira)	102057.00	56187.73	10000	300000
Expenditure on clothing during the period (Naira)	34780.70	25373.23	0	200000
Expenditure on household assets during the period (Naira)	38350.88	46190.25	0	300000
Expenditure on household health care during the period (Naira)	18083.33	16427.76	0	130000
Expenditure on food during the period (Naira)	87535.09	65573.73	0	610000

Source: Computed from field data, 2015.

Household size: The probability of acquiring land through inheritance and purchase is positively related to household size of recipients of remittances as indicated in Table 2. It suggests that as the size of the household increase the probability of acquiring land through inheritance and purchase increases among the recipients of remittances in Abia State, Nigeria. A unit increase in the household size increases the probability of acquiring land through inheritance and purchase by 0.509 (50.9%) and 0.375 (37.5%) (Table 2). Land acquisition in some parts of Africa is strongly tied to the number of people in the household especially the number of male children. This might be the reason of having a higher percentage of coefficients than that of acquiring land through purchase. This also shows that the tendency recipients of remittances acquiring land through inheritance is higher than that of acquiring land through leasehold because the

later means of land acquisition is not strictly tied to household size.

School Children: The presence of school children in the household of the recipients of remittances may have effect on their means of acquiring land. Table 2 shows that there is significant (1% level) but negative relationship between school children variable and the probability of acquiring land through inheritance. This implies that a unit increase in the number of schoolchildren in the households of respondents would decrease the probability of acquiring land through inheritance by 0.423 (42.3%) compare to acquiring land through leasehold because acquiring land through the later means does not necessarily involved the number of people in the household. Here, the higher the number of schoolchildren in the household of those that receive remittances, the lesser the tendency to acquire land through inheritance.

Cash remittance: Table 2 shows that the probability of acquiring land through inheritance is positively correlated with cash remittance received by the recipients' households at 10% level of significance. This suggests that a unit increase in cash remittance receive by a household would increase the probability of acquiring land through inheritance by 0. This implies that income from external remittances has improved the economic position of the recipients of receiving households especially in the villages and peri-urban areas and they are now capable of purchasing more land.

Non-cash remittances: The results of non-cash remittances variable reveal that the probability of acquiring land through inheritance and purchase is highly significant and higher than acquiring land by leasehold among the households that received non-cash remittances. This observation perhaps lends support to earlier argument/hypothesis that the influx of remittances (cash and non-cash) enables households to invest in assets especially farm sector in the rural or peri-urban areas. For example, Taylor, Moran-Taylor, Michelle and Rodman Ruiz (2006) shows that families from Guatemala purchase land for maize and bean cultivation as well as made land available for cattle pasture. Kabki, Mazzucato, and Appiah (2004) interviewed 60 Netherland-based Ghanaian migrants and found out that migrants' households extend their farm or invest remittances in purchasing new land in rural Ashanti to cultivate cash crops like cocoa, cashew, nuts, citrus, palm oil or timber. Wouterse and Taylor (2009) gave evidence that livestock production rises with intercontinental migration, but correlates negatively with staple cropping and non-farm activities Basok (2003) found out that 15% of 311 Mexican households receiving remittances purchased unwatered land and started to grow vegetables and maize for own subsistence.

The Influence of Remittances on the Use of Land Acquired in Abia State, Nigeria

This section deals with the effects of remittances (cash and non-cash) along with other factors on the use of land in the study area. The results of the probit model indicate that remittances (both cash and non-cash) and other factors (age, education, household size, schoolchildren, expenditure on education, and years of receiving remittances) influence the use of land for agricultural purposes in the study area. The likelihood ratio statistics as indicated by χ^2 statistics are highly significant ($P < 0.0000$), suggesting the model has a strong explanatory power. The model seems to have behaved well in terms of consistency with *a priori* expectations on the relationship between the dependent variable and the explanatory variables. Table 3 presents the parameter estimates, standard error, and the z-ratios from the probit model.

Age: The probability of using the land acquired for agricultural purposes is significantly related to the age of the respondents at 10% level of significance. This shows that older respondents are more to use their lands for agricultural purposes than the younger respondents are. A possible explanation for this is that youths are not interested in agriculture and agriculturally related occupations especially those that are domicile in the rural areas, but they are looking for white-collar jobs in the cities.

Education: The human capital of the farmer is also assumed to have a significant bearing on the decision to adopt new technologies. Most adoption studies have attempted to measure human capital through education or farming experience. Education of the farmer has been found to have a positive effect on adoption o technologies (Fernandez-Cornejo & McBride, 2002)

The result of education reveals that the probability of using acquired land for agricultural activities is higher among the educated respondents, compared to those that are uneducated as shown in this study. This implies that a one-unit increase in education (i.e. years of schooling) would lead to 0.103 (10.3%) increase in using acquired land for agricultural purposes.

Table 2: Effect of cash and non-cash remittance on land acquisition method in Abia State, Nigeria

Variables	Inheritance (1)		Purchase (2)	
	Coefficient	z-value	Coefficient	z-value
Age (years)	-0.140 (0.038)	-3.69***	-0.109 (0.039)	-2.81***
Education (Years of schooling)	-0.124 (0.0713)	-1.74*	-0.086 (0.067)	-1.29
Household size (numbers)	0.509 (0.0.160)	3.18***	0.375 (0.176)	2.13**
Schoolchildren (Number)	-0.423 (0.156)	-2.71***	-0.253 (0.175)	-1.45
Years of remittance	0.156 (0.105)	1.48	0.060 (0.101)	0.60
Extension contact (no of visit)	0.929 (0.729)	1.48	0.941 (0.675)	1.39
Farm income (Naira)	0.00000219 (0.00000758)	0.29	-0.00000302 (0.00000789)	-0.38
Cash remittance (Naira)	0.00000734 (0.00000455)	1.61*	0.00000554 (0.00000452)	1.23
Non-Cash [#] remittance (dummy)	12.479 (0.813)	15.35***	11.402 (1.0115)	11.27***
Constant	6.193 (2.361)	2.62***	5.247 (2.372)	2.21**
Number of observation	114			
Log likelihood	-98.78			
Wald Chi-square (18)	342.54			
Probability > Chi-square	0.0000			
Pseudo R-square	0.134			

Leasehold (3) is the base category. *, ** and *** indicate significance at 10%, 5% and 1% level of significance, respectively. Figure in the parenthesis is the robust standard errors. [#] is a discreet change of dummy from 0 to 1.
Source: Computed from field data, 2015.

This agrees with the *a priori* expectation. Since education could be taken as a proxy for knowledge and ability to process information, the positive correlation could mean that literates are likely to use the acquired land for agricultural purposes more than the illiterates.

Household size: The result shows that there is a negative relationship between household size and the probability of using acquired land for agricultural purposes. It implies that a unit increase in household size would decrease the probability of using acquired land for agricultural purposes by 0.269 (26.9%) (Table 3). This suggests that households with fewer people tend

to use more land for agricultural purposes than those with many people. This is contrary to the popular belief that households with more people tend to use more family labour than those with few members of household. But a possible explanation for this is that the type of agriculture practiced in the area is not crop production that needs large farm labour.

Schoolchildren: The result shows that there is a significant and positive relationship between schoolchildren variable and the probability of using acquired land for agricultural purposes (5% level of significance). Specifically, it is shown that a unit increase in the number of

schoolchildren in the respondents' households would increase the probability of using land acquired for agricultural purposes by 0.264 (26.4%). This result lends support to the general belief that even when a man is not educated, his educated children can help him in understanding some issues about what they do especially in reading vital information in English language. In addition, it may be that households invest in types of agriculture that can help them to train their children in a tertiary institution when they would be demanding for more financial attention especially those households living in the rural and peri-urban areas.

Expenditure on education: The result in Table 3 shows that there is a negative relationship between the expenditure on education and the probability of using acquired land for agricultural purposes. It shows that the more expenditure on education the less the tendency to use the land acquired for agricultural purposes. It implies that households with less expenditure on education would acquire more land for agricultural purposes, compared to those with more expenditure on education.

Years of receiving remittances: There is a positive and significant relationship between the probability of using acquired land for agricultural purposes and years of receiving remittances by the respondents. This implies that households that have been receiving remittances for quite a while tend to use the remittances for agricultural ventures than receiving recently. This is in line with the *a priori* expectation; a unit increase in the years of receiving remittances would increase the probability of using acquired land for agricultural purposes by 0.389 (38.9%).

Cash remittance: The result in Table 3 reveals that the probability of using acquired land for agricultural purposes by households that receive cash remittances are highly significant and higher than households that do not receive cash remittances. This observation perhaps lends support to earlier argument/hypothesis that the influx of cash remittances enables households to

invest in assets especially farm sector in the rural or peri-urban areas. For example, Taylor, Moran-Taylor, Michelle and Rodman Ruiz (2006) shows that families from Guatemala purchase land for maize and bean cultivation as well as made land available for cattle pasture. Kabki, Mazzucato, and Appiah (2004) interviewed 60 Netherland-based Ghanaian migrants and found out that migrant households extend their farm or invest remittances in purchasing new land in rural Ashanti to cultivate cash crops like cocoa, cashew, nuts, citrus, palm oil or timber. Wouterse and Taylor (2009) gave evidence that livestock production rises with intercontinental migration, but correlates negatively with staple cropping and nonfarm activities. Furthermore, Khan (2009) showed in his study in Pakistan that people engaged in rural activities purchase agricultural land and farm machinery to expand and develop their agricultural activities and that 43.7% of migrant households used remittances to purchase agricultural land. Basok (2003) found out that 15% of 311 Mexican households receiving remittances purchased unwatered land and started to grow vegetables and maize for own subsistence.

Non-cash remittance: The probit model result shows that the probability of using acquired land for agricultural purposes is significant and positively correlated with non-cash remittance received by the recipients or receiving households at 10% level of significance. This suggests that a unit increase in non-cash remittance received by a household would increase the probability of using acquired land for agricultural purposes by 1.882. This implies that goods from migrants have improved the position of the receiving households especially in the villages and peri-urban areas and they are now capable of using more land for agricultural activities.

Conclusion and Recommendations

This study investigated the effects of remittances on land acquisition and land use in Abia State, Nigeria. The multinomial logit model result

shows that age, educational level and the presence of schoolchildren significantly and negatively influence land acquisition by inheritance among the respondents, while household size, cash remittance, and non-cash remittance significantly and positively influence land acquisition by inheritance. In the same vein, age and educational level significantly and negatively influence land acquisition by purchase, while household size and non-cash remittance significantly and positively influence land acquisition by purchase. The estimates of the probit model shows that age, educational level of the household head, presence of school children in the household, years of receiving remittances by the household, cash remittance and non-cash remittances increase the likelihood of using the land acquired for agricultural purposes significantly different from zero. Other variables like household size and expenditure on education of members of households decrease

significantly with the probability of using the acquired land for agricultural purposes.

The findings have provided a better understanding of household socio-economic characteristics and remittances influence on land acquisition and use. In the light of this, the following recommendations with policy implications are presented:

- For rural entrepreneurs and farmers to actually acquire land and use it for agricultural activities using remittances received programmes and projects with components that address their welfare (expenditure as a proxy for welfare) have to be put in place.
- Stringent rules that affect the welfare of migrants and cash remittances inflow negatively have to be addressed in order to improve land acquisition and use for agricultural purposes especially in the face of the present dwindling oil prices.

Table 3: Effects of cash and non-remittances on agricultural land use among households in Abia State, Nigeria

Variable	Coefficient	Standard Error	z-value
Age (years)	0.00151	0.0162	1.61*
Education (years of schooling)	0.103	0.0607	1.69*
Household size (number)	-0.269	0.132	-2.03**
School children (number)	0.264	0.131	2.02**
Expenditure on education (Naira)	-0.0000269	0.00000956	-2.81***
Social participation [#] (dummy)	-0.1201	0.495	-0.24
Years of remittance	0.389	0.136	2.86***
Cash remittance (Naira)	0.0000157	0.00000532	2.95***
Non-cash remittance [#] (dummy)	1.882	1.040	1.81*
Constant	-0.886	1.040	-0.43
Number of observation	114		
Log likelihood	-21.895		
LR-square chi-square	41.14		
Prob > chi-square	0.0000		
Pseudo R-square	0.4844		

[#] is a discreet change of dummy from 0 to 1. *, ** and *** indicate significance at 10%, 5% and 1% level of significance, respectively.

Source: Computed from field data, 2015.

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