

## EFFECT OF REMITTANCE AND SAFETY-NET ON FOOD CONSUMPTION STATUS OF RURAL HOUSEHOLDS IN NIGERIA

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### Abstract

*The role of remittance and safety net in enhancing household welfare and national development is globally recognized. This study examined the influence of different remittances and safety net types on rural households' food consumption status in Nigeria. Data on rural households' subset of the Nigeria Living Standards Survey (2018-2019) collected by the National Bureau of Statistics across the 36 states of the country were analyzed. Food consumption scores (FCS) were computed and used to classify households into three distinct levels of food consumption status (poor, borderline and acceptable). Descriptive statistics, Ordinary Least Square and Ordered probit regression were the tools of data analysis. Roughly, 50% of households received remittance from within Nigeria and 3% received from abroad. Approximately 13% received food assistance, while only 1.6% received cash support from institutions. Most (87%) had an acceptable level of food consumption. The likelihood of having acceptable food consumption is significantly higher among households that received domestic and international remittances. Although both cash and food assistance significantly enhanced food consumption, food assistance elevated consumption to an acceptable level. Thus, efforts to boost domestic and international remittances, including well-targeted safety nets, especially in the form of food assistance are recommended to considerably advance acceptable food consumption levels and food security for rural households in the country.*

**Keywords:** Rural households, welfare, social protection, food security

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### INTRODUCTION

The vital role of remittances and safety nets in improving household food security and economic development, especially in low-income countries cannot be overemphasized. Remittances are the monies sent by nationals living and working either in their own countries or abroad to families in their home countries. Remittances constitute a significant source of household income, which could be expended on food and non-food items such as durable goods, health care and housing (Williams, 2020). They do not only enhance consumption, they create multiplier effects on the economy when invested or spent on domestically produced goods (Ratha, 2007). Safety nets on the other hand, are forms of social protection provided through government institutions or non-profit organizations to support the poor and vulnerable populations, especially during the period of economic hardship or shocks. Safety nets either in the form of cash transfers or food (in-kind) assistance are usually designed to provide a basic level of income or food support to those in need. Available evidence reveals that despite the rising number of Nigerian migrants overseas in the past three years, the amount of direct remittance sent to families in Nigeria by the migrants has

continued to decline. It was \$9.90 billion in 2019, but fell sharply to \$1.56 billion in 2021 and further to \$0.95 billion in the first half of 2023<sup>1</sup>. This reduction suggests that in recent times, more Nigerians in the diaspora are sending lesser amounts of money than they once did. Against this background, it thus becomes imperative to examine whether (or not) receiving international remittance contributes substantially to enhancing household welfare in the country. Several studies focusing on Nigeria have established positive effects of total remittance on households and the economy at large. For example, John *et al.* (2020) and Anetor (2019) found a positive influence of total remittances on economic growth. Adeseye (2020) and Edeh *et al.* (2023) established a direct relationship with investment and consumption-expenditure while Osei-Gyebi *et al.* (2023) and Mustapha-Jaji and Adesina-Uthman (2023) found a positive effect on savings and the banking sector. Some other researchers found a positive relationship with some indicators of household welfare such as income poverty (Fowowe and Shuaibu, 2020; Nwandu, 2020) and food calorie supply (Babatunde, 2018). However, limited studies have investigated the influence of domestic remittance and international remittance on household welfare, including food consumption in the country. Examples are Toloruju *et al.* (2019) who found that domestic (internal) remittances reduced poverty among rural households and Obi *et al.* (2020) who noted the positive influence of international remittance on food expenditure but insignificance influence on dietary diversity. Available evidence also shows that over 80 percent of households who received remittance in Nigeria used it for consumption purposes (NBS, 2020). An understanding of the specific influence of both internal and international (from abroad) in advancing the acceptable level of food consumption is thus crucial, especially given the unique role quality food consumption plays in enhancing human nutrition, health and labour productivity. This information is important, especially given the dwindling inflows of direct international remittance to the country.

With respect to safety nets, the coverage is still very low in the country and the amount of cash received by most recipient households is typically minuscule. In year 2012, for example, the Federal government of Nigeria, employed a conditional cash transfer scheme to enhance the status of poor and vulnerable groups in the country. Evidence obtained through a qualitative assessment of beneficiary households indicated that the cash interventions improved food consumption and economic conditions of the beneficiaries (Holmes *et al.*, 2012). In 2020, the federal government also targeted food assistance and cash transfers to about 2.6 million poorest and most vulnerable households spread across the country. This is far lower than about 9.8 million Nigerians reported to need external food support (SWAC/OECD, 2020). There are limited empirical documentations as to whether or not these specific intervention types have elevated household food consumption to an acceptable threshold in the country. Such information can help decision-makers and development partners gauge how sensitive such safety net schemes are to nutrition improvement. This is very important since progress in malnutrition reduction has been admitted globally as one key parameters for evaluating the performance of development interventions and milestones towards the attainment of sustainable development goals.

Even though the Federal Government has recently launched another cash transfers programme (in October 2023), aimed at targeting 15 million vulnerable households in the country, there are still options to redirect or redesign it or other related schemes in the future especially from food security

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<sup>1</sup> <https://www.dataphyte.com/latest-reports/why-nigerians-overseas-are-not-showing-love-to-their-relatives-in-nigeria/>

and nutrition lens. An important entry point is to rely on existing nationally representative data to examine the effects of cash transfers and food assistance, not merely, on whether they increase household food consumption, but that improvement is substantial up to an acceptable level. Where such evidence-based information is available, there is a high chance of accomplishing expected intervention impacts with minimal costs or the possibility of embracing related alternatives.

This study focuses on rural areas of Nigeria for some reasons. First, the prevalence of food multidimensional poverty is higher in rural areas than in the urban areas of the country (Nigeria Bureau of Statistics {NBS}, 2022) and the total amount of remittances received by rural households are also lower than that of urban areas (NBS, 2020). Besides, the prevalence of food insecurity is higher with coverage of safety nets interventions still very low.

The highlighted concerns and other factors that could combine to enhance acceptable household food consumption levels form the focal issues of the study. Thus, the study seeks to provide answers to the following questions: Does receiving remittance from migrants within Nigeria or those in the diaspora elevate household food consumption to an acceptable level in rural Nigeria? Does participation in cash or food assistance advance an acceptable level of food consumption among the recipient households? What factors can reinforce remittance and/or safety nets to achieve an acceptable level of food consumption for the households?

## **METHODOLOGY**

### **Study Area**

The focus of the study is on rural area of Nigeria. The country is located in West Africa in the Gulf of Guinea between Longitudes 2°2' and 14°30' East and Latitudes 4° and 14° North of the Equator. The projected population for year 2023 is put at **223, 804, 632** based on a 2.41% increase from 2022 (United Nations - World Population Prospects, 2023)<sup>2</sup>. Nigeria has a vast agricultural land area of about 71 million hectares (Sasu, 2023) that transverse across the different agroecological and geopolitical zones of the country's agricultural landscape. This unique feature allows for the production of several types of crops and livestock that have enhanced the availability and diversity of foods for many Nigerian households across different seasons of the years even in the phase of changing climate conditions. Agriculture still stands as the mainstay of Nigeria's economy as about 70% of households in Nigeria derives their livelihoods directly or indirectly from agriculture (FAO, 2022). Multidimensional poverty incidence (in year 2022) in rural Nigeria is approximately 70% compared to 40% in urban areas<sup>3</sup> (Based on the Nigeria Bureau of Statistics, 2022).

### **Data for the Study**

This study relied on data from the 2018/19 Nigerian Living Standards survey (NLSS) household survey conducted by the National Bureau of Statistics in collaboration with the World Bank. The data were collected across the 36 States of Nigeria, including the FCT. However, NBS noted that data for Borno should not be incorporate in aggregate analysis due to under-coverage in the State. The rural household subset of the data was employed in this study. As designed by NBS, an average of 600 households were sampled per State, using within State specific weights to adjust for population differentials across the States. Sixty (60) Enumeration Areas (EAs) were selected per State and FCT, with an average of 10 households per EA. Among the data collected that are

<sup>2</sup> Nigeria Population Growth Rate (1950-2023). Available online at <https://www.macrotrends.net/countries/NGA/nigeria/population-growth-rate>

<sup>3</sup> <https://nigerianstat.gov.ng/news/78#:~:text=In%20Nigeria%2C%2040.1%25%20of%20people,of%20people%20in%20urban%20areas.>

relevant to this study include, types and frequency of weekly food consumption (on different food groups), household socio-demographic characteristics, household total consumption-expenditure (proxy for income), value of remittance received within and outside Nigeria, and whether (or not) household received safety nets. The total number of rural households used for this study is 14, 878.

### Method of Data Analysis

The Food Consumption Score (FCS) computation approach, descriptive statistics, and probit regression model were adopted as main tools for data analysis. STATA (version 18) software was used.

### Computation of Food Consumption Score and the Intuitive Interpretations

Food consumption score (FCS) was computed, employed to classify households into different food consumption statuses, and consequently, extended to gauge the food security status of households. FCS is a composite indicator that measures dietary diversity, food frequency, and the relative nutritional importance of food groups based on food groups consumed over the past seven days. The index (FCS) is usually computed from eight different food groups by multiplying the frequency of consumption of each food group (over the past seven days) with their respective standard weights assigned based on the relative nutritional importance of the foods consumed in household diets (see Table 1), and then summing the weighted food groups' scores. Food groups comprising nutritionally dense food items such as animal-source foods are assigned greater weights than those consisting less nutritionally dense foods, such as tubers (International Dietary Data Expansion Project, 2023).

Generally, the food consumption score (FCS) is used to classify households into three (3) food consumption categories (status) based on the following standard thresholds: poor food consumption status (if FCS falls between zero (0) and 21 points), borderline consumption status (FCS between 21.5 and 35 points) and acceptable food consumption (if FCS score is above 35 points). The maximum attainable point is 112 if a household consumes all the food groups each day of the week. The higher the FCS, the better the food consumption status of the households. Even though it is worth noting that the FCS reflects an aspect of diet diversity, it has only been validated as a proxy indicator for the quantity dimension of household food security (especially caloric availability). Hence, we hold that extrapolating FCS classifications to gauge household food security should be understood/interpreted primarily in the context of calorie availability by the readers.

**Table 1. Table showing computation of food consumption score**

| Food Group       | *Weight assigned to each food group (A) | Maximum frequency of consumption of each food group per week (B) | FCS by Food Group (Product of weight and frequency of consumption (A*B)) |
|------------------|---|--|--|
| Main staples     | 2                                       | 7  | 14   |
| Pulses           | 3                                       | 7  | 21   |
| Vegetables       | 1                                       | 7  | 7  |
| Fruits           | 1                                       | 7  | 7  |
| Meat/fish        | 4                                       | 7  | 28   |
| Milk             | 4                                       | 7  | 28   |
| Sugar            | 0.5                                     | 7  | 3.5  |
| Oil              | 0.5                                     | 7  | 3.5  |
| <b>Sum (FCS)</b> |   |  | <b>112</b>   |

\* Source: INDDEX Project (2023).

**Remittance and Safety nets effects on food consumption status**

Ordered probit regression model was estimated to examine the factors affecting the probability of household being classified into different food consumption status. The econometric model is specified as:

$$Y_h^* = X'_{hj}\beta_j + \mu_h \quad j = 1,2, \dots m \text{ and} \quad (1)$$

$$1 \text{ if } Y_h^* \leq \mu_{h1} \quad (\text{Poor food consumption})$$

$$Y_h = \begin{cases} 2 & \text{if } Y_h^* \leq \mu_{h2} \\ 3 & \text{if } Y_h^* \leq \mu_{h3} \end{cases} \quad (\text{Borderline food consumption}) \quad (2)$$

$$3 \text{ if } Y_h^* \leq \mu_{h3} \quad (\text{Acceptable food consumption})$$

where  $X'_{hj}$  are “j” sets of explanatory variables associated household “h”, with j ranging from 1 to 19.  $\beta_j$  denotes sets of parameters to be estimated, and  $U_h$  is a random error term assumed to be a normal distribution with mean zero and unit variance.  $Y_h^*$  is a latent variable that determines the probability of a household being classified as being food secure (having acceptable food consumption status) or otherwise.  $Y_h$  is the observed outcome that takes on the value of 1, 2, and 3 for households classified as having poor, borderline and acceptable food consumption respectively. The explanatory variables are as defined:

- $X_1$ = Household size (number of people)
- $X_2$ = Sex of the household head (Male =1, 0 Female)
- $X_{11}$  = Age of household head (in years)
- $X_4$  = Marital status of household head (1= married, 0= otherwise)
- $X_5$ = Household head had formal education (yes=1, otherwise=0)
- $X_6$  = Household received remittance from abroad (yes=1, otherwise=0)
- $X_7$ = Household received remittance within Nigeria (yes=1, otherwise=0)
- $X_8$ = Household income (in Naira)
- $X_1$  = Household participate in non-farm enterprise (yes=1, otherwise =0)
- $X_9$ = Household received food assistance (yes=1, otherwise=0)
- $X_{10}$ = Household received cash assistance (yes=1, otherwise=0)
- $X_{12}$ = Household raised livestock (yes=1, otherwise=0)
- $X_{13}$ = South East (1 if household is in the southwest, 0 otherwise)
- $X_{14}$ = South South (1 if household is in the south south, 0 otherwise)
- $X_{15}$ = South West (1 if household is in the southwest, 0 otherwise)
- $X_{16}$ = North East (1 if household is in the north east, 0 otherwise)
- $X_{17}$ = North West dummy (1 if household is in the northwest, 0 otherwise)

In order to further explore the influence of remittance and safety nets on food consumption, the Ordinary Least Square (OLS) Regression Model was estimated in which the FCS was the dependent variable and  $e_h$  as the error term.  $X'_{hj}$  is as previously defined. The model is as specified:

$$FCS_h^i = X'_{hj} \beta_j + e_h \quad (3)$$

**RESULTS AND DISCUSSION**

**Estimated Food Consumption Scores and Household Food Consumption Status**

Presented in Tables 2 and 3 are details of the estimated food consumption scores by the various comments’ food groups and the overall score according to geopolitical zones. On average (Table 2),

households consumed each of staples, vegetables, and fat/oil not less than 6 days a week. Next is meat/fish/egg food groups consumed about 4 days a week. This is followed by pulses and sugar, consumed approximately 3 days a week, and fruits and dairy (2 days a week respectively). These findings (consumption frequencies) are similar to the World Food Programme (2021) in a related study among Afghanistan households.

Based on average weekly consumption frequency, results show that staples (cereals and roots/tubers), vegetables (fruits and leafy vegetables) and fats/oils are consumed nearly daily, followed by animal proteins (meat/fish/egg), beans/pulses (rich sources of plant proteins), sugars/sweeteners, which were consumed 3-4 days in a week, and fruits and dairy (2 days a week). These findings (consumption frequencies) are similar to World Food Programme (2021) in related studies among Afghanistan households. If we presume that increased food consumption frequency is associated with higher quantity of food consumed, it is not extraordinary to infer that an average household consumed less quantity of fruits than vegetables, and this could signal the dominant contribution of vegetables to micronutrient intakes in household dietary patterns. The FCS for meat/fish (16 points) is about twice that of milk/dairy, displaying meat and fish as the dominant sources of quality proteins for an average household in the country. With respect to FCS, the main staples (12 points), pulses (9 points) and oil (3 points) summed up to 24 points, which accounts for approximately 50% of the average FCS (57.5 points). This is suggestive of a considerably high supply of food calories in the household diets, especially given that staples, pulses (especially beans) and fat/oil are rich sources of calories.

Table 2. Table showing the computation of food consumption score

| Food Group       | *Weight assigned to each food group (A) | **Estimated frequency of consumption of each food group per week (B) | FCS by Food Group (Product of weight and frequency of consumption (A*B)) |
|------------------|---|--|--|
| Main staples     | 2                                       | 6  | 12   |
| Pulses           | 3                                       | 3  | 9  |
| Vegetables       | 1                                       | 6  | 6  |
| Fruits           | 1                                       | 2  | 2  |
| Meat/fish        | 4                                       | 4  | 16   |
| Milk             | 4                                       | 2  | 8  |
| Sugar            | 0.5                                     | 3  | 1.5  |
| Oil              | 0.5                                     | 6  | 3  |
| <b>Sum (FCS)</b> |   |  | <b>57.5</b>  |

\* Source: INDDEx Project (2023). \*\* approximate number of days that an average household consumes from food group per week as computed from the NLSS 2018/2019 data.

In Table 3, results (mean FCS) show that an average household in each geopolitical zone ostensibly had an acceptable food consumption level as the mean consumption scores are respectively above 35 points. Nevertheless, diagnosis based on the proportion of households suggest that approximately 22% of households in the Southeast Zone have borderline and poor consumption status. Not less than 13% of households in Northeast and Northwest zones also consumed below acceptable food consumption status. More than one-fourth of households in each of the six geopolitical zones had acceptable food consumption status, indicating they are less likely to be at risk of (at least) caloric insufficiency.

Table 3: Household food consumption score and classification into different consumption status

| Geopolitical Zone | Proportion of households with acceptable food consumption (FCS above 35 points) | Proportion of households with borderline food consumption (FCS between 21.5 and 35 points) | Proportion of households with poor food consumption (FCS between 0 and 21.5 points) | Mean Food Consumption Score |
|-------------------|---|--|---|-----------------------------|
| North Central     | 94.66   | 4.02   | 1.32  | 61.7                        |
| North East        | 86.93   | 11.42  | 1.65  | 56.0                        |
| North West        | 82.74   | 13.13  | 4.14  | 54.6                        |
| South East        | 78.00   | 17.77  | 4.23  | 49.6                        |
| South-South       | 89.93   | 8.74   | 1.32  | 62.8                        |
| South West        | 95.23   | 4.16   | 0.61  | 62.6                        |
| National (Rural)  | 87.21   | 10.35  | 2.44  | 57.5                        |

### ***Factors Influencing Household Food Consumption Status***

Presented in Table 3 are the results of factors affecting household food consumption status, and by implication food security. As the results for the poor and borderline food consumption status are consistently in line with the acceptable consumption level, the discussion thus focuses mainly on drivers of acceptable food consumption status. Nonetheless, we draw inspiration from the Ordinary Least Square (OLS) Regression results on how contain factors could influence food consumption generally. Findings reveal that participation in non-farm business, access to formal education, livestock ownership, and increases in household income significantly enhanced the likelihood of acceptable food consumption levels. Although participation in cash and food assistance considerably improved food consumption (OLS results), it is food assistance (transfers) that significantly influenced the chance of advancing household food consumption to an acceptable level. This suggests that in-kind (food) transfer may be a more effective safety net mechanism for moving households towards acceptable food consumption status, else equal. Findings seem to agree with Devereux (2016) who in his work on social protection in sub-Saharan Africa noted that food insecurity can be addressed most directly by giving food to food insecure people. With this in perspective, there might be a need to review or re-design the cash transfer interventions currently being embarked upon by the federal government if the intervention would be able to simultaneously elevate food consumption to an acceptable level among the target (poor and vulnerable) households. This is critical, especially given the fungibility of cash and the progressively rising costs of living in Nigeria.

The likelihood of attaining acceptable food consumption status increased significantly among households that received remittance (either from Nigeria or abroad). Findings reveal the need to deepen policy efforts to raise workers' welfare and reduce rates of unemployment and closedowns of businesses in the country, which will in turn increase the rates of remittance transfers to the households by migrants within the country. The results also emphasize the need for advice strategies to ease the inflow of international remittances. Some of the measures to ascertain remittances benefit both migrants (senders) and recipients include, waiving fees on international transfers, introducing mobile banking services, and incentivizing banks providing low-cost transfer options.

Higher household size tends to increase the probability of a household achieving acceptable food consumption (food security) status. This could be possible if the additional members engaged in productive activities that could add more to the overall household income. The probability that food consumption will be of acceptable status is lower in male than in female-headed households. It has been reported that when women have control of resources, they generally tend to spend more on items that enhance household members' welfare such as food and health. All the zonal dummies included in the regression model (except Southwest zone) have a negative and statistically significant relationship with acceptable food consumption status. This implies that households in the Northeast, Northwest, Southeast, South-south and Southwest zones have higher chance of being in the lower category of food consumption status (poor or borderline) compared to households in the other zones. This highlights the need for more deliberate actions toward addressing some subnational peculiarities that hamper the food system from advancing food insecurity in these regions. Findings of Mekonnen *et al.* (2023) have established the need to tackle both regional and state-level factors that can hamper the overall performance of Nigeria's food system from delivering affordable healthy diets for the population. Findings also reflects the need to further explore the regional peculiarities and the inherent comparative and competitive advantages across the different geopolitical regions to advance production, availability and access to affordable basket of foods quality diets in Nigeria.



Table 4: Factors Influencing Food Consumption Status of Rural Households in Nigeria

| Variables                                   | OLS regression estimated with the food consumption score (FCS) | t-value | Initial Ordered Probit Estimated Model for Food Consumption Status | t-value | Marginal effect from the Ordered Probit for poor food consumption status | t-value | Marginal effect from the Ordered Probit for acceptable food consumption status | t-value | Marginal effects from the Ordered Probit for acceptable food consumption status | t-value |         |
|---|--|---------|--|---------|--|---------|--|---------|---|---------|---------|
| Household size                              | ***1.551   | 26.790  | ***0.089   | 13.900  | ***_   | -       | ***_   | -       | ***0.016  | 14.610  |         |
| Sex of household head (male dummy)          | ***_   | 2.270   | ***_   | -       | ***0.007   | 4.720   | ***0.025   | 4.510   | ***_  | 0.033   | -4.590  |
| Age of household head                       | -0.069   | -0.140  | 0.023  | 0.520   | -0.001   | -0.510  | -0.003   | -0.520  | 0.004   | 0.520   |         |
| Marital Status (Married Dummy)              | ***3.892   | 10.610  | ***0.239   | 7.100   | ***_   | 0.011   | ***_   | 0.034   | ***0.045  | 7.000   |         |
| Educational Status (formal education dummy) | ***2.892   | 8.840   | ***0.194   | 6.440   | ***_   | 0.009   | ***_   | 0.028   | ***0.036  | 6.340   |         |
| Own Nonfarm business (dummy)                | ***1.801   | 3.960   | ***0.115   | 2.560   | ***_   | 0.005   | ***_   | 0.016   | ***0.020  | 2.720   |         |
| Household income (thousand Naira)           | ***4.512   | 21.130  | ***0.210   | 7.990   | ***_   | 0.009   | ***_   | 0.030   | ***0.039  | 8.430   |         |
| Own Livestock                               | ***1.068   | 3.260   | ***0.230   | 7.730   | ***_   | 0.010   | ***_   | 0.033   | ***0.043  | 7.580   |         |
| Received remittance from abroad             | ***3.341   | 10.770  | ***0.118   | 4.100   | ***_   | 0.005   | ***_   | 0.017   | ***0.022  | 4.080   |         |
| Received remittance within Nigeria          | ***3.945   | 4.190   | ***0.308   | 3.040   | ***_   | 0.010   | ***_   | 0.037   | ***0.047  | 3.760   |         |
| Received food assistance                    | ***1.142   | 2.550   | ***0.123   | 2.930   | ***_   | 0.005   | ***_   | 0.017   | ***0.021  | 3.110   |         |
| Received cash assistance                    | *2.441   | 1.850   | -  | -       | 0.004  | 0.690   | 0.012  | 0.720   | -0.016  | -0.710  |         |
| South East Dummy                            | ***_   | -       | ***_   | 12.930  | ***0.046   | 8.740   | ***0.108   | 11.320  | ***_  | 0.155   | -10.740 |
| South-South Dummy                           | -0.648   | -1.230  | 0.191  | 3.390   | ***0.009   | 3.060   | ***0.028   | 3.210   | -0.038  | -3.180  |         |
| South-West Dummy                            | -0.516   | -0.860  | 0.110  | 1.400   | -0.004   | -1.530  | -0.015   | -1.470  | 0.019   | 1.480   |         |
| North-East Dummy                            | -3.834   | -8.130  | 0.337  | 6.930   | ***0.019   | 5.570   | ***0.052   | 6.340   | 0.071   | -6.190  |         |
| North-West Dummy                            | ***_   | -       | ***_   | 13.680  | ***0.041   | 9.350   | ***0.102   | 12.270  | ***_  | 0.143   | -11.700 |
| Constant                                    | 5.860  | 12.400  | 0.631  | 0       |  |         |  |         |   |         |         |
| Wald chi2(17)                               | 41.257   | 20.100  | 860.950  |         |  |         |  |         |   |         |         |
| Prob > chi2                                 |  |         | 0.000  |         |  |         |  |         |   |         |         |
| Log pseudolikelihood                        |  |         | -  |         |  |         |  |         |   |         |         |
|   |  |         | 6211.833   |         |  |         |  |         |   |         |         |

**Remittance Received and Safety Nets Participation**

Presented in Table 5 are the proportion of households that received remittance (from within Nigeria and abroad) and safety nets in the form of food or cash assistance. Findings reveal that the proportion of households who received remittances from within Nigeria (both cash or in-kind) far outweighs those that received from outside the country. Only a paltry proportion (3.03%) received remittance from abroad. In terms of the amount of remittance received, available statistics (NBS, 2020) show that the average value of domestic remittance (51,062 Naira) received in rural Nigeria is more than twice that of international remittance (20,913 Naira). With respect to safety net assistance, Results show that the coverage among rural households is generally low. Merely 13.66% received food assistance and less than 2% received cash support from institutions. Whether (or not) receiving remittances or safety nets (either food or cash assistance) exerts a significant influence on household food consumption status is examined using econometric analysis.

Table 5: Remittance and Safety Nets Types and Proportion of Households that Received them

| <b>Remittance Types and Proportion of Households that Received them</b> |   |  |
|---|---|--|
| Variables   | Percentage of households that received within Nigeria | Percentage of households that received from abroad |
| Cash remittance   | 42.76   | 1.11   |
| In-kind remittance  | 34.10   | 2.64   |
| Both Cash and In-kind   | 50.43   | 3.03   |

**Safety Nets Types and Proportion of Households that Received Them in Nigeria**

| Variables                         | Percentage of households that received food assistance | Percentage of households that received cash assistance |
|-----------------------------------|--|--|
| Safety net (food/cash assistance) | 13.64  | 1.61   |

Source: NLSS 2019/19 data.

**CONCLUSION AND RECOMMENDATIONS**

The majority (over 80%) of households in rural Nigeria had an acceptable food consumption status, and can be regarded as being food secure, especially with respect to calorie intake. Receiving remittances (within and outside Nigeria) and safety nets significantly increased food consumption. However, households that received food assistance have a greater chance of consuming food at an acceptable level compared to non-recipients. Higher income gains substantially enhanced household food security. Promoting livestock production, access to formal education and enterprise diversification can considerably bolster acceptable food consumption and, by extension, household security.

The implications are that increased domestic and international remittance and food assistance interventions may be more effect in enhancing rural household food consumption and food security status. Thus, efforts to boost remittances and safety net targeting in form of food assistance, especially to the extremely vulnerable are advocated. Beyond the short-term safety net measures (food transfer) measure, efforts to promote livestock production (including homestead livestock farming), improve access to formal education, enhance household income, and/ or encourage enterprise diversification are suggested as medium and long-term measures to enhance food security among the rural households.

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