

EFFECT OF USAID MARKET II PROGRAMME ON THE FOOD SECURITY STATUS OF BENEFICIARY FARMERS IN AKWA IBOM STATE SOUTH-SOUTH, NIGERIA

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Abstract

Over the years, various agricultural programmes and policies that are both public and private sector driven has been developed, focusing more on increasing farm production with little or no emphasis on the food security status of farmers. The study determined the effect of USAID/MARKETS II Programme on the food security status of farmers in Akwa Ibom State, south-south Nigeria and was analyzed 2020. Specifically the determined the food security status, index and compared the differences in the food security status of programme beneficiary and non-beneficiary farmers. It adopted both purposive and multi-stage random sampling procedures to select one hundred and eighty (180) respondents made up of 90 programme beneficiary and 90 non-beneficiary farmers). The study made use of structured questionnaire to collect data and were subjected to analysis using food security index and Z-test analyses). Food security status result showed that the mean per capita household expenditure per month for programme beneficiary farmers was ₦21,120.46(69.02USD) as against the non-programme beneficiary farmers with ₦5,474.41(17.89 USD). More so, the food security index, showed that a moderate proportion of programme beneficiary farmers were food secured (43.33%) than non-programme beneficiary farmers (33.33%). The study concluded that the programme has impacted on the beneficiary farmers by increasing their food security status. Policies aimed at replicating the programme in other rural communities and encouraging farmers to engage in foreign sponsored programmes is thereby advocated in order to guarantee household food security.

Key words: effect, USAID MARKET II, programme, food security, beneficiary, farmers

INTRODUCTION

The Federal Government of Nigeria has undertaken series of measures and policies over the years to use agriculture as a strategy to alleviate poverty and attain food security among rural households. Food security is an essential determinant for any population to be healthy and well-nourished [8]. In Nigeria, more than 82.9 million of its population lived below poverty line of ₦137,430 per year, whereas 40.1 per cent of the country's populations live in abject poverty as affirmed by National Bureau of Statistics, (NBS) [10], [1]. Food security is said to manifest when people always have both physical and economic access to sufficient, safe and

nutritious food to meet their dietary needs for a healthy life [7], [4]. It also referred to as the availability and affordability of food which is an indication of effective agricultural development policy in most developing countries. Though Nigeria claims to be the largest economy in Africa, the food insecurity rate in the country is worrisome, as not less than 70% of the populations are food insecure surviving on less than a dollar per day [18]. The World Bank, International Fund for Agricultural Development (IFAD), United States Agency for International Development (USAID), International Institute of Tropical Agriculture (IITA), National FADAMA Development Project (NFDP) and among others are foreign agencies and international

organizations are development collaborators with the Federal and State governments of Nigeria with the mandate to ensuring rural households were food secure through their promoted programmes. This intervention resulted to engagement of stakeholders in their projects targeted towards having significant impact on the food security and livelihoods of the country's population [13][12]. [6] reported that household food security is comprehensive as it integrates food stability, access and availability of adequate food for the populace to utilize judiciously. Studies has shown that most of the World food insecure countries are in Africa which is characterized by the prevalence of poverty, hunger, malnutrition, famine and high population growth rate [19], [9].

In order to ameliorate food insecurity among rural households in Nigeria, The Maximizing Agricultural Revenue and Key Enterprise in Targeted Sites (MARKETS II) USAID/Nigeria's flagship project under their Feed the Future (FTF) Agricultural Transformation Program (ATP) was introduced to enhance the performance, incomes, nutrition and food security of poor rural farmers or smallholders in an environmentally appropriate manner through proven private sector demand-driven market interventions and programme support services; This initiative has helped about 3.6 million beneficiary farmers to gain access to new technologies of which Akwa Ibom State benefited [18].

In view of the above assertion, it is not certain whether the programme has increased the food security of its beneficiaries. It is against this backdrop that this study was undertaken to determine the food security status of beneficiary and non-beneficiary farmers of the programme in Akwa Ibom State, south-south Nigeria.

Specifically this research:

- (i) analyzed the food security statues of programme beneficiary and non-beneficiary farmers
- (ii) ascertained the food security index of programme beneficiary and non-beneficiary farmers; and

(iii) compared the differences between the food security statuses of programme beneficiary and non-beneficiary farmers in the study area.

MATERIALS AND METHODS

Area of Study

The area of study is Akwa-Ibom State, Nigeria south-south Nigeria. The State lies between Latitude 4⁰33N', 5⁰35N' of the Equator and Longitude 7⁰35E', 8⁰25E' of the Greenwich Meridian. It shares border on the east by Cross Rivers State, the west by Rivers State as against Abia State, and the south by the Atlantic Ocean. Akwa Ibom State occupies a total landmass of 7,246 square kilometers, and is blessed with natural resources abound in agriculture, forestry, solid minerals, crude oil and gas. It has a population of 5,482,200 people and 3.5% annual population growth rate of 191,877 people [11]. The climate is tropical rain forest marked by two distinct seasons, the dry (November, April) and the wet (May–October) seasons. It has an average annual rainfall of 2,500mm-3,000mm and temperature of between 20⁰C to 30⁰C with mean Relative Humidity of 80.0%. The soil found in the area is generally fertile sandy loam which favours the cultivation of many arable and cash crops such as maize, cassava, oil palm, rubber and cocoa [2].

Sample Size and Data Analysis

The study adopted purposive and multistage random sampling procedures. Purposively, one Local Government Area/programme area each were randomly selected from the agricultural zones of the State namely; Uyo, Eket, Oron, Ikot Ekpene, Etinan and Abak, because the intensity of their engagement in the programme activities. Randomly, multistage sampling procedure was used to select two (2) communities each from the six (6) Local Government Areas; **Uyo**, Effat Offot and Aka Offot were selected; **Eket**– Afaha Eket and Okon Eket; **Oron** – Eyo Abasi District and Uya Oro District; **Ikot Ekpene** – Ikot Abia Idem and –Ikot Osura; **Etinan** – Ekpene Obom and Ikot Ekan and **Abak**–Utu Edem Urua and Oku Abak, which gave a total

Headcount index (H) = M/N(2)

where:

M = number of food secure/insecure households

N = the number of households in the sample

Model Specification

The Z-test analysis was adopted to compare the mean differences between food security status of programme beneficiary and non-beneficiary farmers

The model is specified thus:

$$Z = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}} \dots\dots\dots(3)$$

$n_1 + n_2 - 2$ degrees of freedom

Where,

Z = Z Statistic

\bar{X}_1 = sample mean of programme beneficiary farmers' food security status

\bar{X}_2 = sample mean of non-programme beneficiary farmers' food security status

σ_1^2 = non-programme beneficiary farmers' standard deviation

σ_2^2 = non-programme beneficiary farmers' standard deviation

n_1 = programme beneficiary farmers' sample size

n_2 = non – programme beneficiary farmers' sample size

RESULTS AND DISCUSSIONS

Food Security Status of Programme Beneficiary and Non- Beneficiary Farmers

The result showed the food security status of programme of both farmer groups (Table 1).

The result indicates that the mean income for programme beneficiary farmers was ₦233,855.60 (764.23 USD), non-programme beneficiary farmers (₦192,986.70 630.67USD), expenditure ₦193,555.60(632.53USD) (programme beneficiary farmers) and ₦38,923.33 (127.20USD) (non-programme beneficiary) with household sizes of 6.54 and 5.87 persons for programme beneficiary and non-programme beneficiary farmers respectively. Using two-third of the mean per capita household expenditure following [17], the study estimated ₦21,120.46(69.02USD)and ₦5,474.41 (17.89USD) as a food security line (bench mark) for programme beneficiary and non-beneficiary farmers respectively.

The study revealed that a good proportion (56.67%) and most (66.67%) of the programme beneficiary and non-beneficiary farmers as food insecure respectively while a moderate (43.33%) of beneficiary and 33.33% of non-beneficiary farmers were food secure. The result implied that the mean per capita household expenditure per month for programme beneficiary farmers was ₦21,120.46, (69.02 USD) which was higher than the non-beneficiary farmers (₦5,474.41(17.89USD) amounting to an equivalent of ₦704.02 (2.30USD) and ₦182.48,(60 cents) daily expenditure respectively.

The result is corroborates with the previous studies of [5], as they observed ₦7,967.57 (26.03USD) as monthly mean capita expenditure which translate to ₦265.57 (87 cents) per day while [16], [17] estimated ₦75.71, (25 cents) as daily mean capita expenditure for rural households in Ogun State, Nigeria.

Table 1. Frequency distribution of food security statues of programme beneficiary and non-beneficiary farmers

Farmers	Beneficiary farmers			Non-beneficiary farmers		
	Mean	Min	Max	Mean	Min	Max
Income	233,855.60	77,000	400,000	192,986.70	39,000	850,000
Expenditure	193,555.60	70,000	350,000	38,923.33	10,000	170,000
Household size	6.5	3	10	5.8	1	13
Food security	21,120.46	6,533	46,66.67	5,474.41	666.67	33,333.33

Source: Author's estimated based on Field Survey, 2020.

Note 1. United States Dollar exchanged for 306 Nigerian Naira (NGN) during the research.

Food Security Index of Programme Beneficiary and Non- Beneficiary Farmers

The result of food security index of beneficiary and non-beneficiary is shown in Table 2. There was a lower percentage of food secured farmers for both farmers in the study area as compared to greater percentage of those that were food insecure. There was more percentage of food secure farmers for programme beneficiaries than that of the non-programme farmers. This is an indication of effect of USAID programme in improving the

livelihood of the farmers particularly on increased expenditure. This result further portrays that the USAID farmers were moderately food insecure since the number of food insecure (56.67%) were slightly greater than food secure (43.33%) compared to non-programme beneficiary farmers that were likely food insecure (66.67%) with greater percentage than food secure (33.33%). This finding is consistent with that of [14], [15] as they reported that two third of farming rural households in Nigeria were not food secure.

Table 2. Frequency distribution of food security index of programme beneficiary and non-beneficiary farmers

	Beneficiary Farmers		Non- beneficiary farmers	
Food security index	Frequency	Percentage	Frequency	Percentage
Food secure	51	56.67	60	66.67
Food insecure	39	43.33	30	33.33

Source: Field Survey Data, 2020.

Comparison between Food Security Statuses of Programme Beneficiary and Non-Beneficiary Farmers

The result of comparison of the differences between food security index for programme beneficiary and non-beneficiary farmers is presented in Table 3. The result revealed that mean food security index for both farmer groups were 21,120.46 (programme

beneficiary farmers) and 5,474.441 (non-beneficiary farmers). The difference in mean between the two groups of farmers was 15,646.02 with a standard deviation of 13,665.68. The result shows that the calculated “Z” was 16.42, which is higher than the tabulated “Z” of 2.58 was highly significant at 1.0% level of probability.

Table 3. Z-test comparison of the differences between food security statuses of beneficiary and non- beneficiary farmers in the study area

Variables	Mean	Standard Deviation	F-calculated	F-tabulated
Beneficiary farmers	21,120.46	7,474.4920		
Non-beneficiary farmers	5474.441	5083.9030		
Combined	13297.45	10107.93		
Difference	15,646.02	13,765.68	16.42***	2.58

Source: Field survey, 2020

***p ≤ 0.01

Note: 1. United States Dollar exchanged for 306 Nigerian Naira (NGN) during the research.

This finding is in consonance with the findings of [10], [3] as they found that there was an increased availability and access to food in rural areas of Nigeria which was as a result of the intervention of rural development programme.

CONCLUSIONS

The study concluded that the programme has effect on the food security status beneficiary farmers. It is therefore recommended that the

programme should be replicated in other rural communities and policies aimed at encouraging farmers to engage in foreign and donor sponsored programmes is advocated for increased household food security.

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