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ANCHOR BORROWERS' PROGRAMME ON RICE PRODUCTION AND FOOD SECURITY IN EBONYI STATE, NIGERIA

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ABSTRACT:

This study examines the Anchor Borrowers' Programme on Rice Production and Food Security in Ebonyi State and how the federal government has used the initiative to ramp up rice production in the country. A questionnaire was used as the research instrument to collect the required data from 442, after deploying a cross-sectional research design and convenience sampling technique. Data collected were examined through pearson's product moment correlation, t-test and linear regression analyses respectively with the aid of Statistical Package for Social Sciences (SPSS) version 23. This study adopts the human security theory, with focus on food security, which is one of the seven major components of the human security paradigm as its theoretical framework. The human security theory presents us with a heuristic tool for interrogating the central issue of this study. The results of the study revealed a strong significant relationship between the Anchor Borrowers' Programme and food security in Ebonyi state, which positively affects Nigeria as a whole. The statistical test results show that the Anchor Borrowers' Programme brought food security to Ebonyi state. This study also showed that the interventions have specifically helped to reduce Nigeria's rice import bill from US$1.05 billion to US$18.50 million annually. In total, about 13 million direct and indirect jobs have been created as a result of the Bank's agricultural sector interventions. Study further showed strong linked with poverty reduction among smallholder farmers in Ebonyi State, Nigeria. Finally, the study results show that Anchor Borrowers' Programme has significantly transformed rural smallholder farmers from subsistence to commercial production in Ebonyi State, Nigeria.

The study recommends among others that Nigeria's Federal and state governments should ensure sustenance of the programme, unemployed graduates should take advantage of the Anchor Borrowers' Programme, as they have everything to gain and nothing to lose and more of such programmes need to be encouraged in other sectors of the economy in Nigeria, such as education, Real Estate, and Small and Medium Enterprises, to mention but a few.

Keywords: Anchor Borrowers' Programme, Rice Production, Food Security, Human Security Theory.

1. INTRODUCTION

Agriculture has over the decades remained a major challenge for Nigeria, (Nwajiuba, 2012, p. 3). As stated by Olaoye (2014), careful use of agricultural resources of any nation could help support economic growth. Additionally, it is capable of raising the country's Gross Domestic Product, provide jobs, feed its population and lower poverty level. No country can develop without giving due attention to agriculture. Regrettably, a lot of developing countries, especially Nigeria, that have great potential for agricultural development are not maximising these opportunities. This is seen in the favourable weather and large cultivable lands, a large percentage of which is grossly underutilised. However, with the rate of population growth in a lot of developing countries in Africa, Latin America and Asia and the resulting demographic effects on these continents, food insecurity has become a worrying challenge in most developing nations, especially Nigeria. That is why the agricultural sector remains pivotal for national food security, job and wealth creation as well as a tool for poverty reduction as more than 70 per cent of the labour force is engaged in the sector" (Egbulonu, Duru & Echeta, 2020, p. 295).

Food security has become a contemporary development challenge in view of the role it plays in promoting good health, mitigating abject poverty, transforming people's lives and livelihood. According to Rosegrant, Praisner, Meijer and Witcover (2001), the failure of food producers to match alarming rate of population growth particularly in Asia in the 1960s, led to a prevalent fear of an impending starvation in the region with devastating consequences around the world" (p. 3). Therefore, as Nigeria's population grows at an uneven rate with its food production capacity, the probability of an imminent food scarcity remains inevitable except agricultural productivity is raised to match population growth (Actionaid, 2020, p. 1). To address this concern in order to achieve food security for a population estimated to be the world's third most populous country by the year 2050, with an population projected to be 300 million, (United Nations, 2017), the Central Bank of Nigeria (CBN) in line with, "its development finance function" created the ABP in 2015, with a focus of collaborating with anchor companies involved in the production and processing of key agricultural commodities. The programme is targeted at helping rural farmers increase production and supply of feedback to the processors, reduce importation and conserve Nigeria's external reserves" (Saheed et al., 2018, p. 242).

Rice, which is a staple food in the country and is largely cultivated at the subsistent level by small-scale farmers is inadequate due to low crop yield. Nigerian food security programme of increasing agricultural production especially rice for self-sufficiency is still far from being realized and expected. Rice farming has also not been able to attain its potential in Nigeria due to traditional methods of farming, misuse of modern agricultural technology and less availability of credit (Chandio *et al*., 2017). It is believed that finance is the life blood of any business or organization and generally plays crucial role in agricultural sector's growth and development, the deteriorating contribution of Nigeria agriculture to both GDP and exchange earnings can be attributed largely to low productivity and agricultural credit **(Daudu, Osimen,& Shuaibu ,2023).**The lack accessibility of small farmers to credit and some factors like socio-economic, economic and institutional and other inputs from the Anchor Borrowers Programme infraction has hamper the rice production.

Existing literature on the ABP focused on challenges, the benefits of the programme and its contribution to the agricultural sector. This study, however, aims at assessing the impact of ABP on food security in Nigeria with a focus on small holder rice farmers in Ebonyi State Nigeria, especially considering the present challenges affecting the programme.

Objectives of the Study

The general objective of this study is to examine the ABP and its impact on food security in Nigeria with focus on the activities of rice farmers in Ebonyi State, Nigeria. The specific objectives include the following:

i. To examine how the ABP has reduced agricultural commodity importation in Nigeria?
ii. To ascertain whether the ABP has been able to create/promote employment and entrepreneurship in Ebonyi State, Nigeria?
iii. To determine the impact of ABP on poverty reduction among smallholder farmers in Ebonyi State, Nigeria?
iv. To explore how the ABP has been able transform rural smallholder farmers from subsistence to commercial production levels in Ebonyi State, Nigeria?

Research Hypotheses

The following null hypotheses are to be tested to achieve the objective of the study:

i. Ho: There is no significant relationship between the ABP and food security in Nigeria.
ii. Ho: The ABP has not significantly created/promoted employment and entrepreneurship in Ebonyi State.
iii. Ho: The ABP has not significantly reduced poverty among smallholder farmers in Ebonyi State, Nigeria.
iv. Ho: The ABP has not been able to significantly transform rural smallholder farmers from subsistence to commercial production levels in Ebonyi State, Nigeria.

2. LITERATURE REVIEW

2.1 Anchor Borrowers' Programme

President Muhammadu Buhari introduced the Anchor Borrowers' Programme (ABP) on November 17, 2015. The goal was to create a link between small-holder farmers who grow the essential agricultural products and anchor corporations who handle their processing. The program's main goals are to improve small-scale farmers' production of key commodities by giving them cash for farm labor and in-kind agricultural inputs, stabilize the supply of inputs to agro processors, and address the nation's negative food balance of payments. The ABP offers smallholder farmers cash support (for labor on the farm) and in-kind farm inputs. Its main goals are to improve farm financing and credit availability. This is anticipated to improve the nation's food balance of payments, stabilize the input supply to agro-processors, and increase output of a particular commodity of interest. Risk pooling and insurance provision are two other noteworthy goals. This will contribute to higher production and lower imports of agricultural commodities, protecting the nation's foreign exchange reserves and boosting the use of agricultural enterprises' capacity.

The ABP is "structured into three components, namely out-growers support, risk mitigation and training and the program was conceived to complement the Growth Enhancement Support (GES) Scheme, implemented under the Agricultural Transformation Agenda and advance the status of many smallholder farmers to commercial or large contract growers with attendant increase in agricultural productivity and farm income (CBN, 2016). According to the Central Bank of Nigeria flowchart (2016, p. 2 -12), "the CBN in line with its Developmental Finance function established the ABP to create a linkage between anchor companies involved in the processing and small holder farmers of the required key agricultural commodities.

2.2 Rice Production in Nigeria

Globally, rice (Oryza sativa) is the most important food crop; it is eaten by more than half of the world's population, particularly those in India, China, and other African and Asian countries

(FAO, 2006). In Nigeria, it is one of the major cereals and has become a cash crop, especially in terms of its production as its cultivation provides employment and income to over 80 per cent of the population. This is due to the activities involved in its production and distribution chains from cultivation to consumption (Imolehin, 1991). Since 1970, Nigerians' per capita calorie consumption has increased faster than that of any other African country (WARDA, 2001). Rice production and consumption (demand) are growing faster than for any other major staple because consumption is broadening across all socio-economic classes.

The Nigerian rice sector has seen some remarkable developments over the years (**Chukwudi, Gberevbie, Abasilim & Imhonopi, 2019).** With rice now being a structural component of the Nigerian diet and rice imports making up an important share of Nigerian agricultural imports, there has been a deliberate policy aimed at increasing local rice production. About 1500 BC, the low yield native red grain species "Oryza glaberima stued," which was widely farmed in the Niger Delta, was used to commence rice cultivation in Nigeria (Ogundele & Okoruwa, 2006). Conversely, Oryza sativa, which yields more, was introduced in the 1980s.Though on a very limited scale, rice is currently farmed in practically all of Nigeria's agro-ecological zones. According to Imolehin and Wada (2000), the area under cultivation had expanded from 156,000 to 255,000 hectares, and the production of paddy rice had increased from 13,400 to 344,000 tons in 1970. Over the last 20 years, there has been a significant growth in the area planted, output, and productivity of paddy rice production. These figures currently stand at 66,6000ha, 1.09 million tons, and 2.07 tonnes/ha, respectively. Nigeria was the nation that produced the most rice in West Africa **(Daudu, Osimen,& Ameh, 2024).**
From roughly 1.2 million hectares, the nation produced 3.4 million tons of rice in 1990. If the government had maintained a consistent import policy for rice, this normal production pattern would have been maintained (Imolehin and Wada 2000). The ban on the import of rice may have contributed to the surge in rice output in 1985. With almost 22% of the nation's rice production in 2000, Kaduna State was the top producer of the grain. Niger State (16%), Benue state (10%), and Taraba state (7%), in that order, came next. Great variances also exist in terms of yield. During the dry season, the average national rice yield (3.05 tons/ha) was higher than that of the wet season (1.85 ton/ha). With an average annual production of 3.2 million tons of paddy rice or two million tons of milled rice, Nigeria is currently the largest producer of rice in West Africa (Damola, 2010).

2.3 Rice Production in Ebonyi State, Nigeria
One of the main rice-producing regions in Nigeria is Ebonyi State. The State also serves as a benchmark for Nigerian rice production. In the State, it is common for rice producers to use alternative production methods. Nevertheless, there are barriers preventing farmers from investing more in rice production and insufficient knowledge about the profit margins in the State's various rice production chain. Furthermore, given the current economic downturn the country has faced, it is imperative to advise rice farmers on the best production systems to implement in order to maximize yield, boost family income and food security, and enhance marketable output.
Nigeria's Ebonyi State is situated in the South-east. According to Okereke (2012), the State is located in Nigeria's humid tropical agro-ecological zone, between latitudes 50 40ˈN and 60 45ˈN and longitudes 70 30ˈE and 80 30ˈE. With a 3.5% growth rate, its predicted population in 2016 was 2,253,140 people living on 5,935 km2 of land (National Population Commission, 2016). The States of Benue, Enugu, Cross River, Imo and Abia share borders with the State to the north, east, and south, respectively. Ebonyi State experiences a tropical climate that is humid. The average yearly temperature is 280 degrees Celsius, and there is between 1200 and 2500 millimeters of rainfall (Ebonyi Agricultural Development Programme, EBADEP, 2005).

It features lush, tropical rainforest vegetation. Ebonyi State's soil is primarily loamy and clayey. The marshy, clayey soil is ideal for growing rice.

Nigeria's efforts to achieve food security make it crucial that resource-poor rice farmers have access to sustainable agricultural technologies. Examining farmers' adoption patterns is crucial to determining whether a technology is acceptable because there is frequently a gap between the development of new technologies and their implementation. These farmers can offer valuable insights about prospective adoption of new technologies. The World Bank launched the State Agricultural Development Project (ADP) as an intervention to help farmers embrace better agricultural production technology in order to achieve high farmer productivity. However, it appears that the Ebonyi State Agricultural Development Program's (ADP) persistent use of outdated technologies in disregard for better production techniques has prevented rice farmers in the state from seeing the desired rise in yield.

Theoretical Framework

This study adopts the human security theory, with focus on food security, which is one of the seven major components of the human security paradigm as its theoretical framework.

Human Security Theory

The 1994 Human Development Report defined human security as people's "safety from chronic threats and protection from sudden hurtful disruptions in the patterns of daily life." The seven components of Human Security are: economic security; food security; health security; environmental security; personal (physical) security; community security; and political security, (Dorn, 2022). Mahbub ul Haq, a Pakistani economist, international development theorist drew global attention to the concept of human security in the United Nations Development Programme's 1994 Human Development Report. Its relationship with food security is based on the fact that food insecurity and hunger undermine a person’s dignity and wellbeing. Human security depends on a nation's capacity to produce and obtain enough food to keep its citizens from going hungry or malnourished. In tackling food insecurity and its aftermath, the challenge lies not only in preserving a sufficient domestic food supply but also in ensuring that the food that is already there is accessible to those who require it the most. There is an urgent need for both long-term development policies and direct, immediate action given the catastrophic nutritional state in which many individuals find themselves. According to this theory, food security requires both practical strategies that can be implemented immediately in order to improve people's food security and long-term capacity-building initiatives that can gradually improve sustained production and access to food for the sake of improving people's survival. Food insecurity should be addressed by creating viable avenues for access to food, enhancing entitlements to food, and transferring food to people living in critical or pervasive conditions.

In a world that has been progressively fragmented, with ongoing conflict and poverty, it is vital than ever to ensure that food programmes and development assistance are administered in ways that do not worsen conflict, but instead promote peace negotiations and an end to conflict (Commission on Human Security, 2003).

The concept of human security has achieved growth preeminence and acceptance in the post-cold war era. Over the last two decades, the central messages of human security as a general policy reference have been gradually mainstreamed in international relations.

The 2015 World Summit Outcome adopted by all United Nations heads of state on the UN endorsed for the first time the concept of human security and one of its main components is the responsibility to protect. The acceptance of the right of people to live in freedom and dignity, free from poverty and despair” (Muguruza, 2007:15-16). According to Alkire, 2002 cited in Muguruza (2007:15), Human security is “commonly understood as prioritising the security of

people, especially their welfare, safety and well-being instead of that of states. Human security involves the protection of the vital core of all human lives in ways that enhance human freedoms and human fulfillment. Human security means protecting fundamental freedoms – freedoms that are the essence of life. It means protecting people from critical (severe) and pervasive (widespread) threats and situations (Commission on Human Security, CHS, 2003). Proponents of human security argue that hunger, disease, poverty, population displacement, environmental degradation and social exclusion kill people far more than war, genocide and terrorism combined human security as, "freedom from want and freedom from fear."

Muguruza argues further that human security addresses two types of threats: (i) chronic embedded threats to security-like hunger, diseases, poverty violence against women and environmental degradation and (iii) sudden and painful change-such as consequences of conflict, sudden economic downturn and natural disasters.

Human security demands for a method that is by definition motivated by concern to address challenge faced by people, all-inclusive, context-specific and prevention oriented to address the plethora of risks and threats that endanger and undermine the resilience of communities and societies (FAO, 2016). Similarly, food insecurity is one of these insecurities and like many of them, is also interlinked to other types of insecurities such as political, economic, health, environmental, personal and community. The human security approach, based on its core vision to achieve freedom from fear, want and indignity, can help address challenges stemming from and resulting in protracted crises, marginalization and abject poverty **(Osimen, Daudu, & Awogu-Maduagwu, 2023).**

Application of Theory to the Study

The concept of human security has become a landmark in the field of security studies. The core of the concept is seen to be the idea that the focus shifts from the state as the referent object to human beings," (Kerr, 2007:92). Human security plays various roles: Firstly, it offers shared languages that deliver new perspective in investigation; secondly, it directs evaluations through its emphasis on certain priority performance criteria; thirdly, it offers positive analysis through its emphasis on which outcomes are important to explain and which determinants are legitimate to include; fourthly, it encourages action in certain directions though the types of value which it highlights and the range of types of experience to which it leads us to attend and fifthly, it focuses attention on policy design by directing attention to a particular range of outcomes as being important to influence and a particular range of means as being relevant to consider" (Gasper, 2005:223).

Policies in the field human security can be put in place in Nigeria to overcome a humanitarian crisis like food insecurity which possibly can lead to a conflict. The relevance of the theory is in its usability to frame solution which are hard to elaborate and implement in the strict realists' conceptions. The theory provides insights into the dynamics of agricultural growth and the Nigerian government has over the years formulated and implemented various agricultural projects and policies but with little success achieved. But with higher productivity of agricultural output through the implementation of ABP, economic growth and food security can be achieved in Nigeria as assumed by the theory.

3. RESEARCH METHODS

The study will adopt the cross-sectional survey research design. This is because the measurements of the dependent variable and independent variable will be taken at the same time with the different sub-groups without any attempt at altering, manipulating, distorting or controlling the variable being studied (Obasi, 2000; McNabb, 2012). This study will be carried out in Ebonyi State, Nigeria. Ebonyi State is located in the South-eastern part of Nigeria. The

target population for this study is rice smallholder farmers who have benefited from the ABP in the state. The choice of the state is based on the large number of beneficiaries of ABP as documented by CBN. Besides, Ebonyi state is a major rice producing state in Nigeria. The state is a reference point for rice production in Nigeria (Chidiebere-Mark, Ohajianya and Onyeagocha, 2019: 238). As of March 2021, the beneficiaries of ABP in Ebonyi state comprised of 31,285 rice farmers. This study will form strata and selection of participants for the study shall be based on simple random sampling. A stratified random sampling shall be a fair representation of the various strata within the given population of interest. Therefore, the sample size was obtained using the Cochran (1977) formula to calculate a representative sample for proportions as;

$$n_0 = \frac{Z^2 Pq}{e^2}$$

Where, n_0 is: the sample size,
Z the selected critical value of desired confidence level,
p is the estimated proportion of an attribute that is present in the population,
$q = 1 - p$ and
e is desire level of precision
Hence, taking 95% confidence level with ±5% precision, the calculation for required sample size will be as follows;
$p = 0.21$ and hence $q = 1 - 0.21 = 0.78$; $e = 0.05$; $z = 1.96, alpha = 0.05$

$$n_0 = \frac{(1.96)^2 \times 0.21 \times 0.78}{0.05^2}$$

Therefore, the required sample size was 255 based on 95% confidence level, $\alpha = 5\% = 0.05$.
Again, taking 99% confidence level with ±5% precision, the calculation for required sample size is as follows;
$= 0.21$ and hence $q = 1 - 0.21 = 0.78$; $e = 0.05, z = 2.58$

$$n_0 = \frac{(2.58)^2 \times 0.21 \times 0.79}{0.05^2}$$

$$n_0 = 442$$

Therefore, the required sample size is 442 based on 99% confidence level, and
Consequently, a sample size of 442 shall be used. Smallholder farmers producing in the state shall be randomly selected to ensure fair representation from each of the local government areas that shall make up the sample size. The sampling frame to be used in this study was extracted from Central Bank of Nigeria publication on ABP, 2020. The study also adopted purposeful sampling in form of interviews. Consequently, the director, Development Finance Department, CBN and Ebonyi State Chairman, RIFAN were interviewed. These are people were believed to provide accurate answers to the questions raised in this study. Questionnaire and oral interview instrument shall be used in this study to collect data. The survey took place between June and August, 2022. Four hundred and forty-two questionnaires were administered and four hundred (400) were recovered.

A pilot study was carried out to determine the reliability and test for internal consistency of the research instrument. Twenty copies of the questionnaire were administered to the smallholder farmers in Ebonyi state to pre-test the research instrument. The data collected from the retrieved questionnaire was tested with Cronbach's Alphas coefficient of 0.808 at 0.05 level of significance. The coefficient result means that the instrument is capable of measuring what it

intends to measure to a high degree. Data collected from the questionnaire and interviews were subjected to qualitative and quantitative analysis. The analyses include descriptive statistics and frequency tables. Specifically, frequency and percentage were used to analyze the characteristics of respondents. The first and second Hypotheses were analyzed using linear regression analyses. The third and fourth hypotheses were analyzed using Pearson's product moment correlation and t-test respectively. Statistical package for social sciences (SPSS) version 23 was used for the analyses. The methods of analyses were suitable for the nature of this study were suitable for the hypotheses raised in this study.

Data Presentation and Analysis

Table 1: Demographic Characteristics of Respondents

		Frequency	Percentage	Cumulative Percent
Gender	Male	263	65.8	65.8
	Female	137	34.3	100.0
	Total	400	100.0	
Age	18-25	142	35.5	18.8
	26-35	107	26.8	56.8
	36-45	98	24.5	97.0
	46-55	25	6.3	99.5
	56 and Above	28	7.0	100.0
	Total	400	100.0	
Marital Status	Single	112	28.0	28.0
	Married	242	60.5	88.5
	Divorced	39	9.8	98.3
	Widowed	7	1.8	100.0
	Total	400	100.0	
Education Qualification	SSCE	75	18.8	18.8
	OND	152	38.0	56.8
	HND	161	40.3	97.0
	BSc	10	2.5	99.5
	Masters or Doctoral	2	.5	100.0
	Total	400	100.0	
Beneficiary of ABP	Yes	64	16.0	16.0
	No	336	84.0	100.0
	Total	400	100.0	
Period of benefits from ABP	0-1 year	52	13.0	1.3
	2-3 years	115	28.8	2.5
	4 years & above	167	41.8	6.3
	Not Applicable	66	16.5	42.5
	Total	400	100.0	100.0

From Table 1, the number of male respondents is 263 (65.8%), and female respondents are 137 (34.3%). Respondents that were between ages 18-25 are 142 (35.5%), ages between 26-35 was 107 (26.8%), ages between 36-45 are 98 (24.5%) , ages between 45-55 are 25 (6.3%), and ages between 56 and above are 28(7.0%). 112 (28%) are single, 242 (60.5%) are married, 39 (9.8%) are divorced, and 7 (1.8%) are widowed.

Table 2: Presentation of responses from the respondents

S/N	Item	SA	A	NS	D	SD	Total
1	Are you aware of the various agricultural programmes of the federal government	230	145	15	5	5	400
2	Agricultural policies of various administrations in Nigeria have resulted in self-sufficiency in food production	129	229	32	6	4	400
3	Poor implementation of agricultural policies is one of the reasons for food insecurity in Nigeria	133	209	50	4	4	400
4	Nigeria's national agricultural policies have increased employment generation across the country.	121	205	62	7	5	400
5	Anchor Borrowers' Programme has boosted production of local rice in Ebonyi State	104	219	65	6	6	400
6	Anchor Borrowers' Programme has significantly reduced the importation of rice in Ebonyi State	95	192	94	12	7	400
7	Anchor Borrowers' Programme has increased living standards of rice farmers in Ebonyi	101	141	50	53	55	400
8	Since the introduction of the Anchor Borrowers Programme rice exports in Ebonyi State has expanded	43	203	65	71	18	400
9	The introduction of the ABP has resulted to the employment of more youths by rice farmers in Ebonyi State	69	154	80	53	44	400
10	Youths has been involved in rice farming in Ebonyi increased since the ABP was introduced	54	163	88	71	24	400
11	Significant number of youths have benefited from the Anchor Borrowers Programme in Ebonyi State	58	174	68	68	32	400
12	The ABP has not been properly implemented in Ebonyi State	18	76	85	172	49	400
13	A lot of smallholder farmers in Ebonyi State have expanded their rice production capacity with the help of APB	72	156	91	58	23	400
14	The APB has helped many smallholder rice farmers in Ebonyi State commercialize their practice	58	158	85	70	29	400
15	Lack of experience in capacity building, weak capacity of implementers, are threats to the Ancor Borrowers Programme	57	163	90	63	27	400
16	Anchor Borrowers' Programme has resulted poverty reduction among smallholder rice farmers	54	168	81	81	16	400
17	Rice is produced in large commercial quantity in Ebonyi State since the introduction of the Anchor Borrowers' Programme	64	177	71	68	20	400

18	The state of rice production in Ebonyi State today is better than before since the introduction of the Anchor Borrowers' Programme	58	176	91	61	14	400
19	Inadequate distribution of farm inputs negatively affects the volume of rice production in Ebonyi state	52	177	109	49	13	400
20	Food insecurity has assumed a worrisome dimension in Ebonyi State despite the Anchor Borrowers' Programme	11	55	133	138	63	400

Where SA-Strongly Agree, A-Agree, NS-Not sure, D-Disagree, SD-Strongly disagree

From Table 1, Respondents with Senior Secondary School Certificate are 75 (18.8%), OND are 152 (38%), HND are 161 (40.3%), BSc are 10 (2.5%) and Postgraduates are 2 (0.5%). The number of Non-beneficiary is 64 (16%), and the number of beneficiaries is 336 (84%). 0-1 years are 52 (13%), 2-3 years are 115 (28.8%), 4 years are 167 (41.8%) and 66 (16.5%) not applicable. From Table 2, 230 (57.5%) strongly agree, 145 (36.3%) agree, 15 (3.8%) were not sure, 5 (1.3%) disagree, and 5 (1.3%) strongly disagree that they were aware of the various agricultural programs of the federal government. From the responses, it was observed that 129 (32.3%) strongly agreed, 229 (57.3%) agreed, 32 (8%) were not sure, 6 (1.5%) disagreed, and 4 (1%) strongly disagree that agricultural policies of various administrations in Nigeria have resulted in self-sufficiency in food production. From the responses, it was observed that 133 (33.3%) strongly agreed, 209 (52.3%) agreed, 50 (12.5%) were not sure, 4 (1%) disagreed, and 4 (1%) strongly disagreed that poor implementation of agricultural policies is one of the reasons for food insecurity in Nigeria.

From the responses, it was observed that 121 (30.3%) strongly agreed, 205 (51.3%) agreed, 62 (15.5%) were not sure, 7 (1.8%) disagreed, and 5 (1.3%) strongly disagreed that Nigeria's national agricultural policies have increased employment generation across the country. From the responses, it was observed that 104 (26.0%) strongly agreed, 219 (54.8%) agreed, 65 (16.3%) were not sure, 6 (1.5%) disagreed, and 6 (1.5%) strongly disagreed that anchor Borrowers' Programme has boosted production of local rice in Ebonyi State. From the responses, it was observed that 95 (23.8%) strongly agreed, 192 (48.0%) agreed, 94 (23.5%) were not sure, 12 (3.0%) disagreed, and 7 (1.8%) strongly disagreed that anchor Borrowers' Programme has significantly reduced the importation of rice in Ebonyi State. From the responses, it was observed that 101 (25.3%) strongly agreed, 141 (35.3%) agreed, 50 (12.5%) were not sure, 53 (13.3%) disagreed, and 55 (13.8%) strongly disagreed that anchor Borrowers' Programme has increased living standards of rice farmers in Ebonyi. From the responses, it was observed that 43(10.8%) strongly agreed, 203 (50.8%) agreed, 65 (16.3%) were not sure, 71 (17.8%) disagreed, and 18 (4.5%) strongly disagreed that since the introduction of the Anchor Borrowers Programme rice exports in Ebonyi State has expanded. From the responses, it was observed that 69(17.3%) strongly agreed, 154 (38.5%) agreed, 80 (20.0%) were not sure, 53 (13.3%) disagreed, and 44 (11.0%) strongly disagreed that the introduction of the ABP has resulted to the employment of more youths by rice farmers in Ebonyi State.

From the responses, it was observed that 54 (13.5%) strongly agreed, 163 (40.8%) agreed, 88 (22.0%) were not sure, 71 (17.8%) disagreed, and 24 (6.0%) strongly disagreed that Youths has been involved in rice farming in Ebonyi increased since the ABP was introduced. From the responses, it was observed that 58 (14.5%) strongly agreed, 174 (43.5%) agreed, 68 (17.0%) were not sure, 68 (17.0%) disagreed, and 32 (8.0%) strongly disagreed that the significant number of youths have benefited from the Anchor Borrowers Programme in Ebonyi State. From the responses, it was observed that 18 (4.5%) strongly agreed, 76 (19.0%) agreed, 85 (21.3%) were not sure, 172 (43.0%) disagreed, and 49 (12.3%) strongly disagreed that the APB

has not been properly implemented in Ebonyi state. From the responses, it was observed that 72(18.0%) strongly agreed, 156 (39.0%) agreed, 91 (22.8%) were not sure, 58 (14.5%) disagreed, and 23 (5.8%) strongly disagreed that a lot of smallholder farmers in Ebonyi state have expanded the production capacity with the help of APB. From the responses, it was observed that 58 (14.5%) strongly agreed, 158 (39.5%) agreed, 85 (21.3%) were not sure, 70 (17.5%) disagreed, and 29 (7.3%) strongly disagreed that the APB has helped many smallholder rice farmers in Ebonyi State commercialize their practice.

From the responses, it was observed that 57 (12.3%) strongly agreed, 163 (40.8%) agreed, 90 (22.5%) were not sure, 63 (15.8%) disagreed, and 27 (6.8%) strongly disagreed that lack of experience in capacity building, weak capacity of implementers, are threats to the Ancor Borrowers Programme. From the responses, it was observed that 54 (13.5%) strongly agreed, 168 (42%) agreed, 81 (20.3%) were not sure, 81 (20.3%) disagreed, and 16 (4.0%) strongly disagreed that the anchor Borrowers' Programme has resulted in poverty reduction among smallholder rice farmers. From the responses, it was observed that 64 (16%) strongly agreed, 177 (44.3%) agreed, 71 (17.8%) were not sure, 68 (17%) disagreed, and 20 (5%) strongly disagreed that the rice is produced in large commercial quantity in Ebonyi State since the introduction of the Anchor Borrowers' Programme. From the responses, it was observed that 58 (14.5%) strongly agreed, 176 (44%) agreed, 91 (22.8%) were not sure, 61 (15.3%) disagreed, and 14 (3.5%) strongly disagreed that the state of rice production in Ebonyi State today is better than before since the introduction of the Anchor Borrowers' Programme. From the responses, it was observed that 52 (13%) strongly agreed, 177 (44.3%) agreed, 109 (27.3%) were not sure, 49 (12.3%) disagreed, and 13 (3.3%) strongly disagreed that Inadequate distribution of farm inputs negatively affects the volume of rice production in Ebonyi state. Was also observed from the responses it was observed that 63 (15.8%) strongly disagreed, 138 (34.5%) disagreed, 133 (33.3%) were not sure, 55 (13.8%) agreed, and 11 (2.8%) strongly agreed that food insecurity had assumed a worrisome dimension in Ebonyi state despite the Anchor borrowers' program.

Table 3: Cross-tabulation of Beneficiary of ABP * Period of benefits from ABP Cross-tabulation

		Period of benefits from ABP				Total
		0-1 years	2-3 years	4 years above	Not Applicable	
Beneficiary of ABP	No	0	0	0	64	64
	Yes	52	115	167	2	336
Total		52	115	167	66	400

Table 3 shows cross-tabulation for the Beneficiary of ABP and Period of benefit.

Table 4: Beneficiary of ABP * Education Qualification Crosstabulation

		Education Qualification					Total
		SSCE	OND	HND	BSc	Postgraduate	
Beneficiary of ABP	No	19	26	17	2	0	64
	Yes	56	126	144	8	2	336
Total		75	152	161	10	2	400

Table 4 shows the Beneficiary of Anchor Borrowers' Programme. and academic qualification. Of the beneficiaries that have senior secondary certificates are 56, while 126 of them have an ordinary national diploma, 144 have a higher national diploma, 8 have Bachelor's degree, and 2 have a postgraduate qualifications.

Statistical Test of the hypotheses

Objective one: To examine how the Anchor Borrowers' Programme has reduced agricultural commodity importation in Nigeria

Hypothesis one- Ho: There is no significant relationship between the Anchor Borrowers' Programme. and food security in Nigeria.

To test the first hypothesis, we use linear regression analysis presented in Table 3.

Table 5 : Results of the regression Analysis for the first hypothesis

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.856	0.088		32.634	0.000
	Food security	0.335	0.032	0.463	10.419	0.000

a. Dependent Variable: Anchor Borrowers' Programme.

From Table 5, the relationship between Anchor Borrowers' Programme. and food security can be expressed as

$$ABP = 2.856 + 0.335 \times food\ security$$

This imply that as the ABP programme increases its activities in Ebonyi state, food security increases by a factor of 0.335, at a constant rate of 2.856.

The model performance shows that the R-squared is 0.614, which means that the response variable ABP explains 61.4% of the predictor, and the adjusted R-squared is 0.522.. The hypothesis was rejected at $(F_{1,398}) = 108.558$, p-value of $0.000 < 0.01$. Since the null hypothesis was rejected at a 1% level of significance, it shows very strong evidence of a significant relationship between the ABP and food security in Ebonyi state, which imparts on Nigeria as a whole.

Objective 2: To ascertain whether the Anchor Borrowers' Programme has been able to create/promote employment and entrepreneurship in Ebonyi State, Nigeria

Ho: The Anchor Borrowers' Programme has not significantly created/promoted employment and entrepreneurship in Ebonyi State

To test the first hypothesis, we use linear regression analysis presented in Table 4.

Table .6: Results of the regression Analysis for the second hypothesis

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.503	0.115		4.384	0.000
	Employment	0.497	0.040	0.525	12.334	0.000
	Entrepreneurship	0.359	0.045	0.342	8.028	0.000

a. Dependent Variable: ABP

From Table 6, the relationship between ABP and food security can be expressed as

$$ABP = 0.503 + 0.497 \times Employment + 0.359 \times \text{Entrepreneurship}$$

The results show that as the Anchor Borrowers' Programme program increases its activities in Ebonyi state, there is a positive impact on Employment and entrepreneurship by a factor of 0.497 and 0.359, respectively, at a constant rate of 0.503.

The model performance shows that the $R = 0.805$, R-squared is 0.649, which means that 64.9% of the predictor is explained by the response variable Anchor Borrowers' Programme, and adjusted R-squared is 0.647. The hypothesis was rejected at $(F_{2,397}) = 366.37$, p-value of $0.000 < 0.01$. Since the null hypothesis was rejected at a 1% level of significance, it shows very strong evidence that Anchor Borrowers' Programme has significantly created/promoted employment and entrepreneurship in Ebonyi State. The value for the Standardized Coefficients for employment (0.525) is higher than that of entrepreneurship (0.342). This implies that Anchor Borrowers' Programme creates employment than entrepreneurship though both are highly significant.

Objective 3: To determine the impact of Anchor Borrowers' Programme on poverty reduction among smallholder farmers in Ebonyi State, Nigeria?

Ho: The Anchor Borrowers' Programme has not significantly reduced poverty among smallholder farmers in Ebonyi State, Nigeria.

To test this hypothesis, we use the Pearson product moment correlation coefficient. And the result is presented in Table 7.

Table 7: Correlations between ABP and Poverty reduction

		ABP	Reduced poverty
ABP	Pearson Correlation	1	0.634**
	Sig. (2-tailed)		0.000
	N	400	400
Reduced poverty	Pearson Correlation	0.634**	1
	Sig. (2-tailed)	0.000	
	N	400	400

The result in Table 7 shows that there is strong association between Anchor Borrowers' Programme and Poverty reduction in Ebonyi state, Nigeria with Pearson product moment correlation coefficient of 0.634, and p-value= $0.000 < 0.01$. Therefore, the hypothesis that the ABP has not significantly reduced poverty among smallholder farmers in Ebonyi State, Nigeria, is rejected. We conclude that ABP has substantially reduced poverty among smallholder farmers in Ebonyi State, Nigeria.

Objective 4: To explore how the Anchor Borrowers' Programme has been able transform rural smallholder farmers from subsistence to commercial production levels in Ebonyi State, Nigeria

Ho: The Anchor Borrowers' Programme has not been able to significantly transform rural smallholder farmers from subsistence to commercial production levels in Ebonyi State, Nigeria.

To test the significance of the fourth hypothesis raised, we use student's t-test statistics.

Table 8: T-Test for if ABP has significantly transform rural smallholder farmers from subsistence to commercial production levels

	Test Value = 3					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
ABP	6.543	399	0.000	.26187	0.1832	0.3406

From Table 8, with respect to the fourth hypothesis, the null hypothesis is rejected in favour of the alternative hypothesis at t-value= 6.543, at 399 degree of freedom, p-value= $0.000 < 0.05$, the test value was 3 being (neutral view). We then conclude that ABP has significantly transformed rural smallholder farmers from subsistence to commercial production levels in Ebonyi State, Nigeria.

4. DISCUSSION OF FINDINGS

In this chapter, the findings from the study are discussed in detail. The respondents' responses to the questionnaires revealed the benefits that Ebonyi state's people derived and probably still enjoying from the Anchor Borrowers' Programme. The respondents include two hundred and sixty-three (263) males and one hundred and thirty-seven females. The results revealed that three hundred and forty-seven (347) youths between the ages of 18-45 out of four hundred participants were sampled in the survey. The beneficiaries of the Anchor Borrowers' Programme are fairly educated, showing that 280 out of 336 have been to a higher institution with at least an ordinary diploma up to postgraduate studies, as shown in chapter four of this study. A comprehensive interview was also conducted and transcribed accordingly. The first section of the survey aimed to assess Nigerian agricultural policy as a whole. Generally, this section revealed that the respondents have a fair but unsatisfactory perception of Nigeria's agricultural policies. The responses imply that the policies must be re-visited and given due attention. The second section of the survey was to determine how the Anchor Borrowers' Programme has reduced agricultural commodity importation. Most respondents identified that agricultural commodities and food supply have increased following the Anchor Borrowers' Programme in Ebonyi state. A statistical test was used to validate the claim. The interviews equally revealed that same with statistics to show.

The third section of the survey helped to ascertain if Anchor Borrowers' Programme has been able to create employment opportunities in Ebonyi State. The majority of the respondents were in favor of ABP in creating employment opportunities in Ebonyi state. A statistical test was used to validate the claim. The fourth section of the survey links to the third section; it has to do with investigating the impact of the Anchor Borrowers' Programme on poverty reduction among smallholder farmers in Ebonyi State. The hypothesis that relates to the impact of the Anchor Borrowers' Programme on poverty reduction among smallholder farmers in Ebonyi state was subjected to a statistical test, and the results revealed that the Anchor Borrowers' Programme has significantly reduced poverty in Ebony state. The test statistics will be discussed in detail in this chapter. The last and the fifth section of the survey helped to determine how the Anchor Borrowers Programme has transformed rural smallholder farmers from Subsistence to Commercial Production levels in Ebonyi State. Following the response from the questionnaire, the majority of the respondents attest to how much the Anchor Borrowers' Programme has helped to transform smallholder farmers from Subsistence to Commercial Production levels in Ebonyi State. A statistical test also proved it.

Four objectives were set to be achieved in this study. The first objective was to examine how the ABP has reduced agricultural commodity importation in Nigeria. To achieve the objectives in this study, we conduct a statistical analysis test to test the hypothesis that relates to this objective. Consequently, a regression analysis was conducted, and the results show a strong significant relationship between the Anchor Borrowers' Programme and food security in Ebonyi state, which positively affects Nigeria as a whole. The statistical test results show that the Anchor Borrowers' Programme brought food security to Ebonyi state. The people in the state benefit significantly from the Anchor Borrowers' Programme, and people are secured in the area of farming and food supply within the state. The second objective was to determine if the Anchor Borrowers' Programme has significantly promoted employment and entrepreneurship in Ebonyi State. The hypothesis was subjected to regression analysis, and the results show strong evidence that the Anchor Borrowers' Programme created jobs and promoted entrepreneurship in Ebonyi State. This study also showed that the interventions have specifically helped to reduce Nigeria's rice import bill from US$1.05 billion to US$18.50 million annually. In total, about 13 million direct and indirect jobs have been created as a result of the Bank's agricultural sector interventions.

The third objective was to determine the impact of the Anchor Borrowers' Programme on poverty reduction among smallholder farmers in Ebonyi State, Nigeria. Statistical analysis was conducted to test the hypothesis that relates to this objective. Consequently, the Pearson product-moment correlation coefficient was used to determine the relationship between Anchor Borrowers' Programme and poverty reduction among smallholder farmers in Ebonyi State. The PPMC $r = 0.634$ shows that the Anchor Borrowers' Programme is strongly linked with poverty reduction among smallholder farmers in Ebonyi State, Nigeria. Finally, the fourth objective was to determine how the Anchor Borrowers' Programme has been able to transform rural smallholder farmers from subsistence to commercial production levels in Ebonyi State, Nigeria. The student's t test statistics was used to test the fourth hypothesis. The results show that Anchor Borrowers' Programme has significantly transformed rural smallholder farmers from subsistence to commercial production in Ebonyi State, Nigeria.

5. CONCLUSION AND RECOMMENDATIONS

Following the test statistics and the results obtained, it has been established that the Anchor Borrowers' Programme plays a significant role in solving socio-economic problems in Nigeria. where the study was conducted. This study has shown that the Anchor Borrowers' Programme has increased the agricultural commodity and food supply in Nigeria and in the Ebonyi state. The study also established that the Anchor Borrowers' Programme has brough about entrepreneurship and employment opportunities in Ebonyi state. Also, this study has established that the Anchor Borrowers' Programme has significantly reduced poverty in Ebony state and Nigeria in six geo-political zone in Nigeria. Finally, the Anchor Borrowers' Programme has helped to transform smallholder farmers from Subsistence to Commercial Production levels in Ebonyi State, resulting from increasing the intra and inter-state commercial activities in Ebonyi state. The four objectives stated in chapter one of this study have been achieved after conducting a survey and analysis.One of the challenges associated with the Anchor Borrowers' Programme is loan repayment, some of the people who collect the loan have no business in farming but sees it as free money, the loan defaulters can be categorized into (i) inability to pay, and (ii) unwillingness to pay. Inability to pay is associated with lack of mismanagement of funds. Mismanagement can be as a result of lack of sufficient information about the farming practices or business. Another dimension of it is the business perspective; ability to differentiate cash flow from profit. Unwillingness to pay is a deliberate

act of beneficiaries not to pay back loans. Some people in this category diverted the money to other things instead of farming, while some used it for farming, made the profit but unwillingly to pay. Therefore, based on the outcome of this study, the following are recommended:

i. Nigeria's Federal and state governments should ensure sustenance of the Anchor Borrowers' Programme.
ii. Unemployed graduates should take advantage of the Anchor Borrowers' Programme, as they have everything to gain and nothing to lose.
iii. More such programmes should be encouraged in other sectors of the economy in Nigeria, such as education, Real Estate, and Small and Medium Enterprises, to mention but a few.
iv. The Anchor Borrowers' Programme should train farmers before giving out loans to avoid diversion funds and experience difficulty in paying back loan since loan repayment was designed to be from their profits.
v. Sanctions should be intensify on defaulters so as to further increase loan repayment rate.

Contributions to Knowledge

i. This study demonstrated the need for the Federal and state governments to sustain the Anchor Borrowers' Programme in Nigeria.
ii. It also established the need to train farmers before giving out loans to avoid diversion of funds and difficulty in paying back loan.
iii. This study contributed to the understanding of the causal link between Anchor Borrowers' Programme and poverty reduction among smallholder farmers in Nigeria.
iv. This study will serves as a reference material for future researchers who may deem it fit to carry out study on the subject matter and the findings of this study would be of utmost importance to the academic community, the government and society at large.

Suggestions for Further Studies

i. First, the study was restricted to Ebonyi state. This study recommends that future studies of this kind should be undertaken to include other states from the south east of Nigeria in order to give deeper insights into the subject matter.
ii. The study also suggested that further empirical work should be conducted on a larger sample using farmers from the six geo-political zone of Nigeria.
iii. There is also the need to study how Anchor Borrowers' Programme can increase youths employment in Nigerian.

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Declaration of Conflict of Interest

The Authors do not have any form of conflict of interest

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