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World Bank Assisted Intervention Development Projects on Poverty Alleviation in Nigeria: An Impact Evaluation of National FADAMA III in Enugu State.

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Abstract

This evaluation research which deals with the World Bank-assisted intervention development programme known as Fadama III in Nigeria precisely sought to investigate how the National Fadama III Intervention Development Project impacted poverty alleviation of the residents of Enugu State that participated in the project in relation to their income level. The study made use of 168 benefiting households in the Fadama III project and 67 non-benefiting households that were randomly selected. The data used in the study were collected via a well-structured questionnaire that was analysed with the use of descriptive inferential statistical tools. The difference-in-difference estimator was also adopted in the comparison of changes that occurred in the outcome measures and the discoveries revealed among other things that 50% and 43.3 % of the respondents from both Fadama and non-Fadama participants are respectively within the age range of 51-70 years. It was also discovered that both the treatment and control groups respectively had 56% and 59% males, 97.3% and 97% married people and 41.7% and 50.7% secondary school graduates. The annual average income of most of the Fadama III participants (39.9%) increased to above N400,000 after their participation in the project as opposed to most of the participants (63.1%) income level of N1.00-N100,000 before the inception of the Fadama III programme. The study also noted that the increase in the income level of the participants may be attributed to their having an additional source of income, and recommended the initiation of more poverty alleviation projects and mass media promotion of it in order to encourage more youth participation in similar projects.

Keywords: poverty, poverty alleviation, impact evaluation, Fadama, Fadama III.

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List of Abbreviation

ADF	Agricultural Development Fund
ADP	Agricultural Development Project
ATA	Agricultural Transformation Agenda
FCA	Fadama Community Association
FMARD	Federal Ministry of Agricultural and Rural Development
FSC	Farm Service Centre
FUEP	Fadama User Equity Fund
FUG	Fadama User Group
GCC	Government Counterfeit Contribution
GI	Gini index
HDI	Human Development Index
HPI	Human Poverty Index
IDA	International Development Agency
NBS	National Bureen of Services
NEDP	Nation Fadama Development Project
NFDR	Nation Fadama Development Project
RBDA	River Basin Development Authority
SAP	Structural Adjustment Programme
SLM	Sustainable Land Management

1. Introduction

Irrespective of the World Bank, federal, state, and local governments' huge individual and collective technical and financial investments in poverty alleviation intervention development projects in Africa, particularly in Nigeria, the problem of poverty still proves insurmountable. Ike (2012 and Maduekwe (2022) report the challenge of poverty in Nigeria as being both extensive, acute, and ubiquitous notwithstanding the fact that the country is wealthy in both human and material resources. With the speculations that the poverty rate of Sub – Saharan African countries which includes Nigeria is expected to rise by more than two per cent points thereby delaying poverty reduction in Africa by about 5 years, and also with the defined growth of Nigeria's poverty rate from 51.0% to 54.3% in the pre - Covid and post-Covid periods respectively and the decline of its GDP per capita growth from - 0.1% to - 6.1% in the pre - Covid and post-Covid periods respectively (Maduekwe, 2022, Montes, et al. 2020).

There exists an urgent need for the evaluation of the World Bank Assisted Fadama III Intervention Development Project in Enugu State considering the great number of intervention development project proposals that are similar to the National Fadama III Project which are often sent to the Enugu State Government for it to deliberate upon and consider for adoption and implementation. Undertaking this impact evaluation of the National Fadama III Project in Enugu State will enable the state government to know the exact impact of National Fadama III on poverty alleviation of the residents of the state that participated in the project. It will also not only furnish it with the fundamental knowledge of the implementation and impact of the Fadama III project on the state but will also aid the state government in determining whether to accept any of the intervention development project proposals before the government or not. In addition, the study will also prepare the state government on how to prevent the adverse effect of the above prediction of Montes, et al (2020) by providing it with the facts on how to pursue the execution of future intervention development projects.

National Fadama III was organized and implemented as a multi-financed intervention development project by the World Bank, the Federal Government of Nigeria, the 36 States of Nigeria, the participating local governments from the 36 states of Nigeria, and major stakeholders (NGOs, private institutions or operators and donors) with the goals aimed at poverty reduction, and enhancement of the capacities of participating groups: the Fadama Users Groups (FUGs) which are assembled into Fadama Community Associations (FCAs) in the states (World Bank, 2020; Ike, 2012; Okechukwu, 2014, Maduekwe, 2022) "Fadama" is a Hausa word or term that refers to irrigable land which is in numerous occasion low-lying, and flood plain areas underscored or marked by shallow aquifers found along river system in Nigeria. It can also be perceived as a seasonally flooded area used for farming mostly during the dry season (Okechukwu, 2014; Maduekwe, 2022). Fadama III was initially scheduled to commence in 2008 and close in 2013 but was prolonged to 2019 with two separate additional financing amendments. One of the primary aims of Fadama Projects is to extend or prolong the farming season beyond the rainy season by means of irrigated agriculture to actualize increased food production in the

states through expanded cultivation, adoption of simple small-scale irrigation facilities with suitable technologies, that are also targeted at expanding the land area under cultivation by giving all-year-round cropping of marketable and high-valued crops (World Bank, 2020; Okechukwu, 2014; Maduekwe, 2022). The improved and expanded production of marketable and high-valued crops is anticipated to increase the income of the Fadama III households after the marketing of their farm product hence alleviating their poverty.

The research study was carried out in Enugu State of Nigeria. Enugu State which has Enugu as its capital was created on August 27, 1991. The state derives its name from the capital city which came into existence in 1912 as a small coal-mining town, that later grew and expanded to become the capital of the then Eastern Region of Nigeria. Enugu State is presently bordered by Anambra on the West, Abia State on the South, and Kogi on the North with Benue and Ebonyi on the Eastern side. The State currently inhabits an area of approximately 7,161 km2 with a population of over 3.3 million by 2005 estimation according to (Okechukwu, 2014) and Maduekwe, (2022). The State has a total of 17 local government areas at the moment and they include Agwu, Aninri, Enugu North, Enugu South, Enugu East, Ezeagu, Igbo-Eze North, Igbo-Eze South, Isi-Uzo, Igbo-Ekiti, Nkanu, Nkanu East, Nsukka, Oji-River, Udenu, Udi and Uzo-Uwani. The State is situated in a tropical rainforest zone that has its humidity at its apex between March and November. For the whole of the State, the mean daily temperature is 26.7 °C (80.1 °F), and it is peregrinated by a number of rivers and notable streams which include: Adada. Iyoko, Idodo, Ekulu, Oji, Ebonyi Rivers and Mamu/Ezu River which is the natural boundary between the Enugu State and Anambra (Okechukwu, (2014; Maduekwe 2022). And also according to Okechukwu (2014) and Maduekwe, (2022), Enugu State is economically primarily rural and agrarian, with a great proportion of its working population engaged in farming, and they produce mainly palm produce, rice, and yam tubers. These farm products which also made up part of what Fadama III beneficiaries and non-beneficiaries produced constitute some of the major food items that most families in Nigeria, particularly in Enugu State use in preparing their daily meals. For example, while palm produce includes vegetable or palm oil which is used in the production of chocolate, cake, margarine, biscuits, and even soap and cosmetics, yam which the British also refer to as sweet potato are often cooked or fried in peoples home and served as meals. Some people convert it to yam flour and use it for baking cake or bread.

But apart from the fact that Enugu State is economically generally rural and agrarian, with a higher percentage of its labour force engaged in farming, and they produce mostly palm produce, rice, and yam tubers (Okechukwu: 2014, Maduekwe, 2022) which also made it possible and suitable for its selection for the Fadama III Intervention Development Project and for this evaluation research, Enugu State was also perceived by the World Bank as being among the poorer states in Nigeria that needs poverty alleviation development aid. For example, about 58.13% of the population of Enugu State is believed to be poor (that is, persons whose per capita annual consumption expenditure is below #137,430 per annum, the poverty line) according to the poverty headcount rate (National Bureau of Statistics, 2020). Another reason for choosing Enugu State and the Fadama III participants for this impact evaluation research is because of the enormous financial

resources (taxpayers' money) that the Enugu State government and other partner agencies like the World Bank invested in the project and other related projects. For instance, while Enugu State Government received the very large sum of $13,550,215.08, an equivalent of N3,550,143,817.76, out of the $200 million World Bank Additional Financing for Fadama IIIproject, it also paid a large sum of N312,177,574.00 as its own counterpart fund (Nwachukwu et. al, 2021).

1.1 Objective of the Study

The broad objective of this impact evaluation is to evaluate the impact of the National Fadama III Intervention Development Project on poverty alleviation among the residents of the state that participated in the project. Furthermore, the study specifically investigated the impact of the National Fadama III Intervention Development Project on the income level of the residents of Enugu State that participated in the project.

1.2 Research Question

The research question of this study will be as follows:

1) How has the National Fadama III Intervention Development project impacted on poverty alleviation of the residents of Enugu State that participated in the project in relation to their income level?

2. Literature Review

The review of related literature commences with the conceptualization of poverty and its report in Nigeria. It is followed by national agricultural-based intervention development projects in Nigeria and a survey of Fadama intervention development projects in Nigeria which would cover its historical development and funding and financial operations in Nigeria. The next part would deal with the Fadama III intervention development project and its operations in Enugu State. This would finally be succeeded by an empirical review of some impact evaluation of the Fadama III intervention development projects in Nigeria and the gap in literature.

2.1 The Concept of Poverty and its Report in Nigeria

According to Taiwo and Agwu (2016), the challenge of poverty in the countries of Africa has captured the consciousness of both governmental and non-governmental agencies, scholars of African origin and even the global community over the years. Ike (2012), Taiwo and Agwu (2016) and Ayanwale and Alimi (2004) have also described poverty in Africa as being pervasive, chronic, and massive overtaking a large percentage of the community. Taiwo and Agwu cited above reported that human conditions have immensely degenerated in the last decade with the malnutrition rate on the rise and real disposable incomes on the decrease. The threat of poverty in Nigeria and particularly in Enugu State has resulted in the huge investment of taxpayers' money in poverty alleviation projects such as this Fadama III project that is being investigated by this research and serious scholarly research that aims at determining the impact of the projects and knowing the possibility of initiating and adopting other ones. For instance, it has been strongly opined by scholars that in spite of the huge resources invested in poverty alleviation by both governmental and non-governmental organizations no visible meaningful progress or achievement has been produced in that area (Ike, 2012; Taiwo and Agwu, 2016; Iheonu and Urama, 2019 and Sanusi et al. 2021).

Ogbeide and Agu (2015) and Taiwo and Agwu (2016) are in agreement with the assertion that the term 'poverty' lacks a generally or universally accepted definition as a result of its nature and complex consequences on individuals and families. In accordance with the view of the World Bank (2011) cited by Ogbeide and Agu (2015), "*poverty is the economic condition in which people lack sufficient income to obtain certain minimal levels of health services, food, housing, clothing and education which are necessities for standard of living"*. It was also asserted by Ogbeide and Agu that the different measures and interpretation of poverty have resulted to two strands of perceptions which include "income poverty" and "lack of basic need poverty". And to them, while income poverty manifests at the time a person lacks sufficient money to catch up with the given living standard, lack of basic need poverty arises at the time a person is incapable of meeting up with some of his primary needs such as food, clothing and shelter as recognized by the United Nations Children Fund (UNICEF).

According to Taiwo and Agwu (2016), a common conception of poverty describes it as a state in which people live below a defined minimum income level in which they are incapable of providing their primary essential requirements of life that are desired for a standard of living that is acceptable. To them, poverty is regarded as an indication of underdevelopment that constitutes a global plaque. And specifically, they defined poverty

> "as a condition where an individual is not able to cater adequately for his/her basic needs (such as food, clothing and shelter), is unable to meet social and economic obligations, lacks gainful employment, skills, assets and self-esteem; and has limited access to social and economic infrastructure (such as education, health, potable the water and sanitation), and consequently has a limited chance of advancing his/her welfare to the limit of his/her potentials and capabilities" (Taiwo and Agwu, 2016: 19).

I accept this to be a more encompassing interpretation of poverty and therefore adopt it as a working definition of the concept of poverty for this work. It depicts the picture of what constitutes poverty in Nigeria in general and Enugu State in particular and also suggests the reason for the adoption and implementation of Fadama III whose impact assessment is the rationale for this research work.

In their further description of poverty, Taiwo and Agwu (2016) opined that Poverty has been explained through the use of different techniques which include pointing out its harsh effects on the economy which is manifest in the extreme poverty of the majority of the population, impoverishment of the professional and working class, poor welfare services and mass unemployment, lack of primary essentials of life like material wealth, well established steady flow of income and wages and incapacity of using extant resources to sustain one's self. In addition to the above conceptualizations of poverty, and in reference to the conceptualization of the term by other scholars, the authors have also variously interpreted poverty as a situational insufficiency of family or individual resources to provide or supply them with a socially acceptable standard of living, involuntary state of deprivation, deficiency of capacity or ability to execute specific activities and deficiency of sufficient primary essentials of life. According to Obayelu and Uffort (2007) cited in Taiwo and Agwu (2016), poverty has been explained by many scholars as being not just a shortage of food, insufficiency of money or assets but also includes reduced access to health care and education, security, independence and dignity. Nevertheless, people's conception, definition or interpretation of poverty can be said to be the outcome of the condition of their environment, the goal of their definition, description of what constitutes a good life and their experience or vocation (Taiwo and Agwu, 2016).

The measurement of the standard of living of the population of a country and its economic performance constitute poverty indicators (National Bureau of Statistics, 2020; Taiwo and Agwu, 2016). And they are achieved by calculating and determining the Income Gap Index or Gap Index that is used in measuring the gap or shortfall between the poverty line and the average income of the poor, the Gini Index which measures the proportion to which the distribution of consumption expenditure or income among families or individual within a population departs or deviates from a perfectly equal

distribution and the Human Development Index (HDI) which is used in undertaking a combined or mixed measure of the economic and social indicators of human development (National Bureau of Statistics (NBS), 2020 and Taiwo and Agwu, 2016). According to the National Bureau of Statistics (2020) and Taiwo and Agwu, (2016), the HDI is actualized through the combination of the measures of health, purchasing power, educational attainments and knowledge, income and longevity, knowledge, and income as data to show progress or retrogression in human life. Furthermore, the authors also recognized Gross National Products (GNP) per capita and the purchasing power of the real Gross Domestic Products (GDP) per capita as other indicators of poverty and also emphasized that a nation's poverty line denotes the value of vital primary food and non-food needs for attaining the minimum standard of living the country, hence the percentage of a country's population that is living below the poverty line constitutes its poverty rate.

Different scholars have made some postulations about the possible causes of poverty, but according to Taiwo and Agwu (2016), there exist two broad or wide schools of thought on causes of poverty which include low economic growth and market imperfections. In their own opinion, they explained that low economic growth is linked with greater underdevelopment and unemployment at the time the income of the people concerned may predominantly not be adequate for them to sustain a satisfactory standard of living. On the other hand, Taiwo and Agwu also stated that market imperfection is connected to institutional twists like inequitable income distribution, ignorance and culture which promote an unequal opportunity for productive assets. In recent years, the global community has devoted interest to research that relates to poverty in Sub-Saharan Africa with the aim of discovering the causes in order to proffer suitable solutions, and the World Bank has immensely contributed in this part through research like –1996 Taking Action for Poverty Reduction in Sub-Saharan Africa, the 1995 Social Impact of Adjustment Operations (Taiwo and Agwu, 2016) and the intervention development project known as Fadama. Economic underdevelopment, low productivity, market imperfection, physical and environmental degradation, low commitment to project execution, structural shift in the economy and corruption have been identified as the causes of poverty (Taiwo and Agwu, 2016).

Coming from the global perspective, extreme poverty has steadily been recognized as a rural global situation in spite of the ever-expanding rate of world urbanization in which about 75.0 per cent of the 1.2 billion poor people in the world reside in rural areas and greatly rely on agriculture, fisheries, forestry and other connected practices for survival (Sanusi et al., 2021). And apparently, underdevelopment and rural poverty have continued in many countries, including Nigeria, as a result of the inability to easily dismantle all frameworks with the mindset of stopping rural dwellers from the full actualization of their talents (Sanusi et al., 2021). In the account of Ogbeide and Agu (2015), they opined that experiencing poverty in the midst of plenty is now the world's highest problem and its primary developmental goal is the actualization of equality in the distribution of income and alleviation of poverty. They reported that about 2.8 billion people in the globe survive on less than $2 a day and about 1.4 billion on less than $1 daily. It is also their view that poverty constitutes a big constraint to economic transformation and the scarcity of

economic opportunities is perceived as an accelerator of the poverty level of the population. They argued that settling the challenges of poverty requires proper policies that target the gaps and guarantee the benefits of the poor in a certain population.

Nevertheless, there are varied degrees of poverty prevalence in different parts of the world, and viewing it from the point of Sub-Saharan African countries, it has been reported that they had maintained the highest levels of poverty and by extension income inequality in recent years Ogbeide and Agu (2015). According to the United Nations Development Programme (UNDP, 2013) cited in Ogbeide and Agu (2015), the human development index for Sub-Saharan Africa maintained 0.475 in 2012 from 0.366 in 1980 and this has been confirmed to be the worst since 1980 in comparison with that of other parts of the world. In addition, Ogbeide and Agu (2015) observed that Sub-Saharan Africa respectively maintained the lowest life expectancy rate, mean schooling years and highest youth unemployment of 54.9, 4.7 and 50% in 2012 which was the worst as compared to other parts of the world. Furthermore, they asserted that absolute poverty which is denoted by less than $1 daily income rose from 288 million in 1981 to 516 million in 2001, representing an increment from 42 % to 47 % which constituted about 13% of the total population of the poor in the globe. World Bank statistics showed that 34 Sub-Saharan African nations made the list of 50 countries on the United Nations (UN) list of least developed countries in the world in 2006 and that about 14.6 million children which meant one in every five children lived in absolute poverty according to 2007 statistics (World Bank, 2009 cited in Ogbeide and Agu, 2015).

Nigeria's poverty profile which showcases the difference or variance in the measurement of poverty among the various sub-entities in Nigeria is another important thing to be considered in this section of this research. Ezeh (2009) and Ayanwale and Alimi (2004), are in agreement that the awareness of the poverty profile of a nation is very relevant for a favourable result in poverty alleviation programme and that research has proved that agriculture makes up the predominant occupation of the poor in the rural area in Nigeria and that agriculture still remains the backbone of the economy of Nigeria, employing up to 77% of the workforce and providing up to 40% of the total GDP. The condition of poverty in Nigeria has become alarming, and the population of the poor have persistently increased in the midst of an increased rate of growth in the economy of the country (Dauda, 2017). Studies have shown that in 1980, 72%, 21% and 6% of the population of Nigeria were respectively regarded as non-poor, moderately poor and extremely poor and that the pattern has transformed with progress in time as the population of the poor has toppled that of the non-poor (Dauda, 2017). It is on record that while about 53%, 34% and 12% of the Nigerian population were rated as being non-poor, moderately poor and extremely poor respectively in 1985, it became worst in 1986 when 34.4%, 36.3% and 29.3% of the population of Nigeria were also regarded as being non-poor, moderately poor and extremely poor respectively. The records of 2010 were more devastating when it was posted that about 30.3% and 38.7% of the population of the country were respectively rated to be moderately and extremely poor, with 31.0% of the whole population being regarded as falling within the class of the non-poor (Dauda, 2017).

In confirmation and also in support of his assertion that the poverty rating pattern changed as time progressed, Dauda (2017) went further to reiterate that the figure of the

Nigerian population living in poverty continued to multiply as the population of the poor rose in absolute terms. For example, Ogbeide and Agu (2015) and Dauda (2017) disclosed that 17.1 million out of 65.0 million of the Nigerian population were regarded as being poor in 1980 and that the number increased to 34.7 million and 67.1 million in 1985 and 1986 respectively as the nation's population also grew to 75 million and 102.3 million people respectively. Furthermore, they also disclosed that about 112.47 people out of the population of 163 million people were considered to be poor in 2010 and that the incidence of poverty was on the high side generally. There were variations in the poverty incidences recorded in different parts of the country with the Northern region having higher incidences of poverty than the southern region and also with varied figures emerging from different geo-political zones of the regions. In supporting this assertion of his, Dauda, (2017) revealed that while the South West geo-political zone had the lowest poverty incidence with about 50.1% of its population living below $1 a day, the North West had the highest incidence of poverty with 70.4% of its own population living below $1 a day and that Northern zones still remained food poor irrespective of their high engagement in agricultural activities when compared to other parts of the country. For instance, while 35.5% and 25.4% of the population of the South-South and South-West zones of the country were regarded as being food poor respectively, 51.5% and 51.8% of the population of the North East and North West respectively regarded as being food poor Dauda, (2017). In terms of relative poverty and absolute poverty, while the South West was the least in ranking, the North West was seconded by the North East in leading and limited income gap, non-income inequality, high literacy rate and commerce constitute some of the indices that likely promoted the low incidence of poverty recorded in south-western Nigeria Dauda, (2017).

Dauda, (2017) also observed variations in the poverty conditions of the urban and rural areas of Nigeria. He noted that despite the fact that only 17.2% of the population of Nigeria that dwell in the urban centres were considered poor and 28.3% of rural dwellers were regarded as being poor in 1980, the statistics of 1985 however indicated an increase in these variations with the poverty situation of the urban population rising to 37.8% and that of the rural dwellers rising to 51.4%. He also went further to note that 58.2% and 63.3% of the Nigerian population in the urban and rural centres were respectively considered to be poor in 1996 and that the figures of 2010 which indicated poverty in relative and absolute terms also increased to 61.8% and 73.2% for the urban and rural population of Nigeria respectively.

According to World Bank (2011) cited in Ogbeide and Agu (2015), the Human Development Index (HDI) placed Nigeria in the 156th position out of 177 countries as contrasted to the 151st position it was placed in, in 2002, and the Human Poverty Index (HPI) of Nigeria in 2009 was 36.2% which placed it in the 114th position in the world, and also as the 7th poorest country in the world with its Gini Index (GI) growing from 42.9 as recorded in 2004 to 44.7 in 2010.

However, in a more recent report, Nwachukwu et al. (2021) revealed thatin 2018, a Washington DC-based research group known as the Brookings Institution think-tank mentioned Nigeria as the country that has the highest number of extremely poor people in

the globe, and that about 87 million Nigerians out of its 200 million population are living in abject poverty as opposed to India, the former poverty headquarters of the world which has 73 million people out of its 1.324 billion people living in extreme poverty. In addition, the report observed that six Nigerians descend into extreme poverty every six minutes. Nwachukwu and his colleagues also hinted that an Austria -based World Poverty Clock opined that 93.8 million people living in Nigeria suffer from poverty at the extreme level.

Enugu State which is the case study of this research is not left out of the above review of the poverty situation in Nigeria as it is one of the states that make up Nigeria. Specifically, according to the National Bureau of Statistics (2020), Enugu State was ranked the second South Eastern state after Ebonyi State with the lowest poverty headcount of 58.3%, poverty gap index of 16.00 and squared poverty gap index (Severity) of 6.34. I argue that these negative indices must have contributed to the participation of the Enugu State government in not only the Fadama III National Intervention Development Project but in other national intervention development projects that would be considered below.

2.2 National Agricultural-Based Intervention Development Projects in Nigeria

According to Anyanwu (1997) cited in Nwachukwu et al. (2021), the recognition of the relevant roles of agriculture in Nigeria's economic development has propelled both the federal and state governments of Nigeria to increase efforts that are targeted at reforming Nigeria's agriculture from its current subsistence status to market-oriented production status. And this has led the various governments to formulate policies and programmes that are associated with structural transformation of the agricultural sector by providing public services and suitable institutions that will energize and stabilize the economic stand of independent farmers (Anyanwu, 1997 cited in Nwachukwu et al. (2021). Some of the policies and programmes that were initiated are as examined below:

The River Basin Development Authorities (RBDAs): According to Okoli and Onah (2002) cited in Nwachukwu et al. (2021), the evolution of the river basins was devised in 1963 with the participation of the Lake Chad Basin and River Niger Commissions for nations surrounding the Lake and the Niger River Okoli and Onah (2002) cited in Nwachukwu et al. (2021). However, Anyanwu (1997) cited in Nwachukwu et al. (2021) reported that the term was first used in 1973 with the formation of the Sokoto-Rima and the Chad Basin Development Authorities and that eleven others which were respectively formed under Decree Nos. 25 and 31 of 1976 and 1977 include Chad (for Borno), Sokoto-Rima (for Sokoto), Hadejia-Jamare (for Kano), Benue (for Gongola), the Upper the Lower Benue (for Benue and Plateau), the Cross River (for Cross River), Nigeria (for Kaduna, Niger and Kwara), Anambra-Imo (for Imo and Anambra), Ogun-Oshun (for Oyo Ogun and Lagos) Niger Delta (for Rivers) and the Benin-Owena (for Bendel and Ondo). Nwachukwu et al. (2021), recorded that the first decree was respectively modified by Decree No. 87 of September 28, 1979, and amendment Act No. 7 of October 1981. He further opined that the number of these river basins was augmented to 18 with its name

changing from River Basin Development Authorities to River Basin in River Development Authorities in June 1984. The River Basin Development Authorities were saddled with the responsibility of the development of water and land resources of Nigeria for general rural development and agricultural purposes Nwachukwu et al. (2021). According to Nwachukwu et al. (2021), notable progress has been made since the institution of the RBRDAs in the aspect of surface as 12 of the 18 RBRDAs in August 1984 helped their engaged farmers to cultivate about 188, 194 hectares of various plants during the 1984 planting season from where about 524,859 metric tons of different types of crops like wheat, maize, rice, cowpeas, millet, vegetables, groundnut and sorghum were harvested. He stated that in the aspect of irrigation, about 82,305 hectares were under irrigation and that the RBDAs which was reduced to 11 from 18 in 1987 irrigated 12,540 hectares, developed 51,558 hectares of land, constructed 443 kilometres of roads, drilled 58 boreholes and took care of 136,514 households. Furthermore, he confirmed that the funds of the institution which about 96.1% of it came from the federal government stood at N589.3 million, and that apart from Lagos State and Abuja which shared with one state each, each RBRDA covers only one state. However, the activities of the RBRDAs were obstructed by insufficient funds, lack of spare parts and lubricants, insufficient planning data, difficulties in acquiring land for development, particularly in the southern part of the country and an insufficient number of qualified and experienced managers, technical and professional personnel.

Agricultural Development Projects (ADPs): The ADPs which were initially inaugurated in pilot states before they were later extended to all the states of the federation have their main areas of interest as the provision of farm service centres, supply of infrastructures like water points wash bores, supply of farm inputs like root crops, fertilizers, extension and training and agro-chemicals and water pumps (Nwachukwu et al. 2021). According to Nwachukwu et al. (2021), the idea of ADP has been adopted as the basic technique for expanding production and the welfare of the smallholder agricultural sector in Nigeria. They revealed that the World Bank had helped Nigeria with different ADPs which have gone through different stages since 1974 the ADPs started with the formation of the first three enclave or district projects in the northern part of Nigeria cities of Gombe, Gusau and Funtua. They observed that the development methods that the ADPs adopted paid attention to simple enhanced packages for some of the main food crops like millet, sorghum and maize integrated with enhancements in the input provision system, extension services, village water supply and rural road network. Nwachukwu and his colleagues also noted that early breakthroughs recorded by the ADPs made both the World Bank and the Federal Government of Nigeria speedily repeat the ADP method in some other states of the federation so that from 1975 – 1980, the ADPs grew from its initial three districts to a total of nine districts. It is very important to note that in August 1990 when the loan package for the first batch of state-wide ADPs ended, an Agricultural Development Fund (ADF) loan was introduced for the projects, the National Fadama Development Project (NFLP) and NATSP, and while NFDP gave funds for Fadama development by focusing on irrigation farming with the utilization of groundwater in the cultivated Fadama farms, the NATSP gave technological assistance in Bauchi, Kano and Sokoto states in 1992

(Nwachukwu et al. 2021). The ADPs had the main goals of expanding food production and therefore farm incomes of many of the rural households in the specific project zones, hence enhancing the living standard and welfare of the farming population of these regions (Nwachukwu et al. 2021). In line with Nwachukwu et al. (2021), the different parts or components of ADPs include farm and crop development, and civil assistance through long-term and short-term consultancies and these components are realized through applied research, an enhanced extension system and a more well-organized system of input purchase and distribution, construction of feeder roads, the provision of Farmer Service Centres (FSC) for input provision in rural areas, and the construction of project offices and staff houses, and development of the programme through training of local government staff.

Agricultural Transformation Agenda in Nigeria (ATA): The ATA was introduced on the 7th of November 2011 by the administration of President Goodluck Ebere Jonathan as part of the Federal Government's effort to rehabilitate or improve agriculture in order to achieve job creation, food security, improvement of foreign exchange earnings and diversification of the economy of Nigeria (Nwachukwu et al. 2021). ATA which is made up of three parts that include programme management, community value change development and infrastructural development was executed by the Federal Government through the Ministry of Agriculture and Rural Development (FMARD), in order to aid farmers to gain access to farm inputs at fair prices and to expand agricultural value chains for sorghum, palm oil, cassava, rice, horticulture, fisheries, cotton, livestock, cocoa etc (Nwachukwu et al. 2021). Nevertheless, Nwachukwu et al. (2021) also opined that ATA is still the latest agricultural policy in Nigeria and that its main objective is to revamp all irrigation projects in the zones in order to prolong the farming season and actualize all-year-round farming in the country. They went further to assert that the ATA would assist in poverty reduction and food security as a result of the enhanced productivity of the smallholder farmers which would lead to improvement in food security. It is also their belief that the main concern of ATA policies and programmes was channeled towards value addition to agricultural produce, agribusiness encouragement, rural infrastructural development, increased private sector participation and investment in agriculture, improvement of farmer's access to market and financial services and post-harvest losses reduction. Furthermore, the study of Nwachukwu et al. noted that the aims of ATA include: achieving sustainable increment of the basic income of rural entrepreneurs and smallholder farmers that are involved in the production, processing, storage and marketing of the preference commodity value chains, the actualization of hunger free society, acceleration of the gains of food and nutritional security, generation of employment and transformation of Nigeria into a leading player in the world food market, diversification of the economy and improvement of foreign exchange earnings of Nigeria, enhancement of the standard of living of Nigerian farmers, sufficient provision of raw materials for production, the actualization of the fair price of farm produce, achievement of national food security and self-sufficiency in food production, reduction of unfair competition from imported rice marketers, development of rural infrastructure and the reversal of the heavy outflows of foreign exchange from rice imports. Specifically, they observed that Fadama

III Additional Financing is a Project of the Agricultural Transformation Agenda financed with Credit/Loan from the World Bank to the Federal Government of Nigeria, but a grant to benefitting States of which Enugu State is among. Nevertheless, the participating or benefitting states are expected to pay Government Counterpart Contribution (GCC) which serves as part of their commitment to the execution of the Project in their various states (Nwachukwu et al. 2021).

Having undertaken a review of some national agricultural-based intervention development projects in Nigeria above, it is germane to state that all the programmes or projects reviewed had one aim in common. They were all interested in or aiming at the betterment of the welfare of farmers and rural development. While they pursued the promotion of the welfare of farmers by funding their farming activities, providing them with farm inputs and implements, extension services etc, the rural development aspect was pursued through the provision of rural infrastructures like road networks that promote easy access to the market for farmers to market their farm produce. By providing farmers with funds, farm inputs and implements, and extension services it is expected that their effective and efficient use of these supports would lead to increased harvest/productivity which would in turn lead to increased income for farmers. Another general feature of the programmes which contributed to the choice of programme theory (simple logic model) as the theoretical framework for this research is the systemic nature of the operations of these programmes or projects. All the programmes involve giving support to farmers and rural communities in terms of funds, farm input and implements, agricultural extension services, construction of road networks etc with the expectation of the outcomes of increased harvest or productivity, easy access to market, improved food security and increased income with the impact of sustained increased income and poverty alleviation.

2.3 A Survey of Fadama III Intervention Development Projects in Nigeria

The survey of the Fadama III Intervention Development Project in Nigeria was carried out under two sub-topics which include the historical development of Fadama III in Nigeria and the funding of Fadama III in Nigeria.

2.3.1 Historical Development of Fadama in Nigeria

According to Iwala (2014), Fadama areas are usually rainy-season swampy areas that maintain or reserve their moisture in the dry seasons, and they are believed to be of a high prospect for economic development via suitable investments in rural infrastructure, productive assets and technical assistance. There exist varying accounts of the opinion of scholars as to what necessitated the emergence of Fadama in Nigeria. While Dimelu et al.(2014), and Omobowale and Akinola (2017), observed the National Fadama Development Project began as a result of the success stories of small-scale irrigation programmes executed by the Agricultural Development Programmes (ADPs) in Fadama areas, Anthony (2021), noted that its emergence in 1993 was caused by the pressure on Nigerians from the devastating exorbitance of agricultural produce and recurrent famine

that afflicted Nigeria before 1988 which forced the government to establish the Structural Adjustment Programme whose diversification agenda was not completely followed as more attention was given to the economic enterprise of exchange rate earning than the rural population that was submerged in agonizing pains and poverty. The continued rise in unemployment and food prices resulted in seeking both external and internal solutions which led to the adoption of the World Bank-assisted Fadama programme in Nigeria Anthony (2021). To Iwala (2014), it was the urge to harvest the benefits of the Fadama areas in Nigeria that necessitated the formation of National Fadama Development Projects I, II and III.

According to Akinola (2003), cited in Dimelu et al. (2014), the first phase of the Fadama Intervention Development Programme which is popularly known as Fadama I lasted from 1992 and 1998 and was used to improve the production of arable crops in Fadama communities. The project, according to Dimelu et al. (2014) used the small-scale irrigated farming system as the better method as a result of its cost-effectiveness quality when contrasted with large-scale irrigation projects in Nigeria. He went further to note that the project was planned with the main goal of utilizing the underground and surface water resources for small-scale irrigation agriculture via private sector involvement. According to Anthony (2021), the fundamental content of the Fadama programme rests in Fadama User Groups' (FUGs) economic operations as a representative of rural income generation, self-employment and agricultural productivity as it constitutes the springboard of the end product of Fadama. As a major entity in the realization of the goals of Fadama, FUGs were arranged to be all-encompassing in the sense that even vulnerable persons were given chances to select the kind of economic enterprise to take part in (Anthony, 2021). FUG which engages in enterprises like planting different types of farm produce, shoe-making, artisanal, and rentals was also fashioned to help Fadama participants who are probably not close to Fadama resources to congregate (Anthony, 2021). According to the African Development Fund (2003) cite in Omobowale and Akinola (2017), Fadama I was able to respectively produce 334%, 497%, and 65% income rise among wheat, rice and vegetable farmers. But nevertheless, Omobowale and Akinola (2017) in reference to African Development Fund (2003), observed that the demerits of Fadama I on farmers include the non-participation of direct participants in programme development and execution and the lack of value-addition procedures like marketing and processing, which formed primary barriers to a fruitful project.

Fadama II, which was adopted in 2001 as a result of the successes recorded by (Dimelu et al. 2014, and Idris and Jabo, 2021), corrected the shortcomings of Fadama I (Omobowale and Akinola, 2017). Fadama II which operated in 18 Southern and Northern parts of Nigeria included other sectors like livestock production and fishery with additional aims of poverty reduction, participatory development and private sector participation (Africa Development Fund 2003 cited in Omobowale and Akinola, 2017). It was announced loan disbursement effectual project on the 27th of May 2004 with the confirmed payment to participants in September 2005 (Dimelu et al. 2014). Different from Fadama I which embarked on the planting of a few arable plants, Fadama II featured both farming and non-farming enterprises connected to Fadama assets, in addition to conflict settlement within Fadama assets users (Dimelu et al. 2014). Furthermore, Dimelu et al

(2014), noted that Fadama II pursued the development goal of sustainably increasing the incomes of all the Fadama assets users, and operated with components that include pilot assets acquisition, rural infrastructural investment, enhanced methods of avoiding and managing conflicts within Fadama assets users, and demand-driven advisory services.

Dimelu et al. (2014), Anthony (2021), Bature et al, (2013), Amadi et al. (2019), Shabu (2018), Iortyom et al. (2020) and Idris and Jabo (2021), are all in agreement that the successes achieved in both Fadama I and Fadama II necessitated the adoption and execution of the third phase known as Fadama III, with additional components and sub-components (Dimelu et al. (2014). According to Dimelu (2014), adaptive study support, public ADP and rural finance and livelihood parts were put in place with professionals in rural development and other support staff to manage credit-related challenges for the Fadama III participants. In addition, subparts like the Fadama User Equity Fund (FUEF) and Sustainable Land Management (SLM), were formed with the aim of lending money to participants at a low interest in order to fund their buying of productive assets. Iwala (2014), noted that the Fadama III project has impacted the lives of rural farmers by increasing their income by 63% and that it adopted the Community Drive Development (CDD) model in which local community members who operate under the platform of Fadama Community Associations (FCAs) and Fadama Users Groups (FUGs), manage the formulation and execution of the project. He also opined that these rural farmers were equipped through capacity building and skill acquisition to enhance their living conditions by rising income generation enterprises. Fadama III project instituted a mode of operation that promoted the participation the rural farmers in the decision-making processes like local consultation meetings to decide on the needed infrastructure to be financed by the programme (Iwala, 2014). Participants in the Fadama III programme were educated on the act of identification of the needed infrastructure, execution and management of small-scale development projects in their localities, and capacity-building workshops or seminars were organized for them to make sure that they have the capacity to handle the separate parts of project execution which include quality control, financial and procurement management (Iwala, 2014). According to International Development Agency (IDA, 2010) cite in Iwala (2014), the Fadama III project was programmed to concentrate on raising the incomes of the rural poor to reduce rural poverty and increase food security.

2.3.2 Funding of Fadama in Nigeria

According to Iortyom et al. (2020), in 1992 when Fadama I commenced, it was expected that about US$91.6 million would be the programme base costs for the 4-year running period of the programme, together with a foreign exchange sum of US$49.8 million. And with the exception of costs that are connected with technical aids, salaries and studies, all other costs were calculated with a 10% physical contingency, and the total programme costs, together with all contingencies was about US$ 105.9 million (Iortyom et al. 2020). It was also reported by Iortyom et al. (2020), that a World Bank loan of about US$67.5 million was required to fund about 64% of total programme costs, by covering 20% of local costs and 100% of foreign exchange. They went on to observe that the funding of the

programme plan meant that the World Bank loan would only be used to fund the capital costs of the programme, whereas the participating states of Nigeria and the Federal Government would fund the recurrent costs of the programme totally. Iortyom and his colleagues equally noted that 4% of total programme costs, which amounted toUS$4.5 million needed to be paid by the participating state governments which include, Kano, Sokoto, Kebbi, Jigawa and Bauchi States to take care of the payment of their local salaries and other running costs. 27% of the total programme costs, which amounted to US$29.2 million was also needed from the Fadama participants as their own contributory payment to the programme, and the Federal Government of Nigeria was to pay the remaining balance of US$4.7 million which represents 4% of the total programme costs which includes US$3.9 million payment on duties and taxes (World Bank 2000 cited in Iortyom et al. 2020).

The total sum of US$168 million was estimated to be the funding cost of the second phase of the National Development Programme, Fadama II, out of which the African Development Bank granted a loan of US$35.190 million, the World Bank gave a credit of US$ 100 million, Global Environmental Fund gave a grant of US$7 million and the remaining 15% which amounted to US$25,810 million was supposed to be the counterpart fund from the Federal Government and the benefiting states governments(World Bank, 2003 and ADF, 2004 cited in Iortyom et al. 2020).

In the funding of Fadama III, Shabu (2018), revealed that The World Bank ratified a credit facility of 250 US Dollars for the implementation of Fadama III which is expected to cover all the 36 states of Nigeria which include: Abia, Ondo, Anambra, Bayelsa, Akwa-Ibom, Benue, Nasarawa, Cross-River, Jigawa, Delta, Taraba, Ebonyi, Edo, Ekiti, Enugu, Kano, Osun, Sokoto, Yobe, Zamfara, Adamawa, Bauchi, Gombe, Imo, Kogi, Kaduna, Kebbi, Lagos, Niger, Plateau, Ogun, Oyo, Borno, Katsina, Kwara, Yobe States and the FCT. In a more detailed account of the sub-project funding of Fadama III, Amadi et al. (2019), note that while the State and local governments respectively contributed 35% of the fund for the capacity building sub-project of Fadama III, the World Bank provided 30% of the fund. They equally observed that while the World Bank and the state governments respectively provided 70% and 30% of the fund for advisory services, the Pilot Assets fund was contributed on the bases of 70% from the World Bank and 30% from the participants. In the area of Input Support financing of the sub-programme of Fadama III, they also observed that 50% of the funding came from the World Bank while 50 per cent came from the Programme participants. While the Finance for Rural Infrastructure was generated on the basis of 90% from the World Bank and the International Donor Agency and 10% from the participants' contributions which mainly came through logistics to expedite operations of Fadama III in their localities, that of the Empowerment of Vulnerable Groups was generated on the ratio of 85% from the World Bank and the International Donor Agency, and 15% from the programme beneficiaries (Amadi et al. 2019). Amadi and his co-authors recognized that the provision of the funds was on a matching grant Basis of the Project and participants' contributions of Fadama User Groups (FUG) and Fadama Community Associations (FCA). In a related analysis of the Fadama III projected financial plan, 100% of the expenditure for the Fadama III programme was divided among the stakeholders and it revealed that the World Bank was

to contribute US$250m which represented 55.6% of the entire funds, US$23m would come from the federal government which represented 5.1%, US$ 77m was to be contributed the state governments which represented 17.1%, US$ 40m was expected from the local government areas which constituted 8.9% of the fund and US$ 60m was also expected from the communities which made up 13.3% of total projected funds.

2.4 An Empirical Review of Some Impact Evaluation of Fadama III Intervention Development Project in Nigeria

Most studies on Fadama III Intervention Development Project have indicated the positive impact of the project on the income generation, wealth, and standard of living etc of the beneficiaries. For example, Ike (2012), empirically tried to establish the average income of Fadama user and non-Fadama user households in Delta State based on their crop, livestock and off-farm activities as connecting to project execution and also the proportion of the Fadama user households attaining the observed average income. He randomly selected 152 benefiting households in Fadama III Project and 50 non-benefiting households for the study, and the data for the study were generated by well-tutored enumerators via well-structured and pre-tested questionnaires and analyzed with the aid of Inferential statistical and descriptive tools. The Double-Difference (DD) Estimator was adopted in the comparison of changes in outcome measures, and findings showed that the respondents had an average age of 52.4 years, 54.95% were males, 68% were married, 20% had no formal education and 73.71% had a household size of 4 to 10 members. He discovered on average that the real income of Fadama III participants increased by about 36.67%, that is, from N62, 480.00 (before project implementation income) to N85,391.42 (after project implementation income) as a result of their participation in the project. Nevertheless, by comparison, the average real income of Fadama III non-participants increased only by 11.6%, that is from N63,572.00 (before project implementation) to N73,743.52 (after project implementation), and the mean increase in income for beneficiaries in Fadama III was significantly different from that of non-beneficiaries at $p = 0.05$.

Bature et al. (2013), conducted a study that evaluated the impact of the Fadama III project on the income and wealth of participating farmers in Gwagwalada Area Council of the Federal capital territory, Abuja. They used descriptive and analytical methods together with primary data generated from one hundred (100) Fadama III users and one hundred (100) non-Fadama III users' farmers. The discovery of the study indicated that the value of productive assets of Fadama III participants increases from N81, 240.97 before the Fadama III project to N84, 9577.5 after the Fadama III project, but on the contrary, there was a decline in the net farm income of Fadama III participants from N198, 261.5 to N170,180.4 during Fadama III project. They explained that the reduction in income in spite of the possession of productive assets could be due to restrictions suffered by the farmers. Furthermore, they also noted that the newness of the acquisition of the productive assets by the participants, and the payment of 30% participant contribution for pilot asset purchase could have crowded out investment in short-term operations that could have

raised income. It is their anticipation that the rise in income would come after beginning to gain from their investment in productive assets. Based on their findings, they recommended the promotion of credit associations and rotating savings which can aid the poor to access assets, training and development of modern services in order to help the vulnerable and the poor in managing their productive asset.

Shabu (2018), also conducted a study that investigated the economic impact of the World Bank Assisted Fadama III Project on the beneficiaries in Makurdi Local Government Area of Benue State from 2008 to 2013. In the study, the researcher randomly selected a sample of 250 participants of the project from a total number of 287 participants, and structured questionnaires which served as a means of data collection were administered to members of benefiting Fadama III Community Associations (FCAs). The study used descriptive analysis with inferences drawn on the basis of simple percentages and frequency counts to conspicuously draw conclusions in tandem with the aims of the research. And the study substantiated that, there was an outstanding economic impact of the project on the livelihood of the beneficiaries with successes of 72.2% in assets acquisition, 94.1% in input provision, 92.2% rise in the yield of beneficiaries and 97% annual income rise for the beneficiaries. Nevertheless, the study observed poor execution input and advisory support which constitutes one of the major aims of the programme. Based on the findings, the study recommended more research on the factors that led to the problems and failures recorded and the sustenance of the success of the programme.

2.5 Gap in Literature

The researcher believes that most research works are carried out in order to fill an existing literature gap. Based on the above opinion, this research is also intended to fill an existing gap in the literature as it relates to studies on Fadama III in Enugu State. I see this evaluation research to be more encompassing than some other research carried out on Fadama III in Enugu State. Most of the evaluation studies executed on Fadama III in the state have focused on different aspects of Fadama III without undertaking a holistic or general impact assessment of the programme in the state. For instance, the evaluation study by Okechukwu (2014) focused only on the effectiveness of the direct resource delivery policy to crop farmers that are participating in Fadama III in Enugu State. This study covered the 17 local government areas of Enugu State and most if not all the Fadama III farming enterprises undertaken during the period of the project in Enugu State.

3. Theoretical Framework

This chapter presents the theory that was adopted for this evaluation study. Due to the fact that an explicit review has been undertaken on poverty in the previous chapter of this work, I will simply move directly to the theory that informed this research which is programme theory otherwise known as the simple logic model, theory of change or theory of action.

> "The role of theory in program evaluation is an important but neglected area in evaluation practice and theory. Program theory has several important functions that can improve our ability to generalize from particular evaluations, contribute to social science theory, and achieve consensus in evaluation planning." (Bickman: 1987).

Theoretically, the researcher adopted programme theory in this research work. Rogers, (2008:30-33) and Maden et al (2017: 2) recognized that programme theory has been differently referred to by some other scholars as programme logic, theory-based evaluation, theory of change, theory of action, or intervention logic. In the view of Savaya and Waysman (2005:86), in recent years, scholarly materials on intervention and programme in the area of social work have shown increasing stress on absorbing theoretical approaches in the practice and conduct of programme evaluation which reflects a precise explanation of the population, problems and outcomes that are the concern of any programme, precise representation of theoretical postulations that control the preference of intervention, and methodological appraisal of efficiency or success.

According to Funnell and Rogers (2011), "A program theory is an explicit theory or model of how an intervention, such as a project, a program, a strategy, an initiative, or a policy, contributes to a chain of intermediate results and finally to the intended or observed outcomes". It denotes different techniques of evolving or establishing a causal model that connects programme inputs and activities to a chain of planned expected or contemplated outcomes, and employing the model to direct the evaluation (Rogers et al., 2008). This implies that a programme theory is a causal relationship model or framework that describes how an intervention programme's inputs and activities are linked to a series of either intended or observed outcomes in programme implementation or evaluation. According to Funnell and Rogers (2011) and Maden et al. (2017), programme theory has two elements which include the theory of change and the theory of action, and while the former deals with the fundamental procedures or activities through which change occurs in individual, community, the later deals with what the intervention or project will execute so as to trigger or start the change theory.

Rogers (2008), asserts that the concept of the 'logic model' can be perceived as an abridged theory, usually in a diagrammatical configuration, of how an intervention programme functions and that programme theory evaluation is adopted for evolving a logic model used in the evaluation. He is of the opinion that a majority of the methods of constructing logic models have concentrated on simple linear models with a few

investigating the possibility of the use of non-linear models for improved programme representation and guidance in evaluation. And based on the foregoing, Rogers identifies simple logic models, complicated logic models and complex intervention as varieties of programme theory. While complicated logic is made up of three different aspects which include multi-site or multi-governance, simultaneous causal strands and alternative causal strands, complex intervention is made-up of recursive and tipping points and emergence (Rogers: 2008). Considering the suitability of the simple logic model of programme theory to this research, I adopted the model in evaluating the impact of the World Bank-assisted intervention development project – Fadama III programme on its participants in Enugu State.

In the view of Savaya and Waysman (2005:86), while the Logic model refers to the diagrammatical description of the theoretical operations of a programme to actualize the gains of the programme for its participants, Shakman and Rodriguez (2015:11) define the logic model as a deciphered pictorial connection between a programmme's input which includes resources, activities etc and the expected or intended outcomes of the programme. It also represents a theory of transformation or activities that operates the programme, intervention or policy and makes non-implicit postulation that concerns the inputs that are available to the programme and the philosophy in support of the endeavour (Shakman and Rodriguez: 2015, Savaya and Waysman: 2005, and Unrau: 1993).

Having been criticized for stressing more administrative value rather than making case-level operation evident, and having a dysfunctional impact when people endeavour to employ a simple linear method in the evaluation of complex adaptive system intervention; the logic model is still believed to be important for Programme planning, execution, monitoring, and evaluation as in the case of this research; and also advantageous for its provision of comprehensive explanation of broad objectives, recognition of gaps and explanation of assumptions in programme logics, building of comprehension and fostering of solidarity, provision of clarification on what is good to be evaluated etc (Shakman and Rodriguez: 2015, Rogers:2008, and Unrau:1993).

Shakman and Rodriguez (2015), reveal that all logic models are not the same and that they are also not constructed for the same goal. There exist variations in logic models according to the divergent goals that they intend to achieve, and based on this they identified three types of logic models which include: theory approach, activities approach, and outcomes approach. In what looks related or similar to the theory of change and theory of action discussed above, Shakman and Rodriguez explain that while the theoretical approach of the logic model describes the entire change theory that might be good for the design and general communication of the programme theory, activities approach model is concerned more with the fixed activities and strategies linked with a programme, and closely monitors the connection among programme activities, implementation and there connection to outcomes. On the other hand, they assert that the outcome approach of the logic model which I consider to be in line with this research is the best for programme evaluation as it contemplates the activities and strategies in connection or relation to the intended outcomes of the programme, thereby making it

outcome oriented indeed. They also opined that the outcomes approach is divided into short-term outcomes, long-term outcomes, and impacts.

Despite the fact that there exist different means of presenting the logic model of programme theory, it is most often presented in a diagrammatic form that looks like a flow chart that has a chain of items linked with one-way arrows (Savaya and Waysman: 2005). According to Rogers (2008), the simple logic model of programme theory shows a single linear causal path that often involves some variation in five categories that include: input, processes or activities, output, outcome and impact. These categories will be shown the Figure 1 below and discussed briefly after it.

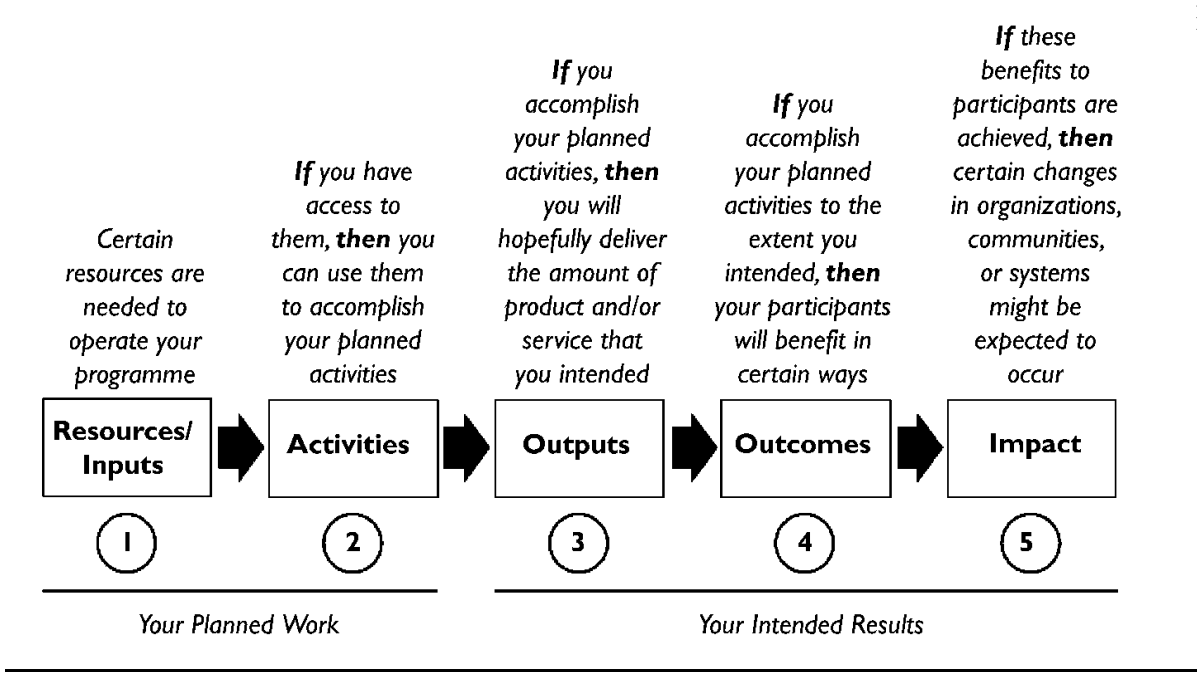

Figure 1: A Simple Logic Model.

Source. W. K. Kellogg Foundation (2004**)** cited in Rogers (2008).

Resources/Inputs: These represent or include both human, organizational, financial and community resources that need to be invested in a programme so that it will be able to perform its planned activities.

Activities: These include what the program does with the inputs; events, actions, and processes that are deliberate parts of the programme execution or implementation.

Outputs: Outputs are the straight or direct effects, consequences or products of programme activities, and they are often calculated or weighed in terms of the volume of work done or accomplished and the number of people or participants reached (Savaya and Waysman: 2005).

Outcomes: Outcomes are the gains, benefits or changes in the programmes' participants or target population or group; for instance, changes in behaviour, knowledge, perceptions,

or even status. Development or intervention programmes often predict a chain of outcomes that are connected to one another in a methodological or logical succession over a period of time, with short-term outcomes leading to long-term outcomes, which in turn lead to long term-outcomes and finally to the impact (Savaya and Waysman: 2005).

With all things being equal, in applying the simple logic model of programme theory in the evaluation of the impact of Fadama III on the alleviation of poverty in Enugu State, it is expected that if all the resources (land, money, high-yielding crops and other farm implements, technical assistance etc) that are needed to operate the programme are available and accessible to the farmers, and the farmers engage in the process or activity (full cultivation of Fadama farmlands, etc). It is expected that activities will lead to increased yield and production of food which is the output of the intervention programme. And if the output is accomplished, it is expected that the farmer will market the farm products to have increased income which is the expected outcome of the programme, and when this is accomplished, it is also expected that there will be a change (impact) which is the alleviation of poverty in the lives of the participants.

4. Methodology

This section of the work deals with the methodology of the study. It discussed the ontological and epistemological positions of the research, the study population and sampling techniques, the mixed method approach adopted in the research and the structured interview (questionnaire). Other things that were considered in this section include data analysis, ethical consideration, political context and stakeholder perspective and the limitation of the study.

4.1 Ontological and Epistemological Position(s)

Ontology and epistemology are debated subjects, and every social scientist's ontological and epistemological stands are determined by the person's inclination toward a phenomenon (Marsh et al. 2018). Marsh and his colleagues also argue that while there exists a wide consensus on the meaning of the concepts, the agreement on the ontological or epistemological stands that researchers employ or the nexus between epistemology and ontology is not widespread or general. To them, Ontology and epistemology individually represent theories of being and knowledge; and while a scholar's ontological stand connotes the person's viewpoint about the nature of the world, the scholar's epistemological stand also connotes individual's point of view on what can be known about the world. The ontological and epistemological viewpoints or perspectives that I employed in this research are foundationalism and realism respectively. These positions are motivated by the belief that there is a 'real' world, 'out there', independent of our knowledge of it; and it also poses relevant questions like 'what are the nature and form of reality and, what is it that can be known about it? Based on the above ontological and epistemological stands and coming from the perspective of the topic of this research - World Bank Assisted Intervention Development Projects on Poverty Alleviation in Nigeria: An Impact Evaluation of National FADAMA III in Enugu State - it is my belief that there exists an ontology of poverty in Nigeria which will take the realism of sampling or questioning the opinion of Fadama III and non- Fadama III participants in Enugu State of Nigeria about it in order to determine its level of existence and alleviation.

4.2 Study Population and Sampling Techniques

In analysing the impact of the Fadama III intervention programme on beneficiaries, the researcher divided the sampling frame into two strata which include: the programme beneficiaries (i.e. Fadama III beneficiaries) and non-programme beneficiaries (non-Fadama III beneficiaries). The stratification the researcher adopted was designed to allow for the estimation of the direct impact of the Fadama III programme by comparing Fadama III programme beneficiaries to similar households in similar communities that did not participate in the programme in Enugu State. Enugu State has 17 local government areas and I randomly selected one Fadama III Community Association (FCAs) from each of the 17 local government areas of the state, and ten households belonging to different Fadama III User Groups (FUGs) to have 17 FCAs and 170 FUGs respectively. Also, the control group, that is, the non-Fadama III beneficiaries group was achieved through a random selection of 4 non-Fadama participant households from similar communities in each of the

17 local government areas and this will give rise to 68 households. In total, 238 households participated in this evaluation but only 263 returned their questionnaire.

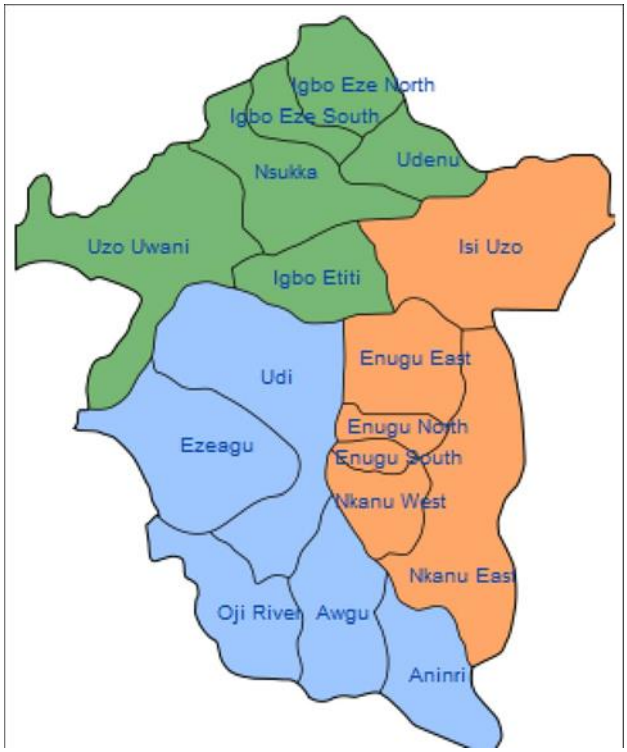

Figure 2.Map of Enugu State showing the locations of the 17 local government areas.

Source: Anejionu and Okeke (2011) in Ezugwu et al. (2021).

4.3 Mixed Method Approach

Methodologically, this research adopted or made use of a mixed-method approach. A mixed method approach is an approach that combines the use of both qualitative and quantitative data in research. According to Gertler et al, (2016:15),

> "Mixed method approaches that combine quantitative and qualitative data are a key supplement to impact evaluations based on the use of quantitative data alone, particularly to help formulate hypotheses and focus research questions before quantitative data are collected and to provide perspectives and insights on a program's performance during and after program implementation".

This means that qualitative data are brought into a quantitatively based impact evaluation research to supplement, support or eliminate the weakness of the quantitative data used in the research. There are convergent parallel, explanatory sequential, and exploratory sequential approaches of mixed-method according to Gertler et al (2016), and because of the fact that this impact evaluation made use of figures that were generated from Fadama III registers and structured interviews through questionnaires I adopted the explanatory

and exploratory sequential approaches of mixed method in explaining and exploring the qualitative data that was generated to provide context and explanations for the quantitative results, to explore the difference in cases of success and failure, and to develop sequential explanations of the programme's outputs and outcomes as it discovered in the quantitative results. In this way, the qualitative method or approach was used to explain why certain results were observed in the quantitative analysis, and can also be used to get inside the black box of what happened in the programme. Qualitative data was also used to explain the research question that needs to be addressed in this impact evaluation work as suggested by Gretier et al. (2016).

4.3.1 Quantitative Data

Having said much about the suitability of the mixed-method approach to this impact evaluation above, practically, I made use of both primary and secondary quantitative data in answering the only research question of this evaluation. The primary quantitative data for this research was sourced through a structured questionnaire which was distributed to both the members of the treatment group and the control group. The data that were generated through this means include bio-data, and income and expenditure levels statistical data of both the beneficiaries and non-beneficiaries of the project. The secondary quantitative data were sourced through the state and local government offices of Fadama III. Since there exist no state by state breakdown of Fadama III beneficiaries and their baseline data in the official implementation document of the programme, generated the baseline data of the beneficiaries at the various offices mentioned above through the use of randomized control trial (RCT) and triangulated it with the general baseline data from the official implementation document of the programme. Randomized control trial (RCT) is considered the gold standard of impact evaluation, and it uses a random process, or chance, to decide who is given access to the program and who is not, and it also grants every eligible unit or beneficiary in an evaluation the same probability of being selected for treatment by a programme (Gertler et al, 2016). I visited the state and local government Fadama offices and randomly selected from the pool of Fadama III beneficiaries those that constituted the treatment group of the evaluation. The control group members randomly selected from among farmers from similar communities. The essence of using a questionnaire to generate bio / demographic data of the Fadama III beneficiaries already gotten through the Fadama state and local offices is to compare both in order to achieve triangulation thereby validating the authenticity of the data generated from both sources, and also to determine the impact of the programme on poverty alleviation of the beneficiaries.

4.3.2 Qualitative Data

Both primary and secondary qualitative data were employed in this evaluation research. While primary data like bio-data and educational level of the evaluation beneficiaries most especially, the non-beneficiary group were generated through the questionnaire that I distributed to them, the secondary qualitative data were generated from sources likeFadama III registers at the state and various local government Fadama offices, official

implementation documents of the programme, and previous Fadama III evaluation studies. For instance, while the official implementation document of the project provided secondary qualitative data like what constitute the aims, components, the mode of operations and the general outcome of the Fadama III, previous researches also furnished the research with some of the data contained in the official implementation document and some other relevant data like the findings or discoveries of other impact evaluation studies on Fadama III which constitute the empirical review of this research study.

4.4 Main Data – Structured Questionnaire

4.4.1 Questionnaire

Structured questionnaire was employed in this research study. According to Baker (2000), the pattern of asking questions and the arrangement of the questions are vital in collecting reliable data for the measurement of welfare needed in determining the direct impact of the poverty reduction programme. To him, probing only the income level without also probing other indicators like household make-up and expenditure adopted to gather a true individual and household welfare would not essentially provide correct data. Based on the foregoing, the questionnaire for this researchwhich is informed or motivated by the above postulations of Baker contains nine questions that solicited for bio / demographic data of the respondents like name, age, gender, marital status and household size which were used to generate the socio-demographic data of the Fadama III respondents, one question on the type of farming enterprise that the respondents engaged in and twenty questions that border on the income and expenditure levels of the respondents before, during and after the implementation of the Fadama III project. The questions which were asked to gain data for determining the impact of Fadama III on the respondents of the state that benefited from the project were administered by well-trained enumerators from the Enugu State Fadada III office.

4.4.2 Data Analysis

The data that were generated for this evaluation were analysed via the use of descriptive and inferential statistical tools like bar charts and percentages, and the Double-Difference (DD) Estimator that is also referred to as the Difference-in Difference method was used to compare changes in outcome measures, that is, change from before to after the programme, between programme beneficiaries and non-beneficiaries, rather than simply comparing outcome levels at one point in time in the evaluation (Ike, 2012, Gertler, et. al, 2016, Fredrikssona, and De Oliveira, 2019). The merit of adopting this analytical tool in this evaluation is that it is expected to net out the effects of any additive factors that have fixed impacts on the outcome indicator like the abilities of farmers or the inherent quality of natural resources, or that reflect common trends affecting programme beneficiaries and non-beneficiaries equally such as changes in prices or weather (Ike, 2012). According to Gertler, et al, (2016), the basic connection with comparison is that the two groups might have divergent features that might be responsible for the difference in outcomes of the

groups rather than the programme itself and that it is impractical to incorporate unobserved disparity in characteristics in the analysis of outcomes. It is their belief that the double difference method aids in settling this challenge by presuming that numerous elements of the groups are static over time. Difference-in Difference method was used to examine the impacts of Fadama III on the poverty alleviation of the participants without using any other statistical analytical tool as it would produce unbiased estimates of impact as long as these assumptions remain static (Ike, 2012), thus, the use of this approach to evaluate the impact of Fadama III on poverty alleviation among the residents of Enugu State that participated in the programme. While bar charts were used to show the percentage distribution of information like gender, marital status and the educational level of the respondents, the mean was used in the calculation of figures like the average income of the respondents. Because of the need for a valid and reliable analytical tool in analysing the qualitative data that were used in this evaluation, the researcher adopted content analysis in analysing the qualitative data that would be used in this evaluation. Content analysis "is a systematic coding and categorizing approach used for exploring large amounts of textual information unobtrusively to determine trends and patterns of words used, their frequency, their relationships, and the structures and discourses of communication" (Vaismoradi et. al, 2013). Adoption of content analysis in this evaluation made it possible for the evaluator to analyse data qualitatively and quantitatively at the same time, and to also use a descriptive approach in both coding of data and interpretation of quantitative counts of the codes in analysis (Vaismoradi et. al, 2013).

Difference-in Difference method Formula according to Duflo et al, (2004) cited in Ike (2021):

$$DD = (Y_{P1} - Y_{P0}) - (Y_nP_1 - Y_nP_o)$$

where:

Y_{p1} = Outcome (for example, income) of beneficiaries after the project started.

Y_{p0} = Outcome of beneficiaries before the project started.

Y_nP_1 = Outcome of non-beneficiaries after the project started.

Y_nP_0 = Outcome of non-beneficiaries before the project started.

4.5 Ethical Consideration

It is the responsibility of the researcher that is carrying out an impact evaluation where participants would be divided into treatment and control groups to know that efforts should be made to minimize to the highest point the risks that individuals might be harmed and to ensure that participants participate through informed consent (Gertler, et. al, 2016). And as a result of this, I ensured fair assignment of participants into treatment and control groups, identification with relevant national ethics review committee, and institutional review boards, sufficient time allowance to prepare and submit the research protocol to the institutional review board and obtained permission before data collection from participants commenced, and the submission of the research protocol and pre-analysis design to a social science trial registry (Gertler, et. al, 2016).

4.6 Political Context and Stakeholder Perspective

Impact evaluation research is essentially political because of the fact that all evaluations operate within political constraints, are politically articulated, and also engage complex social relations and decisions about rules and resources between stakeholders, or different interest groups, that have personal interests in the impact of the evaluation (O'Brien, 2010). Azzam and Levine (2015) argue that even before the commencement of evaluation research, the act of deciding whether or not to embark on evaluation research is a political act and that the outcome of an evaluator's actions can be detrimental to downstream stakeholders that are not immediately present. They also went further to assert that the analysis of the political implications of an evaluation should occur throughout the evaluation process to assist the researcher to have a good comprehension of the interests of various stakeholders and their potential reactions to the actions of the evaluator (Azzam and Levine, 2015). And Mercier (1997:467), also advocated active stakeholder involvement in the evaluation process because of its role in improving validity, utilization, integration with the decision process, and empowerment. The evaluation of the impact of the Fadama III intervention programme on poverty alleviation among the residents of the Enugu State that participated in the programme is a stakeholder-based evaluation that was carried out in the political context of Enugu State. And being aware of this and the above arguments and postulations, the researcher made serious efforts to ensure that the interests of the government and other key stakeholders that constitute the major and downstream stakeholders of the evaluation was considered, managed and protected in the evaluation through proper consultation, interface and agreement on areas of conflict in the evaluation.

4.7 Limitations

One major limitation which I presume in this study is the inaccuracy in the data supplied by the respondents. Being post-implementation evaluation research, there exists a possibility that the information provided by the respondents might not be a hundred per cent accurate as some of them might have forgotten what their average annual income and expenditure were before, during and after the programme. For example, some randomly selected respondents decline to accept the questionnaire as they confessed their inability to respond to the questions due to forgetfulness. I also acknowledge the possibility of the appearance of bias in the use of the difference-in-difference method as observed by Gertleret al. (2016) and also supplemented the double-difference analytical tool with a content analysis analytical tool to take care of this weakness. Another limitation of this research is that it is not all the findings of this research that were discussed in the discussion section. Considering the maximum number of words that are required in the thesis, the researcher selected and discussed only the findings that are relevant to answering the research questions and achieving its objectives. Although this study and its findings are for general consumption, it is also important to note that the findings of this study may not be replicated in a place that is not as agriculturally disposed as Enugu. It is also important to note that the paucity of funds and the high level of insecurity in Enugu State during the fieldwork for this research had a negative impact on this study.

5. Data Presentation and Analysis

This chapter comprises the analysis, presentation and interpretation of the findings resulting from this study. The analysis and interpretation of data was carried out in two phases. The first part, which is based on the results of the socio-demographic findings of the respondents. The second deals with a quantitative analysis of data which is based on the results of the respondents to the questionnaires.

5.1 Result Presentation

5.1.1 Socio-demographic Results of the Fadama III Programme Respondents

This section presents the socio-demographic distribution of the Fadama III respondents, a total of one hundred and sixty-eight respondents participated in the study. This section comprises results on the age, gender, family size and education qualification distribution of the Fadama III respondents.

i. Age Distribution of the Fadama III Programme Respondents

Table 5.1 below presents the age distribution of the Fadama III programme respondents of this study, the table indicates that most of the respondents are within the age range of 51 to 70 years and constitute 50% of the respondents, while a minority of the respondents are within the age range of 10-30 and makes up 1.2% of the respondents. 44.6% of the respondents are within the age range of 31 to 50 years while 4.2% of the respondents are within the ages of 71 to 90 years.

Table 5.1: Distribution of the Fadama III programme respondents by age

Age	Frequency	Percentage	Cumulative percentage
10-30 years	2	1.2%	1.2
31-50 years	75	44.6%	45.8
51-70 years	84	50.0%	95.8
71-90 years	7	4.2%	100.0
Total	168	100%	

Source: Autor's survey data using SPSS (2023)

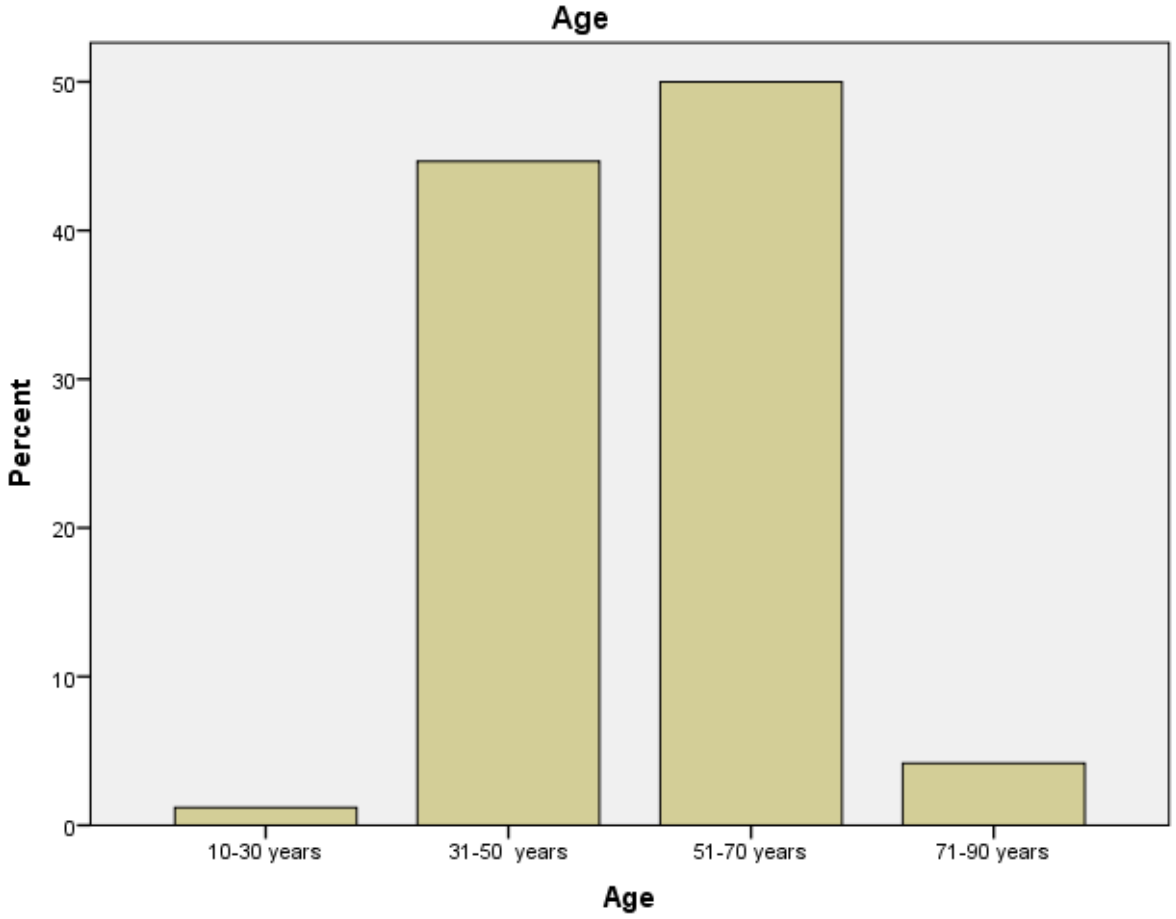

Figure 3: Distribution of the Fadama III programme respondents by age

ii. Gender Distribution of the Fadama III programme respondents

A greater percentage (56%) of the Fadama III respondents are males while female respondents of the Fadama III programme accounted for 44% of the respondents. Table 5.2 below presents the findings of the gender distribution of Fadama III programme respondents.

Table 5.2: Distribution of theFadama III programme respondents by gender

Gender	Frequency	Percentage	Cumulative percentage
Male	94	56%	56
Female	74	44%	100
Total	168	100%	

Source: Autor's survey data using SPSS (2023)

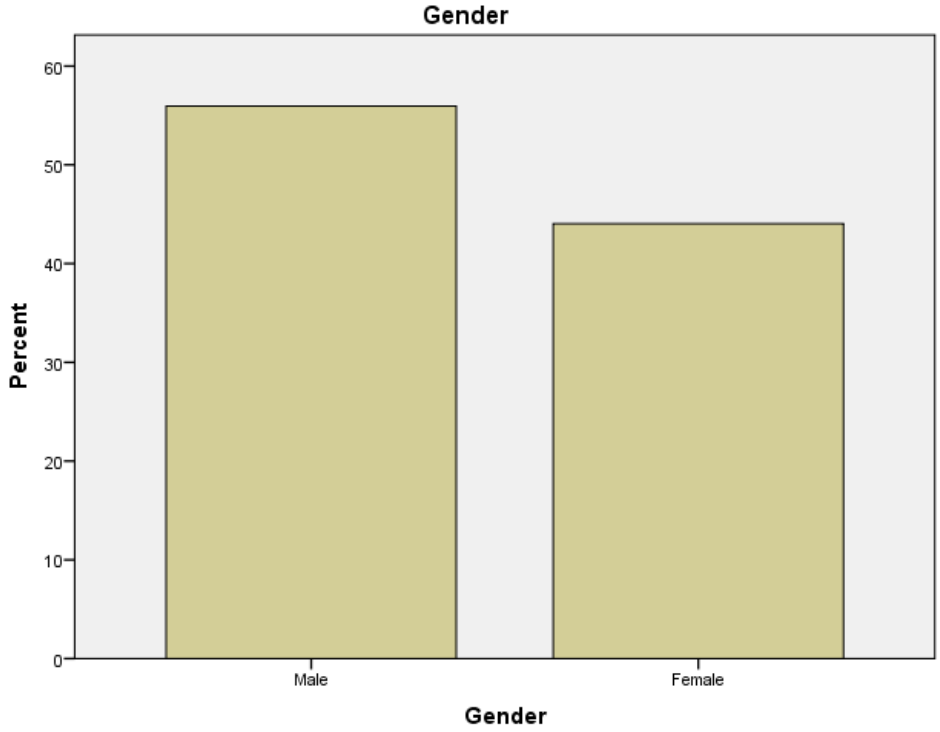

Figure 4: Distribution of the Fadama III programme respondents by gender

iii. Marital Status distribution of the Fadama III programme respondents

Table 5.3 below presents the distribution of the Fadama IIIprogramme participants by their marital status, the table indicates that 4 (2.7%) of the respondents are single while, 163 (97.3%) of the respondents are married, one of the respondents failed to indicate their marital status, therefore only 167 responses are presented. This indicates that most of the respondents are married.

Table 5.3: Distribution of theFadama III programme respondents by marital status

Marital Status	Frequency	Percentage	Cumulative percentage
Single	4	2.7%	2.7
Married	163	97.3%	100.0
Total	167	100%	

Source: Autor's survey data using SPSS (2023)

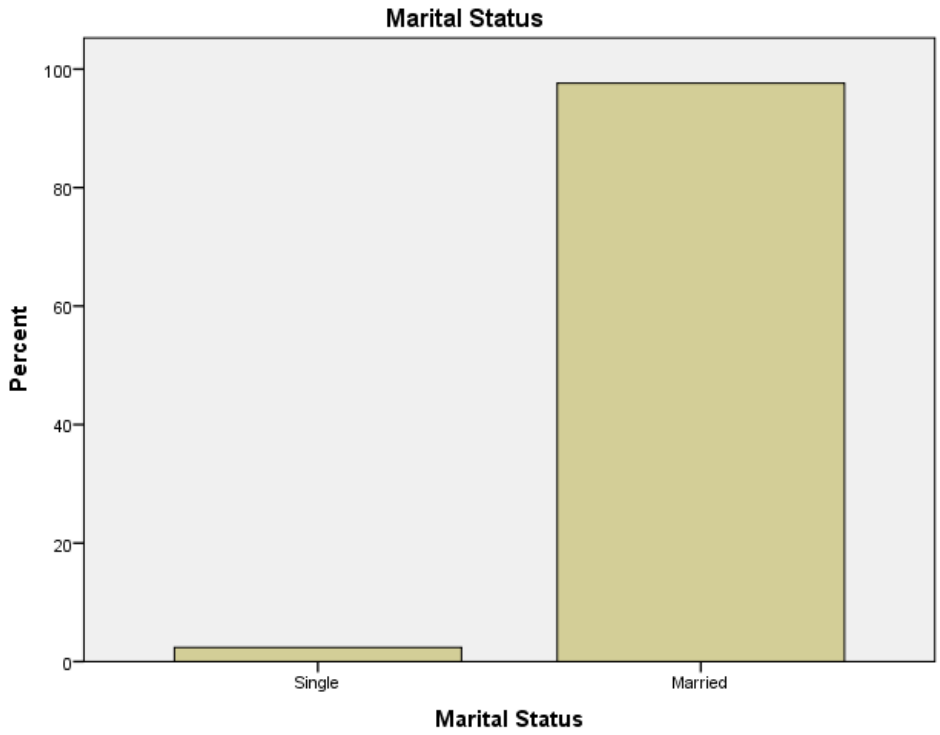

Figure 5: Distribution of the Fadama III programme respondents by marital status

iv. Household Size distribution of the Fadama III programme respondents

Table 5.4 below indicates that most of the respondents (63.7%) have a household size of 6 – 10 and a lesser percentage (0.6%) of the respondents have a household size of 16 – 20. 46 (27.4%) of the respondents have a household size of 1 – 5, and 4(2.4%) respondents have a household size of 11 – 15. The table also indicates that 10 (6.0%) of the respondents failed to identify their household size, this implies that only 158 of the respondents indicated their household size.

Table 5.4: Distribution of theFadama III programme respondents by household size

Household Size	Frequency	percentage	Cumulative percentage
1 – 5	46	27.4%	27.4
6 – 10	107	63.7%	91.1
11 – 15	4	2.4%	93.5
16 – 20	1	0.6%	94.0
Missing	10	6.0%	100.0
Total	168	100%	

Source: Autor's survey data using SPSS (2023)

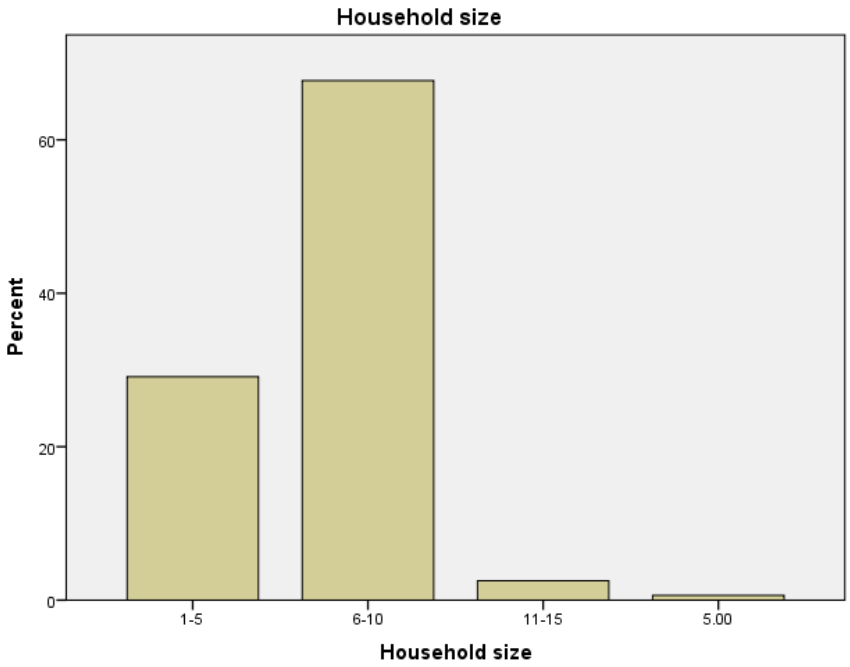

Figure 6: Distribution of the Fadama III programme respondents by household size

v. Education Attained distribution of the Fadama III programme respondents

In table 5.5 presented below, the educational level attained by the respondents has been presented, the table shows that 49 (29.2%) of the respondents attained only primary education, while 70(417%) of the respondents attained secondary education and 37(22.0%) of the respondents attained tertiary education. 12(7.1%) respondents did not provide a response to this questionnaire item. The table indicates that most of the respondents indicated secondary education as the highest educational level attained. However, a minority of the respondents have attained tertiary education as their highest educational level.

Table 5.5: Distribution of the Fadama III programme respondents by education attained

Education Attained	Frequency	percentage	Cumulative percentage
Primary	49	29.2%	29.2
Secondary	70	41.7%	70.9
Tertiary	37	22.0%	92.9
Missing	12	7.1%	100
Total	168	100%	

Source: Autor's survey data using SPSS (2023)

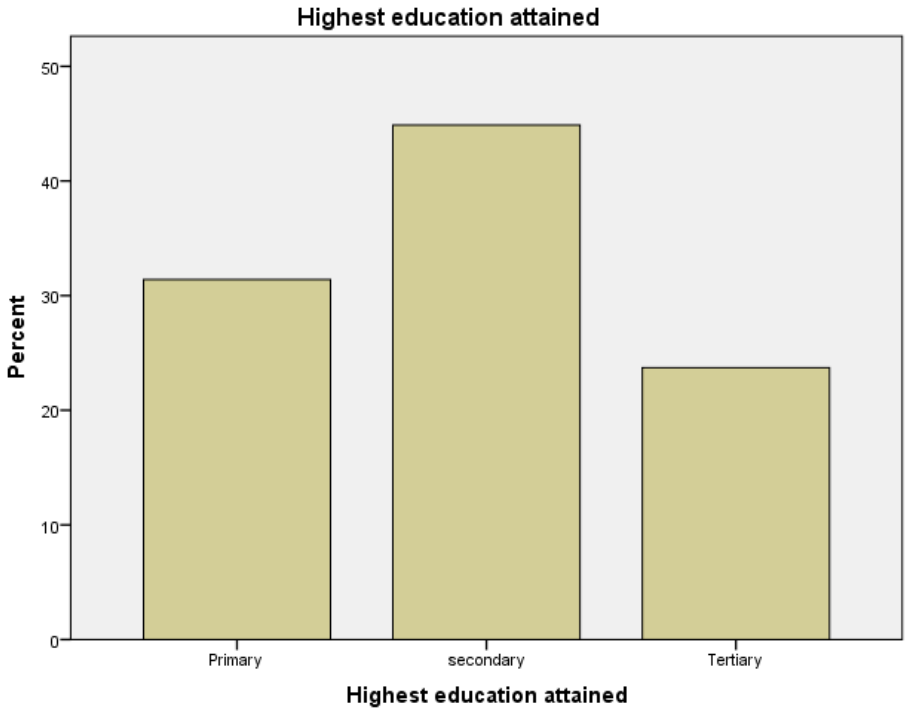

Figure 7: Distribution of the Fadama III programme respondents by education attained

5.1.2 Socio-demographic Results of the Non-Fadama III Programme Respondents

This section presents the socio-demographic distribution of the Non-Fadama III respondents, a total of sixty-seven (67) respondents participated in the study. This section comprises results on the age, gender, family size and education qualification distribution of the Non-Fadama III respondents.

i. **Age Distribution of the Non-Fadama III Programme Respondents**

Table 5.6 below presents the age distribution of the Non-Fadama III programme respondents of this study, the table indicates that most of the respondents are within the age range of 31 to 50 years and constitute 52.2% of the respondents, while a minority of the respondents are within the age range of 71-90 and makes up 0.0% of the respondents. 40.3% of the respondents are within the age range of 51 to 70 years while 7.5% of the respondents are within the ages of 10 to 30 years.

Table 5.6: Distribution of the Non-Fadama III programme respondents by age

Age	Frequency	percentage	Cumulative percentage
10-30 years	5	7.5%	7.5
31-50 years	35	52.2%	59.7
51-70 years	27	40.3%	100.0
71-90 years	0	0.0%	
Total	67	100%	

Source: Autor's survey data using SPSS (2023)

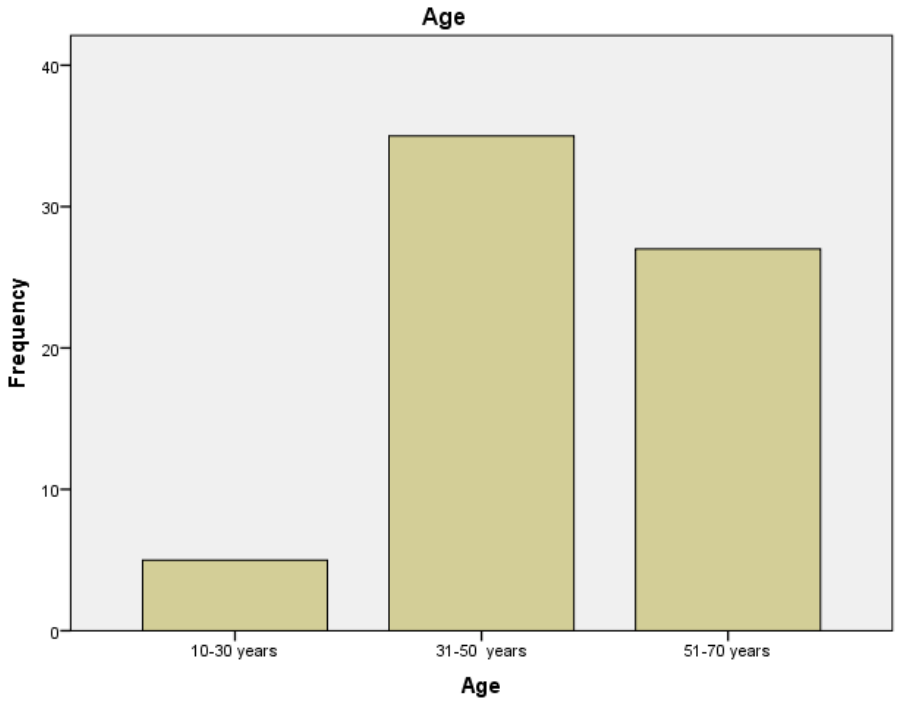

Figure 8: Distribution of Non Fadama III programme respondents by age

ii. Gender Distribution of Non-Fadama III programme respondents

A greater percentage (59.7%) of the Non-Fadama III respondents are males while female respondents of the Non-Fadama III programme accounted for 40.3% of the respondents. Table 5.7 below presents the findings of the gender distribution of Non-Fadama III programme respondents.

Table 5.7: Distribution of Non-Fadama III programme respondents by gender

Gender	Frequency	percentage	Cumulative percentage
Male	40	59.7%	59.7
Female	27	40.3%	100
Total	67	100%	

Source: Autor's survey data using SPSS (2023)

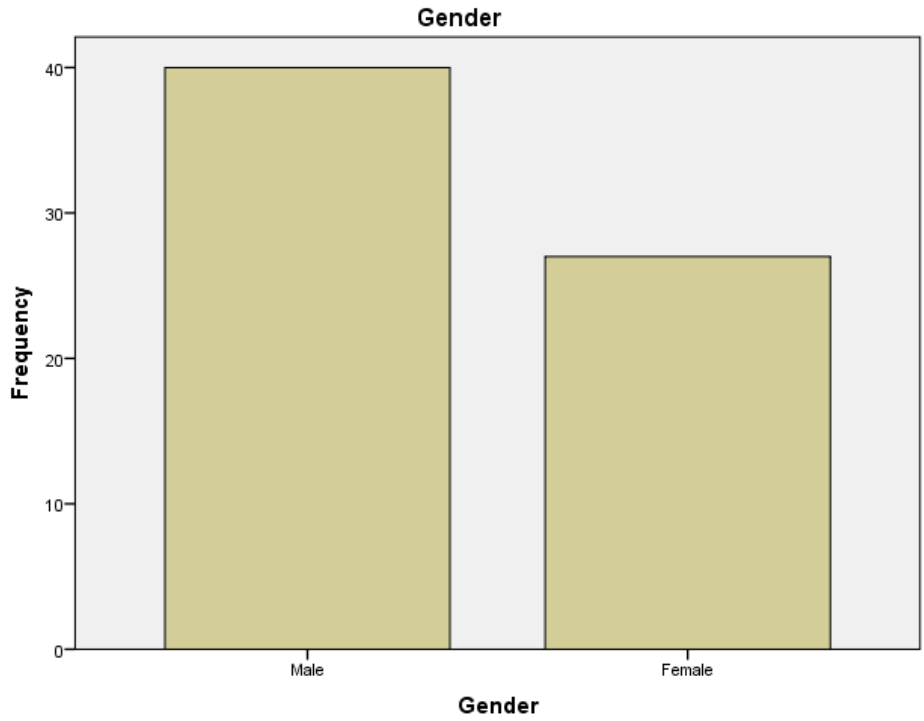

Figure 9: Distribution of Non-Fadama III programme respondents by gender

iii. Marital Status distribution of Non-Fadama III programme respondents

Table 5.8 below presents the distribution of Non Fadama III programme participants by their marital status, the table indicates that 2 (3.0%) of the respondents are single while, 65 (97.0%) of the respondents are married, which indicates that most of the Non-Fadamaa III respondents are married.

Table 5.8: Distribution of Non-Fadama III programme respondents by marital status

Marital Status	Frequency	percentage	Cumulative percentage
Single	2	3.0%	3.0
Married	65	97.0%	100
Total	67	100%	

Source: Autor's survey data using SPSS (2023)

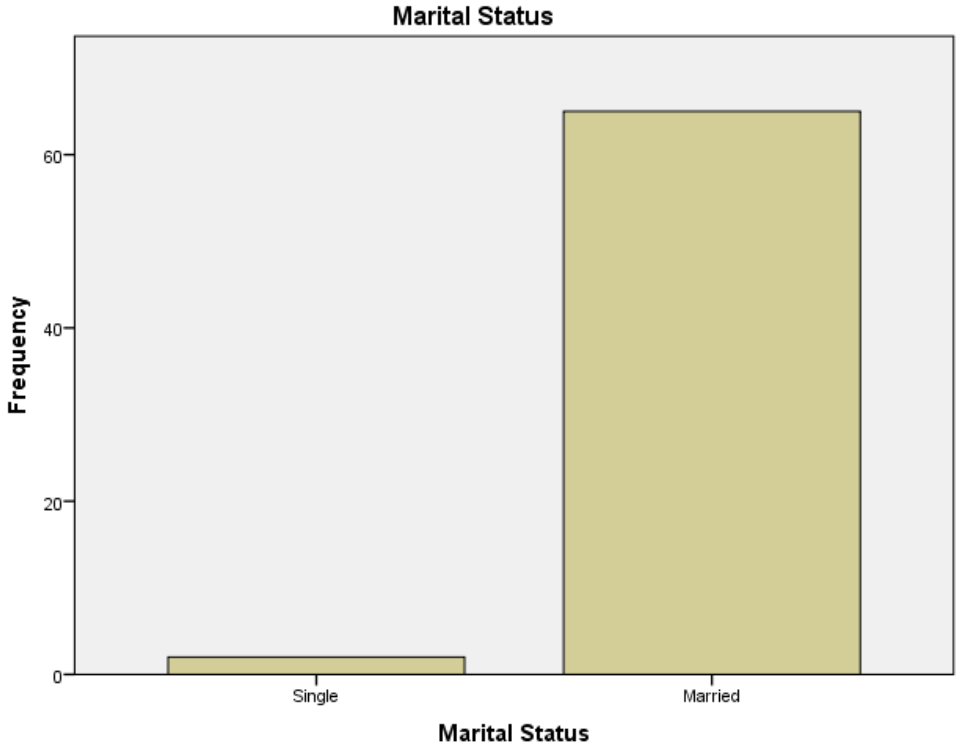

Figure 10: Distribution of Non-Fadama III programme respondents by marital status

iv. Household Size distribution of the Non-Fadama III programme respondents

Table 5.9 below indicates that most of the respondents (61.2%) have a household size of 6 – 10 and a lesser percentage (0.0%) of the respondents have a household size of 16 – 20. 25 (37.3%) of the respondents have a household size of 1 – 5 and 1 (1.5%) respondents have a household size of 11 – 15.

Table 5.9: Distribution of Non-Fadama III programme respondents by household size

Household Size	Frequency	Percentage	Cumulative percentage
1 – 5	25	37.3%	37.3
6 – 10	41	61.2%	98.5
11 – 15	1	1.5%	100.0
16 – 20	0	0.0%	
Total	67	100%	

Source: Autor's survey data using SPSS (2023)

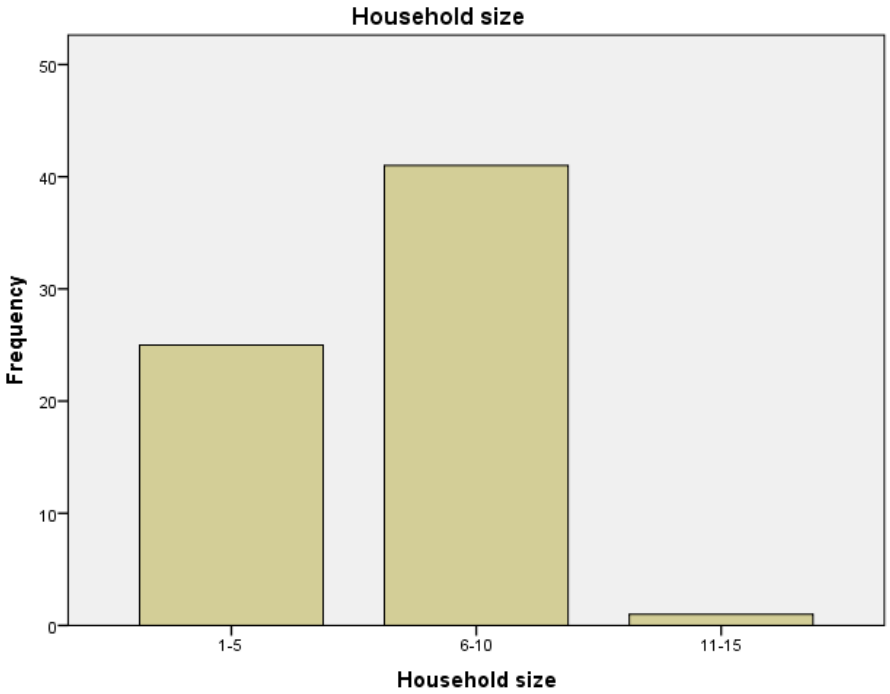

Figure 11: Distribution of Non-Fadama III programme respondents by household size

vi. Education Attained distribution of Non-Fadama III programme respondents

In table 5.10 presented below, the highest educational level attained by the Non-Fadama respondents been presented, the table shows that 16 (23.9%) of the respondents attained only primary education, while 34 (50.7%) of the respondents attained secondary education and 12 (17.9%) of the respondents attained tertiary education. 5 (7.5%) respondents did not provide a response to this questionnaire item. The table indicates that most of the respondents indicated secondary education as the highest educational level attained. However, a minority of the respondents have attained tertiary education as their highest educational level.

Table 5.10: Distribution of the Non-Fadama III programme respondents by education attained

Education Attained	Frequency	percentage	Cumulative percentage
Primary	16	23.9%	23.9
Secondary	34	50.7%	74.6
Tertiary	12	17.9%	92.5
Missing	5	7.5%	100.0
Total	67	100%	

Source: Autor's survey data using SPSS (2023)

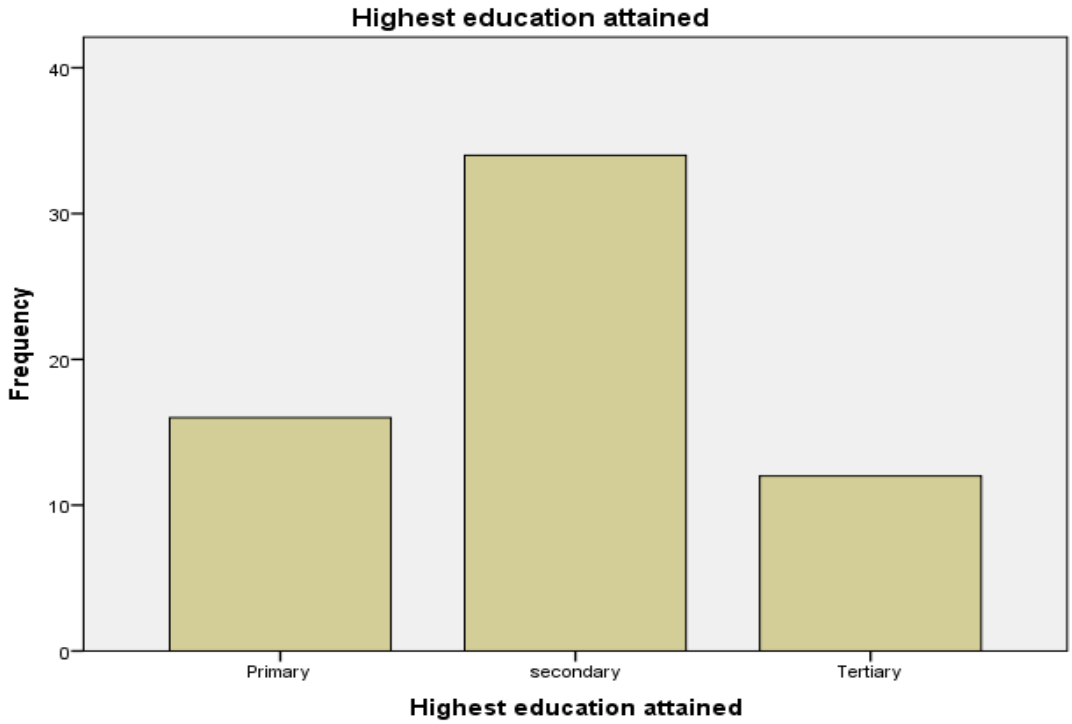

Figure 12: Distribution of Non-Fadama III programme respondents by highest education attained

5.1.3 Fadama III and Non-Fadama III respondents by farming enterprise

Table 5.11 below presents the distribution of the Fadama III and Non-Fadama III respondents according to the farming enterprise they participated.

For the Fadama III participants, 50.6% of respondents engaged in crop farming enterprise, 25.0% of the Fadama III respondents engaged in livestock enterprise, 3.0% of the Fadama III respondents engaged in agroforestry enterprise, 7.8% of the Fadama III respondents engaged in the vulnerable enterprise and 11.3% of the respondents engaged in more than one enterprise. Most of the respondents (15.5%) in the Fadama III programme engaged in cassava farming.

For the Non-Fadama III respondents, 41.9% of the respondents engaged in crop farming enterprise, 13.4% engaged in livestock farming, 1.4% engaged in agroforestry farming, 12% of the non-Fadama III respondents engaged in vulnerable enterprise and lastly, 28.4% engaged in more than one enterprise.

Table 5.11: Distribution of Fadama III and Non-Fadama III respondents by farming enterprise

	Fadama III Respondents		Fadama III Non-Respondents	
Enterprise	**Frequency**	**Percentage**	**Frequency**	**Percentage**
Crop farmers				
Cassava farmers	26	15.5%	16	23.9%
Yam farmers	13	7.7%	4	6.0%
Maize farmers	9	5.4%	3	4.5%
Vegetable farmers	1	0.6%	1	1.5%
Rice farmers	36	21.4%	4	6.0%
Livestock farmers				
Pig farmers	16	9.5%	0	0.0%
Poultry farmers	24	14.3%	8	11.9%
Goat farmers	2	1.2%	1	1.5%
Agroforestry farmers				
Cane rat Farmers	0	0.0%	0	0.0%
Snail rearing farmers	1	0.6%	0	0.0%
Beekeeping farmers	4	2.4%	1	1.5%
Vulnerable groups				
Rentals	0	0.0%	0	0.0%
Grinding mill	0	0.0%	0	0.0%
Cassava processing	8	4.8%	4	6.0%
Agro - processing	0	0.0%	1	1.5%
Palm oil processing	0	0.0%	3	4.5%
Fisheries	5	3.0%	0	0.0%
More than one	19	11.3%	19	28.4%

Source: Autor's survey data using SPSS (2023)

5.2 Income of Fadama III and Non-Fadama III respondents before the Fadama III programme

Table 5.12 below presents the income level of the Fadama III participants and the non-Fadama III participants in two years, one year and at the inception of the Fadama III programme.

Two years before the Fadama III programme, 56% and most of the respondents had an income of N1.00 – N100,000, while 2.4% of the respondents which constitute a minority of the Fadama IIIparticipants had an income of above N400,000 For the non-Fadama III participants, most of the participants (52.2%) had an income of N1.00 – N100,000.

Most of the Fadama III participants (67%) had an income of level of N1.00 – N100,000 one year before the Fadama III programme, while 4.2% of the Fadama III participants had an income level of above N400,000. For the non-Fadama III participants, 52.2% had an income level of N1.00-N100, 000, while 1.5% of the non-Fadama III participants had an income level of N301, 000-N400,000.

At the inception of the Fadama III programme, 35.7% of the Fadama III participants had an income level of N101,000-N200,000, while 6.5% of the Fadama III participants had an income level of above N400,000. For the non-participants of the Fadama III programme, 34% of the non-Fadama III participants had an income level of N1.00-N100, 000, a minority of the non-Fadama III participants (3.0%) had above N400,000 of income level.

Table 5.12: Distribution of Fadama III and Non-Fadama III respondents by their income level before the Fadama III programme

Income Level (N)	**Fadama III Respondents**		**Fadama III Non-Respondents**	
Two Year Before	**Frequency**	**Percentage**	**Frequency**	**Percentage**
N1.00 - N100,000	94	56.0%	35	52.2%
N101,000 - N200,000	46	27.4%	19	28.4%
N201,000 – N300,000	12	7.1%	12	17.9%
N301,000 – N400,00	12	7.1%	1	1.5%
Above N400,000	4	2.4%	0	0.0%
One Year Before				
N1.00 - N100,000	67	39.9%	27	40.3%
N101,000 - N200,000	64	38.1%	22	32.8%
N201,000 – N300,000	22	13.1%	12	17.9%
N301,000 – N400,00	8	4.8%	6	9.0%
Above N400,000	7	4.2%	0	0.0%
At Inception				
N1.00 - N100,000	52	31.0%	23	34.3%
N101,000 - N200,000	60	35.7%	19	28.4%
N201,000 – N300,000	33	19.6%	16	23.9%
N301,000 – N400,00	12	7.1%	6	9.0%
Above N400,000	11	6.5%	2	3.0%

Source: Autor's survey data using SPSS (2023)

5.3 Expenditure of Fadama III and Non-Fadama III respondents before the Fadama III programme

Table 5.13 below presents the expenditure level of the Fadama III participants and the non-Fadama III participants in two years, one year and at the inception of the Fadama III programme.

Two years before the Fadama III programme, 72.6% and most of the respondents had an expenditure of N1.00 – N100,000, while 1.8% of the and a minority of the Fadama III participants had an expenditure of above N400,000. For the non-Fadama III participants, most of the participants (70.1%) had an expenditure of N1.00 – N100,000.

Most of the Fadama III participants (63.1%) had an expenditure of level of N1.00 – N100,000 in one year before the Fadama III programme, while 3.6% of the Fadama III participants had an expenditure level of N301,000-N400,000 and above N400,000 respectively. For the non-Fadama III participants, 65.7% had an expenditure level of N1.00-N100,000, while 0.0% of the non-Fadama III participants had an expenditure level of above N400,000.

At the inception of the Fadama III programme, 56.0% of the Fadama III participants had an expenditure level of N1.00 –N100,000, while 4.2% of the Fadama III participants had an expenditure level of N301,000 – N400,000. For the non-participants of the Fadama III programme, 52.2% of the non-Fadama III participants had an expenditure level of N1.00-N100,000, a minority of the non-Fadama III participants (1.5%) had above N400,000 expenditure level.

Table 5.13: Distribution of Fadama III and Non-Fadama III respondents by their expenditure level before the Fadama III programme

Expenditure Level (N)	**Fadama III Respondents**		**Fadama III Non-Respondents**	
Two Years Before	**Frequency**	**Percentage**	**Frequency**	**Percentage**
N1.00 - N100,000	122	72.6%	47	70.1%
N101,000 - N200,000	19	11.3%	16	23.9%
N201,000 – N300,000	17	10.1%	3	4.5%
N301,000 – N400,00	7	4.2%	0	0.0%
Above N400,000	3	1.8%	1	1.5%
One Year Before				
N1.00 - N100,000	106	63.1%	44	65.7%
N101,000 - N200,000	37	22.0%	17	25.4%
N201,000 – N300,000	13	7.7%	14	6.0%
N301,000 – N400,00	6	3.6%	2	3.0%
Above N400,000	6	3.6%	0	0.0%
At Inception				
N1.00 - N100,000	94	56.0%	35	52.2%
N101,000 - N200,000	41	24.4%	22	32.8%
N201,000 – N300,000	17	10.1%	6	9.0%
N301,000 – N400,000	7	4.2%	2	3.0%
Above N400,000	9	5.4%	1	1.5%

Source: Autor's survey data using SPSS (2023)

5.4 Income level of Fadama III and Non-Fadama III respondents after the inception of the Fadama III programme

The income level distribution of the Fadama III and non-Fadama III participants after the inception of the Fadama III programme is presented in Table 5.14. The table presents the income of the respondents in periods of one year, two years, five years, seven years, eight years, and nine years after the inception of the Fadama III programme.

The table indicates that for the participants of the Fadama III, 10.1% of the participants had an income level of N1.00-N100,000, 34.5% had an income of N101,000-N200,000, 31.0% had an income level of N301,000-N400,000 and 8.3% had an income level of above N400,000. For the non-Fadama III participants, 32.8% had an income level of N1.00-N100,000, 23.9% had an income level of N101,000-N200,000, similarly, 23.9% had an income level of N201,000-N300,000, 10.4% had an income level of N301,000-N400,000 and 7.5% of the non-Fadama III participants had an income level of above N400,000 one year after the inception of the Fadama III programme.

Two years after the inception of the Fadama III programme, 9.5% of the Fadama III participants had an income level of N1.00-N100,000, 25.0% had an income level of N101,000-N200,000, 27.4% had an income level of N201,000-N300,000, 22.6% had an income level of N301,000-N400,000 and 14.9% had an income level of above N400,000. However, for the non-Fadama III participants, 23.9% had an income level of N1.00-N100,000, 22.4% had an income level of N101,000-N200,000, 32.8% had an income level of N201-N300,000, 13.4% had an income level of N301,000-N400,000, while 6.0% of the non-Fadama III participants had an income level above N400,000.

Five years after the inception of the Fadama III programme, 7.1% of the Fadama III participants had an income level of N1.00-N100,000, 13.7% had an income level of N101,000-N200,000, 33.3% had an income level of N201,000-N300,000, 19.0% had an income level of N301,000-N400,000 and 26.8% of the Fadama III participants had an income level of above N400,000. For the non-Fadama III participants, after five years of the inception of the Fadama III, 14.9% had an income level of N1.00, N100,000, 28.4% had an income level of N101,000-N200,000, 19.4% had an income level of N201,000-N300,000, 25.4% had an income of N301,000-N400,000 and 10.4% of the non-Fadama III participants had an annual income of above N400,000.

Seven years after the inception of the Fadama III programme, 6.0% of the Fadama III participants had an income level of N1.00-N100,000, 11.9% had an income level of N101,000-N200,000, 27.4% had an income level of N201,000-N300,000, 19.6% had an income level of N301,000-N400,000 and 35.1% of the Fadama III participants had an income level of above N400,000. For the non-Fadama III participants, after seven years of the inception of the Fadama III, 13.4% had an income level of N1.00, N100,000, 20.9% had an income level of N101,000-N200,000, 29.9% had an income level of N201,000-N300,000, 19.4% had an income of N301,000-N400,000 and 14.9% of the non-Fadama III participants had an annual income of above N400,000.

Eight years after the inception of the Fadama III programme, 6.5% of the Fadama III participants had an income level of N1.00-N100,000, 10.7% had an income level of N101,000-N200,000, 23.2% had an income level of N201,000-N300,000, 29.2% had an income level of N301,000-N400,000 and 30.4% of the Fadama III participants had an income level of above N400,000. For the non-Fadama III participants, after eight years of the inception of the Fadama III, 13.4% had an income level of N1.00, N100,000, 19.4%

had an income level of N101,000-N200,000, 28.4% had an income level of N201,000-N300,000, 19.4% had an income of N301,000-N400,000 and 19.4% of the non-Fadama III participants had an annual income of above N400,000.

Nine years after the inception of the Fadama III programme, 3.6% of the Fadama III participants had an income level of N1.00-N100,000, 11.3% had an income level of N101,000-N200,000, 15.5% had an income level of N201,000-N300,000, 29.8% had an income level of N301,000-N400,000 and 39.9% of the Fadama III participants had an income level of above N400,000. For the non-Fadama III participants, after nine years of the inception of the Fadama III, 10.4% had an income level of N1.00, N100,000, 16.4% had an income level of N101,000-N200,000, 20.9% had an income level of N201,000-N300,000, 16.4% had an income of N301,000-N400,000 and 34.3% of the non-Fadama III participants had an annual income of above N400,000.

Table 5.14: Distribution of Fadama III and Non Fadama III respondents by their income level after the inception of the Fadama III programme

Income Level (N)	**Fadama III Respondents**		**Fadama III Non-Respondents**	
One Year After	**Frequency**	**Percentage**	**Frequency**	**Percentage**
N1.00 - N100,000	17	10.1%	22	32.8%
N101,000 - N200,000	58	34.5%	16	23.9%
N201,000 – N300,000	52	31.0%	16	23.9%
N301,000 – N400,00	27	16.1%	7	10.4%
Above N400,000	14	8.3%	5	7.5%
Two Years After				
N1.00 - N100,000	16	9.5%	16	23.9%
N101,000 - N200,000	42	25.0%	15	22.4%
N201,000 – N300,000	46	27.4%	22	32.8%
N301,000 – N400,00	38	22.6%	9	13.4%
Above N400,000	25	14.9%	4	6.0%
Five Years After				
N1.00 - N100,000	12	7.1%	10	14.9%
N101,000 - N200,000	23	13.7%	19	28.4%
N201,000 – N300,000	56	33.3%	13	19.4%
N301,000 – N400,000	32	19.0%	17	25.4%
Above N400,000	45	26.8%	7	10.4%
Seven Years After				
N1.00 - N100,000	10	6.0%	9	13.4%
N101,000 - N200,000	20	11.9%	14	20.9%
N201,000 – N300,000	46	27.4%	20	29.9%
N301,000 – N400,000	33	19.6%	13	19.4%
Above N400,000	59	35.1%	10	14.9%
Eight Years After				
N1.00 - N100,000	11	6.5%	9	13.4%
N101,000 - N200,000	18	10.7%	13	19.4%
N201,000 – N300,000	39	23.2%	19	28.4%
N301,000 – N400,000	49	29.2%	13	19.4%
Above N400,000	51	30.4%	13	19.4%

Nine Years After				
N1.00 - N100,000	6	3.6%	7	10.4%
N101,000 - N200,000	19	11.3%	11	16.4%
N201,000 – N300,000	26	15.5%	14	20.9%
N301,000 – N400,000	50	29.8%	11	16.4%
Above N400,000	67	39.9%	23	34.3%

Source: Autor's survey data using SPSS (2023)

5.5 Expenditure level of Fadama III and Non-Fadama III respondents after the inception of the Fadama III programme

In Table 5.15 presented below, the expenditure of the Fadama III and non-Fadama III participants after the inception of the Fadama III programme is presented. The table presents the expenditure of the respondents over one year, two years, five years, seven years, eight years and nine years after the inception of the Fadama III programme.

For the participants of the Fadama III, 34.5% of the participants had an expenditure level of N1.00-N100,000, 36.9% had an expenditure of N101,000-N200,000, 17.9% had an expenditure level of N201,000-N300,000, 6.5% had an expenditure level of N301,000-N400,000 and 4.2% had expenditure level above N400,000. For the non-Fadama III participants, 47.8% had an expenditure level of N1.00-N100,000, 22.4% had an expenditure level of N101,000-N200,000. Similarly, 19.4% had an expenditure level of N201,000-N300,000, 6.0% had an expenditure level of N301,000-N400,000 and 3.0% of the non-Fadama III participants had an expenditure level of above N400,000 one year after the inception of the Fadama III programme.

Two years after the inception of the Fadama III programme, 26.8% of the Fadama III participants had an expenditure level of N1.00-N100,000, 34.5% had an expenditure level of N101,000-N200,000, 22.0% had an expenditure level of N201,000-N300,000, 6.5% had an expenditure level of N301,000-N400,000 and 10.1% had an expenditure level of above N400,000. However, for the non-Fadama III participants, 44.8% had an expenditure level of N1.00-N100,000, 26.9% had an expenditure level of N101,000-N200,000, 17.9% had an expenditure level of N201,000-N300,000, 4.5% had an expenditure level of N301,000-N400,000, while 4.5% of the non-Fadama III participants had an expenditure level above N400,000.

Five years after the inception of the Fadama III programme, 14.3% of the Fadama III participants had an expenditure level of N1.00-N100,000, 41.1% had an expenditure level of N101,000-N200,000, 20.8% had an expenditure level of N201,000-N300,000, 12.8% had an expenditure level of N301,000-N400,000 and 11.3% of the Fadama III participants had an expenditure level of above N400,000. For the non-Fadama III participants, after five years of the inception of the Fadama III, 25.4% had an expenditure level of N1.00, N100,000, 32.8% had an expenditure level of N101,000-N200,000, 28.4% had an expenditure level of N201,000-N300,000, 7.5% had an expenditure of N301,000-N400,000 and 4.5% of the non-Fadama III participants had an annual expenditure of above N400,000.

Seven years after the inception of the Fadama III programme, 14.3% of the Fadama III participants had an expenditure level of N1.00-N100,000, 41.1% had an expenditure level of N101,000-N200,000, 20.8% had an expenditure level of N201,000-N300,000, 12.8%

had an expenditure level of N301,000-N400,000 and 11.3% of the Fadama III participants had an expenditure level of above N400,000. For the non-Fadama III participants, after seven years of the inception of the Fadama III, 17.9% had an expenditure level of N1.00, N100,000, 37.3% had an expenditure level of N101,000-N200,000, 25.4% had an expenditure level of N201,000-N300,000, 13.4% had an expenditure of N301,000-N400,000 and 6.0% of the non-Fadama III participants had an annual expenditure of above N400,000.

Eight years after the inception of the Fadama III programme, 13.7% of the Fadama III participants had an expenditure level of N1.00-N100,000, 22.6% had an expenditure level of N101,000-N200,000, 31.0% had an expenditure level of N201,000-N300,000, 16.1% had an expenditure level of N301,000-N400,000 and 16.1% of the Fadama III participants had an expenditure level of above N400,000. For the non-Fadama III participants, after eight years of the inception of the Fadama III, 17.9% had an expenditure level of N1.00, N100,000, 37.3% had an expenditure level of N101,000-N200,000, 16.4% had an expenditure level of N201,000-N300,000, 13.4% had an expenditure of N301,000-N400,000 and 13.4% of the non-Fadama III participants had an annual expenditure of above N400,000.

Nine years after the inception of the Fadama III programme, 9.5% of the Fadama III participants had an expenditure level of N1.00-N100,000, 18.5% had an expenditure level of N101,000-N200,000, 31.5% had an expenditure level of N201,000-N300,000, 22.0% had an expenditure level of N301,000-N400,000 and 18.5% of the Fadama III participants had an expenditure level of above N400,000. For the non-Fadama III participants, after Nine years of the inception of the Fadama III, 11.9% had an expenditure level of N1.00, N100,000, 28.4% had an expenditure level of N101,000-N200,000, 25.4% had an expenditure level of N201,000-N300,000, 14.9% had an expenditure of N301,000-N400,000 and 17.9% of the non-Fadama III participants had an annual expenditure of above N400,000.

Table 5.15: Distribution of Fadama III and Non-Fadama III respondents by their expenditure level after the inception of the Fadama III programme

Expenditure Level (N)	Fadama III Respondents		Fadama III Non-Respondents	
One Year After	**Frequency**	**Percentage**	**Frequency**	**Percentage**
N1.00 - N100,000	58	34.5%	32	47.8%
N101,000 - N200,000	62	36.9%	15	22.4%
N201,000 – N300,000	30	17.9%	13	19.4%
N301,000 – N400,00	11	6.5%	4	6.0%
Above N400,000	7	4.2%	2	3.0%
Two Years After				
N1.00 - N100,000	45	26.8%	30	44.8%
N101,000 - N200,000	58	34.5%	18	26.9%
N201,000 – N300,000	37	22.0%	12	17.9%
N301,000 – N400,00	11	6.5%	3	4.5%
Above N400,000	17	10.1%	3	4.5%

Five Years After				
N1.00 - N100,000	24	14.3%	17	25.4%
N101,000 - N200,000	46	41.1%	22	32.8%
N201,000 – N300,000	47	20.8%	19	28.4%
N301,000 – N400,000	25	12.5%	5	7.5%
Above N400,000	29	11.3%	3	4.5%
Seven Years After				
N1.00 - N100,000	21	12.5%	12	17.9%
N101,000 - N200,000	46	27.4%	25	37.3%
N201,000 – N300,000	47	28.0%	17	25.4%
N301,000 – N400,000	25	14.9%	9	13.4%
Above N400,000	29	17.3%	4	6.0%
Eight Years After				
N1.00 - N100,000	23	13.7%	12	17.9%
N101,000 - N200,000	38	22.6%	25	37.3%
N201,000 – N300,000	52	31.0%	11	16.4%
N301,000 – N400,000	27	16.1%	9	13.4%
Above N400,000	27	16.1%	9	13.4%
Nine Years After				
N1.00 - N100,000	16	9.5%	8	11.9%
N101,000 - N200,000	31	18.5%	19	28.4%
N201,000 – N300,000	53	31.5%	17	25.4%
N301,000 – N400,000	37	22.0%	10	14.9%
Above N400,000	31	18.5%	12	17.9%

Source: Autor's survey data using SPSS (2023)

5.6 Additional Income of Fadama III and Non-Fadama III respondents

In Table 5.16 below, the response of the participants and non-participants of the Fadama III to having a source of additional income.

63.7% of the Fadama III participants indicated that they have a source of additional income while 31.5% of the Fadama III participants do not have a source of additional income.

For the non-Fadama III participants, 59.7% indicated that they have a source of additional income, while 34.3% indicated that they do not have a source of additional income.

Table 5.16: Distribution of Fadama III and Non-Fadama III respondents by their additional income

	Fadama III Respondents		Fadama III Non-Respondents	
Additional Income	**Frequency**	**Percentage**	**Frequency**	**Percentage**
Yes	107	63.7%	40	59.7%
No	53	31.5%	23	34.3%

Source: Autor's survey data using SPSS (2023)

5.7 Source of Additional Income of Fadama III and Non-Fadama III Respondents

Table 5.16 presents the source of additional income of the Fadama III and non-Fadama III participants.

The table indicates that 4.2% of the Fadama III participants indicated that they gained their additional income is from civil service while, 66.1% indicated that their additional income is from entrepreneurship.

For the non-Fadama III participants, 1.5% of the participants indicated that their additional income is from civil service, while 61.2% indicated that their additional income is from entrepreneurship.

Table 5.17: Distribution of Fadama III and Non-Fadama III respondents by their source of additional income

	Fadama III Respondents		Fadama III Non-Respondents	
Source of Income	**Frequency**	**Percentage**	**Frequency**	**Percentage**
Civil Servant	7	4.2%	1	1.5%
Self Employed	111	66.1%	41	61.2%

Source: Autor's survey data using SPSS (2023)

5.8 Average Additional Income of Fadama III and Non-Fadama III respondents

Table 5.17 below presents the average additional income level of the participants and non-Fadama III participants, the table shows that 9.5% of the Fadama III participants had an average of N1.00-N100,000 additional income, 17.9% had an average of N101,000-N200,000 additional income, 7.1% had N201,000-N300,000 average additional income, 5.4% had an average additional income of N301,000-N400,000 and 8.9% had an average additional income of above N400,000.

For the non-Fadama III participants, 7.5% of the Fadama III participants had an average of N1.00-N100,000 additional income, 9.0% had an average of N101,000-N200,000 additional income, 7.5% had N201,000-N300,000 average additional income, 1.5% had an average additional income of N301,000-N400,000 and 10.4% had an average additional income of above N400,000.

Table 5.18: Distribution of Fadama III and Non-Fadama III respondents by their average additional income

	Fadama III Respondents		Fadama III Non-Respondents	
Average Additional Income	**Frequency**	**Percentage**	**Frequency**	**Percentage**
N1.0-N100,000	16	9.5%	5	7.5%
N101,000-N200,000	30	17.9%	6	9.0%
N201,000-N300,000	12	7.1%	5	7.5%
N301,000-N400,000	9	5.4%	1	1.5%
Above N400,000	15	8.9	7	10.4%

Source: Autor's survey data using SPSS (2023)

5.9 Present Average Income of Fadama III and Non-Fadama III respondents

Table 4.18 below presents the present average income level of the participants and non-Fadama III participants, the table shows that 4.2% of the Fadama III participants had an average of N1.00-N100,000 income, 10.1% had an average of N101,000-N200,000 income, 12.5% had N201,000-N300,000 average additional income, 27.4% had an average additional income of N301,000-N400,000 and 43.5% had an average additional income of above N400,000.

For the non-Fadama III participants, 9.2% of the Fadama III participants had an average of N1.00-N100,000 additional income, 14.9% had an average of N101,000-N200,000 additional income, 14.9% had N201,000-N300,000 average additional income, 26.9% had an average additional income of N301,000-N400,000 and 31.3% had an average additional income of above N400,000.

Table 5.19: Distribution of Fadama III and Non-Fadama III respondents by their present average income

	Fadama III Respondents		Fadama III Non-Respondents	
Present Average Income	**Frequency**	**Percentage**	**Frequency**	**Percentage**
N1.0-N100,000	7	4.2%	6	9.2%
N101,000-N200,000	17	10.1%	10	14.9%
N201,000-N300,000	21	12.5%	10	14.9%
N301,000-N400,000	46	27.4%	18	26.9%
Above N400,000	73	43.5	21	31.3%

Source: Autor's survey data using SPSS (2023)

5.10 Income Difference Before and after Fadama IIIParticipation for the Fadama III participants

In Table 5.18 below, a majority of the Fadama III participants (63.1%) had an income level of N1.0-N100.000 one year prior to the participation in the Fadama III programme, however, nine years after participation in the Fadama III programme, most of the participants (39.9%) have an income level of above N400,000.

Table 5.20: Income difference before and after the Fadama III programme of Fadama III participants

	One year before		Nine years after	
Income Difference	**Frequency**	**Percentage**	**Frequency**	**Percentage**
N1.0-N100,000	106	63.1%	6	3.6%
N101,000-N200,000	37	22.0%	19	11.3%
N201,000-N300,000	13	7.7%	26	15.5%
N301,000-N400,000	6	3.6%	50	29.8%
Above N400,000	6	3.6%	67	39.9%

Source: Autor's survey data using SPSS (2023)

5.11 Comparison between Fadama III participants after Fadama III participation against the control group

In Table 5.19 below, a comparison is presented between the Fadama III and non-Fadama III participants after the Fadama programme. The table shows that a greater percentage of the Fadama III participants have an income level above N400,000. For the non-Fadama III participants, 34.3% also have an income of above N400,000 after the Fadama III programme.

Table 5.21: Comparison between Fadama III participants after Fadama III participation against the control group

	Fadama III participants		Non-Fadama III participants	
Income Difference	**Frequency**	**Percentage**	**Frequency**	**Percentage**
N1.0-N100,000	6	3.6%	7	10.4%
N101,000-N200,000	19	11.3%	11	16.4%
N201,000-N300,000	26	15.5%	14	20.9%
N301,000-N400,000	50	29.8%	11	16.4%
Above N400,000	67	39.9%	23	34.3%

Source: Autor's survey data using SPSS (2023)

6. Discussion, Conclusion and Recommendations

This section discusses the findings of the study and explains the implication of the findings in comparison to the findings of other researchers. The section also presents the conclusion of the study based on the findings of the study as well as proffer policy recommendations in line with the findings of the study.

6.1 Discussion of Findings

The socio-demographic findings of this study indicatethat many of the respondents are within the age range of 51-70 years for both the Fadama III participants and non-participants constituting 50% and 40.3% respectively. This implies that youths are not mostly involved in the Fadama III programme.

Also, the socio-demographic findings indicate that male respondents constitute many of the participants in this study, 56% of male respondents were from the Fadama III group, while 59% of the non-Fadama III control group are male. This indicates that the Fadama III programme was dominated by males as opposed to females. This finding is like the findings of Ike (2012) who also found in a similar study that male respondents participated more than females in the Fadama III programme.

Similarly, the respondents in the study comprise of a large percentage of married individuals, the Fadama III participants are made up of 97.3% married people, while for the non-Fadama III participants, 97% of the respondents are married.

Lastly, the socio-demographic findings of the study also revealed that 41.7% of the Fadama III participants attained at most a secondary education, this is also similar for the non-Fadama III respondents, 50.7% of the respondents have attained at most a secondary education. This indicates that most of the participants are educated, and it corresponds to the study by Etim, and Udoh, (2020), where they investigated the "Adoption of organic waterleaf farming for sustainable food production in Akwa Ibom State, Nigeria" and found out that most of the farmers were educated as 66.67% of the study respondents attained secondary schools.

The findings identified crop farming as the Fadama III enterprise that was engaged in by most of the participants, 50.6% of the participants were engaged in crop farming with rice farming being the crop cultivated by 21.4% of the Fadama III participants of this study. This finding is in contradiction to the findings of Ike (2012) whose findings revealed that most participants in the Fadama III programme had participated in the vulnerable group enterprise.

In the findings of the income of the Fadama III and non-Fadama III respondents before the inception of the Fadama III programme, the findings revealed that a majority of the Fadama III participants (56.0%) had an income level of N1.00-N100,000 two years before the inception of the Fadama III programme, in one year before the inception of the Fadama III programme, 39.9%, a majority of the participants also had an income level of N1.00-N100,000. However, at the inception of the Fadama III programme, many of the participants (35.7%) had income levels of N101,000-N200,000 as opposed to N1.00-N100,000 a year before. This finding implies that many of the Fadama III participants witnessed an increase in their income level at the inception of the Fadama III programme.

Similarly, the findings of the expenditure level of the Fadama III respondents two years prior to the inception of the Fadama III programme revealed that 72.6% of the respondents had an expenditure level of N1.00-N100,000, 63.1% had an expenditure level of N1.00-N100,000 one year before the Fadama III programme and 56.0% had an expenditure level of N1.00-N100,000 at the inception of the Fadama III programme. This implies that a majority of the Fadama III participants had an increase in their expenditure level following the inception of the Fadama III programme.

Following the inception of the Fadama III programme, the findings reveal that the income level of a majority of Fadama III participants increased significantly, from 34.5% of participants having an income level of N101,000-N200,000 in the first year after the Fadama III programme to 27.4% of the participants having an income level of N201,000-N300,000 in two years after the inception of the Fadama III programme, to 33.3% of the Fadama III participants having an income level of N201,000-N300,000 in the fifth year after the inception of the Fadama III programme. The findings also revealed that seven years after the inception of the Fadama III programme, a majority of the Fadama III participants (35.1%) had an income level of above N400,000, similarly, in the ninth year after the inception of the Fadama III programme, 39.9%, a majority of the participants had an income level of above N400,000. The increase in the income level is also the same for the non-Fadama III participants, however, it is indicated in the findings to not have grown at the same rate as the Fadama III participants.

The expenditure level of the Fadama III participants also increased significantly following the inception of the Fadama III programme, after nine years, the expenditure level of a majority of the Fadama III participants (31.5%) was at N201,000-N300,000 as opposed to a year after the inception of the Fadama III programme where most of the participants (36.9%) had an expenditure level of N101,000-N200,000. These findings explain that the Fadama III programme has been beneficial to the participants over the years since its inception. This finding is supported by the findings of Chidawa, Ambali, Salahu and Salawu (2021) in their study on "National Fadama Development Project III: Achievements and Constraints of Selected Beneficiary Farmers in Niger State" where they discovered that "Fadama III project was a success in increased income, daily expenditure, increased savings, improved diet, acquisition of personal properties, ability to send and sponsor children in schools, ability to purchase parcels of land amongst others". Similarly, Idris and Jabo (2021) support this finding with their study which investigated the impact of Fadama III additional financing (AF) on the yield and income of beneficiaries in some selected local government areas of Sokoto state, Nigeria, where they found that the Fadama III programme led to an increase in crop yield which in resulted into an increase in income of the participants.

In the comparison of the present average income of the Fadama III participants and non-Fadama III participants, the findings revealed that a majority of the Fadama III participants (43.5%) and non-Fadama III participants (31.3%) have an income level of above N400,000. This is understandable because, a majority of the Fadama III participants (63.7%) and non-Fadama III participants (59.5%) indicated that they have additional incomes which is mostly sourced from self-employment which was identified to generate an additional income level of N101,000-N200,000 for 17.9% of the Fadama III participants and above N400,000 income level for 10.4%, a majority of the non-Fadama III participants.

6.2 Conclusions

Based on the findings of this study, the researcher has been able to determine the fadama enterprise engaged in by most of the Fadama III participants. The study has also been able to establish the income level of the Fadama III participants before and after their participation in the Fadama III programme. The study concludes that most of the Fadama III participants (39.9%) now have an income level above N400,000 as opposed to most of the participants (63.1%) having an income level of N1.00-N100,000 before the inception of the Fadama III programme. The study has also established that the increase in the income level of the participants can be because of the presence of an additional source of income. The expenditure level of the Fadama III participants also witnessed an increase following the inception of the Fadama III programme as presented in the findings of the study.

6.3 Policy Recommendations

i. Similar initiatives and programmes like the Fadama III programme should be established and encouraged within the different states of the country considering the success recorded in areas where the programme has thrived.

ii. The government should make available infrastructures such as link roads and agricultural technology systems that will encourage the activities of the Fadama III programme and their beneficiaries which in turn guarantees increased returns, taxes, and subsequently economic development.

iii. Mass media sensitization on the Fadama III-related programmes should be encouraged by the government in a bid to get the youths more involved in the programmes, as it is evidenced in the findings of this study that only a handful of single individuals and youths are involved in the Fadama III programme.

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8. Appendices

Impact Evaluation Questionnaire for Fadama III Participants

This questionnaire is solely for the evaluation of the impact of Fadama III Intervention Programme on Poverty Alleviation of the residents of Enugu State who participated in the Programme. The researcher solicits your consent, and sincere and honest answers to the questions and promises utmost confidentiality.

Instruction: Please fill in the answer in the blank space and tick the appropriate box.

1. Name _____
2. Your state of Origin _____
3. Your local government of origin _____
4. Your local government of residence _____
5. Phone Number _____
6. Gender: Male [ ] Female [ ]
7. Age _____

   (a) 10 – 30 (b) 31 – 50 (c) 51 – 70 (d) 71 – 90
8. Marital Status: Single [ ] Married [ ]
9. How many were you in your family (household size) during your participation in Fadama III programme? _____

   (a) 1 – 5 (b) 6 – 10 (c) 11 – 15 (d) 16 – 20
10. What is your highest educational attainment?
    (a) Primary school [ ] (b) Secondary school [ ] (c) Tertiary institution [ ]
11. What type of farming enterprise did you engage in during Fadama III programme?

(a) Crop farmers:	**(b) Livestock farmers:**	**(c) Agroforestry farmers:**	**(d) Vulnerable groups:**
Cassava farmers [ ]	Pig farmers [ ]	Cane rat Farmers [ ]	Rentals [ ]
Yam farmers [ ]	Poultry farmers [ ]	Snail rearing farmers [ ]	Grinding mill [ ]
Maize farmers [ ]	Goat farmers [ ]	Beekeeping farmers [ ]	Cassava processing [ ]
Vegetable farmers [ ]			Agro - processing [ ]
Rice farmers [ ]			Palm oil processing [ ]
		Fisheries (artisanal and	
			Aquaculture) [ ]

12. In what range was your average annual income two (-2) years (2006) before your participation in Fadama III programme?
    (a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
    (c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
    (e) If above, please state the amount _____
13. In what range was your average annual expenditure on food and non-food items two (-2) years (2006) before your participation in Fadama III programme?
    (a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
    (c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
    (e) If above, please state the amount _____

14. In what range was your average annual income one (-1) year (2007) before your participation in Fadama III programme?
(a) ₦1.00 - N100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - N300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

15. In what range was your average annual expenditure on food and non-food items one (-1) years (2007) before your participation in Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

16. In what range was your average annual income at the inception (0 year) of your participation in Fadama III Programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - N300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

17. In what range was your average annual expenditure on food and non-food items at the inception (0) year of your participation in Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

18. In what range was your average annual income after one (+1) year (2008) of your participation in the Fadama iii programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦ 101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount_____

19. In what range was your average annual expenditure on food and non-food items after one (+1) year (2008) of your participation in Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

20. In what range was your average annual income after two (+2) years (2009) of your participation in the Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

21. In what range was your average annual expenditure on food and non-food items after two (+2) years (2009) of your participation in Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

22. In what range was your average annual income after five (+5) years (2008-2012) of your participation in the Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

23. In what range was your average annual expenditure on food and non-food items after five (+5) years (2008-2012) of your participation in Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

24. In what range was your average annual income seven (+7) years (2019) after the end of Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

25. In what range was your average annual expenditure on food and non-food items after seven (+7) years (2019) of your participation in Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

26. In what range was your average annual income eight (+8) years (2020) after the end of Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

27. In what range was your average annual expenditure on food and non-food items after eight (+8) years (2020) of your participation in Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

28. In what range was your average annual income nine (+9) years (2021) after the end of Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

29. In what range was your average annual expenditure on food and non-food items after nine (+9) years (2021) of your participation in Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

30. Did you have any additional income sourceother than farming during your participation in Fadama III programme? Yes [ ] No [ ]

31. If your answer to question number 30 above is yes, please state the name of the source and average annual amount of the income _____

(a) Civil Servant (b) Self employed

32. What is your present average annual income?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

Impact Evaluation Questionnaire for Non-Fadama III Participants

This questionnaire is solely for the evaluation of the impact of Fadama III Intervention Programme on Poverty Alleviation of the residents of Enugu State who did not participate in the Programme. The researcher solicits your consent, and sincere and honest answers to the questions and promises utmost confidentiality.

Instruction: Please fill in the answer in the blank space and tick the appropriate box.

1. Name _____
2. Your state of Origin _____
3. Your local government of origin _____
4. Your local government of residence _____
5. Phone Number _____
6. Gender: Male [ ] Female [ ]
7. Age _____

   (a) 10 – 30 (b) 31 – 50 (c) 51 – 70 (d) 71 – 90
8. Marital Status: Single [ ] Married [ ]
9. How many were you in your family (household size) during your participation in Fadama III programme? _____

   (a) 1 – 5 (b) 6 – 10 (c) 11 – 15 (d) 16 – 20
10. What is your highest educational attainment?
    (a) Primary school [ ] (b) Secondary school [ ] (c) Tertiary institution [ ]
11. What type of farming enterprise did you engage in during Fadama III programme?

(a) Crop farmers: **(b) Livestock farmers:** **(c) Agroforestry farmers:** **(d) Vulnerable groups:**

Cassava farmers [ ] Pig farmers [ ] Cane rat Farmers [ ] Rentals [ ]
Yam farmers [ ] Poultry farmers [ ] Snail rearing farmers [ ] Grinding mill [ ]
Maize farmers [ ] Goat farmers [ ] Beekeeping farmers [ ] Cassava processing [ ]
Vegetable farmers [ ] Agro - processing [ ]
Rice farmers [ ] Palm oil processing [ ]
Fisheries (artisanal and
Aquaculture) [ ]

12. In what range was your average annual income two (-2) years (2006) before the inception of Fadama III programme?
    (a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
    (c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
    (e) If above, please state the amount _____
13. In what range was your average annual expenditure on food and non-food items two (-2) years (2006) before the inception Fadama III programme?
    (a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
    (c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
    (e) If above, please state the amount _____
14. In what range was your average annual income one (-1) year (2007) before the inception Fadama III programme?

(a) ₦1.00 - N100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - N300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

15. In what range was your average annual expenditure on food and non-food items one (-1) years (2007) before the inception Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

16. In what range was your average annual income at the inception (0 year) of Fadama III Programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - N300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

17. In what range was your average annual expenditure on food and non-food items at the inception (0) year of Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

18. In what range was your average annual income after one (+1) year (2008) of the inception of Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦ 101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount_____

19. In what range was your average annual expenditure on food and non-food items after one (+1) year (2008) of the inceptionof Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

20. In what range was your average annual income after two (+2) years (2009) of the inception of Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

21. In what range was your average annual expenditure on food and non-food items after two (+2) years (2009) of the inception of Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

22. In what range was your average annual income after five (+5) years (2008-2012) of the inception of Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

23. In what range was your average annual expenditure on food and non-food items after five (+5) years (2008-2012) of the inception of Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

24. In what range was your average annual income after seven (+7) years (2019) of the end of Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

25. In what range was your average annual expenditure on food and non-food items after seven (+7) years (2019) of the end of Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

26. In what range was your average annual income after eight (+8) years (2020) of the end of Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

27. In what range was your average annual expenditure on food and non-food items after eight (+8) years (2020) of the end of Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

28. In what range was your average annual income after nine (+9) years (2021) of the end of Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

29. In what range was your average annual expenditure on food and non-food items after nine (+9) years (2021) of the end of Fadama III programme?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]
(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____

30. Did you have any additional income sourceother than farming during your participation in Fadama III programme? Yes [ ] No [ ]

31. If your answer to question number 30 above is yes, please state the name of the source and average annual amount of the income _____

(a) Civil servant (b) Self employed

32. What is your present average annual income?
(a) ₦1.00 - ₦100,000 [ ] (b) ₦101,000 - ₦200,000 [ ]

(c) ₦201,000 - ₦300,000 [ ] (d) ₦301,000 - ₦400,000 [ ]
(e) If above, please state the amount _____