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EVALUATING THE IMPACT OF THIRD NATIONAL FADAMA DEVELOPMENT PROJECT ON POVERTY INDICES AND INCOME GENERATION IN JIGAWA STATE-NIGERIA

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Abstract

The research evaluates the impact of the Third National Fadama Development Project on poverty indices and income generation in Jigawa State, Nigeria .By employing a mixed-methods approach, the study analyzes quantitative data from household surveys and qualitative insights from stakeholder interviews to assess changes in economic conditions and livelihood strategies among beneficiaries of the project. The study made use of questionnaires to generate primary data from 380 whilst project implementation manuals, appraisal reports baseline survey obtained from (Jigawa State Agricultural Development Authority) of participant and non-participant. The models estimated using propensity score matching (PSM) propensity score matching and structural equation modelling as a tools of data analysis. The study profound impact on the real difference income of beneficiaries On investigating the effect of Fadama III program, all the ATT coefficients are correctly signed and statistically significant, like wise all the three matching technique, that is nearest neighbor, kernel and radius that were employed are all found statistically significant, but among the three matching techniques employed, nearest neighbor matching appears to be the best to have a significant positive effect on Income with mediation variable of income generation. Investigating the causal relationship and reason for conducting exploratory factor analysis using Structural Equation Modelling. The findings indicate significant improvements in income levels and a reduction in poverty rates among participant households compared to non-participants. Additionally, the research highlights the role of access to resources, training, and infrastructure provided by the project in promoting sustainable agricultural practices and enhancing food security. The study concludes with recommendations for policy adjustments to further bolster the effectiveness of such development initiatives in rural Nigeria.

Keywords: FADAMA III, Poverty, Income, Agriculture, Development

1. Introduction

Agriculture plays an important role in Nigerian economic development through the provision of food, raw materials for agro-allied industries, employment generation, foreign exchange and source of income (Ani, 2014). The Federal Government of Nigeria attempted to reduce poverty and facilitate rural and agricultural development, therefore, introduced several rural and agricultural development programmes and projects decades ago till date. One of the programmes introduced was the National Fadama project, which is in phases. The latest phase is the Fadama III project.

National Fadama Development Project (NFDP) is a rural and agricultural development project in Nigeria, the idea was conceived by the World Bank, African Development Bank and the Federal Government of Nigeria with active participation of the States and Local Governments (Sobanke, 2008). The National Fadama development project is a sustainable rural and agricultural development project with a wide spectrum targeted at dry season farming, related agro-processing and marketing activities. This is to meet the food demand of the fast growing population of Nigerians, enhance land and water resources management (Nasiru, Tijani & Azeez, 2006).

Fadama refers to low lying land that is subject to seasonal flooding or water logging along the river banks, streams or depressions. It is a Hausa word meaning; the seasonally flooded or floodable plains along major savannah rivers with depressions adjacent to seasonally or perennially flowing streams and rivers. With favourable agro-environment and ecological conditions, Nigeria is endowed with underground and surface water reservoirs and low-

lying plains with alluvial deposits called Fadama (Agbamu, 2008).

The National Fadama III Development Project (NFDP III) is a follow up project on the success of the National Fadama II Development Project. The National Fadama III Development Project was implemented in all the 36 states of the Federation including the Federal Capital Territory (F.C.T) Abuja (Chima and Nwachukwu, 2007). It is funded by the International Development Agency (IDA). The broad objective of NFDP III is poverty reduction through increase in the income of the beneficiaries on sustainable basis. The specific objectives of the project were to reduce rural poverty, ensure food security and contribute to the achievement of the key Millennium Development Goal of food security (Oriola, 2009). NFDP III relies on the facilitation of demand–driven investments and the empowerment of local community groups to improve farm and non-farm productivity and land quality. The project has been running in Nasarawa State, and it will be necessary to ascertain if it has had positive impacts on the beneficiaries in the state. This forms the main objective of this study.

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Other than agricultural development programmes, FADAMA III specifically included every state in Nigeria. In Akwa Ibom State, FADAMA III operated in twenty local government areas to achieve five objectives, including the promotion of non-oil economic growth while enhancing food availability, creating rural jobs and fostering rural economic expansion. FADAMA III has encountered several operational challenges, which include substandard administration, poor beneficiary focus and political

intervention. Apart from that, other operational challenges stem from corruption, fund mismanagement, as well as fund misappropriation. The success of the FADAMA III programme was hindered because of political indifference, along with insufficiently trained professionals. The programme's achievement has faced numerous obstacles because citizens display unfavourable attitudes toward government programmes. Nigeria's citizens see government empowerment platforms as entry points to national funds, through which programme funds get misdirected from their original purposes. The rural farmers in Jigawa State face persistent economic problems because they lack good access to their farms and markets, in addition to missing contemporary storage solutions. Agricultural losses, together with income reduction, occur because middlemen benefit from exploiting the existing challenges.

Poverty is real and it exists in all the economies of the world but at varying degrees. Poverty as a concept is earlier to describe than to define. Hence a universally acceptable definition of poverty has remained elusive. Rural poverty refers to a situation in which rural inhabitants, groups, communities and societies at a given point in time experience a level of income below that which is needed to provide a desirable minimum living standard (Nasiru & Rahji, 2010). Maghori (2008) observed that in the traditional setting, poverty was understood as material deprivations, as living with low income and low consumption which manifest by way of poor nutrition and poor living conditions. However, income poverty does not exist alone rather it is often times associated with so-called human poverty, low health and education levels. In this study, poverty refers to a situation and process of serious deprivation or lack of resources and materials necessary for living within a minimum standard conducive to human dignity and well-being. Poverty connotes deprivation of the means of subsistence.

2. Literature Review

2.2. Conceptual Review

Fadama in Agricultural Project

The Hausa word "Fadama" describes flooded irrigation land which exists in river system valleys throughout Nigeria. Fadama regions get flooded during rainfall while maintaining wet conditions across the arid times. Fadama areas represent valuable economic prospects because they accept targeted investments to develop agricultural assets in addition to rural infrastructure and technical support systems. The potential of Fadama areas resulted in the creation of National Fadama Development Projects I, II and III. Fadama receives its names "Akuro" from Yoruba speakers and "Ude" and "Ala-mmiri" from the Igbo people (NFDPII 2014). Fadama has various traditional names among the Ibibio people of Akwa Ibom State, such as "Ibiok," "Ndioho" and "Edep-asat." The National Fadama Development Project started operations to support continuous agricultural production through shallow water development of surface water resources. The initiative reaches this goal through technological implementation, which includes tube wells, wash boreholes and petrol-driven pumps (World Bank, 2014). Sustainable agricultural and rural development served as the primary goal of the initiative, which the World Bank designed along with the African Development Bank (AFDB) under the leadership of Nigerian government entities, state-level, as well as local support (Ibok & Ibanga, 2014). Through this programme, authorities promoted dry-season farming together with its connected agro-processing activities (Ovharhe, 2016).

Poverty Reduction

Mellor (2001) argues that it is not economic growth in general that reduces poverty in developing countries, but the direct and indirect effects of growth in agriculture. In their study of poverty in India over a 35-year period, Datt and Ravallion (1996, 1998) find that higher farm productivity reduces both absolute as well as relative poverty. This is partly due to a direct channel of higher household income operating in the short run and partly due to indirect channels, such as higher wages and lower food prices, in the longer run. Other empirical studies also suggest that these are the main channels and not labor migration from agriculture into other sectors. This strengthens the argument for supporting agricultural growth.

Income Generation

Income generation refers to interventions that attempt to address poverty, unemployment, and lack of economic opportunities to increase participants'

ability to generate income and secure livelihoods. These interventions can take a wide variety of forms example conditional cash transfer, unconditional cash transfer moreover, Fadama Agricultural Development projects, that provide small loans to individuals or groups who would not normally qualify for loans from conventional financial institutions, Capacity building, local governance and communication, Small-scale community-owned infrastructure, Advisory service and input support development.

In the past, governments paid little attention to the rural non-farm sector because they perceived it to be unproductive and of negligible importance (Lanjouw & Lanjouw, 1995, 2001). Recent contributions point out that the rural non-farm sector serves as a bridge between agricultural-based livelihoods and industrial ones (Barrett et al., 2010), thereby playing an important role in a country's structural transformation. Further agricultural growth will have to come from capital-led intensification of production, which will limit the capacity of agriculture to employ a constantly growing rural labor force. Hence, rural and semi-urban sectors will play an important part in absorbing additional labor. Employment in those sectors is stimulated by agricultural growth through production and consumption linkages, and is an important complement to agriculture for rural poverty reduction (de Janvry & Sadoulet, 2009).

2.2 Empirical Review

Sunday et al. (2022) analysed efficiency gaps between participants of Fadama III in Kogi State. A questionnaire survey of farmers revealed that the research used Cobb-Douglas stochastic frontier and cost functions to evaluate efficiency metrics during the analysis. Technical efficiency levels showed greater performance among Fadama III beneficiary farmers compared to nonbeneficiary farmers. The study identified uneven resource distribution across participants, which requires review to enhance farming practice performance. Farmer efficiency requires additional training, which must be supported by proper resources to achieve better results.

Ayawale *et al* (2004) in a study on the impact of the national Fadama development project facility in alleviating rural poverty and enhancing agricultural development in south western Nigeria, 5% of the users were randomly selected and stochastic frontier production function model was utilized to estimate the technical efficiency level of the Fadama users, result revealed that the users were lifted out of the vicious cycle of poverty and farm incomes increases up to three times from a baseline. But the study requires survey data that will show in the analysis the estimate of the actual number of people in the population sample who changed as a result of the program.

Obot (2020) assessed FADAMA III funding for farm household assets and service delivery across Akwa Ibom State using quasi-experimental methods that showed food security increased to about 78%, yet poor women and marginalised communities still lacked access to productive assets because of income inequality and gender discrimination. Community development organisations demonstrate success, so their support should be permanent, along with education on farm equipment use and helpful recordkeeping practise while maintaining government backing for farmers.

Igbani and Josephine (2021) researched on Bayelsa State's Fadama III project to verify successful outcomes from the initiative. Investigations revealed that Fadama users experienced a 35% growth in their profits along with more than 20% elevations in production outcomes that improved food security. The study confirmed the existing issues of insecurity, financial mismanagement and deterioration of assets. The research study proposed that World Bank assets should have a monitoring committee established, while counterpart funds should be paid on schedule to solve these issues

Kudi *et al* (2008) on the analysis of the impact of national Fadama development project II in alleviating poverty among farmers in Giwa LGA of Kaduna state, applied a descriptive statistics and stochastic frontier production function model which incorporates technical efficiency model using maximum likelihood estimation (MLE) on primary data collected through a structured questionnaire and personal interviews. The study revealed that there is an increase in returns on output and income levels of the Fadama users proportionate to the services received. Thus, the study

did not indicate how the income increased, where it is compared across the scholarly contribution in the field of the study the non-inclusion of baseline data to stabling the increase in income appears to be something different else.

Ike (2012) in Delta State where he analyzed the impact of FADAMA III project on poverty alleviation. Sampled 152 participating households Fadama users and 50 were participating households, then used Double Difference (DD) estimator to compare outcome. Therefore, the result showed that, there is significant increase (36.6%) in average per capita income of those households that participate in the Fadama projects when compare to those households who do not participate.

2.3 Theoretical Framework

Theory of Causation and Counterfactual

This study also adopts the theory of counterfactual and causation to achieve our specific objectives of the research, this explores the counterfactual conception of causation which is the idea that, an event c causes event e if and only if had c not had occurred e would not have occurred either. It has the roots in Hume, but it was made precise in the 20th century by David Lewis and others. Causation is an important concept that we all use in ordinarily, everyday life as well as social sciences it is important because without its predictions, explanations and, manipulations about our environment will be difficult if not impossible, it is our causal beliefs of which we rest our predictions, explanations and manipulations. Causation is so important in fact that it has been said that "With regard to our total conceptual apparatus, causation is Centre of the Centre". And it has been called the cement of the universe. According to David Hume (it is regularity or constant conjunction), meaning that we do not see causation in individual cases the experiences of this correlation as related in this research. Since the study intends to explore the relationship between (Poverty Reduction, and Income their Income Generation will now become a mediating variable between the constructs) as endogenous variables, and the five exogenous Latent factors: - Technology adoption and diffusion, Infrastural services, Assets Acquision, Agricultural productivity.

3. Methodology

3.1 Research Design

This work involved the use of survey design which is a quasi-experimental in nature. both *(Quantitative research/Qualitative)* approach are used for testing objective theories, by examining the relationship among observed and unobservable variables (exploratory factor analysis, path analysis, confirmatory factor analysis These variables, in turn, can be measured, typically on instruments, so that numbered data can be analyzed using statistical procedures.

3.2 Description of the Study Area

Jigawa State, which is located on latitude 11.700N and longitude 9.340N (Gender Baseline Survey, 2006). The Local Government has an estimated population of 246,143 people based on the 2006 census records, comprising mainly of Hausa and Fulani who depend almost wholly on agriculture for their livelihood. It is estimated that over 80% of the households derive their income from farming, including animal husbandry as a primary occupation (Sanusi et al., 2014). The 2007 Nigerian Poverty Assessment recorded the incidence of poverty and severity in the State as 90.9% and 24.6 % respectively (NBS, 2010). The LGA experiences an average rainfall of 650mm annually; the rain normally starts in May and ends in October of each year. Temperature also changes from minimum of 10oC (harmattan) to maximum of 42oC (between March – September) with an average relative humidity of 12% annually (CDF, 2010). These changes in climatic factors have both positive and negative influence on poultry production. These influences can fit broadly into one of two categories; low productivity as a result of disease outbreak or increase cost of production.

3.3 Population of the Study

The population for the research composes of ideal and the study population. The former (Ideal) contains all the beneficiaries or users of Fadama program which were captured in the base line survey conducted in 2009 to 20011 the later (study population) comprises of participants of the current research study that have been drawn from the ideal population. The importance of the sorting out of the target population of a study

cannot be under-estimated and is thus, normal based on the essence of our research.

3.4 Method of Data Collection

The data for this study were collected from primary sources. A pre tested semi-structured questionnaire was used to obtain cross sectional data including demographic data of age, gender, years of formal education, farming experience, household size, and farm size, savings, sources of income and finance as well as household expenditures on food, repairs, transport, toiletries, cosmetics, services and clothing.

3.5 Sampling Techniques and Sample Size

The study will employ 380 samples drawn from the Ideal population; 190 samples will be based on Random Control, 190 sampling determines to whom the results of the research will be applicable from the baseline data obtain in the Fadama office Jigawa State. The basic idea behind simple random sampling is that each user in the population has an equal chance of being selected, accurate and easily accessible and covers the larger geographical area (Saunders, 2009). This will help the researchers to overcome the problem of self- selection bias of confounders while taking difference in difference analysis. From the baseline data obtained in Fadama III coordination office, the registered beneficiaries were 1,689 in number (ideal population). Based on Krejcie and Morgan's (1970) table for determining sample size, for a given population of 1,680 ideal population, a sample size of 380 would be needed to represent a cross-section of the population.

3.6 Method of Data Analysis

In order to achieve the objectives of this study, the following analytical techniques were employed. These included simple descriptive and inferential statistics like frequencies percentages, means, poverty headcount ratio exploratory factor analysis, path analysis and confirmatory factor analysis in a more specific manner, Objectives (1) and (2) of the study were achieved by the use of structural equation modelling while Objectives (3) of the study were achieved by the use of the impact response model that is the Paired Sample t-test and the Double Difference model Estimator using propensity score matching to take care of counterfactual and confounding variables to avoid self-selection bias in the estimation

4. Results and Discussion

4.1 Result of Preliminary Investigations

Total Variance Explained, only one factor is going to emerged if this factor explains more than 50% variance there is problem with the factors, from the table below it indicated that only 16% variance was extracted in the whole total principal component analysis,

Table 1 Principal component analysis and common method bias test of (variance) Likert Score

Construct	Item	Questionnaire	Mean	St. deviation
Asset Acquisition	AAQ1	Fadama Intervention contributed to acquire assets outside- farming activities towards poverty reduction.	1.5026	.65653
	AAQ2	Fadama Intervention increase the level of my assets on- farming activities and reduces the level of my poverty.	1.3995	.49044
	AAQ3	The intervention received, contributed to have more productive asset that will reduce the level of my poverty.	2.2619	1.19578
	AAQ4	The intervention received assisted me acquire more material asset.	2.0873	.85271
	AAQ5	Intervention assistance enhances the natural assets in my farm to live above poverty head count level.	2.1085	1.17054

Agricultural Productivity	APQ1	The intervention has direct contribution to the success of my crop production	1.6164	1.23540
	APQ2	The project positively impacted to my livestock production output	1.6508	1.18557
	APQ3	There is reliable contribution from the intervention on nutrient loading of surface/water productivity output.	1.3122	.79315
	APQ4	Chemical fertilize, improved variety of seeds, pesticides, increases my productivity	1.8069	1.16184
	APQ5	Cash improved varieties, chemical application use of modern tractors from the intervention increase the level of my output.	2.3466	2.22095
Income Generation	IGQ1	The project intervention impact vocational skills which provided me with enough capital capacity to generate income.	1.4815	1.14745
	IGQ2	I had access to credit through farmers association formed by the project that increase my income and reduces the level of being poor.	1.6217	1.12472
	IGQ3	I have access to of income through non-governmental organization	1.5212	1.02532
	IGQ4	I have my Income from other sources	1.3545	.89576
Infrastructural Facilities	IFQ1	I am satisfied with rehabilitation of surface water construction of new small-scale irrigation schemes and borehole scheme.	1.5847	1.11630
	IFQ2	I am more satisfied with groundwater irrigation scheme	1.4656	1.04037
	IFQ3	I am only satisfied with other infrastructural support to construction of market stall, manual mono pump borehole, box culvert.	1.5000	.91625
	IFQ4	Advisory services provided by the intervention is what assisted me towards poverty reduction.	1.6640	1.19274
Technology Adoption/Diffusion	TDQ1	The spread of new crop improved seeds effectively increase the level of my income than traditional ones.	1.5344	.85571
	TDQ2	Soil fertility management improves the level of my income and poverty reduction	3.4286	2.37168
	TDQ3	Technology that represent the new idea, practice or object are being diffused	1.7910	1.64364
	TDQ4	Communication channel flows which represent the new	1.1429	.39989

		technology change the level of my income and poverty reduction.		
Poverty	PVQ1	The level of my income increases before fadama intervention	2.1508	.91031
	PVQ2	My income increases after fadama intervention	1.8016	1.65621
	PVQ3	My household spend on food item, nonfood item, health, housing, and others are very low due to Fadama intervention.	1.1429	.39989
	PVQ4	My savings increase due to the intervention.	2.1614	.92009

Source: Outcome of Field Survey by Researcher and Computed Using Spss V.24

Table 2: Survey by Researcher and Computed

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.199	16.150	16.150	4.199	16.150	16.150
2	4.056	15.601	31.751			
3	3.044	11.706	43.457			
4	1.452	5.585	49.041			
5	1.353	5.205	54.247			
6	1.166	4.486	58.733			
7	1.074	4.131	62.864			
8	1.026	3.946	66.810			
9	1.011	3.888	70.698			
10	.989	3.805	74.504			
11	.941	3.619	78.122			
12	.895	3.441	81.564			
13	.859	3.304	84.868			
14	.787	3.025	87.893			
15	.674	2.594	90.487			
16	.662	2.545	93.032			
17	.610	2.344	95.376			
18	.524	2.015	97.391			
19	.474	1.824	99.216			
20	.126	.485	99.701			
21	.078	.299	100.000			
22	4.018E-16	1.545E-15	100.000			
23	1.141E-16	4.388E-16	100.000			
24	-3.686E-19	-1.418E-18	100.000			
25	-1.082E-16	-4.162E-16	100.000			
26	-3.602E-16	-1.385E-15	100.000			

Source: Outcome of Field Survey by Researcher and Computed Using Spss V. 24

Note: AA= Asset Acquisition, AP= Agricultural Productivity, IG = Income Generation, IF= Infrastructural Facility, TD = Technology Adoption and Diffusion, PV = Poverty Incidence.

Kaiser-Meyer- Measure of sampling Adequacy indicate about .50% adequacy, and Bartlett's test of supremacy from the above table shows two tests that indicate the suitability of this data for structure detection. The Kaiser-Meyer-Olin Measure of Sampling Adequacy is a statistic that indicates the proportion of variance in the variables that might be caused by underlying factors. Which is the most commonly used when you want to assess the internal consistency of a questionnair**e** (or **s**urvey) used. Likert-type scales and items that was used in this **s**tud**y** developed a questionnaire that seeks to measure perceived Impact of Fadama III Agricultural Development Project on Poverty Reduction via Income generation to acquire income in Jigawa State. Cronbach's alpha is a measure of internal consistency, that is, how closely related a set of items are as a group. It is considered to be a measure of scale reliability. A

"high" value for alpha does not imply that the measure is unidimensional. Keiser-Mayer-Ohlin KMO Test Bartlett's Test for Sphericity, compares the correlation matrix (a matrix of Pearson correlations) to the identity matrix. In other words, it checks if there is a redundancy between variables that can be summarized with some factors. The analysis result in the table above reveals at KMO value of (4.199) approximately 40% which is ok but not marvelous". Likewise, the variable- specific extraction sum of squared loadings extractions values in the table are above threshold value of 0.50. While making reference to the above table the result shows the number of observations with Eigen value above 1. The first component with Eigen value 4.199 of total variance of (16%) using the Keiser Criterion (that is Eigen value > 1). Indeed, one of the PCA's objective is to produce a data structure with only few components. In the above table does that by generating a set of new component as linear composite of the original variables, which produces the original variables variance as best as possible. These linear composites are called principal. Component for the analysis and interpretation of our results.

4.2 Probit Regression Estimation Analysis

Table 4 is the estimates of the probit regression which gives the probability that a farmer will participate in the Fadama III programme. The results show to participate in the programme is significantly influenced by a large number of factors. Particularly, level of education of the farmer, technology adoption/diffusion have positive and significant impact on participation in the Fadama III programme by the farmers. Meanwhile, marital status, infrastructural services, land ownership, and reason for farming had negative and significant impact in Fadama III programme. Number of dependents is shown to have a negative and insignificant relationship with participation in Fadama III programme. Farming experience is negatively related with participation in the programme although not significant, the concerned with the probit or probability effects is yet distributional effects which are no less important. The distribution of the dependent variable (Rediff) may change in many ways that are not revealed or are only incompletely revealed by an examining average same is applicable to age of the respondents. The chi-square value of 57.58 and its probability value of 0.000 implies that the overall model is significant. The pseudo R-Square of 69.75 percent is however.

Table 4: Probit Regression

Probit regression — Number of obs = 178
LR chi2(7) = 57.58
Prob > chi2 = 0.0000
Log likelihood = -12.484665 — Pseudo R2 = 0.6975

beneficiar~a	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	-.0123801	.0233501	-0.53	0.596	-.0581454	.0333853
maritalsta~s	.281099	.7979896	0.35	0.725	-1.282932	1.84513
education	1.044868	.2947737	3.54	0.000	.4671223	1.622614
techadopta~n	.4368429	.2188002	2.00	0.046	.0080023	.8656835
infrastura~s	.0440964	.3452405	0.13	0.898	-.6325625	.7207553
landowners~p	.5926394	.3654193	1.62	0.105	-.1235693	1.308848
reasonforf~g	-.0293915	.3355148	-0.09	0.930	-.6869885	.6282055
_cons	-8.911618	3.53405	-2.52	0.012	-15.83823	-1.985007

Source: Researcher's computation Stata v. 15.

5. Conclusion and Recommendations

This study mainly evaluates the impact of Fadama III Project on Poverty Reduction and Income Generation in Jigawa State. The study investigates the Fadama III program's impact income generation, asset acquisition technology adoption and diffusion, and structural

equation modelling to access the relationship between income and income generation as mediating variable and other confounding variables and other covariate among farmers. We use propensity regression analysis. The result was presented based on three standard matching techniques: nearest neighbor matching, kernel matching and radius matching on the propensity score. And exploratory factor analysis to confirm the reliability, and validity of tools in determining how many factors exist as well as the pattern of the factor loadings whether the factors are correlated or uncorrelated in achieving these objectives.

The results shows that to participate in the programme is significantly influenced by a large number of factors. Particularly, level of education of the farmer, technology adoption/diffusion have positive and significant impact on participation in the Fadama III programme by the farmers. Meanwhile, marital status, infrastructural services, land ownership, and reason for farming had negative and significant impact in Fadama III programme. Number of dependents is shown to have a negative and insignificant relationship with participation in Fadama III programme. Farming experience is negatively related with participation in the programme although not significant, the concerned with the probit or probability effects is yet distributional effects which are no less important.
Based on the researchers' findings, the study

recommends the following:

i. The government should include farmers through scheduled consultation activities, meeting sessions and evaluation surveys. This method will help stakeholders obtain proper attention so supported beneficiaries receive specific financial assistance and training, which enhances their productivity and income levels.

ii. The Programe should pay attention on training for women and youth to improve rural employment potential. The programme should implement work-based initiatives which focus on producing agro-products while promoting rural business start-ups and managing small farming operations.

iii. The government should focus on developing vital rural infrastructure, which includes building roads, storage facilities and providing dependable electricity access. Every implemented project requires simultaneous practicality and sustainable operations over the long run.

iv. The government should introduce unbiased monitoring system should be created through independent bodies to check the distribution of funds and resources among beneficiaries. The programme must fulfil its goal through proper monitoring to deliver benefits to the targeted population groups. Anticorruption efforts will be enhanced by the implementation of written guidelines, together with scheduled audits, which promote both fairness and transparency in government accountability to its officials through consequences.

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