

Full Length Research Paper

The Impact of National Fadama III Development Project Intervention on Annual Income Generation among Beneficiaries in Nasarawa State, Nigeria

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Abstract

A survey was conducted to assess the impacts of National Fadama III Development Project (NFDP III) on income generation of beneficiaries in Nasarawa State, Nigeria. The population of this study consisted of all beneficiaries of National Fadama III Development Project in the study area. Two hundred and twenty (220) respondents were selected as sample size using multi-stage, stratified and simple random sampling techniques. Primary data were collected using a structured questionnaire. Descriptive statistics and inferential statistics were used for data analysis. Results showed that the mean annual farm income after the NFDP III intervention was N1,013,022.73 against before intervention N788,636.36 and a significant difference of 13.65 at $p < 0.01$. The mean annual non-farm income after the intervention was N639,681.82 against before National Fadama III Development Project N482,727.27 and a significant difference of 14.29 at $p < 0.01$. There was a positive difference after National Fadama III Development Project intervention among the beneficiaries of National Fadama III Development Project on income generation for rural and agricultural development in the study area. The study recommended that government in collaboration with financial institutions should organized training for rural farmers on credit acquisition, financial management, utilization for development projects and more credit facilities should be provided to rural cooperative groups.

Keywords: Fadama, project, intervention, income, generation, beneficiaries.

INTRODUCTION

In a desire to realize the full potential of the Fadama resources in Nigeria, the National Fadama Development Project (NFDP) was initiated. It is funded by the World Bank, African Development Bank with counterpart funding by the Federal Government and benefiting State (World Bank, 2007). To increased income generation and

in still in the poor people some sense of belonging, Nigerian governments have adopted and implemented various poverty alleviation programs (Oriola, 2009). In addition, the Federal Government of Nigeria in collaboration with the World Bank and the State Governments initiated a programme referred to as the National Fadama Development Project.

The major aim was poverty reduction through enabling the rural poor increase their level of farm and non-farm production of economic goods and services, which can

be translated into improved standard of living. This can be achieved by enabling the poor farmers to increase their agricultural/related outputs to improve income generation thereby lifting poor farmers' production above subsistence level. By achieving these objectives, the welfare of the rural household can be improved with the attendant multiplier effects on the participating farmers in particular and communities as a whole (Chima and Nwachukwu, 2007).

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 Federal Government of Nigeria with active participation of the States and Local Governments. The National fadama III 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 (World Bank, 2010). According to World Bank (2008) the objectives of National Fadama Development Projects are to assist the Federal Government of Nigeria to construct 50,000 table wells in the Fadama lands for small-scale irrigation, to simplify drilling technology for the tube wells, to construct Fadama infrastructure such as tube wells, wash bores, access roads, electricity, organize farmers for irrigation services and farm machinery among others.

The NFDP III was a follow-up to NFDP II; NFDP III is more like an agricultural diversification programme, which is a paradigm shift under the Fadama project. Its target beneficiaries were the private economic units/small holders, who earn their living directly or indirectly from exploitation of natural resources in a given area (Kughur *et al.*, 2017). It empowers Fadama communities with resources and needed technical training and support to properly manage and control their resources for their own benefit in particular and community development in general. The approach used in NFDP III was Community Development Approach/Community Driven Approach (CDA), which is button-up as against top-bottom. Participating community associations were empowered to develop participatory and socially inclusive Local Development Plans (LDPs). Under the Fadama project, participants collectively identify their development priorities and agree on their investment activities (Kughur *et al.*, 2017).

METHODOLOGY

This study was conducted in Nasarawa State. The State was created on 1st October, 1996 with headquarters at Lafia and consists of 13 Local Government Areas namely Akwanga, Awe, Doma, Karu, Keana, Keffi, Kokona, Lafia, Nasarawa, Nassarawa-Eggon, Obi, Toto and Wamba (NPC 2006). The population of the study consisted of the beneficiaries of the National Fadama III Development

Project in Nasarawa State. Multi-stage, stratified and simple random sampling techniques were used to select two hundred and twenty (220) respondents for the study. Data for this study were collected from primary sources through the use of structured questionnaire alongside interview schedule. The data gathered were analyzed by descriptive statistics and t- test was used.

RESULTS AND DISCUSSION

The result in Table 1 indicated the mean annual income of the beneficiaries of the NFDP III intervention before and after the intervention. Before the intervention the mean annual farm income of the beneficiaries was ₦788, 863.36 while after the intervention the mean income was ₦1,013,022.73. This result signified that after the intervention the farm income of the beneficiaries had considerably increased. This is because there was increase in the average annual farm income of the beneficiaries by ₦224,386.73. This means they lived at ₦623.30 per day which is equal to \$3.13 per day (Otive, 2006). This also implies that after the NFDP III intervention, the living standard of the beneficiaries has gone far above the poverty line (i.e above \$1 dollar per day). This is an indication that NFDP III has contributed positively to the mean annual income of the beneficiaries.

The result of t-test analysis in Table 2 showed the value of T 13.65 at $p < 0.01$ level of significance. This means there was a significant difference in the mean annual income of the beneficiaries after the NFDP III intervention. This means the adoption of technologies, practices and the applications of knowledge introduced by the project have benefited the farmers by increased in their income. The participation of farmers in the NFDP III intervention by the beneficiaries brought empowerment, improved their skills and investment power in farm and non-farm activities/production. This implies that participation in the NFDP III intervention brought about remarkable increase in beneficiaries' income compared to when they did not participated in the NFDP III intervention. The result is in tandem with Idefor (2007) reported that adoption of projects initiatives by farmers enable increase in total annual income per household.

The participation in NFDP III brought about considerable change in beneficiaries' level of annual income (₦244, 386.73) more than when they were not members of NFDP III intervention. The finding is similar to that of Idjesa (2007) that sustainable poverty alleviation through community participation intervention projects among rural dwellers was improved when the rural communities in Ikwuano Local Government Area of Abia State were provided with intervention facilities in the form of training, capacity building and credit facilities for farm and non-farm production activities. It was discovered that 35 % of the people significantly improved in their annual farm yield and income generation.

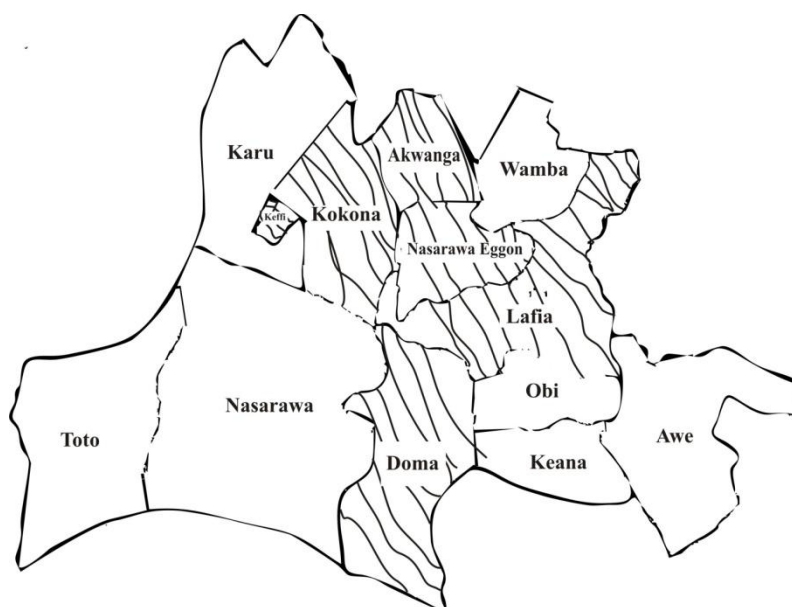


Figure 1: Map of Nasarawa State Showing the Study Area.
Source: Adapted from NSFDP III (2016).

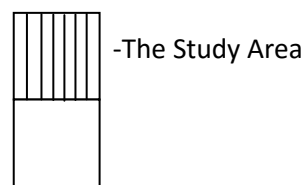


Table 1. Annual Mean Farm Income Before and After NFDP III Intervention

Income (₦):	Before Intervention		After Intervention	
	Frequency	Percent	Frequency	Percent
≤ 200,000	40	18.2	19	8.6
200,001-400,000	20	7.3	18	8.2
400,001-600,000	35	15.9	21	9.5
≥ 600,001	130	59.1	162	73.6
Mean	788,636.36		1,013,022.73	
Minimum	10,000		20,000	
Maximum	2,000,000		2,500,000	
Standard Deviation	488,270.83		539,269	

Table 2: T-test Results on Mean Difference in the Annual Farm Income Before and After NFDP III Intervention

Variables	Mean	Std. Deviation	Std. Error	Mean Difference	T	DF	Sign (1%)
Annual Income Before NFDP III	788,636.36	4,888,270.83	32,919,.213				
Annual Income After NFDP III	1,013,022.73	559,269.806	16,431.57	-224386.4	13.656*	220	.000*

* = T-test significant at 1 % level

Table 3. T-test Results on Mean Difference in the Annual Non-farm Income Before And After NFDP III Intervention

Variables	Mean	Std. Deviation	Std. Error	Mean Difference	T	DF	Sign 1 %
Annual Non-Farm Income Before NFDP III	482,727.27	369,727.7	24,927.027				
Annual Non-Farm Income After NFDP III	639,681.82	459,110.107	30,953.197	156,554.545	14.295*	220	.000*

* = Significant at 1 % level

Similarly, Akinseinde (2006) reported that other activities of NFDP III outside farming brought increased income generation and promote development to farmers.

The result of t-test in Table 2 showed that the mean income of the beneficiaries of the NFDP III intervention was significantly different. Its implication is that beneficiaries' mean income changed positively after the intervention. There was a significant difference among the beneficiaries between before and after participation in the NFDP III intervention. Increased income by NFDP III intervention can lead to better standard of living among the beneficiaries. This finding corroborates the National Economic Empowerment and Development Strategy (NEEDS 2004) that one of the strategies to improve the economic status of the rural people and facilitate rural development is to provide sustainable economic empowerment programmes/projects to the rural people involving them in the planning and implementation.

The finding also confirms that of Sobanke (2008) that NFDP III beneficiaries received training in capacity building, funds support for projects, acquired more knowledge on marketing information and sales strategy. This in turn empowered them for enhanced income generation.

The result in Table 3 revealed the mean annual non-farm income of the beneficiaries before and after the NFDP III intervention in the study area. Before NFDP III intervention the beneficiaries' mean annual non-farm income was ₦482,727.27 while after the intervention, the income was ₦639,681.82. This showed that the mean annual non-farm income of the beneficiaries increased by ₦156,954.5 (i.e. ₦639,681.82 - ₦482,727.27). This implies that the mean annual non-farm income of NFDP III beneficiaries has increased positively by ₦156,954.56. The increased in non-farm annual income could be attributed to the NFDP III intervention through capacity building, funding of sub-projects and provision of infrastructure and training the beneficiaries received which helped them to develop non-farm economic activities.

This indicated that there was a positive impact in the economic status or income through non-farm sources of income generation of the beneficiaries of NFDP III intervention in the study area. This agreed with the findings of Dokin (2008) who discovered that intervention projects have economic improvement on rural people

standard of living.

CONCLUSION AND RECOMMENDATIONS

The purpose of this study was to analyze the impact of National Fadama Development Project on income generation for agricultural development in Nasarawa State. The study discovered that the mean annual income of the beneficiaries before NFDP III was ₦788,636.36 but after NFDP III it was increased to ₦1,013,022.73. There was a positive difference of ₦244,386.73 in the mean annual income of the beneficiaries before and after NFDP III. The t-test analysis also revealed that there was a significant difference at 1% in the mean annual income before and after intervention. The mean annual non-farm income and mean annual farm yield also showed an annual increase and a significance difference at 1% level of significant.

The National Fadama Development Project III intervention was also discovered to have an impact on the mean annual income of the beneficiaries. This means the intervention reduced poverty among the beneficiaries of the intervention in the study area. The government in collaboration with financial institutions should organize training for rural farmers on credit acquisition, financial management, utilization for development projects and more credit facilities should be provided to rural cooperative groups.

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