International Journal of Agricultural Research and Review: ISSN-2360-7971, Vol. 7(7): pp 775-780, July, 2019.

Full Length Research

Evaluation of Third National Fadama Development Project (Fadama Iii) in Kogi State, Nigeria.

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Accepted 21st May,2018

The purpose of the study was to evaluate the impact of (NFDP III) in Kogi State. The study was conducted among three FCA groups which include Okpo, Imane and Emabu. Stratified random sampling technique was used to select 30 respondents from each FCAs. Data were obtained through the administration of structured questionnaire. Data collected were analyzed using descriptive statistics and t-test. The FCAs consented in varying degrees that warehouse, fishpond, wells, and milling machines were facilities provided for them by the Fadama Development Project. The result of the t-test analysis showed that FCAs had higher income after joining the NFDP III. It was observed that the major factors limiting the performance of FCAs in the study area were poor coordination/planning of cost sharing programme, dishonesty/corruption among facilitators, high cost of production service, late distribution of inputs and inadequate fund. The study recommends that Fadama Development Project staff be adequately trained and credit facilities in form of agricultural loan be made available and accessible to FCAs while inputs should be distributed early enough before the planting season at a subsidized rate.

Keywords: Fadama Project, Fadama Community Associations, Facilities, Farm Income

INTRODUCTION

Fadama Development Project (FDP) is a World Bank Sponsored Development Project that is collaborating with the Federal Government of Nigeria to achieve the needed national development and food security in the country. Fadama is a Hausa name for flood plains and low-land areas underlined by shallow aquifers found along Nigeria's major river systems (Fadama, 2007). Fadama areas are considered to have high potential for economic development through appropriate investments in infrastructure, household assets and technical assistance. When Fadama spread out over a large area, they are often called 'Wetlands' (Nkonya et al, 2008). Fadama has five components viz capacity building, pilot asset acquisition support, rural infrastructure investment, demand-driven advisory services and project management, monitoring and evaluation. The Fadama agriculture is characterized by mixed cropping and livestock production. The major crops are cereals such as maize, rice, wheat and sorghum; vegetables like onion, garlic, fluted pumpkin, cabbage, garden egg, carrots, lettuce, cucumber, pepper and okra; grain legumes (cowpea); ad tuber crops such as potatoes (Ibitoye et al., 2012).

The Fadama Community Associations (FCAs) works in partnership with demand responsive support organizations service providers like Community Based Organizations (CBOs), Non-governmental Organizations (NGOs), private sectors and government agencies to provide social and infrastructural services to organize economic activities, resources management, empower people and their security and good governance.

The National Fadama Development Project (NFDP) was established to ensure all year round production of crops in all the states of the Federation through the exploitation of shallow acquifers and surface water potentials in each state using tube well, wash bore

and petrol driven pumps technology (World Bank, 1992). This was the era of Fadama I in which many states of the federation were involved. The project, NFDP I was adjudged successful both nationally and international and that culminated in the Federal Government of Nigeria requesting the World Bank for the preparation of a follow up project (Blench and Ingawa, 2004).

Fadama I focused exclusively on irrigation farming while both the Fadama II and Fadama III are more of agricultural diversification programs, providing finance for the diverse livelihood activities which beneficiaries themselves identify and design with appropriate facilitation support (NFDP III, Project Implementation Manual-PIM 2009). The second National Fadama Development Project II (Fadama II Project) is a comprehensive six (6) year action programme designed to sustainably increase the income of the beneficiaries and was implemented in eighteen (18) states. Out of the 18 states that participated in Fadama II, 11 of them and Federal Capital Territory (FCT) were assisted by the World Bank. The states include Adamawa, Bauchi, Gombe, Imo, Kaduna, Kebbi, Lagos, Niger, Ogun, Oyo and Taraba (NFDO, 2007). Fadama III was implemented in 36 states and FCT (with World Bank Support in 2 states and African Development Bank supporting 6 states), (NFDP III 2009). Fadama III was implemented over five year period, from March, 2008 to December, 2013.

According to Echeme and Nwachukwu (2010), proper monitoring and documentation provide the basis for accountability, transparency and tracking of project planning and implementation. But the low level of monitoring of the Fadama projects has been a persisting problem to the successful delivery of Fadama Development Projects in Nigeria (Oredipe, 2007). He therefore calls for diligent monitoring of these projects to successfully deliver their mandate. This creates the need for evaluating Fadama Community Associations (FCAs) on the need for proper monitoring of the projects to fruition.

The broad objective of the study was to evaluate the influence of Fadama Community Associations (FCAs) membership in Kogi State, Nigeria. The specific objectives were to; describe the socioeconomic characteristics of the respondents, ascertain the facilities provided by Fadama development project in the study area, evaluate the impact of Fadama project on the income level of Fadama Community Associations, and identify the factors limiting the performance of Fadama Community Associations.

METHODOLOGY

The study was conducted in Kogi State of Nigeria, Kogi State was created on August 27, 1991 and it lies in the middle belt of the country. It is located between longitude 07^0 30E and 06^0 40"W and Latitude 07^0 30"N and $6^0$42"S (shell road map of Nigeria 1996).

Stratified random sampling method was used to collect data from three (3) FCAs. The three FCAs were purposely selected due to their activeness in Fadama programmes. The sample size was made up of 30 respondents from each FCA and a total of 90 respondents for the study. Structured questionnaire was used to collect the primary data that were used for the study. Information was gathered on socioeconomic characteristics, performance indicators and problems faced by the respondents.

Data collected were analyzed using descriptive statistics such as frequency distribution, percentages and mean. The effect of Fadama project on the income level of FCAs was evaluated using T test statistic formula as specified below:

$$t = \frac{X_2 - X_1}{\frac{\sqrt{S^2_2 + S^2_1}}{n_2 + n_1}}$$

Where

X_2 = average farm income after joining FCA (N)
X1 = average farm income before joining FCA (N)
S^2_2 = income variance after joining FCA
S^2_1 = income variance before joining FCA
$n_{12}\, n_2$ = Sample seize

Mean Score

Mean score was used to identify the major factors limiting the performance of Fadama Community Association in the study area. The mean score was calculated after respondents' responses were obtained with a four point Likert type of scale.

$$\overline{X} = \frac{EFX}{N}$$

Where: = means response, E = summation, F = number of respondents choosing a particular scale point, X = numerical value of the scale point and N = total number of respondents to the item.

Hint: any mean score up to 3.0 and above is considered as a major constraint.

RESULTS AND DISCUSSION

Socio-economic characteristics of the respondents

The socio-economic characteristics of the respondents is presented in Table 1. The table showed that 80% of the respondents were males while 20% were females. This implies that majority of the FCAs members in the study area were males. This agrees with the finding of Olaleye (2000) that small scale farming are mostly carried out by males due to its harvesting and marketing. The mean age of the respondents was 41 years which indicates that a greater percentage of the

Table 1: Distribution of Respondents According to Socio-economic Characteristics.

Socio-economic Characteristic	No. of Respondents	Percentage (%)	Mean
Sex			
Male	72	80.0	
Female	18	20.0	
Total	90	100	
Age Category (years)			
Less than 21	15	16.7	
21-40	45	50.7	
41-60	24	26.7	
Above 60	6	6.7	
Total	90	100	41
Marital Status			
Single	10	11.1	
Married	78	86.7	
Widow	2	2.2	
Total	90	100	
Family Size (Number)			
1-4	4	4.4	
5-9	76	84.5	
9 and above	10	11.1	
Total	90	100	6
Farm Size (heetares)			
0-1	10	11.1	
2-4	72	80.0	
5 and above	8	8.8	
Total	90	100	3.0
Educational Status			
Informal Education (10 years)	28	31.1	
Primary Education (1-6 years)	37	41.1	
Secondary Education (6-12 years)	19	21.1	
Tertiary Education (Above 12 years	6	6.7	
Total	90	100	6.0
Occupation			
Farming only	67	74.5	
Farming and Civil Service	11	12.2	
Farming and Trading	10	11.1	
Farming and Other Businesses	2	2.2	
Total	90	100	

Source: Field Survey, 2016

respondents were in their active age. The result showed that 16.7% of the respondents were below 21 years, 50% of the respondents were within the age bracket of 21-40 years, 26.7% of the respondents were between 41-60 years, while a lower proportion of 6.6% of the respondents were above 60 years. The results implies that majority of FCA members in the study area were young farmers who were active and energetic. Ogundele and Okoruwa (2006) confirmed that only those farmers within the productive age group of 20 – 45 years are likely to possess the necessary strength to carry out farming operations.

The results further show that 86.7% of the respondents were married, 11.1% were single and 2.2% were widowed. This shows that a large proportion of the respondents in the study area were married with responsibilities. The findings also revealed that 84.5% of the respondents have a household size of 5-9 persons, 11.1% have a household size of above 10 and 4.4% have a household size of 1-4. The mean household size of the respondents in the study area is 6.

Result on the size of farm land revealed that 80% of the respondents have a farm land of 2-4 hectares, 11.1% have a farm size of less than two hectares and 8.8% have farm land of above four hectares. The mean farm size in the study area is 3 hectares.

About 68.90% of the respondents had some form of formal education while 31.10% of the respondents had no formal education. According to Eze et al, (2010), education affects the way farms are managed and the overall production. The findings also agree with Ibitoye (2011) that the level of education of farmers in Kogi State of Nigeria yielded positive significant relationship to adoption of improved cassava varieties. The study showed that 73.3% of the respondents had farming as their major occupation while 26.7% combined farming with other activities such as fishing, petty trading, civil service and other businesses.

Friday and Eddy (2013) confirms farming as the source of livelihood of the rural people.

Facilities Provided by Fadama Development Project

Facilites provided by Fadama Development Project in the study area is presented in Table 2. Table 2 show that 31.1% of the Fadama Community Associations agreed that Fadama Development Project provided warehouse in the study area; 12.1% assent to the provision of fish pond, 21.5% consented to the provision of boreholes and 29.1% had milling machine provided for them by the Fadama Development Project.

Provision of infrastructural facilities is essential for increased productivity in agriculture as it makes farming more encouraging. Also, adequate provision of infrastructure reduces labour cost in agriculture hence increasing the net income of the farmers.

Table 2: Distribution of respondents according to facilities provided by Fadama development project.

Facilities	Frequency	Percentage
Warehouse	77	31.1
Fishpond	30	12.1
Wells	68	21.5
Borehole	-	-
Milling Machine	72	29.1
Total	90	100

Source: *Field Survey, 2016*

Influence of Fadama Development Project on Farmers' Income Level

The effect of Fadama Development Project on the income level of farmers in the study area is presented in Table 3.

Table 3: Distribution of respondents according to the influence of Fadama development project on their level of income.

Variable Significance	mean	t_{cal}	t_{tab}
Income of Fadama Community Association before the project	26655.56	12.97	3.355.000***
Income of Fadama Community Association after the project	34055.56		

Source: Field survey,

Result presented in Table 3 show that there is significant difference between the income of Fadama Community Association before joining the group and income after joining the group since the t_{cal} is greater than the t_{tab} at 1% level of significance. This implies that fadama community had higher income after joining the Fadama Community Associations. The increase in farmers' income can be attributed to productive facilities that were provided by the Fadama Development Project. This agrees with the findings of Friday and Eddy (2013) that fadama project is profitable and it has provided a means of livelihood to the fadama community associations. Also, the findings of the World Bank revelaed that there was a significant difference between the income of fadama community associations and non-fadama community in Sokoto State (World Bank, 2007).

Factors limiting the performance of Fadama Community Associations

Factors limited the performance of Fadama Community Associations in the study area is presented in Table 4.

Table 4 shows the factors limiting the performance of Fadama Community Associations. A four point Likert type of scale was used for the analysis. The results shows that poor coordination/planning of cost sharing programme, dishonesty/corruption among facilitators, high cost of production service and policy issue, untimely distribution of inputs as well as inadequate fund had a mean score of 3.5, 3.4, 3.4, 3.4, and 3.2 respectively showeing that they were considered as major factors limiting the performance of FCAs by the respondents.

Table 4: Distribution of respondents according to factors limiting the performance of Fadama Community Associations.

Constraints	Strongly agree (3)	agree (2)	Disagree (2)	Strongly Disagree (1)	No. of respondent	Sum of constraint score	Mean score
Inadequate fund	48	22	10	10	90	288	3.2
Land tenure system	10	0	50	30	90	170	1.8
Untimely distribution of mputs	53	30	05	02	90	314	3.4
High cost of production service and policy issue	59	12	10	09	90	301	3.4
Dishonesty/corruption among facilitators	60	17	5	8	90	309	3.4
Poor coordination/planning of cost sharing Programme	69	10	3	8	90	320	3.5
Lack of interest	32	22	19	17	90	249	2.7
Minimal skill for maintenance	10		9	59		12	90
Lack of storage facilities	09		22	55		4	90

Source: Field Survey, 2016: **Hint:** any mean score up to 3.0 and above is considered as a major constraint.

Lack of interest to participate in FCAs, lack of storage facilities, minimal skill for maintenance, land tenure system had a mean score of 2.7, 2.4, 2.1, and 1.8 respectively showing they were not considered as major factors.

This implies that farmers had interest to participate in Fadama Development Project with required skill for maintenance of equipment. Also, storage facilities and land tenure system did not limit the performance of FCAs in the study area. Balogun et al., (2011) confirms that farmers' lack of interest in participating in Fadama Community Associations is not a serious constraint because farmers are readily available for support.

CONCLUSION AND RECOMMENDATIONS

The study has shown that Fadama development project has made significant impact on farmers in Kogi state. Fadama Development Project provided infrastructural facilities such as warehouse, fishpond, wells, and milling machines. The study revelas that the Fadama Community Associations had more income after joining the group. This agrees with the overall goal of fadama project which aims at poverty reduction through sustainable increase in income of the fadama project beneficiaries

Based on the problems identified in the study, the following recommendations are made:

1. More orientation should be carried out to encourage more farmers in the study area to join Fadama Community Associations as the research findings indicate higher income of farmers after joining the Fadama Community Associations.
2. Credit facilities in form of agricultural loan should be made available and accessible by Fadama Community Associations.
3. Agricultural inputs should be given out early enough before the planting season.
4. The welfare of the community facilitators under the fadama project should be properly catered for so as to enhance their performance.

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