

Assessing the role of Agricultural Development Programme in the Implementation of Fadama III Project to Empower Adult Users in Edo State, Nigeria

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Abstract

The Study was carried out to assess the role of Agricultural Development Programme (ADP) in the implementation of Fadama III project in Edo State. The purpose of this study was to assess the role of Edo State ADP in the implementation of Fadama III project in the State through its unit; Edo State Fadama Coordinating Office (EDSFCO). The study was guided by three research questions. A descriptive survey research design was adopted for the study. The population of the study consisted of a total of 1,175 registered Fadama User Groups (FUGs) in Edo State and all Edo State ADP staff comprising; agricultural extension workers and Edo State Fadama Coordination Office (EDSFCO) staff. The study also adopted empowerment theory by Julian Rappaport. Sample size of 341 respondents was selected through multistage sampling techniques. The data for this study was obtained using a questionnaire. It was validated by two lecturers in the Department of Adult and Non-Formal Education, University of Benin. The test-retest method of estimating reliability was used to ascertain the reliability coefficient of the instrument. Data were analyzed using mean scores. The findings of the study revealed that EDSFCO carried out various training for farmers in capacity building in terms of skill acquisition in fishing, crop preservation and pest management. Based on the findings, it was recommended among others that Agricultural Development Programme (ADP) should be equipped in order to carry out regular trainings and sensitization workshops on crops, fisheries, agro forestry and livestock in the State.

Keywords: ADP, Implementation, Evaluation, Fadama III Project, Adult Users

Introduction

Historically, the evolution of agriculture is targeted towards food supply, job creation and poverty eradication. Agricultural projects/programmes enable nations to

benefit from agriculture's various potentials to sustain lives and reduce poverty. Any country that neglects its agricultural sector should be prepared for poverty and food insecurity. Food security is a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life (Peng & Berry, 2019). Agriculture does not have a substitute in food supply; it plays a significant role in poverty reduction.

According to Food and Agriculture Organization (2021), between January and March 2021, agriculture contributed 22.35% of the total Gross Domestic Product and Over 70% of Nigerians engaged in agriculture sector mainly at a subsistence level. Besides being directly engaged in primary production, agriculture has the opportunity for indirect job creation from extension services to data analysts, genetics researchers, business consultants, engineers and so on. After the Nigerian Civil war, the government came up with several agricultural programmes that were targeted at improving domestic food production for local consumption. Notable amongst them is Agricultural Development Programme (ADP) which has since been the implementation organ of state ministries of agriculture. It is semi-autonomous and focuses on small farmers. It adopts the integrated rural development strategy in its operations. This approach to agricultural and rural development was based on collaborative efforts and tripartite arrangement of the federal government, state government and World Bank (Iwuchukwu & Igbokwe, 2012). The World Bank experience with ADP offered lessons for subsequent interventions, especially the introduction of Fadama projects. The World Bank in partnership with Nigeria Government developed Fadama project to enhance productivity and market linkage of farmers through a new project (Egwu, 2015).

The Fadama concept is an old tradition in Hausa, where flooded land is used for growing a variety of crops. Fadama is a six – letter word in Hausa which means “marshy terrain”. Such land is suitable for irrigation, fishing and providing feed and water for livestock. The first National Fadama Project (NFP-1) was designed to promote simple low-cost improved irrigation technology under World Bank financing (World Bank, 2016). The first National Fadama Project (NFP-I), was implemented from 1992 to 1999, it focused mainly on the promotion of simple low-cost irrigation technologies in the bid to increase

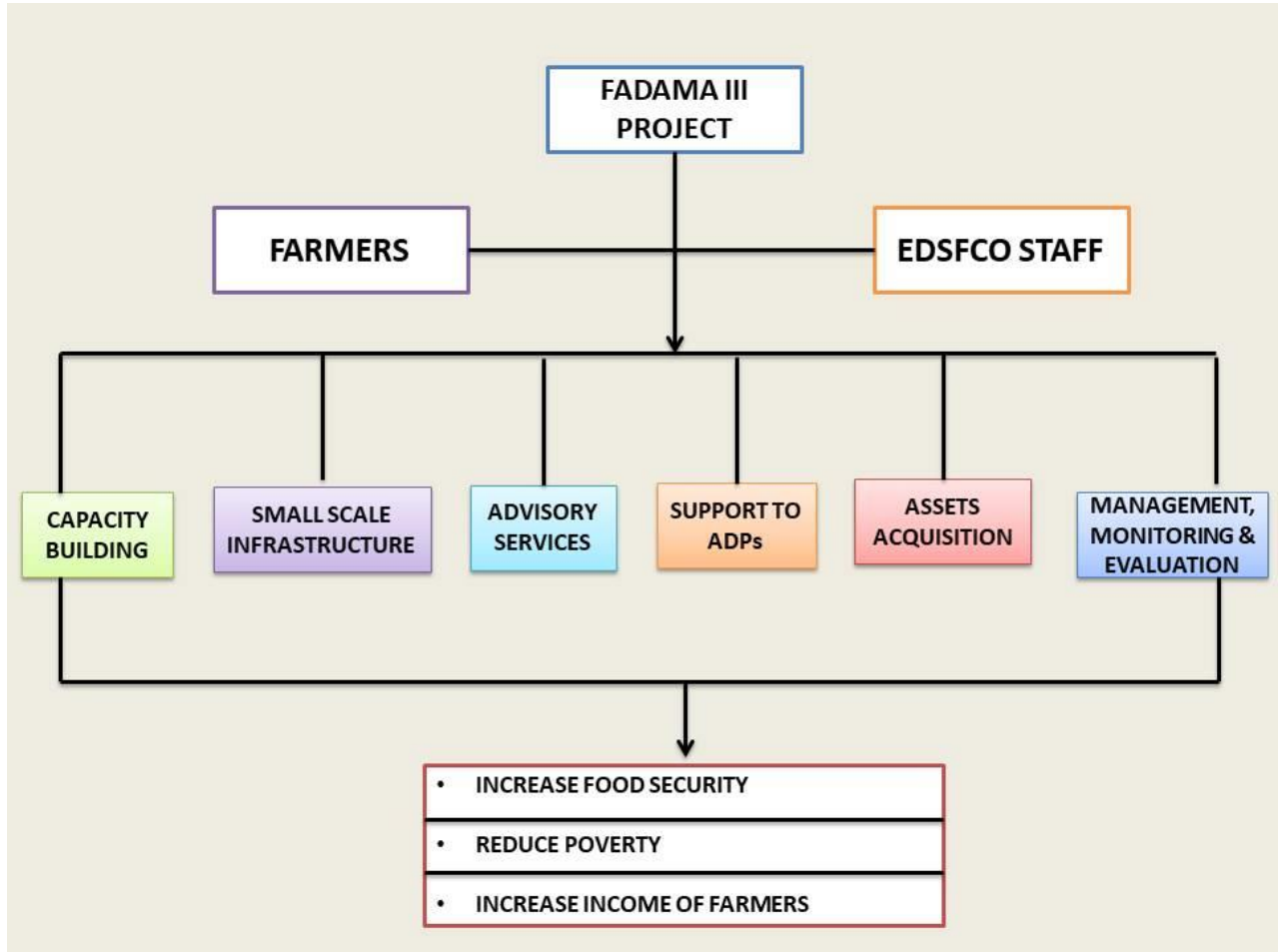
food production but largely neglected the down-stream activities such as; processing, preservation, conservation, and rural infrastructure meant to ensure efficient evacuation of farm produce to the markets (World Bank, 2016). NFP-I project did not take into consideration the farmers involved in other areas of agriculture such as; livestock and fisheries (Danjuma, Oruonye & Ahmed, 2016). This led to perpetual conflict between users. However, the successes achieved in the NFP-I informed the design of the Second National Fadama Project (NFP II).

The World Bank agreed to Nigerian Government's request for funding phase II of the project not only as a follow-up of the phase I, but also to expand its scope (World Bank, 2016). The design of NFP II which operated between 2004 and 2009, incorporated a Community Driven Development (CDD) approach in which various Fadama users (crop farmers, non-crop farmers, marketers, hunters, pastoralists, women, youths, vulnerable groups and other stakeholders) who were directly or indirectly affected by the Fadama resource operating through their respective Fadama community associations, oversee the design and implementation of the project and were empowered through building skills and capacity to improve their livelihoods by increasing income generating activities (World Bank, 2016). Encouraged by the positive results of NFP-II, the Government of Nigeria decided to roll out the project to the 36 States including Federal Capital Territory and sought World Bank assistance to finance the third phase of the project. The World Bank in conjunction with the Federal government introduced the National Fadama III project (NFDP III).

The Fadama III Project had a national coverage in each of the 36 States and the FCT. It was implemented from 2008 – 2019. Fadama III's primary objective was to support the growth of non-oil sectors through the development of productive infrastructure aimed at enhancing agricultural productivity and the diversification of livelihoods. It involved building participating communities' social capital and their capacity to provide rural services to the poor. The developmental objective of the NFP III was to increase the incomes of the farmers, reduce rural poverty, increase food security and contribute to the achievement of the Sustainable Development Goals (SDGs). The project was designed to be socially inclusive and participatory as well as empowering members of the FUGs to take

control and manage resources for their own betterment (Okoh, 2018).The conceptual framework is explained with the flow chart below;

Fig 1: Fadama Implementation Flow Chart.



Source: The researcher, 2022.

Fig. 1 illustrates a flow chart of Fadama III Implementation process. Fadama III had six components upon which Fadama project revolved. Edo State Fadama Coordination Office (EDSFCO) was responsible for the day-to-day implementation of Fadama III project activities in the state. EDSFCO is a unit under Edo State Agricultural Development Programme (ADP). ADP is the implementation organ of Edo State Ministry of Agriculture and is headed by a programme manager. EDFSCO staff were appointed by the programme manager to handle the implementation of Fadama III project in the State.

This study is focused on summative evaluation because Fadama III project came to an end in December, 2019. The evaluation is summative because it assessed the outcome of Fadama III project with the view to assessing whether it achieved its set objectives in

Edo State in order to expose gaps in the execution for up scaling future programmes. Edo State was among the benefiting States. All the 18 LGAs in the State participated in the Project. The beneficiaries of this project in the State were the Fadama Users' Groups (FUGs). FUG is a co-operative group of not less than 10 farmers. The FUGs in the community worked directly with Fadama Coordination Office in identifying the sub-projects that were embarked upon.

Theoretical Framework

Empowerment Theory by Julian Rappaport

Julian Rappaport propounded the empowerment theory in 1981. However, the root of empowerment theory extends further into history and is linked to Marxist sociological theory. Empowerment theory refers to the experience of personal growth and an improvement in self-definition that occurs as a result of the development of capabilities and proficiencies. Individual empowerment can actually contribute to group empowerment. Empowerment theory focuses on helping marginalized people to gain personal, interpersonal and political power to improve their lives. Additionally, the theory seeks to challenge systems that prevent or hinder people from having their needs met. Zimmerman (2000) affirmed this theory in his work "Handbook of community psychology" when he opined that empowerment theory provides principles and a framework for organizing our knowledge and strategies for implementing change.

Empowerment theory provides principles and a framework for organizing knowledge and strategies for implementing change. This takes place in the participation process itself when an empowered individual who realizes his/her personal responsibility for bringing some changes to his/her social environment, helps to enhance the functioning of the group and community members by informing, inviting, encouraging and organizing them to participate in identifying the problem, prioritizing the needs, deciding and taking part in conducting the group activity, project or even action.

The empowerment theory is relevant to this study, in the sense that Fadama III Project laid emphasis on capacity building which is geared towards empowering farmers in FUGs. It is aimed at helping farmers to acquire relevant farming skills and knowledge that will enable them to develop themselves and contribute to the growth of their society. It was designed to provide capacity-building support to farmers, with emphasis on

strengthening linkages between farmers, agro-dealers, processing firms and other private sector participants to develop contracts for agreed quantity and quality of outputs. It is also geared towards training farmer groups and other stakeholders on business plan development and linkage with financial institutions. Having acquired relevant training skills through capacity building, it was necessary the farmers participated in Fadama Users' Group activities in order to have a voice in decision making process. This was what necessitated the theory of citizen participation. Fadama III project as approved by the World Bank's Board of Directors in July 2008 and implemented by the Ministry of Agriculture and Rural Development, had six main components which it was set to achieve as follows: i. Capacity building, local government and communication. ii. Small-scale community - owned infrastructure. iii. Advisory services and input support development. iv. Support to the Agricultural Development Programmes. v. Asset acquisition for individual Fadama Users Groups. vi. Project management, monitoring and evaluation (World Bank, 2020).

The focus of this study is to assess the role of Agricultural Development Programme (ADP) through EDFSCO in the implementation of components I, III, and V of Fadama III project in Edo State. Although, the ADP implemented the other five components during the implementation of Fadama III project in the State, but the focus was on components i, iii and v. Fadama III project was supposed to strengthen the capacity of ADPs to provide extension services to Fadama farmers and establish links between Fadama users and research institutes (World Bank, 2016). Implementation is the carrying out, execution, or practice of a plan, a method, or any design, idea, model, specification, standard or policy for doing something. According to Khan (2016) implementation is the process of the interactions between setting goals and the actions directed towards achieving them.

The respondents of this study comprised of Fadama Users' Groups and Edo State ADP staff including Edo State Fadama Coordination Office (EDSFCO) Staff. The ADP staff can provide valid information on the implementation of Fadama III project in the State because of their role as stakeholders in the agricultural project. Moreover, they were the workforce who coordinated the activities of Fadama III project in the State.

In developed nations, such as the United States, the office of the Agricultural Policy (AGP) boosts economic prosperity for American farmers and ranchers by opening foreign markets to American farm products; promoting transparent, predictable, and science based regulatory systems and reducing unnecessary barriers in order to promote global trade (U.S. Department of State, 2020). Similarly, in Europe, the European Union (EU) policy provides financial support to farmers and brings together national intervention programmes to allow farmers compete on a level playing field while protecting against volatility in agricultural prices and for provision of food security. In this way among others, concerted efforts are put in place by developed nations to guarantee food security in their domains.

However, in Nigeria, lip service seems to be paid to agricultural projects, hence, many agricultural programmes and projects of the Federal and State governments commence and relapse. Fadama project is one of such projects which lasted from 2008 - 2019 in Edo State. During this period, World Bank allocation to Edo State was US 7, 852, 530.00 (EDSFCO, 2018) Despite the efforts of the State government in encouraging and sustaining the project in the State, the project seemed not to have yielded satisfactory result because communities in Edo State are yet to experience food security. The level of hunger and poverty is still high in the State. This is evident in NBS (2021) report, which opined that Edo state had 11.99% poverty rate as at 31st December, 2020. There is therefore need for assessment of the role of Edo State ADP in the implementation process so that gaps and strengths in the implementation of the project will be revealed and addressed in subsequent agricultural projects and programmes in the state, particularly in recent time in which the government is clamoring for agricultural initiatives for better livelihood.

Purpose of the Study

The purpose of this study is to assess the role of Edo State ADP in the implementation of Fadama III project in the State through its unit; Edo State Fadama Coordinating Office (EDSFCO). Specifically, the study intends to assess the role of EDSFCO in:

- i. providing capacity building to Fadama users' groups.
- ii. providing advisory services and input support to Fadama users' groups.
- iii. supporting asset acquisition for individual Fadama users' groups.

Research Questions

The following research questions guided the study; to what extent did EDSFCO:

- i. Provide capacity building to Fadama users' groups in Edo State?
- ii. Provide advisory services and input support to Fadama users' groups in Edo State?
- iii. Support assets acquisition for individual Fadama Users' groups in Edo State?

Methodology

This study employed the descriptive survey research design. The population of the study consisted of a total of 1,175 registered Fadama User Groups (FUGs) in Edo State and all Edo State ADP staff comprising; agricultural extension workers and Edo State Fadama Coordination Office (EDSFCO) staff. Empowerment theory was adopted for this study. Three research questions were raised to guide the study. The sample of the study consisted of a total of 341 respondents which comprised of 295 farmers and 46 EDSFCO staff. In order to ensure adequate representation of FUGs, a multistage sampling technique was employed to select 295 farmers from the registered FUGs, while the entire EDSFCO staff were used in view of their homogeneity. The data for this study was obtained using a questionnaire. The items in the questionnaire were structured using four levels of measurement; Very High Extent (VHE), High Extent (HE), Low Extent (LE) and Not At All (NAA). It was validated by two lecturers in the Department of Adult and Non-Formal Education, University of Benin. The test-retest method of estimating reliability was used to ascertain the reliability coefficient of the instrument, a correlation index of 0.86 was thereafter obtained. This shows that the instrument was reliable. Data were analyzed using mean scores. Any mean score from 2.50 and above was regarded as "VHE" or "HE" while mean scores below 2.50 were tagged "LE" or "NAA"

Results

Research Question One: To what extent did EDSFCO provide capacity building to Fadama users' groups in Edo State?

Table 1: Mean Responses on the extent EDSFCO provided capacity building to Fadama users' groups

S/N	Items EDSFCO:	EDSFCO (N=46)	FUG (N=295)	\bar{X}	Remarks
1	Provided training for farmers in fishing skills	3.41	3.35	3.38	HE
2	Trained farmers on crops preservation	3.38	3.04	3.21	HE
3	Trained farmers on how to apply fertilizer	3.28	3.16	3.22	HE
4	Trained farmers on pest management	3.50	3.24	3.37	HE
5	Provided opportunity for farmers to access loan in banks	2.67	2.49	2.57	HE
6	Provided opportunity for farmers to meet with agro –dealers	3.24	3.02	3.24	HE
Aggregate Mean				3.16	HE

The Table shows that the mean ratings of the respondents for the 6 items ranged from 2.57 to 3.38. Following the decision rule, the aggregate mean response of 3.16 revealed that EDSFCO provided capacity building to FUGs in Edo State to a high extent.

Research Question Two: To what extent does EDSFCO provide advisory services and input support to Fadama users’ groups in Edo State?

Table 2: Mean Responses on the extent EDSFCO provided advisory services and input support to Fadama users’ groups

S/N	Items EDSFCO:	EDSFCO (N=46)	FUG (N=29)	\bar{X}	Remarks
7	Provided farmers with advisory services on cross breeding of crops	3.19	3.07	3.13	HE
8	Provided farmers with useful advice to improved seeds	3.18	3.10	3.14	HE
9	Provided farmers with advisory services on how to use fertilizer	3.24	3.30	3.18	HE
10	Provided farmers with advisory services on how to use insecticides	3.39	3.35	3.34	HE
11	Provided farmers with advisory services on how to use herbicides	3.41	3.29	3.35	HE
12	Provided farmers with advisory services on marketing practices	2.78	2.60	2.69	HE
Aggregate Mean				3.13	HE

Table 2 shows that the mean ratings of the respondents ranged from 2.69 to 3.35. Following the decision rule, the aggregate mean response of 3.13 revealed that EDSFCO provided advisory services and input support to FUGs in Edo State to a high extent.

Research Question Three: To what extent did EDSFCO provide support for assets acquisition for individual Fadama users’ in Edo State?

Table 3: Mean and Standard Deviation of Responses on the extent EDSFCO provided support for assets acquisition for individual Fadama users’ group

S/N	Items EDSFCO	EDSFCO (N=46)	FUG (N=29)	\bar{X}	Remarks
13	Supplied water pump for irrigation to Fadama farmers	3.38	3.20	3.29	HE
14	Supplied rice processing machines for Fadama farmers	3.35	3.19	3.27	HE
15	Supplied cassava grinding machines to FUG members	3.40	3.10	3.25	HE
16	Assisted farmers with hiring heavy duty equipment	2.81	2.31	2.56	HE
17	Built fish ponds for FUG members	3.26	3.24	3.25	HE
18	Supplied plantain flour processing machines for farmers	2.55	2.35	2.45	LE
Aggregate Mean				3.01	HE

Table 3 shows that the mean ratings of the respondents ranged from 2.45 to 3.29. Following the decision rule, the aggregate mean response of 3.01 revealed that EDSFCO provided support for assets acquisition for individual FUG to a high extent in Edo State.

Discussion of Findings

The result of the analyses in relation to the extent which EDSFCO provided capacity building to Fadama users’ groups revealed that capacity building component of Fadama III project was highly implemented by Edo State Fadama Coordination Office. This implies that EDSFCO carried out various training of farmers in capacity building in terms of skill acquisition in fishing, crop preservation, and pest management, among others. This finding is in agreement with World Bank (2016), which affirmed that Fadama III project provided extensive support for capacity building in terms of training on group formation, financial management, advisory services and extension, which is much needed to ensure optimum utilization and benefit from assets provided by the project.

The findings of the study in relation to the extent which EDSFCO provided advisory services and input support to Fadama users' groups showed that advisory services and input support component of Fadama III project was highly implemented by Edo State Fadama Coordination Office to Fadama users' groups in the State. This implies that EDSFCO provided farmers with advisory services on market practices, cross breeding, fertilizer, insecticides, pesticides and marketing practices. World Bank (2016) affirmed that advisory services in this contest are relevant skills, ideas and strategies rendered by consultants and professionals in relevant sectors, needed by a farmer in order to have an increased productivity. These services may range from advice for small - scale enterprise development, to marketing information, access to and use of credit and farm inputs, amongst others.

The findings of the study in relation to the extent which EDSFCO provided support for assets acquisition for individual Fadama users' group showed that EDSFCO to a great extent, provided support for assets acquisition for individual Fadama users' group. This implies that EDSFCO provided matching grant for acquisition of assets for income generating activities and also assisted them in hiring heavy duty agricultural equipment. However, EDSFCO did not do much in Supplying plantain flour processing machines for Fadama users during the implementation of Fadama III project in the State. EDSFCO (2018) observed that this component provided matching grant support for Fadama users to adopt new technology in order to enhance their financial capacity to purchase farm inputs (mainly seed, fertilizer and agro – chemicals). Similarly, World Bank (2020) opined that assets acquisition for individual Fadama users' group component in Fadama III project was to provide matching grant for acquisition of assets for income generating activities.

Implication of Findings to Adult Education Programmes

The findings of this study have implications to Adult Education whose goal is geared towards community development, citizens' mobilisation and involvement in community projects. The result of the findings revealed that EDSFCO provided capacity building, assets acquisition for individual Fadama users' group among others to a high extent during the implementation of Fadama III Project in the State. This implies that EDSFCO was effective in carrying out its functions in the State. Summarily, findings of

the study revealed that Edo State ADP through its unit EDSFCO was fully supported by the relevant stakeholders in carrying out its functions in the implementation of Fadama III project in the State which led to the success of the project in the State.

Conclusion

Based on the findings of this study, it can be concluded that extent EDSFCO provided capacity building to Fadama users' groups was high. The extent EDSFCO provided advisory services and input support during the implementation of Fadama III project was equally high. Furthermore, the extent EDSFCO provided support for assets acquisition for individual Fadama users' group was also high. Although there were lapses in the provision of some assets to Fadama users and Provision of opportunity for farmers to access loan in financial institutions, the researcher hopes such will be addressed in subsequent agricultural projects.

Recommendations

Based on the findings of the study, the researcher made the following recommendations:

1. Government through the efforts of the stakeholders should put heads together to formulate relevant policies towards human capacity building in future agricultural programmes or project.
2. Government should enhance farmers' financial capacity to purchase advisory services and farm inputs such as seedlings, fertilizer, agro-chemicals, water pumps, Sprayers, small farm tools such as hoes, cutlasses, and wheel barrows, among others.
3. Government should support Farmers with matching grants for acquisition of assets for income generating activities, such as irrigation equipment, personal protective equipment. Moreover, farmers should be assisted in hiring heavy duty agricultural equipment such as tractors, processing machines, among others.
4. Agricultural Development Programme (ADP) being the implementation organ of the ministry of agriculture should always be encouraged and equipped in order to carry out regular trainings and sensitization workshops on crops, fisheries, agro

forestry and livestock in the State, designed to upgrade skills and acquire new ones to support demand - driven community investments.

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