

# Impact of Fadama Project on Income and Productivity of Fadama Users in Okigwe Agricultural Zone of Imo State, Nigeria

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## Abstract

The prevalent food shortage and food insecurity in Nigeria can largely be attributed to over dependence on oil. This problem has become a perennial one. It has led to increase in poverty level in the country. This is disheartening considering the fact that the country is endowed with enormous agricultural and human resources. This ugly situation has been of great concern to agricultural administrators, policy makers and agricultural development practitioners. This research sought to ascertain the impact of Fadama project on income and productivity of Fadama users. Two sets of interview schedules were used. One was administered on Fadama User and the other on Non- Fadama users. Data collected were analyzed using descriptive statistics. It was observed that Fadama users had mean output of 5158(kg) of cassava, 6456 (kg) of Yam. Non Fadama users had mean output of 1950 (kg) of Cassava, 3621 (kg) of Yam. Experts have highlighted the challenges confronting adequate food production to include; poor infrastructural base, low capacity utilization, capital constraint, technical know-how, labour and manpower constraint, as well as policy, environmental and cultural constraints.

**Keywords:** Fadama; mean output; Productivity

## INTRODUCTION:

The prevalent food shortage and food insecurity in Nigeria can largely be attributed to over dependence on oil. This problem has become a perennial one. It has led to increase in poverty level in the country. Nigeria's population is estimated to be 164 million in 2011, spread over an area of 923,800 square kilometres. This makes the country the most populated nation and one of the largest countries in Africa. The Nigerian population is now estimated to be growing at about 3.2 % per year. At that rate, the population is projected to double in size by 2030. (UNDP, 2012a)

No doubt, food is life; hence, food has become an instrument of national power. (Ojo and Adebayo, 2012). Agriculture in Nigeria is predominantly in the hands of rural smallholder farmers, who have been generally described as poor and hungry. Moreover, since the discovery of oil in Nigeria, the attention of the government has been diverted away from agriculture to petroleum resource development. Traditional farming practices is what the typical Nigerian farmer is accustomed to, which he/she may find difficult to modify or change, even though these may pose serious challenges to climate change adaptation. (Enete and Amusa, 2010). Agriculture is the backbone of Africa's economy. About 70% of Africans and roughly 80% of the continent's poor live in the rural areas and depends mainly on agriculture for their livelihood. Agriculture is the main source of income for 90% of rural population in Africa. Agriculture represents a great part of the Africa's share in world trade. On the list of twenty top agricultural and food commodity importers in 2004, 60 % are from Sub-Saharan Africa. African countries represent also 50% of top 20 countries, in terms of the Share of total agriculture/ total exported merchandise in the world (Nchuchuwe and Adejuwo, 2012)

The World Bank in her analysis of the poverty trend in Nigeria noted that poor families are in higher proportion in farming households who are mainly in the rural areas. (World Bank, 2013). This is disheartening considering the fact that the country is endowed with enormous agricultural and human resources. This ugly situation has been of great concern to agricultural administrators, policy makers and agricultural development practitioners. The agricultural sector offers considerable promise in view of Nigeria's importance in Africa. Its development is basic to hunger and poverty reduction, generation of economic growth, food import reduction and improved agricultural export trade. It thus became imperative that appropriate policy measures aimed at alleviating poverty must take agriculture and rural development into consideration. It is sad to note that, many administrations in this country have attempted to diversify the agricultural economy of the nation because of the long-term, pervasive and deteriorating nature of poverty in Nigeria without much success.

Poverty has assumed a chronic dimension in the country. Unfortunately, rather than recognise it for the chronic phenomenon, successive governments in Nigeria have tended to address the nations poverty challenges with potentially transitory programmes of intervention often heralded by intense sloganeering much of which vanishes with the government (Ngoddy, 2007).

Project success (all things being equal) depends on the implementation strategy adopted during the process especially at the execution phase. The implementation process could make the project succeed, fail or even be abandoned midstream. In Nigeria, especially in the rural areas, there are a lot of factors associated with project implementation, ranging from poor project funding, low level of local government support, poor community support, low capacity building. (Echeme and Nwachukwu, 2010)

The project, approved by the World Bank's Board of Directors in July 2008, has six main components:

- Capacity Building, local government and communication
- Small scale community-owned infrastructure
- Advisory services and input support development.
- Support to the Agricultural Development Programs (ADPs) sponsored research and on-farm demonstrations.
- Asset acquisition for individual fadama Users Groups (FUGs)/Economic Interest Groups (EIGs)
- Project management, monitoring and evaluation (Ezeokeke et al, 2012)

The beneficiaries will be encouraged to organize themselves in economic interest groups, named Fadama User Groups (FUGs), each having on average around 20 members (plus these individuals' households). In addition, they will be assisted to establish Fadama Community Associations (FCAs) which are apex organizations of 15 FUGs each on average at the community level. The objective is to establish 200 FCAs in each state (10 FCAs per LGA in cases where there are 20 LGAs) 8, which corresponds to 7,400 FCAs in the 560 local governments (LGs) to be covered in the 37 states (including FCT) (National Fadama Development Project, 2014)

In spite of the money invested into agricultural sector by the government and other non-governmental agencies in Nigeria, there seems to be no significant improvement in the farmers' productivity and standard of living. The assessment of the extent to which Fadama Development have gone in achieving the objectives for which it was set up justifies this study.

Some programmes embarked upon by these administrations were aimed at achieving self-sufficiency in food production. Notable among these programmes include the Back to Land Programme (1970), Agricultural Development Programme (1975), River Basin Development Authority (1975), Operation Feed the Nation (1976), Green Revolution Programme (1980), (Akinbode, 1992) and recently the National Fadama Development Project (2001)

The Federal Government established the Fadama Project with the aim of improving and increasing the farmland for agricultural production. Fadama is the Hausa name for irrigable land. They are flood plains and low-lying areas underlined by shallow aquifers found along Nigeria's river system (Imo State Fadama Development Office, 2007). The Project was among a series of nationwide agricultural development projects aimed at raising the productivity and real income of farm families through a co-ordinated approach to rural development. The main element was improved technology (backed by an expanded extension service, increased supplies of inputs, and infrastructure improvements among others.

Also, several models of agricultural development have been adopted in Nigeria. These models include majorly: the Market- Centred Agricultural Development (M-CAD) model, the Commodity - Centred Agricultural Development (Com-CAD) model, the Land - Centred Agricultural Development (L-CAD) model, the Water- Centred Agricultural Development (W-CAD) model, the Input- Centred Agricultural Development (I-CAD) model, Community- Centred Agricultural Development (C-CAD) model and the Free-lance Farmer-Centred Agricultural Development (F-CAD) model (Ngoddy, 2007)

The failure of different government to achieve the numerous rural development objectives led to the introduction of the integrated approach represented by the Agricultural Development Programme (ADP) system (Isah, 93). The purpose of this was to accelerate agriculture and hence rural development through the integration of extension education (using the training and visits approach) services (social and economic) and infrastructural development .At the same time, government adopted policies, which maintained the value of the Naira at high value. The potential detrimental impact of these changes on agricultural production became a cause for concern.

The Agricultural Development Programme was set-up by the Federal government of Nigeria so as to ensure increased agricultural productivity and more income to agricultural productivity and more income to the farmers, with emphasis on the resource poor farmers who constitute bulk of the population producing over 80% of food consumed in Nigeria. This is with a view of achieving self-sufficiency in the major staples and improving the welfare of the teeming Nigerian population. Infrastructural facilities development included sequential construction of rural roads, small-dams, farm service centres, seed multiplication units, in-put distribution centres etc, demonstrating linkages among institutions such as the construction, agricultural and commerce industries. A central feature of the ADP strategy that needs special mention is the reliance on the small-scale farmer as the pivot of an incremental food production strategy. The ADPs were designed in response to a fall in agricultural productivity, and hence a concern to sustain domestic food supplies, as labour had moved out of agriculture into more remunerative activities that were benefitting from the oil boom. Conversely, domestic recycling of oil income provided the opportunity for the government, with Bank support, to develop the ADPs. The projects provided agricultural investment and services, rural roads, and village water supplies. The government's adoption of the ADP concept put the smallholder sector at the centre of the agricultural development strategy, and marked a clear shift away from capital-intensive investment projects for selected areas of high agricultural potential. (O'Neill et al, 1999)

The National Fadama Development Programme (NFDP) was to assist the qualifying states of the Federation through the World Bank supported Agricultural Development Programme (ADP) network to, among others finance the provision of shallow tube wells in Fadama lands for small scale irrigation, simplifying drilling technologies for shallow tube wells wash bores, constructing Fadama infrastructures, organising Fadama farmers for irrigation management, vehicles, pumps and other equipment. The projects made available motor pumps at subsidized prices, and drilled tube wells, which enabled farmers to greatly increase their use of the surface and groundwater resources especially for crop production in the dry season (UNDP, 2012a). It is believed that the provision of this facility should not only boost agricultural production but enhance the income of the farmers and thereby lift them out of the vicious circle of poverty. If this facility achieved the envisaged objective(s) the welfare of the rural farming households would be improved with the attendant multiplier effect on the community as a whole. Indeed, the project has proven a powerful instrument for poverty reduction and the empowerment of rural people—including women and the disabled—in the non-oil-producing states of Nigeria, where roads are scarce and people have little or no access to banking or microfinance (Olaolu *et al*, 2013)

Fadama project is an integral part of the Agricultural Development Programme (ADP). The project is anchored on the Community Driven development (CDD) approach. The areas in which investments are proposed namely, empowering communities (with financial resources, expanding their knowledge base and strengthening their organization), promoting private enterprise to foster growth of the non-oil sector and enhancing governance and organizational capabilities of local governments, co-ordinated and transparent delivery of public services at the level are priority areas identified in the partnership strategy. (Adeolu, 2007). The sector goal of the Fadama project is to reduce poverty by improving the living conditions of the rural poor and to contribute to food security and increase access to rural infrastructure. The programme thus has a potential to alleviate the participants from poverty. The programme is aimed at tackling poverty and improving the livelihood of the rural dwellers. For the success of any poverty alleviation programme, however, knowledge of the profile of poverty in that society is essential. Studies have shown that agriculture is the locus of poverty in Nigeria (Olaolu *et al*, 2013).

Its specific objectives include;

To increased the productivity of rural people.

Increase the income, living standard and development capacity of the economically active rural people while also increasing efficiency in delivering and implementing services to an estimate four million rural beneficiary, households in the Fadama areas in the states on a sustainable basis.

The project comprised of the following components

Capacity Building

Rural Infrastructural Investments

Pilot Productive asset Acquisition Support

Demand- Responsive Advisory Services

Project Management, Monitoring and Evaluation (Imo SFDO, 2007)

Capacity building should provide support to Fadama Community Association (FCAs) with the skills and the Fadama User Groups (FUGs) with the skill and know-how to actualize the set objectives of Fadama Project (Imo SFDO, 2007). Rural infrastructures investments were responsible for the creation of economic infrastructure and local production methods in order to improve the productivity of Fadama user households. The components should finance the construction or rehabilitation of eligible small-scale infrastructural projects specified as priorities in Local development Plans (LDPs) and also larger subprojects considered priorities by the Fadama Community Associations. Such infrastructure include; feeder roads, culvert, drifts shock routes, grazing reserve and service centre. The overall objective of the Pilot Productive Asset Acquisition support was to enhance the improvement in Fadama users' productivity and assets by individuals or groups. (Imo SFDO, 2007). Demand – Responsive Advisory Services component supports advisory service that should enable to adopt output enhancing techniques and more profitable marketing practices in their Fadama enterprises. Project Management, Monitoring and Evaluation should support new or existing entities and mechanisms at the state or local levels of government for overall project co-ordination and supervision and would help to strengthen the effectiveness and quality of project operations. The monitoring and evaluation sub-component will measure performance at various project milestones and beneficiary assessment (Imo SFDO, 2007).

It thus became imperative that appropriate policy measures aimed at alleviating poverty must take agriculture and rural development into consideration (Taiwo, 2007) The project's early impact on Nigeria's agriculture development—seen as key to diversifying the Nigerian economy—is “huge,”( Nwanze 2007). The project encourages community-based “user groups” comprising farmers, fishers, pastoralists (people who raise livestock), women, the disabled, students, or others to develop participatory and socially inclusive local development plans. The groups request money to pay for an income-generating “community-level asset,” such as fishing nets, fertilizer, water-pumps, generators, or other improvements through their approved Local Development Plans (LDPs)

The study population was farmers engaged in the Fadama Development Project as well as those who were not engaged in the Fadama Development Project.

### SAMPLING TECHNIQUE

Two sets of interview schedules were used. One was administered on Fadama User and the other on Non-Fadama users. Three Fadama Community Associations in Ihitte-Uboma, Onuimo and Ehime Mbanjo local Government Areas respectively was purposefully selected. This is because Fadama Development Projects are located in these Local Government Areas of Okigwe agricultural zone. Three Fadama User Groups were randomly selected from list of Fadama User Groups in each of the Fadama Community Associations. Ten were randomly selected from the list of Fadama User Groups. Ten fadama non- users were randomly selected from the villages that constituted the fadama user groups. One hundred and eighty respondents made up the sample size for the study.

**Table 1 Socio-Economic Characteristics of the Respondents**

This section shows the respondents distribution by these socio-economic characteristics.

<b>Age</b>		<b>USERS</b>		<b>NON-USERS</b>	
<b>Age</b>	<b>Frequency</b>	<b>Percentage</b>	<b>Frequency</b>	<b>Percentage</b>	
21-30	13	10.45	6	9.68	
31-40	9	6.72	10	16.13	
41-50	23	29.85	17	27.43	
51 and above	27	52.98	29	46.76	
<b>Total</b>	<b>72</b>	<b>100</b>	<b>62</b>	<b>100</b>	
<b>Farming Experience</b>					
Less than 11	23	20.15	13	20.96	
11-15	14	31.34	19	30.65	
16-20	14	17.91	10	16.13	
21-25	10	11.94	6	9.68	
26 and above	11	18.66	14	22.58	
<b>Total</b>	<b>72</b>	<b>100</b>	<b>62</b>	<b>100</b>	
<b>Income Levels</b>					
Less than 5,500	-	-	3	4.84	
5,500-11,000	8	11.11	21	33.87	
11,500-17,000	11	15.28	15	24.19	
17,500-23,000	22	30.55	8	12.90	
23,500-29,000	11	15.28	4	6.45	
29,500-35,000	8	11.11	9	14.51	
35,500-41,000	6	8.33	1	1.61	
41,500-47,000	2	2.78	-	-	
47,500-53,000	3	4.17	-	-	
53,500 and above	1	1.39	1	1.61	
<b>Total</b>	<b>72</b>	<b>100</b>	<b>62</b>	<b>100</b>	

**TABLE 3: Mean output of major crops cultivated by Fadama and Non Fadama users.**

<b>Crop</b>	<b>Mean Output (kg)</b>	
	<b>Users</b>	<b>Non Users</b>
<b>Cassava</b>	5158	1950
<b>Yam</b>	6456	3621
<b>Melon</b>	2427	1595
<b>Cocoyam</b>	2704	2919
<b>Maize</b>	3112	2368
<b>Vegetable</b>	2205	1667

Source: Field Survey.

Entries in table 3 show that fadama users had mean output of 5158(kg) of cassava, 6456 (kg) of Yam. Non fadama users had mean output of 1950 (kg) of Cassava, 3621 (kg) of Yam. The variation in mean output could be traced to the use of modern farming practices by that they acquire through the assistance of the Agricultural Development Project (ADP). Vobejda (1996) opines in a similar study that the apparent low

productivity among farmers could be attributed to the non availability of productive assets which positively relates to increase in productivity

## CONCLUSION

Welfare constitutes a third objective of modern government. Any government be it democratic or dictatorial that makes her citizens go hungry will definitely run into trouble. (Ojo and Adebayo, 2012). It is in view of the foregoing that attainment of food security is imperative in any country. This is why all developed and developing countries make considerable efforts to increase their food production capacity. But hunger, defined here as a situation in which there is an inadequate quantity of available food; and malnutrition which is indicative of intake of unbalanced diets, have been ravaging most developing countries, severely menacing poor families. (Ojo and Adebayo, 2012).

The goal of food self sufficiency will be a mirage if government fails to adequately tackle the numerous challenges confronting the agricultural sector; especially food production. Much like other sectors of the economy-such as manufacturing- the challenges bedeviling the agric sector is pervasive in the economy. Experts have highlighted the challenges confronting adequate food production to include; poor infrastructural base, low capacity utilization, capital constraint, technical know-how, labour and manpower constraint, as well as policy, environmental and cultural constraints (The Economy, 2014)

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