

**RESOURCES ACCESSED BY RURAL FARMERS IN THE FADAMA III PROJECT IN BAYELSA STATE, NIGERIA**

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**ABSTRACT**

*The Fadama III project as a developmental project of grassroots is centered on community driven participatory approach. This study focused on the assessment of resources accessed by the rural farmers in the Fadama III project in Bayelsa State of Nigeria. The study was conducted in Bayelsa State and involved 6 Fadama User Groups (FUGs) who were randomly selected and 8 Fadama User Households (FUHs) were as well randomly selected. Data were solicited from 128 households. The data collected were analyzed using descriptive statistics such as frequency, percentage and mean. The findings showed that male respondents adopted 79% of the improved technologies while female respondents adopted 84%, suggesting that adoption rate was higher for females. The adoption rate for the 3 categories of respondents was 70% for those with less than 1 ha, 66% for those with 1 to 3 ha, and 70% for those with 3 ha and above. The adoption rate was high among the respondents. The findings from the study also revealed that respondents who had harvest of 2 to 12 baskets of fish adopted 77% of the technologies while those who had harvest of 13 baskets of fish and above adopted only 23% of the technologies. The study therefore recommended that to sustain and improve upon the impact of the project on the livelihood of the target beneficiaries, the resources provided for the Fadama III users should not only be sustained, but should be improved upon as well.*

**Key words:** improved technologies, grant resources, Fadama III project

**INTRODUCTION**

The importance of agriculture to the rural Nigerian economy cannot be overemphasized. Anthony (2010) posited that in most developing nations and Nigeria in particular, agriculture provides employment for over seventy (70%) of the entire population. In an attempt to improve the living standards of the grassroots who are known to be responsible for most of the foods produced in Nigeria, the Federal Government has made concerted efforts to empower the rural farmers through their involvement in the Fadama III project (Esu & Adesope, 2012). It is obvious that, just like every other government programmes, the Fadama III project tends to empower the rural poor by providing them with the

required materials and other resources necessary for increased production and in turn improved income generation.

Ekong (2010) posited that community development is a social action process that focuses on the active involvement of the grassroots across the life span of any development project. Eze (2005) had stated that rural community development is a measure of improvement and transformation in the life pattern of inhabitants that requires an introduction of necessary plan strategies and modern facilities or inputs to achieve the desirable rural communities' transformation. Community development is said to engender the spirit of oneness by way of relying heavily on the cooperation of the people and voluntary labour that further encourage the spirit of development in the community members (Onumadu, 2013). The Fadama III project as a developmental project of grassroots is centered on community driven participatory approach.

Esu and Adesope (2012) summarised that the development objective of Fadama III Project is to increase the income of users of rural land and water resources on a sustainable basis by relying on the facilitation of demand – driven investments and empowerment of local community groups that improve productivity and land quality. In order to achieve this, the project provides the users with resources such as improved technologies or inputs and financial grants. There is need to provide empirical evidence on the grants accessed by rural farmers in the Fadama III project in Bayelsa State. Hence, the essence of this study is to assess the resources accessed by the rural farmers in the Fadama III project in Bayelsa State of Nigeria. The study specifically:

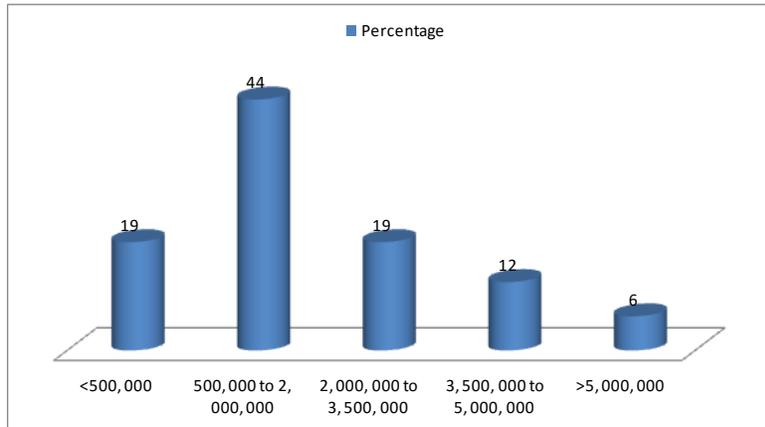
- examined the grants accessed by Fadama Community Associations (FCAs) and Fadama User Groups (FUGs).
- assessed the improved technologies /inputs rural farmers accessed according to (i) gender, (ii) farm size in Hectares (Ha) and, (iii) volume of fish catch.
- ascertained grant resources provided for FCAs for procuring rural advisory services.

## **METHODOLOGY**

The study was carried out in Bayelsa State of Nigeria which is one of the 9 States in the Niger Delta Area of Nigeria. The 8 local government areas of the state were covered in the study. Using simple random sampling technique, two communities were selected from each of the LGAs. From each of these communities, 1 Fadama Community Association (FCA) was selected. Thereafter, 6 Fadama User Groups (FUGs) were randomly selected and 8 Fadama User Households (FUHs) were as well randomly selected. Data were solicited from 128 households. The data collected were analyzed using descriptive statistics such as frequency, percentage and mean.

## RESULTS AND DISCUSSION

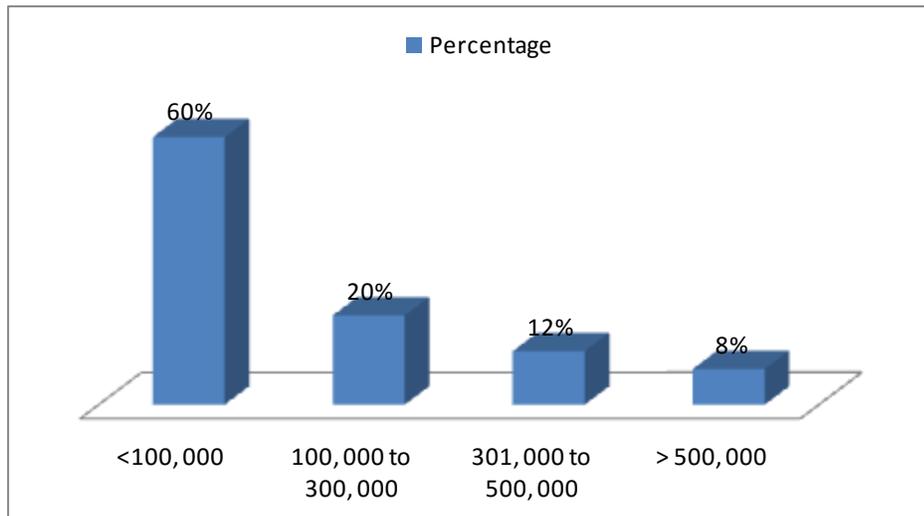
### Access to grants by FCAs



**Fig. 1: Access to grants by FCAs**

Fig. 1 shows that 19% of the FCAs involved in the study had access to less than N500, 000, while 44% had access to between N500, 000 and N2, 000, 000 which is the highest range received. Another 19% received between N2, 000, 000 and N3, 500, 000.

### Access to grants by FUGs



**Fig. 2: Access to grants by FUGs**

Fig. 2 shows that 60% of FUGs indicated receiving less than N100, 000 while 20% indicated they have received between N100, 000 and N300, 000 while only 12% indicated receiving between N301, 000 and N500, 000. However, 8% of the FUGs received above N500, 000 till date from the Fadama III Project.

### Improved technologies adopted by gender

From the Table 1, 56.5% and 67.6% of male and female respondents respectively indicated Business Management as an Improved Technology adopted, while 46.8% and

64.7% of male and female respondents identified Leadership Skills respectively. Male respondents (61.3%) and female respondents (79.4%) adopted Savings and Credit as an Improved Technology. Record Keeping was adopted by 61.3% and 85.3% of male and female respondents respectively. In the same vein, Market Information on Prices of Agriculture Items was adopted by 21.0% and 32.4% of male and female respondents respectively. Storage was indicated by 25.8% of male respondents and 32.4% of female respondents. The findings showed that male respondents adopted 79% of the improved technologies while female respondents adopted 84%, suggesting that adoption rate was higher for females.

Therefore, Table 1 shows that there were more of female respondents that adopted the following Improved Technologies; Commercial Food Crop Production, Fish Processing, Maintenance of Fish Equipment, Livestock Disease Control, Livestock Management, Pest Control, Method for Big Catch, Traps Setting, Net Mending, Maintenance of Machine, Method of Planting Root and Tuber Crops, Rice Production in Plantation, Weed Control, Fish Breeding, Poultry Management, which does not have any indication from male respondents, Fish Pond Management and Fish Pond Construction.

**Table 1: Improved Technologies Adopted by Gender**

	Improved Technologies	MALE		FEMALE	
		Frequency	Percentage (%)	Frequency	Percentage (%)
1	Business Management	35	56.5	23	67.6
2	Leadership Skills	29	46.8	22	64.7
3	Management Of Group/Team Work Skills	37	59.7	26	76.5
4	Nutritional Health	3	4.8	3	8.8
5	Savings And Credit	38	61.3	27	79.4
6	Record Keeping	38	61.3	29	85.3
7	Market Information On Prices of Agricultural Items	13	21.0	11	32.4
8	Storage	16	25.8	11	32.4
9	Snail Farming	0	0	0	0
10	Bee Keeping	2	3.2	2	5.9
11	Livestock Production	3	4.8	6	17.6
12	Crop Protection (Integrate Pest Management)	10	16.1	3	8.8
13	Seedling Production For Horticultural Purposes	0	0	1	2.9
14	Commercial Food Crop Production	4	6.5	5	14.7
15	Team Spirit In Fishing	11	17.7	6	17.6
16	Fish Processing	8	12.9	8	23.5
17	Maintenance Of Fish Equipment	6	9.7	5	14.7
18	Rice Culture For Fish Feeding	2	3.2	1	2.9
19	Livestock Disease Control	1	1.6	1	2.9
20	Livestock Management	4	6.5	5	14.7
21	Pest Control	10	16.1	6	17.6
22	Plantain Sucker Multiplication	5	8.1	2	5.9
23	Method For Big Catch	5	8.1	4	11.8
24	Traps Setting	6	9.7	4	11.8
25	Net Mending	10	16.1	6	17.6
26	Maintenance Of Machine	12	19.4	9	26.5
27	Method Of Planting Root And Tuber Crops	13	21.0	9	26.5
28	Farm Management	14	22.6	7	20.6
29	Rice Production In Plantation	6	9.7	11	32.4
30	Fertilizer Application On Crops	17	27.4	6	17.6
31	Weed Control	11	17.7	11	32.4
32	Plant Spacing	14	22.6	6	17.6
33	Fish Feed Formulation	11	17.7	6	17.6
34	Fish Breeding	6	9.7	7	20.6
35	Poultry Management	0	0	7	20.6
36	Fertilization Of Fish Pond	8	12.9	2	5.9
37	Fish Pond Management	8	12.9	8	23.5
38	Fish Pond Construction	6	9.7	9	26.5

**Source: Field survey data, 2011**

In the same manner, the following Improved Technologies were more adopted by the male respondents; Team Spirit in Fishing, Rice Culture for Fish Feeding, Plantain Sucker Multiplication, Farm Management, Fertilizer Application on Crops, Plant Spacing, Fish Feed Formulation and Fertilization of Fish Pond.

**Improved technologies adopted by farm size (Ha)**

The Table 2 shows 54.5%, 66.7%, 30.3%, of the respondents with less than 1 hectare of farm land indicated Business Management, Leadership Skills and Storage respectively.

**Table 2: Improved Technologies Adopted by farm size (ha)**

	Improved Technologies	LESS THAN 1 HA		1-3 HA		ABOVE 3 HA	
		Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)
1	Business Management	18	54.5	11	47.8	1	10
2	Leadership Skills	22	66.7	7	30.4	2	20
3	Management Of Group/Team Work Skills	21	63.6	10	43.5	9	90
4	Nutritional Health	3	9.1	0	0	0	0
5	Savings And Credit	21	63.6	11	47.8	10	100
6	Record Keeping	22	66.7	11	47.8	9	90
7	Market Information On Prices of Agricultural Items	9	27.3	2	8.7	4	40
8	Storage	10	30.3	5	21.7	3	30
9	Snail Farming	0	0	0	0	0	0
10	Bee Keeping	2	6.1	0	0	0	0
11	Livestock Production	2	6.1	0	0	2	20
12	Crop Protection (Integrate Pest Management)	3	9.1	6	26.1	2	20
13	Seedling Production For Horticultural	0	0	0	0	0	0

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	Purposes						
14	Commercial Food Crop Production	4	12.1	0	0	1	10
15	Team Spirit In Fishing	4	12.1	6	26.1	2	20
16	Fish Processing	5	15.2	2	8.7	2	20
17	Maintenance Of Fish Equipment	4	12.1	1	4.3	1	10
18	Rice Culture For Fish Feeding	1	3.0	0	0	1	10
19	Livestock Disease Control	0	0	0	0	2	20
20	Livestock Management	2	6.1	2	8.7	1	10
21	Pest Control	4	12.1	5	21.7	3	30
22	Plantain Sucker Multiplication	1	3.0	4	17.4	1	10
23	Method For Big Catch	4	12.1	1	4.3	0	0
24	Traps Setting	3	9.1	2	8.7	2	20
25	Net Mending	7	21.2	2	8.7	1	10
26	Maintenance Of Machine	9	27.3	2	8.7	2	20
27	Method Of Planting Root And Tuber Crops	7	21.2	3	13.0	2	20
28	Farm Management	8	24.2	7	30.4	4	40
29	Rice Production In Plantation	6	18.2	2	8.7	0	0
30	Fertilizer Application On Crops	4	12.1	7	30.4	2	20
31	Weed Control	9	27.3	5	21.7	1	10
32	Plant Spacing	5	15.2	9	39.1	0	0
33	Fish Feed Formulation	5	15.2	6	26.1	3	30
34	Fish Breeding	4	12.1	2	8.7	3	30
35	Poultry	3	9.1	0	0	1	10

36	Management Fertilization Of Fish Pond	0	0	5	21.7	3	30
37	Fish Pond Management	2	6.1	2	8.7	3	30
38	Fish Pond Construction	5	15.2	2	8.7	2	20

**Source: Field survey data, 2011**

In the same vein, 90%, 100%, 90%, 40%, 20%, 20%, 20%, 10%, 10%, 30%, 20%, 40%, 30%, 30%, 10%, 30%, 30%, 30%, and 20% of the respondents within 3hectares of farm land and above indicated Management of Group/Team Work Skills, Savings and Credit, Record Keeping, Market Information on Prices of Agricultural Items, Livestock Production, Crop Protection (Integrated Pest Management), Fish Processing, Rice Culture for Fish Feeding, Livestock Management, Pest Control, Traps Setting, Farm Management, Fish Feed Formulation, Fish Breeding, Poultry Management, Fertilization of Fish Pond, Fish Pond Management, and Fish Pond Construction respectively, while only 20% of the respondents within 3hectares of farm land and above went for Livestock Disease Control. There were no indications from the respondents for Snail Farming, and Seedling Production for Horticultural Purposes in all hectares of farm sizes. About 30% and 39% of the respondents who had 1-3hectatres of farm land adopted Team Spirit in Fishing, and Plantain Sucker Multiplication. The adoption rate for the 3 categories of respondents was 70% for those with less than 1 ha, 66% for those with 1 to 3 ha, and 70% for those with 3 ha and above. The adoption rate was high among the respondents.

**Improved technologies adopted by volume of fish catch**

The finding in Table 3 showed that 60%, 20%, 20%, 20%, 20% and 20% of respondents who harvested 13 baskets and above adopted Business Management, Team Spirit in Fishing, and Method for Big Catch, Plant Spacing, Fish Feed Formulation and Fertilization of Fish Pond respectively. In the same vein, 66.7%, 63.6%, 9.1%, 63.6%, 66.7%, 27.3%, 30.3%, 6.1%, 6.1%, 9.1%, 12.1%, 15.2%, 12.1%, 3.0%, 6.1%, 12.1%, 3.0%, 9.1%, 21.2%, 27.3%, 21.2%, 24.2%, 18.2%, 12.1%, 27.3%, 12.1%, 9.1%, 6.1%, and 15.2% of the respondents within 2-12 baskets volume of catch adopted Leadership Skills, Management Of Group/Team Work Skills, Nutritional Health, Savings and Credit, Record Keeping, Market Information on prices of Agricultural Items, Storage, Snail Farming, Bee Keeping, Livestock Production, Crop Protection (Integrated Pest Management), Commercial Food Crops Production, Fish Processing, Maintenance of Fish Equipment, Rice Culture for Fish Feeding, Livestock Management, Pest Control, Plantain Sucker Multiplication, Traps Setting, Net Mending, Maintenance of Machine, Method Of Planting Root And Tuber Crops, Farm Management, Rice Production, in Plantation, Fertilizer Application on Crops, Weed Control, Fish Feed Formulation, Poultry Management, Fish Pond Management and Fish Pond Construction as an Improved Technologies respectively.

It is obvious from the findings of the study that respondents who had harvest of 2 to 12 baskets of fish adopted 77% of the technologies while those who had harvest of 13 baskets of fish and above adopted only 23% of the technologies.

**Table 3: Improved Technologies Adopted by Volume of Fish Catch**

	Improved Technologies	2-12 BASKETS		13 AND ABOVE BASKETS	
		Frequency	Percentage (%)	Frequency	Percentage (%)
1	Business Management	18	54.5	3	60
2	Leadership Skills	22	66.7	1	20
3	Management Of Group/Team Work Skills	21	63.6	1	20
4	Nutritional Health	3	9.1	0	0
5	Savings And Credit	21	63.6	1	20
6	Record Keeping	22	66.7	2	40
7	Market Information On Prices of Agricultural Items	9	27.3	0	0
8	Storage	10	30.3	0	0
9	Snail Farming	0	0	0	0
10	Bee Keeping	2	6.1	0	0
11	Livestock Production	2	6.1	0	0
12	Crop Protection (Integrate Pest Management)	3	9.1	0	0
13	Seedling Production For Horticultural Purposes	0	0	0	0
14	Commercial Food Crop Production	4	12.1	0	0
15	Team Spirit In Fishing	4	12.1	1	20
16	Fish Processing	5	15.2	0	0
17	Maintenance Of Fish Equipment	4	12.1	0	0
18	Rice Culture For Fish Feeding	1	3.0	0	0
19	Livestock Disease Control	0	0	0	0
20	Livestock Management	2	6.1	0	0
21	Pest Control	4	12.1	0	0
22	Plantain Sucker Multiplication	1	3	0	0
23	Method For Big Catch	4	12.1	1	20
24	Traps Setting	3	9.1	0	0
25	Net Mending	7	21.2	0	0
26	Maintenance Of Machine	9	27.3	0	0
27	Method Of Planting Root And Tuber Crops	7	21.2	0	0
28	Farm Management	8	24.2	0	0
29	Rice Production In Plantation	6	18.2	0	0
30	Fertilizer Application On Crops	4	12.1	0	0
31	Weed Control	9	27.3	0	0
32	Plant Spacing	5	15.2	1	20
33	Fish Feed Formulation	5	15.2	1	20
34	Fish Breeding	4	12.1	0	0
35	Poultry Management	3	9.1	0	0
36	Fertilization Of Fish Pond	0	0	1	20
37	Fish Pond Management	2	6.1	0	0
38	Fish Pond Construction	5	15.2	0	0

**Source: Field survey data, 2011**

Access to grant resources for procuring rural advisory services

Table 4: Access to Grant Resources for Procuring Rural Advisory Services

		Percentage
Total FCAs	100	100
Number received funds	95	95
Number benefited from Advisory Services	20	20

Source: Field survey data, 2011

The findings revealed from Table 4 that 95% of the FCAs received funds from Fadama III in the State, while 20% benefited from Advisory Services. The implication is that Fadama III has impacted on the beneficiaries meaningfully.

### CONCLUSION AND RECOMMENDATIONS

The study revealed that the FCAs and FUGs had access to grants. The male and female Fadama III users indicated that the improved knowledge they adopted included those related to business management, leadership skills, savings and credits, market information on prices and storage. The adoption rate for the 3 categories of respondents was 70% for those with less than 1 ha, 66% for those with 1 to 3 ha, and 70% for those with 3 ha and above. The adoption rate was high among the respondents. It is obvious from the findings of the study that respondents who had harvest of 2 to 12 baskets of fish adopted 77% of the technologies while those who had harvest of 13 baskets of fish and above adopted only 23% of the technologies. 95% of the FCAs received funds from Fadama III in the State, while 20% benefited from Advisory Services. The implication is that Fadama III has impacted on the beneficiaries meaningfully. It is therefore recommended that, to sustain the impact of the project on the livelihood of the target beneficiaries, the resources provided for the Fadama III users should not only be sustained, but should be improved upon as well.

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