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## Assessment of Gender Participation in Fadama III Project among Small-holder Crop Farmers in Kwara State, Nigeria

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### Abstract

Gender participation is a concept used in many developmental studies to look at roles and differences between men and women on their experiences as members of society. This study assessed gender participation in Fadama III project among small-holder crop farmers in Kwara State, Nigeria. Interview guide was used to elicit information from 240 Fadama small-holder crop farmers. The sample comprised 120 men and 120 women crop farmers. Descriptive statistics such as frequency counts, percentage, mean and charts were used to analyze the data while independent sample t-test was used to test the hypotheses at 0.05 level of significant. Findings revealed that most of the respondents (men and women) were above 50 years of age. Majority (85% and 74.2%) of men and women respectively were married with 43.3% and 28.3% of men and women respondents respectively had one form of formal education or the other, 50.9% of men earn between ₦151,000 - ₦200,000 while most women earn between ₦101,000 - ₦150,000 as their average monthly income. Majority (61.7%, 57.5% and 59.9%) of men and (54.2%, 51.2% and 52.1%) of women respondents fully participated in need assessment, advisory service training and conflict resolution respectively. However, 59.4% of men and 52.2% of men and women respondents respectively agreed strongly to increased productivity while 56.9% of men and 50.5% of women respondents strongly agreed that they had increased income as a result of increased productivity. It was revealed that inadequate funding, untimely disbursement and payment of counterpart fund were some of the highest constraints to participation of men and women in Fadama programme. The result of t-test revealed that there was a significant difference between men and women participation in Fadama programme ( $t=68.35$  for men and  $t=59.29$  for women,  $p<0.01$ ). The study therefore, concludes that men were more fully participated in Fadama III programme in the study area. Hence, it was recommended that prompt payment of counterpart fund by state government and beneficiaries will ensure early and timely disbursement of fund by international development organization. Gender policies should be encouraged which would facilitate equal participation of both men and women in poverty reduction programme like Fadama project.

**Keywords:** Gender, participation, Fadama III project, Fadama users, small-holder

### Introduction

The Nigeria government in an attempt to alleviate poverty and also to increase the incomes and productivity among the rural inhabitants as an approach of meeting up with the sustainable development goals (SDGs) of food sufficiency and poverty eradication, the Federal Government of Nigeria through the pooled World Bank loan

came up with Fadama III project, to finance the development of Fadama lands which has a lot of agricultural potential than the associated upland soils. Fadama are low laying lands subject to seasonal flooding or water logging along the banks of streams or depressions. The term *Fadama* is a Hausa word meaning, floodable plains along major bank of rivers and streams. Fadama project is mainly aimed at sustaining increase in the income of users of rural land and water resources (IDA, 2010). The importance of Fadama land stems from its high level of moisture (ground water and residual moisture) even during dry season water table is close to the soil surface thus endearing Fadama lands to farmers and making it a site of busy agricultural activities throughout the year (Akinbile *et al.*, 2006). The essence of growing crops like vegetables, cereals and others in the Fadama flood plain land is principally to make gain at a time of dry season (Daudu *et al.*, 2014). Farmers have an advantage over many other who have access to farm with year supply of moisture to aid crop production.

A bottom-up approach was adopted in the implementation Fadama III project called Community Driven Approach (CDA). Participating community associations are empowered to develop participatory and socially inclusive Local and Development Plans (LDPs) with the help of Fadama facilitators. It was designed to improve the capacities of beneficiary in groups called the Fadama Users Groups (FUGs) which are summed into Fadama Community Associations (FCAs) in the states. Fadama III Project has six main components which include: (i) capacity building, local governance and communication, (ii) small-scale community-owned infrastructure, (iii) advisory service and input support development, (iv) support to the Agricultural Development Programmes (ADPs) sponsored research and on-farm demonstrations, (v) asset acquisition for individual Fadama Users Groups (FUGs) / Economic interests and (vi) Project management, monitoring and evaluation.

Globally, gender participation has taken a center stage in most societies where men and women have distinct roles within the farming system. Gender differences in rural farming households vary widely across cultures but certain features are common. Women tend to concentrate their agricultural activities around the homestead primarily because of their domestic and reproductive roles. They play a critical role in food production, post harvest activities, livestock care (Akinsanya, 2002). Farming activities such ploughing are carried out by men while food crops and lighten works such as planting, weeding, harvesting and processing are often women's responsibility. According to Daudu, *et al.* (2015) posited that certain farming activities are male or female specific in terms of division of labour and

income generating activities. However, the vital role for both women and men farmers in the implementation of Fadama programme cannot be over-emphasized.

Analysis of gender roles in Fadama III project implementation will therefore give more information on the activities of man and women's potentials and the constraints involved in accessing the Fadama benefits. This study also helps to find out how gender participation in Fadama programme with the view to providing a basis for even distribution of Fadama resources, thus harnessing the potentials of men and women farmers for optimum and sustainable Fadama project. In order to have equal distribution of Fadama resource among Fadama users, concerted efforts should be made to utilize the potentials of both men and women in participating in the programme. Many studies have been conducted on the impact of Fadama III but there is dearth of information on gender participation in Fadama programme. Therefore, this study focused on assessing the level of gender participation in Fadama III project among smallholder arable crop farmers' in Kwara State, Nigeria.

### **Methodology**

**Study area:** The study was conducted in Kwara State, Nigeria. Kwara State is located in north central Nigeria. The Kwara State covers an area of approximately 32,000 square kilometers and it shares boundary with Niger, Oyo, Osun, Kogi and the Republic of Benin. It lies between longitude  $4^{\circ} 55^1$  and  $6^{\circ} 5^1$  E and latitude  $8^{\circ} 5^1$  and  $10^{\circ} 4^1$  N.

**Population of the study:** The population for the study comprised of all men and women arable crop farmers who are members of Fadama User Group in the state.

**Sampling procedure and Sample size:** Four-staged sampling procedures were used in the selection to the respondents. First stage involved a random selection of two (2) ADP zones from the four (4) ADP strata in the state. Second stage involved a random selection of four (4) Local Government Areas, two (2) from each of selected ADP stratum in the State. Thirdly, in each of the four Local Government Areas with the assistance of the Fadama Community Facilitators, a list of Fadama User Groups with their farming community were compiled from which eight (8) Fadama User Groups were randomly selected. And lastly, thirty (30) Fadama User (15 male and 15 female) farmers were randomly selected from each of the eight (8) User Groups bringing the total sample of the respondents to two hundred and forty (240) for the study.

### **Data Analysis**

Data collected were analyzed through the use of descriptive and inferential statistical tools. The descriptive tools such as frequency count, percentages, mean and charts were used to analyze the objectives while parametric test such as t-test analysis was used to assess the hypothesis.

## Results and Discussion

### Socio-economic characteristics of the respondents

Table 1 revealed that male (20.8%) and female (17.5%) of the respondents were between ages of 1 and 30, while 17.5% and 26.7% of male and female respondents were between 31 and 50 years. However, majority (61.7% and 55.8%) of male and female respondents respectively were above 50 years of age. Results in Table 1 revealed that majority (85.0% and 74.2%) of male and female respondents were married. This suggest that majority of the smallholder arable crop farmers involved in Fadama III project in Kwara State were married. This corroborate the findings of Odusina and George (2008) and Daudu *et al.* (2015) who reported that married household heads tended to be more involved in agriculture. About 56.7% and 71.7% of male and female respondents had no formal education. 20.8% of male and 15.8% of female respondents had primary education, while male (12.5%) and female (8.3%) of respondents had secondary education and 10.0% of male and 4.2% of female respondents had tertiary education. This finding suggests that male respondents are more educated with higher education level than their female counterpart in the study area. This finding is supported by Daudu, *et al.* (2015) who opined that there were more non-literate female than the male farmers in Kwara State.

Also, Table 1 revealed that male (6.7%) and female (0%) of the respondents had between 0 – 5 years of farming experience, 20% and 27.5% of male and female respondents respectively had between 6 – 10 years of farming experience, 35% male and 48.3% female had between 11 – 15 years of experience while 38.3% of male and 14.2% of female respondents had over 30 years of experience in farming. This implies suggests that male respondents had greater farming experience which could be very important in their involvement in Fadama III project. The average monthly income revealed that 3.3% of male and 15.8% of female were receiving less than ₦20,000 naira while 15% and 21.7% of male and female farmers received between ₦21,000 - ₦50,000 monthly. This implies that majority of Fadama users are small holder farmers with income even higher than the minimum wage of ₦18,000 paid by the Government.

### Level of Gender Participation in Fadama III Programme

Results in Figure 1 revealed the participation level of men and women respondents on different type of activities they part took in the Fadama III programme. The figure showed that majority of men and women respondents were fully participated in need assessment, advisory service training and conflict resolution with percentage scores 61.2% and 54.2%, 57.5% and 51.2%, and 59.9% and 52.1% respectively. Figure 1 revealed that 33.3% of men and 29.4% of women respondents respectively fully participated in the development of Local Development Plan (LDP), majority

(60.8%) of male respondents fully participated in sub-projects maintenance while only 34.5% of female fully participated.

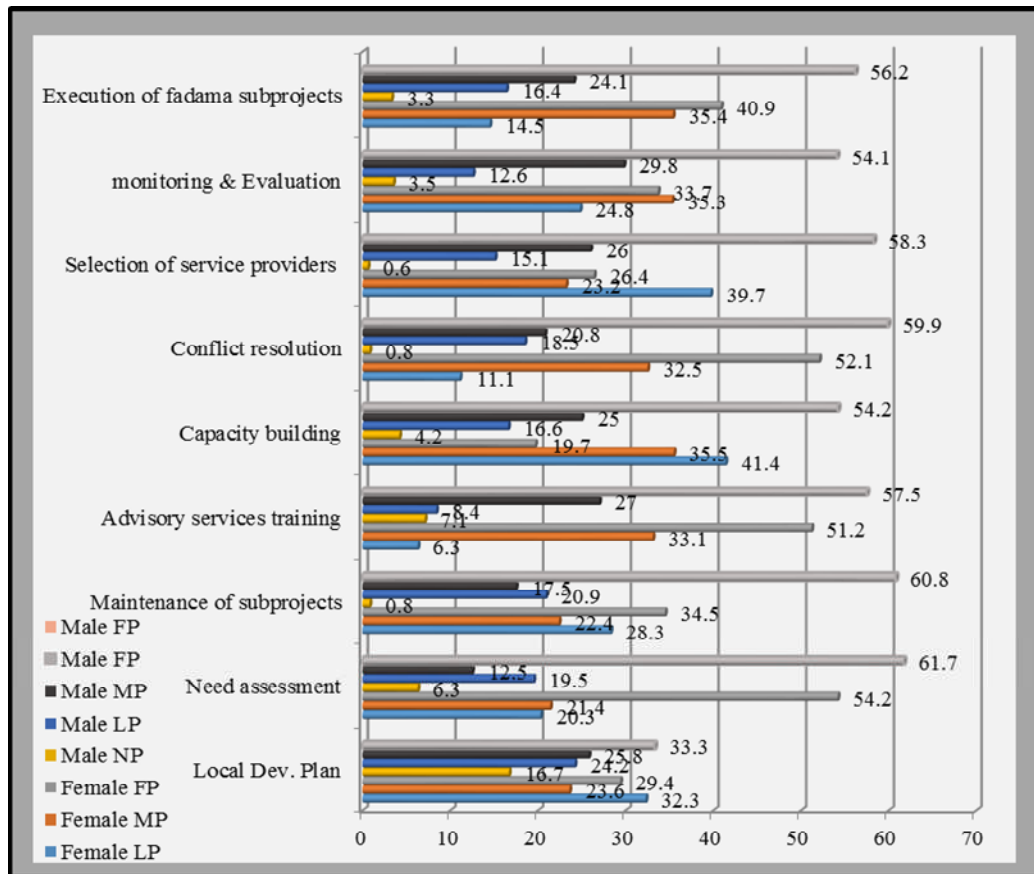
Table 1: Shows distribution of respondents' socioeconomic characteristics

Variables	Operationalization	Male (n=120)		Female (n=120)	
		(f)	(%)	(f)	(%)
Age	≤ 30	25	20.8	21	17.5
	31 – 50	21	17.5	32	26.7
	≥ 51	74	61.7	67	55.8
Marital	Single	16	13.3	10	8.3
	Married	102	85.0	89	74.2
	Divorced	2	1.7	5	4.2
	Widowed	0	0.0	16	13.3
Education	No formal	68	56.7	86	71.7
	Primary	25	20.8	19	15.8
	Secondary	15	12.5	10	8.3
	Tertiary	12	10.0	5	4.2
Farming experience	0 – 5	8	6.7	12	10
	6 – 10	24	20.0	33	27.5
	11 – 15	42	35.0	58	48.3
	≥ 16	46	38.3	17	14.2
Average annual income	≤ 50,000	4	3.3	19	15.8
	51,000 - 100,000	18	15.0	26	21.7
	101,000 - 150,000	25	20.8	52	43.4
	151,000 - 200,000	61	50.9	16	13.3
	≥ 201,000	12	10.0	7	5.8

Source: Field survey, 2015

This suggests that men were more involved in subprojects maintenance than their women counterpart in Fadama programme in the study area. Also, 54.2% and 19.7% of men and women respondents respectively participated fully in conduct of capacity building training, 58.3% of men and 26.4% of women respondents fully participated in selection of service providers for project implementation, 54.1% of men and 33.7% of women respondents fully participated in monitoring and evaluation of Fadama sub-projects while majority (56.2%) of men and less majority (40.9%) of women respondents respectively fully participated in execution of Fadama sub-project components most. This implies that men are fully participated in almost every facet of Fadama III programme than their women counterpart in the study area. This also corroborate the earlier findings by Daudu, *et al.* (2015) that male farmers were more involved in agricultural activities including decision making than their female counterpart in Kwara state. This shows that demand driven

developments has improved over time and encourage gender participation in sustainable development.



**Figure. 1:** Distribution of male and female respondents according to their level of participation in Fadama III programme

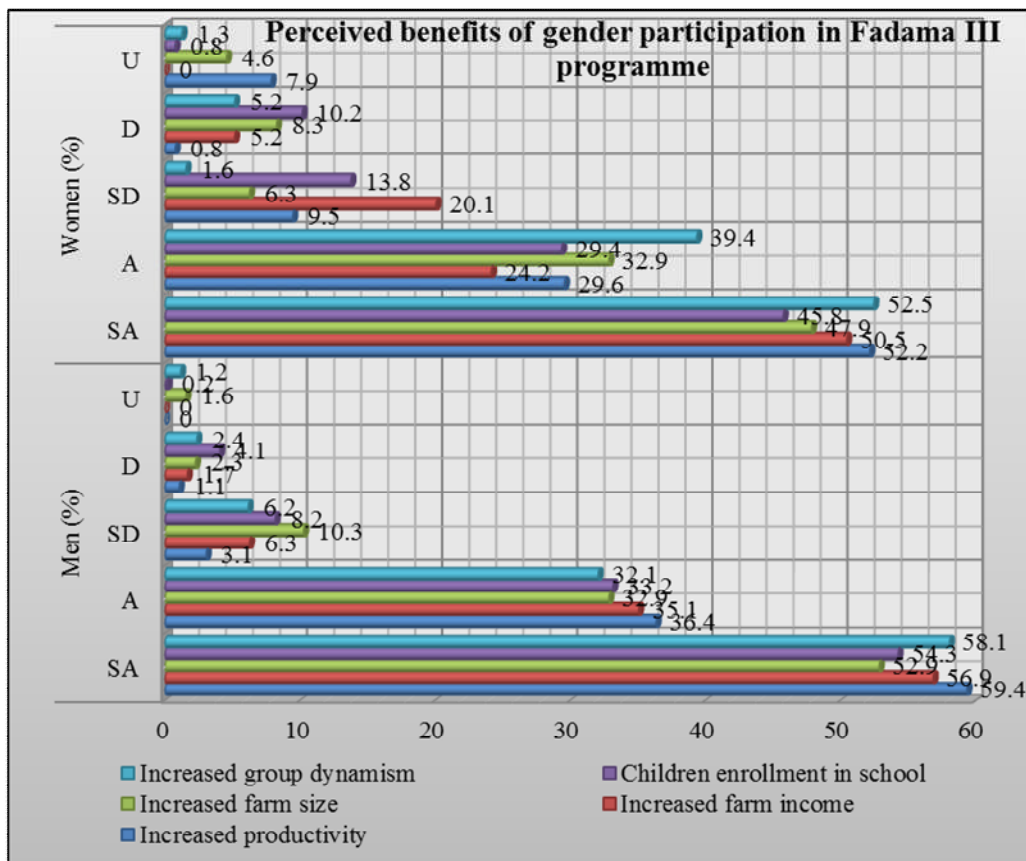
Source: Field survey, 2015

\*\*\*KEYS: FP= Full Participation, MP= Moderate Participation, LP= Less Participation, NP= No Participation

**Benefits perceived from gender participation in Fadama III Programme**

Figure 2, revealed that 59.4% of the men respondents strongly agreed that they had increased productivity as a result of participation in Fadama III programme, 36.4% agreed, 3.1% strongly disagreed, 1.1% were undecided while in women category 52.2% strongly agreed, 29.6% agreed, 9.5% strongly disagreed, 0.8% disagree and 7.9% undecided to increased productivity. This implies that majority of both men and women farmers’ perceived increase in their agricultural productivity. Also, in Figure 2 it was revealed that 56.9% of the men agreed strongly that they had increased farm income, 35.1% agreed, 6.3% disagreed strongly, and 1.7% disagreed.

52.9% of men strongly agreed that there was increase in the size of farm cultivation, 32.9% agreed, 10.3% strongly disagreed, 2.3% disagreed and 1.6% undecided. 54.3% of men strongly agreed to increase in child enrollment in education in the study area, while majority (58.1%) of men strongly agrees to have had increased group. In the women category, majority (50.5%) strongly agreed that they had increased farm income, 24.4% agreed, 20.1% strongly disagreed, while 5.2% disagreed. Further results in figure 2 revealed that 47.9% of the women farmers' agreed strongly there was increased in the size of cultivable land, 32.9% agreed, 6.3% disagreed strongly, 8.3% and 4.6% disagreed and undecided respectively. In case of awareness, 19.3% of female respondents strongly agreed to an increase in awareness of soil-fertility management practices in the study area, 39.7% agreed, 37.4% undecided while 2.3% and 1.3% disagreed and strongly disagreed respectively. Also, 45.8% and 52.5% of women agreed strongly to increase children enrollment in education and improved group dynamism respectively.



**Figure. 2:** Distribution of respondents' based on perceived benefits of participation in Fadama III programme

Source: Field survey, 2015

\*\*KEYS: SA= Strongly Agree, A= Agree, SD= Strongly Disagree, D= Disagree, U= Undecided

**Constraints to gender participation in Fadama III Programme**

Results in Table 2 revealed the constraints militating against men and women farmers’ participation in Fadama programme in the study area. Using mean score to rank the constraints items according to their order of severity as indicated by the respondents, “inadequate funding” (3.441 and 3.263) for men and women respondents respectively was ranked 1<sup>st</sup>. Also, “untimely disbursement of fund/inputs” (3.345), “procurement of sub standard services by service providers” (3.258), “untimely payment of counterpart fund” (3.172), “corruption among Fadama staff” (2.854), “High cost of production” (2.775), “land tenure system” (2.587), “lack of ready market to sell products” (2.233), “elite capture of subprojects” (2.066), were ranked as 2<sup>nd</sup>,3<sup>rd</sup>,4<sup>th</sup>,5<sup>th</sup>,6<sup>th</sup>,7<sup>th</sup>,8<sup>th</sup> and 9<sup>th</sup> respectively by male respondents while in women category “untimely payment of counterpart fund” (3.209), “untimely disbursement of fund/inputs” (2.921), “corruption among Fadama staff” (2.893), “procurement of sub standard services by service providers” (2.835), “high cost of production” (2.784), “lack of ready market to sell products” (2.472), “land tenure system” (2.324) and “elite capture of subprojects” (2.192), were regarded as constraints and ranked 2<sup>nd</sup>,3<sup>rd</sup>,4<sup>th</sup>,5<sup>th</sup>,6<sup>th</sup>,7<sup>th</sup>,8<sup>th</sup> and 9<sup>th</sup> respectively.

Table 2: Distribution of respondents based on the constraints to gender participation in Fadama III programme

Constraints	Men		Women	
	Mean	Rank	Mean	Rank
Land tenure system	2.587	7th	2.324	8 <sup>th</sup>
Inadequate funding	3.441	1st	3.263	1 <sup>st</sup>
Untimely disbursement of fund/inputs	3.345	2nd	2.921	3 <sup>rd</sup>
Untimely payment of counterpart funds	3.17	4th	3.209	2 <sup>nd</sup>
High cost of production	2.775	6th	2.784	6 <sup>th</sup>
Lack of ready market to sell the increased output	2.233	8th	2.472	7 <sup>th</sup>
Corruption among the state Fadama officials	2.854	5th	2.893	4 <sup>th</sup>
Procurement of sub standard services by service provider	3.258	3rd	2.835	5 <sup>th</sup>
Elite capture of subprojects	2.066	9th	2.192	9 <sup>th</sup>

Source: Field survey, 2015

**Hypothesis**

H<sub>01</sub>: There is no significant difference between men and women level of participation in Fadama III project



Table 3: T-test showing differences in the level of men and women participation in Fadama III project

Variables	N	Mean	Standard Deviation	Standard Error	Mean Difference	t-value	p-value	df	Decision
Men	120	8.463	1.572	0.024	0.221	68.35	0.002	238	S
Women	120	8.242	1.399	0.021		59.29			

Significance tested at 0.01 level.

Source: Field survey, 2015

Results in Table 3, revealed an independent sample t-test analyzed to compare the level of participation of men and women farmers in Fadama III programme in the study area. Table 3 revealed that the t-test values were 68.35 and 59.29 for men and women farmers respectively at a p-value of 0.002. Meanwhile, men respondents had a mean value of 8.463  $\pm$  1.572 while women respondents had a mean value of 8.242  $\pm$  1.399 and the mean difference between men and women respondents was 0.221. This suggests that is significant difference between men and women farmers' level of participation in Fadama III programme. The implication of this finding is men respondents were more participated in the Fadama III programme than their women counterpart in the study area.

### Conclusion and Recommendation

Based on the findings of the study, it was concluded that gender participation in Fadama III programme has had a considerable impact on its users in terms of access to inputs support like improved seedlings, fertilizers and agro chemicals which have enable them to increase their productivity, also access to small scale community infrastructures such as borehole, veterinary clinic, tube well, irrigation facilities, market and training that guided them on best maintenance and production practices to ensure long live span of the subprojects. The findings revealed that there were positive and significant differences between men and women small-holder crop farmers and their level of participation in Fadama programme at all level of project implementation. The study recommends that prompt payment of counterpart fund by state government and beneficiaries will ensure early and timely disbursement of fund by international development organization. Gender policies should be encouraged which would facilitate the equal participation of both between men and women in poverty reduction programme like Fadama project.

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