



Assessment of the Contribution of Fadama III Projects towards Sustainability of Cooperative Societies among Fadama Users in North Western Nigeria

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Abstract

This study had assessed the contribution of Fadama III towards sustainability of co-operatives societies among Fadama Users in North-western states of Nigeria. The primary data used; were structured questionnaire couple with Focus Group Discussion (FGD) and interviews. In achieving these, 540 respondents were randomly selected from the three states namely: Kebbi, Sokoto and Zamfara States. However, 534 questionnaires were used for data analysis. Descriptive statistics, specifically frequencies, percentages and means scores were used, while inferential statistics used include T-test and regression analyses. The results indicated that the majority of the respondents (76%) were within the age bracket of 21-50 years with a mean of 42 years and about 30% were female. The result also revealed that almost (50%) of the respondents do not undergo any form of formal (western) education, from the regression between involvement in setting goals and for other explanatory variables showed that it significant at ($P < 0.01$). The study recommended that for these co-operatives to be self-motivated and sustained, the authorities' concerned need to put more effort on sensitization and training for management of co-operative and other related fields. Government are advice to encouraged Community Driven Development (CDD) at all levels in order to have maximum utilization of project from which the sustainability is generated.

1. Introduction

It is widely recognized that cooperatives form an indispensable component of rural development and serve as a basis and flat form for bringing together the economically weak members of the society with a view to enhancing their individual capacities (Alkali, 1991). Okonwo (1991) observed that cooperatives made enormous contributions to the economy of developing countries particularly in the areas of provision of credit to its members, sourcing of inputs at reasonable prices and sales of members' produce. The Third National Fadama Development project (Fadama III Project) which is a follow-up to the erstwhile Fadama I and II projects had the task of bringing about sustainable increase in the incomes of Fadama resource users of land and water resources, reduce poverty, increase food security and reduce conflict among Fadama users (NFDO, 2008). To achieve this objective, the Community Driven Development (CDD) approach was used with strong emphasis on stakeholder participation at the community level. This led to the formation of Fadama III cooperative societies popularly known as Fadama Users' Associations (FUGs) and the umbrella groups known as Fadama Community Associations (FCAs). The Fadama III project covers all the 36 States of Nigeria and the Federal Capital Territory (FCT). The scope of the project includes farm production, processing, marketing, fisheries, livestock, agriculture and agro-forestry.



This study assessed the contributions of Fadama III project towards the sustainability of cooperative societies among Fadama users in North-Western Nigeria.

2. Methodology

The research was conducted in Sokoto, Kebbi and Zamfara States in North-Western Nigeria. The three States are located between longitude 3⁰ E to 7⁰ E and latitude 10⁰ N to 14⁰ N. The three North-Western States covered an area of 101,107 square kilometers and shares common boundary with Niger Republic to the north and northwest, with the Republic of Benin to the southwest, Niger State to the South, and Katsina and Kaduna States to the East (Yelwa, 2008). The research area experiences distinct wet and dry seasons, rainfall is seasonal and usually begins in May/June and ends around September/October. From November to March the area used to be under the influence of the cold, dry and dusty hamattan winds more especially in North-West of Sokoto and Kebbi States. The highest rainfall exceeding 1000mm occurs in Zuru and Yelwa in Kebbi state and also in Moriki in Zamfara state and the lowest which is below 600mm occurs in Isa Local Government area of Sokoto State. The highest temperature is usually experienced between March and April (Yelwa, 2008). The research area had a total population of 13,646,760 people, out of which 7,254,760 were males and 6,392,000 were females (NPC, 2016). Majority of the inhabitants of the area practice various forms of agriculture and the crops commonly cultivated include Millet, Maize, Sorghum, rice, cowpea, assorted vegetables etc. Rearing of animals particularly cattle, sheep and goats as well as fishing are also practiced. The population of the study comprised all participants in the beneficiaries of Fadama III project in Sokoto, Kebbi and Zamfara States. Six Local Government Areas (LGAs) were purposively selected from each of the three states, making a total of 18 LGAs altogether. The purposive selection was to ensure that only LGAs with functional cooperative Fadama User Groups (FUGs) were selected. Six FUGs were randomly selected from each of the 18 LGAs making a total of 108 FUGs and from each FUG, five members were randomly selected to arrive at a total of 540 respondents. However, responses from 534 respondents were used for data analysis. Descriptive statistics and T-test were used for data analysis.

3. Results and Discussion

3.1 Socio-economic Characteristics of the Respondents

Table 1. Distribution of respondents by age

Age in years	Frequency	Percentage
11 - 20 years	11	2.06
21 - 31 years	81	15.17
31 - 40 years	182	34.08
41 - 50 years	145	27.15
51 - 60 years	83	15.54
61 years and above	32	5.99
T o t a l	534	100.00

Source: Prepared by Researchers at Field survey, 2016.



Table 1 shows that the high proportion (34.08%) of the respondents were aged between 31-40 years, 27.15% were aged between 41 – 50 years. Only 2.06 and 5.99% were aged between 11-20 years and 61 years and above respectively. This implies that membership of co-operative societies under Fadama III project cut across the active age group of 31–50 years, while younger under 20 years and old over 60 years were few in the co-operative groups.

Sex Distribution of Respondents

Gender is not the biological differences between male and female, rather a yardstick for differentiating people into males and females according to the function/activity of each category in a given society. The distribution of participants according to sex is presented in Table 2.

Table 2. Distribution of respondents by sex

Sex	Frequency	Percentage
Male	374	70.04
Female	160	29.96
Total	534	100.00

Source: Prepared by Researchers at Field survey, 2016.

Table 2 shows the distribution of respondents according to gender. Majority (70.04%) were males and the remaining 29.96% were females. Majority of the respondents were males because the project support both cropping and microenterprises, and in the research area the females are in most cases involved only in processing, selling of farm produce and rearing of animals at home due to Islamic practice of Purdah (FAO, 2007).

Marital Status of Respondents

Table 3. Distribution of respondents according to marital status

Marital Status	Frequency	Percentage
Single	22	4.12
Married	458	85.77
Divorced	18	3.37
Widow	36	6.74
Total	534	100.00

Source: Prepared by Researchers at Field survey, 2016.

Table 3 shows the distribution of respondents according to marital status and also shows that majority (85.77%) of the respondents were married, while 4.12% were single. The remaining 6.74% were widows and 3.37% were divorced women. That majority of the respondents were married, that implies that they have families to cater for. FAO (2007) observed that marriage have not been a barrier to both sexes in their choice of enterprises.



Educational Attainment of Respondents

Level of education has been used to determine the rate at which people respond towards an introduced technology in a social system John (2000). Fadama III project aimed to improve the standard of living in a suitable way through co-operative societies by giving them support, the participants' level of education is very vital for them to accept the innovation easily. The educational attainment of respondents was investigated and the results are presented in Table 4.

Table 4. Distribution of respondents according to educational attainment

Level of education	Frequency	Percentage
Religious Education only	262	49.06
Adult Literacy	56	10.49
Primary Education	73	13.67
Secondary Education	90	16.85
Tertiary Education	53	9.93
T o t a l	534	100.00

Source: Prepared by Researchers at Field survey, 2016.

The Findings of the research revealed that 49.06% of the respondents did not undergo any formal education, 13.67% had primary education, 16.85% had secondary education where as 9.93% had undergone tertiary education at different levels. Those respondents did not attain formal education (49.06%), however, attained Qur'an/Religious education at various levels enables them to read and write in Arabic language or use Arabic alphabets to read and write in Hausa language (Ajami). Education is considered important in facilitating the transfer and promotion of production and community development. According to UNESCO (2012), however, one-third of the people in sub-Saharan Africa fail to complete primary school.

Religion of Respondents

Religion is an important variable as it can be instrument of group cohesion most especially in homogenous communities where people have common understanding to an extent that members of such community share the same value, goals and vision (McGinnis, 2011). The distribution of respondents according to religion is presented in Table 5.

Table 5. Distribution of respondents according to religion

Religion	Frequency	Percentage
Islam	515	96.44
Christianity	14	2.62
Traditionalist	5	0.94
T o t a l	534	100.00

Source: Prepared by Researchers at Field survey, 2016.

Table 5 shows that majority (96.44%) of the respondents were Muslims, 2.62% were Christians and the remaining 0.94% practiced traditional religion. The research area is predominantly Muslims area, though Christians and traditionalists are found in some parts of Kebbi and Zamfara states.



Household Size of Respondents

As defined by Yanusa, (1999), household size referred to total number of individuals live and feed within one house. Household size is an important variable in any research related to production; this is because household size determines the availability of un-hired or family labour to the household. This is shown in Table 6.

Table 6. Distribution of Respondents according to Household size

Household Size:	Frequency	Percentage
1 - 5 persons	168	31.46
6 - 10 persons	212	39.70
11 - 15 persons	105	19.66
16 - 20 persons	30	5.62
21 and above persons	19	3.56
T o t a l	534	100.00

Source: Prepared by Researchers at Field survey, 2016.

The mean household size of the respondents was nine (9) members. A greater proportion (39.70%) of the respondents had household size of 6 – 10 persons, 31.46% had household size of five persons or less while only 3.56% had household size of 21 persons or more. Higher household sizes determine the families fortunes because most families depend on family-labour for their farm activities.

Occupation of Respondents

Participants` occupation means a lot to the participation of people in Fadama III co-operative societies. This is because not all types/kinds of enterprises that Fadama III project supported (NFDO, 2008). Secondly, participant`s occupation determines his/her time to participate in co-operative activities. This is shown in table 7.

Table 7. Distribution of respondents according to primary and secondary occupation

Occupation	Primary		Secondary	
	Frequency	Percentage	Frequency	Percentage
Farming	348	65.17	214	40.08
Fishing	8	1.50	23	4.31
Trading	53	9.93	122	22.85
Artisan	5	0.94	11	2.06
Civil Service	36	6.74	41	7.68
Processors	55	1.30	88	16.48
Animal rearing	29	5.43	35	6.55
T o t a l	534	100.00	534	100.00

Source: Prepared by Researchers at Field survey, 2016.

The Findings of the research revealed that majority (65.17%) of the respondents had farming as their primary/major occupation (10.03%) were processors, while only (0.94%) were artisans. Similarly (40.08%) of the respondents had farming as their secondary occupation, (22.85%) trading (16.48%) processing and only (2.06%) artisan as their secondary occupation. It is common for people in the research area to engage in some kind of off-farm activities as their second or secondary occupation particularly because some



communities only farm during wet season, though some practice irrigation farming during dry season.

Sustainability Plan for the Co-operative Societies

Respondents' involvement in setting goals for their co-operative societies

Involvement of people in the affairs that affect their life is very vital most especially from the beginning (goals setting) as it is the bedrock of any project development stage. Ostrom (2010), attributed the success recorded to Akassa Development Foundation due to the high level of involvement of community members in designing and implementation of their project.

Table 8. Distribution of respondents on their involvement in setting goals for their cooperatives

Involved in Goal Setting	Frequency	Percentage
Yes	498	93.26
No	36	6.74
Total	534	100.00

Source: Prepared by Researchers at Field survey, 2016.

Respondents were asked of their individual involvement in setting the goal of their cooperatives, majority (93.26%) of them clearly stated their involvement in setting the goals of their co-operative societies while the remaining (6.74%) did not indicate any form of involvement in setting the goals of their co-operative societies.

Distribution of Respondents satisfaction on the level of involvement in setting goals

However, on the satisfaction the level of involvement in setting goals for the members who have participated. Table 9 presented their level.

Table 9. Distribution of respondents on their satisfaction on the level of involvement in setting goals for their cooperatives

Satisfied	Frequency	Percentage
Yes	458	91.97
No	40	8.03
Total	498	100.00

Source: Prepared by Researchers at Field survey, 2016.

On the level of participation, majority (91.97%) of the respondents expressed satisfaction with the level of their involvement in their co-operative activities while (8.03%) did not expressed full satisfaction on their level of participation.

Group Leadership and Selection Procedure

The procedure for the emergence of group/co-operative leaders varies. Findings of the research revealed that for 47.75% of the FUGs to which respondents had been belonged, leaders emerged through democratic election, 22.10% through consensus, 17.23% through



nomination while 12.92% of the FUGs to which respondents belonged, there were no fixed procedure, as such, and leaders could emerge through election, consensus or nomination.

Table 10. Distribution of respondents according to mode of FUG leadership selection

Mode of selection	Frequency	percentage
By nomination	92	17.23
By consensus	118	22.10
By election	255	47.75
All of the above	69	12.92
T o t a l	534	100.00

Source: Prepared by Researchers at Field survey, 2016.

On the success achieved by the co-operative groups, 38.58% described their FUG as successfully Excellent, 43.82% Very good while 11.99% rated the success of their FUGs as Good. However, 3.93% and 1.69% of the respondents rated the success achieved by their groups as Fair and Poor respectively (Table 11).

Table 11. Respondents rating the successes of their FUG leadership

Success rating	Frequency	Percentage
E x c e l l e n t	206	38.58
Very good	234	43.82
Good	64	11.99
Fair	21	3.93
Poor	9	1.69
T o t a l	534	100.00

Source: Prepared by Researchers at Field survey, 2016.

Group Meeting and Financial Records

For cooperative to be functional and sustainable, the records must be kept especially minutes of the meeting, as it serves as references and a means of evaluating the activities of cooperatives. Table. 12. Present the responses from respondent on minutes of meeting records by their respective cooperatives.

Table 12. Distribution of respondents on meeting records by their cooperatives

Keep Record of Meeting	Frequency	Percentage
Yes	507	94.94
No	27	5.06
T o t a l	534	100.00

Source: Prepared by Researchers at Field survey, 2016.

Majority (94.94%) of the respondents indicated that their FUGs keep records of meeting held in form of minutes while the remaining 5.06% indicated that their FUGs do not keep minutes of meeting. Equity and democracy are among the principles of cooperatives, as such as their member has equal right to express their feeling in respective of their status. Table 13 presents the responses from respondents on free to contribute during the meeting in their respective cooperatives.



Table 13. Distribution of respondents on free to contribute during meeting

Free to contribute	Frequency	Percentage
Yes	485	90.82
No	49	9.18
Total	534	100.00

Source: Prepared by Researchers at Field survey, 2016.

On free contributions during group meetings, majority (90.82%) of the respondents agreed that members of their respective groups were free to make contributions during meetings, but the remaining (9.18%) indicated otherwise. To avoid conflict and suspicious among the members of cooperatives, members need to be informed on the financial position of their cooperatives by the officers concerned. Table 14 presents the responses from respondents on access to financial position of their respective cooperatives.

Table 14. Distribution of respondents on access to financial report

Keep Record of Meeting	Frequency	Percentage
Yes	491	91.95
No	43	8.05
Total	534	100.00

Source: Prepared by Researchers at Field survey, 2016.

As a means of informing members of the financial position of their respective co-operatives, financial reports are provided annually, this was the practice for the co-operative groups to which majority (91.95%) of the respondents had been belonged. However, the remaining 8.05% indicated that the practice to providing annual financial reports was not practiced by officials of their co-operative groups.

Capacity building Training attended and its nature

Capacity building training is considered a very important aspect, as for that Fadama III project which make it compulsory for all group to undergo capacity building training before disbursement of the fund to cooperatives (NFDO, 2008). Table 15 present the responses from respondent on the capacity building training attendant in their respective cooperatives.

Table 15. Distribution of respondents on capacity building training attended

Capacity Building Training Attended	Frequency	Percentage
Yes	482	90.26
No	52	9.74
Total	534	100.00

Source: Prepared by Researchers at Field survey, 2016.

Majority (90.26%) of the respondents indicated that they attended training on the activities of their respective FUGs, while (9.74%) responded negatively about ever attended any training on the activities of their FUGs.



Table 16. Distribution of Respondents according to the nature of training received

Nature of the training	Frequency	Percentage
LDP proposal	32	6.64
Record keeping	152	31.54
Modern farming method/techniques	80	16.60
How to use modern equipment/machineries	81	16.80
All of the above	137	28.42
T o t a l	482	100.00

Source: Prepared by Researchers at Field survey, 2016.

For the nature of the training received by respondents who had ever attended training, 6.64% of the respondents acquired LDP proposal writing, 31.54% received record keeping training, 16.60% of the respondents received modern farming methods/techniques training and 16.80% of them received training on how to use modern equipment/ machines, while 28.42% received all the trainings listed in Table 16 (i.e., LDP proposal, record keeping, modern farming methods/techniques, and how to use modern equipment/machines).

Regression on Sustainability of Cooperative Societies

Probit regression model was used to estimate the relationship between involvement in setting goals as dependent and for other explanatory variables. The explanatory variables run on this model include; level of participation, satisfaction with FUG leadership, Access to financial report and free contribution during meetings. The choice of involvement in setting goals as determinant variable for the sustainability of co-operatives because, when people are involved, they feel sense of belonging and ownership, thus sustainability is guaranteed. The results of the regression analysis are presented in Table 17.

Table 17. Result of regression on sustainability of cooperative societies

Invgoal	Coefe	Std. Err.	z	P> z
levpart	1.069936***	0.2467574	4.34	0.000
satfug	2.698122***	0.7516302	3.59	0.000
finrep	1.124035***	0.249921	4.50	0.000
satfug_freecont	-3.426292***	0.1203814	-28.46	0.000
cons	.3025054*	0.6541702	0.46	0.644
Log pseudolikelihood = -112.56985				
Wald chi2 (4)	=	1285.16		
Prob> chi2	=	0.0000		
Pseudo R2	=	0.2079		

Note: *** and * = Figures significant at 1% and 10% levels of significance respectively.

Source: Author's Computation from field survey data, 2016.

As shown in the Table 17, the model goodness of fit test revealed that chi-square value of 1285.16 which is also significant at 0.000 ($p < 0.01$). The log Pseudo likelihood is 112.56985 and pseudo R^2 is 20.79%, this implies that the model is fitted for all variables. All the four independent variables had significant and positive influence except satisfaction with FUG leadership and free contribution which had negative influence thus implying negative influence on the dependent variable. The finding affirmed that sustainability of the cooperative societies after the project was granted based on the related influence and



significance of the related variables that supported the dependent variable (involvement in goals setting). Therefore null hypothesis which states that “There are no significant measures taken for the sustainability of cooperative societies by the project after the intervention” was rejected.

Conclusion

The contribution of Fadama III Project towards the sustainability of cooperative societies to which respondents had been belonged was researched. Findings of the research indicated that Fadama III projects’ planned for the sustainability of their cooperatives, the participants admitted participation in goals setting for their respective groups, selection of group leaders as well as having access to the group’s financial records. Members of their cooperative groups (respondents) also benefited from various types of capacity building trainings all with the aim of improving enterprises and incomes of group members; such efforts made greatly motivated the group members and contributed to the sustainability of the cooperative groups.

Recommendations

1. Co-operatives supported by Fadama III, are advise to be linked up with relevant agencies (such as Bank of Industries, Export Promotion Councils etc). This is for the sustainability of co-operatives enterprises and also to avoid market-traps.
2. The training and retraining of cooperative group members should be sustained to keep them informed of modern techniques and practices as means of improving the performances of their group and individual enterprises.
3. Government can embark on regular sensitization of the general public on the benefits of participation in cooperative groups as means of promoting the formation and participation as well as the sustenance of existing cooperative groups.



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