



## ANALYSIS OF RURAL WOMEN PARTICIPATION IN AGRICULTURAL DECISION-MAKING PROCESS AMONG RICE FARMERS IN ZONE A OF KANO STATE, NIGERIA

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### ABSTRACT

The study examines the analysis of rural women participation in agricultural decision-making process among rice farmers in Zone A of Kano State, Nigeria. A Multistage sampling technique was used to select 377 rural women farmers for the study. Data were collected using structured questionnaire and analyzed using both descriptive and inferential statistics. The study revealed that morethan half (54.6% and 50.1%) of the rural women agreed and strongly agreed that they sourced household finance through personal savings and government and NGO's while majority (65.5% and 71.9%) of the respondents were members of cooperatives and had contact with extension agents respectively. The result also revealed that a notable proportion (42.4% and 40.8%) of the respondents had agreed that they received agricultural information through cooperatives/associations and fellow farmers respectively. Furthermore, the result revealed that morethan half (50.1%) of the repondents agreed that they received information on processing and marketing of rice while majority (58.9%) of the respondents strongly agreed that they received information on water and soil management. The result also showed that 44.7% of the respondents revealed that they were fully involved in selection of manure/fertilizer decision-making and 45.9% mentioned they were to large extent involved in sowing seed decision-making. The result also showed that 32.9% of the respondents participated in winnowing while 20.0% participated in marketing in the study. The regression results, showed that education level was found to be significant ( $P < 0.05$ ) respectively, while, farm size, farming experience, membership in cooperative society, extension visit and level of income were also found to be significant ( $P < 0.01$ ) respectively, with  $R^2$  0.723. The study concluded that rural women farmers are generally involved in decision-making processes and participation on rice production, processing and marketing such as selection of manure and fertilizer, sowing, threshing, winnowing and packaging among others. The major constraints associated with rice production, processing and processing includes inadequate financial support, less availability of time, traditional beliefs and cultural values among others. The study recommends women participation in agricultural decision-making process will enhance investment in girl child education should be prioritized by the government in other to increase female literacy rate and women empowerment in agriculture.

**Keywords:** Empowerment, Participation, Decision-making, Perception, Investment

### INTRODUCTION

Rice, *Oryza sativa* is one of the most important food depended upon by over 50% of the world population for about 80% of their food need (Udemezue, 2014). Globally, about



700 million tonnes of rice is produced yearly in over a hundred countries on approximately 158 million hectares of land (World Agricultural Production (WAP, 2020). Africa in particular, accounts for 23.1% of rice global imports in 2019 (Daniel, 2021). The continent produces an average of 24 million tonnes of paddy rice annually (Kamer, 2021). Nigeria ranks highest as both the producer and consumer of rice in the West African sub-region. It is grown on approximately 4.4 million hectares of land in the country, with an annual production of 8.3 million tonnes (Federal Ministry of Agriculture and Rural Development (FMARD, 2021). United States Department of Agriculture (USDA, 2021) reports that Nigeria imports about 2.3 million tonnes of rice as at 2021. This importation is due to deficit in production which is caused by domestic demand exceeding supply, it is necessary to bridge the gap. As the growing demand for rice in the country is forecasted to reach 21.8 million tonnes by 2030 (Familusi and Chizoba, 2021).

In Bauchi state, rice is one of the most common crops being cultivated after maize. FMARD in collaboration with National Agricultural Extension and Research Liaison Service (WAP, 2020) revealed that the state produces about 232,000 tonnes of rice on 146,020 hectares of land. Despite that, it is generally observed that there is low level of investments even with such potential. This is apparent by the high number of small-scale rice farmers whom are mostly resource poor especially in the area of production. Greater improvement in rice production in the state can be achieved with a proper analysis that will lead to knowledge of the performance of rice production.

The total land area under rice cultivation globally was estimated at 150,000,000 hectares with annual mean production of 500,000,000 metric tonnes that represent 29% of the total output of grain crops worldwide (Tsado 2014). Survey conducted in 2009 by the national agricultural research system (NARS) in 21 sub-Saharan African countries discovered that land area under rice production was 140,000 hectares in Guinea and 244,000 hectares in Nigeria. The importance of rice to the food requirement of Nigerians cannot be over emphasized. Nigeria is the largest producer of rice in Africa and simultaneously one of the largest rice importers in the world (FAO, 2018). Nigeria's estimated demand for rice was about 6.3 million tons, while supply was about 2.3 million tonnes. Rice import bills are above \$1 billion/ annum (FMARD, 2021). Though production varies from state to state and prevalent types of rice production system in Nigeria; rain fed upland, rain fed low land, irrigated low land, deep water floating and mangrove swamp (Familusi and Chizoba, 2021).

A major role of agricultural extension is to help farmers to make decision through which they can realize their own goals as well as possible (van den Ban and Hawkins, 1996). Farm families have to make a number of different types of decisions, because they face different kinds of problems. Usually, for these decisions, the agents could give a recipe based on research findings. Then wages started to increase rapidly and decisions to increase labour productivity by investments or specialization became more important. However, the increase in poverty level among rural women has led them into diverse number of strategies to cushion the negative effect, hence become more vulnerable in the society since the livelihood of majority of the rural women rice farmers depends largely on their husbands and by extension on agriculture,

Therefore, how to reduce the adverse effect and impact of poverty among by improving their decision making power in their farming activities and welfare are important issues. Illiteracy, poverty and unemployment are the major problems in many developing countries including Nigeria. In order to fill the gap and complement other studies on women in agriculture and their participation in agricultural decision making, this study is to ascertain



the empirical analysis of rural women participation in Agricultural Decision making process among rice farmers in Kano State and the specific objectives were to; determine the effect of rural women participation rice production, processing and marketing decision making; determine the factors influencing rural women farmer's participation in agricultural decision making process among rice; and identify and describe the constraints affecting rural women farmers participation in agricultural decision-making process among rice farmers in the study area.

## MATERIALS AND METHODS

### The Study Area

The study was targeted to cover Bunkure, Kura, and Garun-Mallam Local Government Areas of Kano State, Nigeria. The area (Kura) was originated and centered on the famous river known as Rafin-Kura, situated in the Southern part of the town, which was used for farming and drinking site for both humans and animals. The area was endowed with expense of fertile land and good vegetation, it is now among the 44 local government areas of Kano State and was geographically located in the Southern part of the State along a dual express way to Kano-Zaria road which has distance of about 35km from the State capital, it was located at and lies within the latitude  $11^{\circ}46''$ ,  $17''$  N (North) of the equator and longitude  $8^{\circ} 25'' 49''$  E (East) and covers an area of about 206 km<sup>2</sup> square kilometers (80 sq miles) of cultivable land with a population of about 144,601 as at the 2006 Census and projected at 3.5% is 203,974 as at 2016 (NPC, 2016). It also shares common boundaries with Garun-Malam local government from the West, Madobi local government area from the North, Dawakin-Kudu local government area from the East and Bunkure local government area from the South. (NPC, 2016).

### Sample Size and Sampling Techniques

A Multistage sampling technique was used for the study. In stage one: Kano State was purposively selected due to intensity of Agricultural activities (production) in almost everywhere in the State. In stage two: Three Local Government Areas were purposively selected due to the concentration of rice farmers, post-harvest activities as well as marketing. These are Bunkure, Garun – malam and Kura Local Government Areas of Kano State. In stage three: Fifty percent (50%) of the agricultural extension blocks were randomly selected for the study. Stage four: Involves Selection of fifty percent (50%) of cells of the selected blocks. Stage five: Involves proportionate selection of 377 women rice farmers (as generated from raosoft sampling calculator software) from the total registered women rice farmers' associations in the study area.

**Table 1:** Sampling Frame for the Study

L G A	Block/Cell	Registered Women Group	Registered Members of Women Group	Sample	Percentage
BUNKURE	2(5)	25	525	192	50.93
GARUN-MALAM	2(20)	4	100	31	8.22
KURA	2(9)	20	500	154	40.85
<b>TOTAL</b>	<b>6 (34)</b>	<b>49</b>	<b>1225</b>	<b>377*</b>	<b>100</b>

Source: Reconnaissance survey, 2021

Figure in bracket represents cells



### Method of Data Collection

Data were collected through the use of structured questionnaire and was administered by the researcher and other staff of Kano State Agricultural and Rural Development Authority (KNARDA) as enumerators. The questionnaire was categorized into sections in accordance with research objectives.

### Method of Data Analysis

The data were analysed using both descriptive and inferential statistics to achieve the research objectives.

#### Descriptive Statistics

Descriptive statistics and inferential statistics were used to analyze the data. Descriptive statistics such as frequency, percentage and mean was used to achieve objective III.

Mean: The sets of score divided by total number of observation. Mathematically it is written as

$$\bar{X} = \frac{\sum X_i}{N} = \frac{X_1 + X_2 + X_3 + X_4 + \dots + X_n}{N} \quad \dots \quad (1)$$

Where:

$\bar{X}$  = Arithmetic mean

$\sum$  = Summation

$X_{i-j}$  = Individual Observation

$i-j = 1, 2, 3$

$n$  = subscript of the individual variable of observation.

$N$  = Total number of observation

#### Percentage

This tool was used in this study to determine the population of respondents to a particular response. It is mathematically written as (%)

$$\frac{\sum X_i}{N} \times 100 \quad \dots (2)$$

Where:

% = Percentage

$X_{i-j}$  = Individual observation

$N$  = Total number of observation

#### Inferential Statistics

An inferential statistics probit regression was used to achieve objective I and II.

#### Regression Analysis

Probit Regression analysis is a statistical forecasting model that is concerned with describing and evaluating relationship between given variables that is the dependent and independent variables. The model is express explicitly as

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + b_8X_8 + b_9X_9 + b_{10}X_{10} + e \quad \dots \quad (3)$$

Where;

$Y$  = Extent of women involvement in decision-making (High=3, Moderate=2 and Low=1)

$X_1$  = Age (Years)

$X_2$  = Education (Years spent in school)

$X_3$  = Household size (number of persons)

$X_4$  = Farming Experience (Years)



- $X_5$  = Farm size (Hectares)  
 $X_6$  = Membership of Cooperative Society (Dummy 1 for members, 0 Otherwise)  
 $X_7$  = Extension Contact (Number of visits)  
 $X_8$  = Marital status (1 marriage, 0 = Otherwise)  
 $X_9$  = Level of income (Naira)  
 $X_{10}$  = Occupation (Years spent in occupation)  
 $a$  = Constant  
 $e$  = Error Term

## RESULTS AND DISCUSSION

### Perception on Women Role in Decision Making on Rice Production, Processing and Marketing in Family Agricultural Activities

The result in Table 2 showed that about 27.3% of the respondents rarely perceived leader in the family decision while 29.2% of the respondents also rarely perceived bread winner of the family and 29.4% of the respondents revealed that they head most of the economic affairs to large extent. Also, 34.0% of the respondents revealed that they are just participants in the family decision and 33.4% of the respondents were undecided in the family roles. Furthermore, 26.5% of the respondents rarely wait for men to decide for family and a notable proportion (40.1%) of the women farmers were undecided in consultation only on minor family issues. Also, about 34.4%, 32.1% and 37.4% of the respondents were undecided that women lose power to men, men are mostly parasites and senior child take all decision respectively in the study area. This implies that male-headed household normally becomes a leader to the community groups or the farmers' organizations and was allowed to provide opinions and ideas to the community, more than their female counterparts or spouse. This finding by Akter *et al.* (2017) mentioned that female farmers in Kano did not have a prominent leadership role in certain tasks or agricultural communities and some of them depended on their spouse.

**Table 2:** Perception on Women Role in Decision Making on Rice Production, Processing and Marketing and Family Agricultural Activities

Perception Statement	Never (%)	Undecided (%)	Rarely (%)	To large extent (%)	Always (%)
Leader in the family decision	35 (9.3)	92 (24.4)	103 (27.3)	69 (18.3)	78 (20.7)
Bread winner of the family	26 (6.9)	101 (26.8)	110 (29.2)	85 (22.5)	55 (14.6)
Heading most of the economic affairs	26 (6.9)	103 (27.3)	79 (21.0)	111 (29.4)	58 (15.4)
Just participant in family decision	33 (8.8)	59 (15.6)	79 (20.2)	128 (34.0)	81 (21.5)
Decided and allocate family roles	32 (8.5)	126 (33.4)	61 (16.2)	87 (23.1)	71 (18.8)
Waiting for men to decide for family	65 (17.2)	120 (31.8)	100 (26.5)	43 (11.4)	49 (13.0)
Consulted only on minor family issues	16 (4.2)	151 (40.1)	60 (15.9)	102 (27.1)	12 (12.7)
Don't know anything about family decision	76 (20.2)	128 (34.0)	79 (21.0)	57 (15.1)	37 (9.8)
Women lose power to men	100(26.5)	122 (32.4)	72 (19.1)	55 (14.6)	28 (7.4)
Men are mostly parasites	117 (31.0)	121 (32.1)	69 (18.3)	31 (8.2)	39 (10.3)
Senior child take all decision	92 (24.4)	141 (37.4)	61 (16.2)	44 (11.7)	39 (10.3)

**Source:** Field survey, 2023





### Women Decision Making on Family Way of Life Issues

The result in Table 3 showed that a significant proportion (36.8%) of the respondents mentioned that men more than women in consumer product while 33.3% of the respondents revealed that men only make decision in asset property and only 24.5% of the respondents revealed that equal men and women make decision on family money control and saving. Also, notably (33.0%) of the women farmers revealed that men more than women make capital investment decision and 35.9% of the respondents men more than women make loan acquisition decision in the study area. Furthermore, morethan half (50.1%) of the respondents revealed that men more than women make decision on migration and only 31.6% revealed that equal men and women make decision on children education while 36.5% of the respondents stated that equal men and women make decision on providing the guidance to children for mate selection. In addition, 46.7% of the respondents revealed that men more than women make decision on family member to participate in community and only 23.1% of the respondents opined that equal men and women take medical treatment method for sickness of family member.

This result corroborated the finding by Malapit *et al.* (2020) that women and men empowerment were strongly connected to the land and resources, as most farmers made their decision related to land and resources together. This way, women jointly made better decisions and discussions on rice farming with men. Mudege *et al.* (2015) in the same way mentioned that both women and men empowerment were strongly connected to the decision – making as they would simultaneously acquire additional information, gain better market access, enhance knowledge, and adopt new technology.

**Table 3:** Women Decision Making on Family Way of Life Issues

Types of decision	Men only (%)	Men more than women (%)	Equal men and women (%)	Women more than men (%)	Women only (%)
Consumer product	76 (21.7)	129 (36.8)	77 (21.9)	27 (7.7)	42 (12.0)
Asset property	117 (33.3)	94 (26.8)	43 (12.3)	66 (18.8)	31 (8.8)
Family money control and saving	69 (19.7)	73 (20.8)	86 (24.5)	70 (19.9)	53 (15.1)
Capital investment	88 (25.1)	116 (33.0)	59 (16.8)	31 (8.8)	57 (16.2)
Loan acquisition	117 (33.3)	126 (35.9)	58 (16.5)	22 (6.3)	28 (8.0)
Migration	79 (22.5)	176 (50.1)	50 (14.2)	21 (6.0)	25 (7.1)
Children education	63 (17.9)	76 (21.7)	111 (31.6)	72 (20.5)	29 (8.3)
Providing the guidance to children for mate selection	8 (2.3)	29 (14.0)	128 (36.5)	101 (36.5)	65 (18.5)
Family member to participate in community	42 (12.0)	164 (46.7)	62 (17.7)	55 (15.7)	28 (8.0)
Medical treatment method for sickness of family member	47 (13.4)	112 (31.9)	81 (23.1)	66 (18.8)	45 (12.8)

**Source:** Field survey, 2023

### Participation on Rice Production, Processing and Marketing Activities

The result in Table 4 showed that about 22.4% of the respondents revealed that men only participate in selection of seed variety while morethan half (55.0%) of the respondents revealed that men more than women participate in selection of manure/fertilizer in the study area. Also, a significant proportion (38.5%) of the respondents revealed that men only



participate in preparation of field and only 34.7% of the respondents revealed that equal men and women participate in the selection of herbicides in the study area. However, about 39.1% of the respondents revealed that equal men and women participate in sowing of seed while 30.6% of the respondents reported that men more than women participate in irrigation of plants and 24.7% of the respondents revealed that equal men and women participate in application of fertilizer. Furthermore, about 11.5% of the respondents stated that women more than men participate in harvest while 40.9% and 32.9% of the respondents revealed that women more than men and women only participate in threshing and winnowing respectively. Meanwhile, 21.5% of the respondents revealed that equal men and women participate in bagging of agricultural produce, while, 16.2%, 25.3% and 37.9% of the respondents reported that men only, equal women and men participate in to storage, processing and marketing of agricultural produce respectively in the study area. Investigated by Ahmed *et al.* (2012) that marketing and post-harvest management were perceived to be the challenges faced by the women farmers in the study area. The Participation of Women in rice production, processing and marketing approaches toward sustainable livelihood.

**Table 4:** Extent of Participation on Rice Production, Processing and Marketing Activities

Extent of participation	Men only (%)	Men more than women (%)	Equal men and women (%)	Women more than men (%)	Women only (%)
Selection of seed variety	76 (22.4)	98 (28.8)	71 (20.9)	16 (4.7)	79 (23.2)
Selection of manure/fertilizer type	68 (20.0)	187 (55.0)	58 (17.1)	14 (4.1)	13 (3.8)
Preparation of field	131 (38.5)	124 (36.5)	58 (17.1)	9 (2.6)	18 (5.3)
Selection of herbicide	79 (23.2)	101 (29.7)	118 (34.7)	13 (3.8)	29 (8.5)
Sowing seed	50 (14.7)	110 (32.4)	133 (39.1)	28 (8.2)	19 (5.6)
Irrigation	107 (31.5)	104 (30.6)	97 (28.5)	25 (7.4)	7 (2.1)
Application of herbicide	98 (28.8)	121 (35.6)	84 (24.7)	20 (5.9)	17 (5.0)
First weeding	87 (25.6)	99 (29.1)	114 (33.5)	24 (7.1)	16 (4.7)
Manure/fertilizer application	95 (27.9)	82 (24.1)	122 (35.9)	21 (6.2)	20 (5.9)
Second weeding	70 (20.6)	93 (27.4)	118 (34.7)	34 (10.0)	25 (7.4)
Third weeding	54 (15.9)	104 (30.6)	129 (37.9)	39 (11.5)	14 (4.1)
Harvesting	109 (32.1)	69 (20.3)	109 (32.1)	39 (11.5)	14 (4.1)
Threshing	69 (20.3)	61 (17.9)	95 (27.9)	70 (20.6)	45 (13.2)
Winnowing	26 (7.6)	66 (19.4)	59 (17.4)	112 (32.9)	77 (22.6)
Bagging	43 (12.6)	115 (33.8)	73 (21.5)	47 (13.8)	62 (18.2)
Evacuation to safety/store	48 (14.1)	75 (22.1)	124 (36.5)	45 (13.2)	48 (14.1)
Storage	55 (16.2)	43 (12.6)	139 (40.9)	57 (16.8)	46 (13.5)
Processing	25 (7.4)	47 (13.8)	137 (40.3)	86 (25.3)	45 (13.2)
Marketing	23 (6.8)	32 (9.4)	129 (37.9)	88 (25.9)	68 (20.0)

**Source:** Field survey, 2023

### **Factors Influencing Rural Women Farmers' Participation in Agricultural Decision – Making Process among Rice Farmers**

The result of multiple regression models on the factors influencing rural women farmers' participation in agricultural decision –making process among rice farmers are presented in this section. The result showed that marital status had positive coefficient and significant at  $P < 0.001$ . The implication is that most of the women farmers were married and therefore they are been restricted by their household head to participate in decision – making. Also, occupation was positive and significant at  $P < 0.001$ . This implies that women farmers



were mostly engage in to primary occupations which give them rise to be involved in agricultural decision making. The result further disclosed that R – square was 0.0630. This implies that about 63% of the variation in decision – making was influenced by socio-economic factors included in the model and this was justified by Chi<sup>2</sup> – value of 15.25. This implies that the higher the household size the lower the level of participation. This is contrary to the past studies like that of Ekong (2003) which suggest that household size has positive influence on the level of participation in the programme. The higher the level of the education, the higher the level of participation. Ayoade *et al.* (2017) reported women may be more aware of their rights and possibilities in the household and may be more assertive about them than uneducated ones.

**Table 5:** Factors Influencing Rural Women Farmers’ Participation in Agricultural Decision –Making Process among Rice Farmers

Variables	B	S.E.	z	P> z	[95% Conf. Interval]	
Age	.0194134	.0313081	0.62	0.535	-.0419493	.0807761
Marital status	.6409351	.3826614	1.67	0.094*	-.1090675	1.390938
Household size	.0171512	.052997	-0.32	0.746	-.1210234	.0867211
Education	-.1003373	.1087825	-0.92	0.356	-.3135471	.1128725
Monthly income	5.48e-06	6.41e-06	0.86	0.392	-7.0706	.000018
Occupation	1.092468	.6495922	1.68	0.093*	-.1807094	2.365645
Membership	-.6358495	.45916	-1.38	0.166	-1.535787	.2640876
Extension contact	.5044325	.4814836	1.05	0.295	-.439258	1.448123
Constant	-1.154857	1.607256	-0.72	0.472		
Number of observation	377					
-2 Log likelihood	-113.38784					
Pseudo R <sup>2</sup>	0.0630					
LR chi <sup>2</sup> (9)	15.25					
Prob > chi <sup>2</sup>	0.0844					

**Source:** Field survey, 2023

### **Constraints to Women Decision Making on Rice Production, Processing, and Marketing**

The result in Table 6 revealed that about 22.8% of the respondents agreed that male dominate society while a larger proportion (44.0%) of the respondents also agreed that less availability of time, cultural value (44.0%), and traditional belief system (38.2%) were some of the major constraints to women participation in decision – making. Furthermore, and 35.5% of the respondents agreed that economic constraints is also a factor, traditional agricultural farming (49.3%), women had no time to consider any political action/decision (31.6%) and also 31.0% of the respondents remain undecided that participation discourages socio-cultural changes while 44.3% reported undecided in the decision on less ability to urge any conflicts with men. The result also opined that 29.7% of the respondents agreed that family money and assets control and men is also amongst the constraints faced by the women participants in the study area.

Nahayo *et al.* (2017) revealed that inadequate participation in the planning process was one of the significant constraints of women’s involvement in agriculture as most female farmers stated that they were not interested in the rice cultivation’s planning process and were less involved in the community, which hindered them from being exposed to new knowledge,





advancement, and decision-making on rice cultivation. Oladimeji *et al.* (2015) mentioned that credit is one of the policy instruments considered to facilitate technology transfer, stimulate productivity, and generate employment and increase income. This is also in consonance with the findings of Kesse (2016) which revealed that the major constraints to rice processing are high cost of start-up capital, inadequate processing facilities, lack of technical knowhow and intensive labour.

**Table 6: Constraints to Women Decision Making on Rice Production, Processing, and Marketing**

Types of information	Strongly disagree (%)	Disagree (%)	Undecided (%)	Agree (%)	Strongly agree (%)
Male dominate society	45 (11.9)	101 (26.8)	90 (23.9)	86 (22.8)	55 (14.6)
Less availability of time	1 (.3)	50 (13.3)	137 (36.3)	166 (44.0)	23 (6.1)
Cultural value	12 (3.2)	14 (3.7)	152 (40.3)	166 (44.0)	33 (8.8)
Lack of positive response from family members	31 (8.2)	127 (33.7)	131 (34.7)	64 (17.0)	24 (6.4)
Traditional belief system	12 (3.2)	94 (24.9)	92 (24.4)	144 (38.2)	35 (9.3)
Economic constraints	22 (5.8)	35 (9.3)	138 (36.6)	134 (35.5)	48 (12.7)
Traditional agricultural farming	27 (7.2)	25 (6.6)	111 (29.4)	186 (49.3)	28 (7.4)
Women have no time to consider any political action/decision	60 (15.9)	72 (19.1)	82 (21.8)	119 (31.6)	44 (11.7)
Discouraging socio-cultural changes	67 (17.8)	89 (23.6)	117 (31.0)	86 (22.8)	18 (4.8)
Male dominance in political affairs	22 (5.8)	66 (17.5)	40 (10.6)	184 (48.8)	65 (17.2)
Less ability to urge any conflicts with men	31 (8.2)	32 (8.5)	167 (44.3)	103 (27.3)	44 (11.7)
Family money and assets control and men	34 (9.0)	27 (7.2)	167 (44.3)	112 (29.7)	37 (9.8)
The belief women are less informed than men	57 (15.1)	49 (13.0)	87 (23.1)	84 (22.3)	100 (26.5)
Low self-confidence of women in making farm decisions	52 (13.8)	65 (17.2)	127 (33.7)	102 (27.1)	31 (8.2)
Poor access to farm information	13 (3.4)	42 (11.1)	61 (16.2)	179 (47.5)	82 (21.8)

**Source:** Field survey, 2023

## CONCLUSION AND RECOMMENDATIONS

Conclusively, the findings of this study revealed that rural women farmers are generally involved in decision-making processes and participation on rice production, processing and marketing such as selection of manure and fertilizer, sowing, threshing, winnowing and packaging among others. Rural women perceived leader in the family decision, consulted on a minor issues of the family and don't know anything about family decision. Extent of women participation in rice production, processing and marketing was high. However, factors such as age, education, membership of cooperative, farm size, farming experience, extension visit and income level were found significantly influence the extent of women participation in rice production, processing and marketing in the study area. The identified major constraints associated with rice production, processing and processing in



the study area included male dominated society, inadequate financial support, less availability of time, traditional beliefs and cultural values among others it was recommended that, there is needs for the government to make provision of improved technologies as these will not only go a long way to facilitate their participation, but also expose respondents to improve production, processing and marketing system. Government and concern organization should effectively link rice producers, processors and marketers to available financial institutions for the provision of on-lending short and long term credit facilities. Government and non-government organizations through cooperatives societies should also develop ways to encourage women's participation in cooperatives groups. These will increase the women's accessibility to productive resources, credits, ideas, and innovations necessary to increase their.

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