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RELATIONSHIP BETWEEN SELECTED CHARACTERISTICS OF FARMERS AND PARTICIPATION IN NGO-LED FOOD SECURITY PROGRAMMES IN BO DISTRICT SOUTHERN SIERRA LEONE

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ABSTRACT
Participation with regard to rural development include peoples involvement in decision making process in implementing programmes, their sharing in the benefits of development programmes and their involvement in the effort to evaluate such programmes. In essence, participation is all about involving a significant number of rural people (project beneficiaries) in one way or the other or actions which enhance their well being. In Sierra Leone, the problems of poor participation of farmers in donor sponsored programmes have never been ascribed to socio economic attributes of the stakeholders. This study examines the relationship between socioeconomics characteristics of farmers and participation in Ngo-led food securities in Bo District. The study was conducted in Bo District in the Southern part of Sierra Leone. Multi-stage random and purposive sampling techniques were used to select the District and NGOs, farmers and NGO-executive officers. A validated questionnaire with semi-structured and structured questions was administered to 100 (85 beneficiaries and 15 NGO-executive officers). The findings of the study revealed that a significance evidence of relationship between sex (X^2 cal =11.72 greater than $X^2_{tab.}$ = 3.841), religion (X^2_{cal} = 37.83, X^2_{tab} = 5.991), educational status (X^2_{cal}= 41.615, X^2_{tab} = 3.841), but no significant evidence of relationship between position holding (X^2_{cal} = 1.675, X^2_{tab}=3.841). It was concluded that certain characteristics such as education level highly affected the participation of the beneficiaries in the NGO-led food Security Programmes and that even though less female farmers participated in the Ngo-led food security programmes, there was not much significant evidence of relationship between sex and decision-making in the NGO-led food security programmes. It was recommended that NGOs include functional literacy and relevant training programmes in their food self-security programme.

KEY WORDS: Characteristics, Relationships, Chi-Squire, Participation, NGO-led Food Self-Security.

INTRODUCTION

Non-Governmental Organizations (NGOs) have increasingly been recognized today as vital development partners in aid delivery. This recognition is grounded on the fact that they have been able to position themselves before the donor community as credible institutions that seek the interest of vulnerable people in their quest to gain a voice in the social, political, and economic discourse of a nation. NGOs are pronounced in local, national and international scenes where they are engage in activities as diverse as grassroots mobilization, community empowerment, micro-finance, humanitarian relief and emergency assistance. NGOs as facilitators in the field of development act as providers of basic services to vulnerable individuals and communities in response to inadequacies in the public delivery of such services. In this vain, they invariably complement the roles of governments and the collective efforts of individuals towards human development. In an attempt by NGOs to complement the activities of governments in basic service delivery, they come in the form of charities, foundations, associations, nonprofit corporations, and voluntary organizations. Bawa, *et al.* (2010) notes that NGOs are particularly critical in circumstances where state funds are limited, political situations are fluid, natural disasters resulting from both predictable and unpredictable environmental circumstances occur, ethnic strife is rampant, and the level of per capita income severely restricts the ability to purchase needed goods and services – social, educational and economic. In Sierra Leone, there is considerable NGO activity, especially in southern region where they are engaged in varying interventions aimed to better the lot of beneficiaries who are generally considered in the country as deprived. The Bo District in the Southern region alone is home to over twenty-five (25) NGOs both local and international serving various purposes to promote the good wellbeing of the human kind. The considerable growth and influence of NGOs in the district has prompted renewed interest in their developmental role to ensure sustainable development. From informal evaluation, it is learned that there is increase in farmers' participation in NGO-led programmes. However, there is no formal evaluation on the relationship between the characteristics and participation in food security programmes.

Participation with regard to rural development include peoples involvement in decision making process in implementing programmes, their sharing in the benefits of development programmes and their involvement in the effort to evaluate such programmes. In essence, participation is all about involving a significant number of

rural people (project beneficiaries) in one way or the other or actions which enhance their well being (Oakley, 2002). Mainstreaming participation has made it an instrument for promoting pragmatic policy interest such as cost– effective delivery or low-cost maintenance, rather than a vehicle for radical social transformation. In fact farmers' participation issues are the areas of concern at national and local levels (Subedi, 2008). Without participation, there are obviously no partnerships, no developments and no programme (Aref *et al*., 2010). Therefore, a lack of participation in the decision to implement an agricultural policy can lead to failure in agricultural development. This has led rural farmers to become more marginalized and alienated than they were before the commencement of these multi-million naira programmes. This is unlike the bottom-up participatory approach in which members of the benefiting communities are actually involved in the various stages of the programme. In this regard, these programmes could be better understood as a direct response to broaden the scope of interventions at the community level. The problems of poor participation of farmers in donor sponsored programmes have never been ascribed to socio economic attributes of the stakeholders which are the key determinants to farmers' involvement in these programmes.

Purpose and research questions

The purpose of this study was to investigate the relationships between the socioeconomic and demographic characteristics of beneficiaries' participation in NGO-led food security programmes in Bo district, Sothern Sierra Leone. The study was guided by six research questions as follows:

1. What is the relationship between sex of beneficiaries and their participation in the NGOs-Led food security programmes?
2. What is the average age, household size, marital status and other occupations of Beneficiaries of the NGO-led Food security programmes?
3. Is there any relationship between religion of beneficiaries and decision-making in the NGO-led food security programmes? What is the relationship between position holding and participation in NGO-led food security programme?
4. Is there any relationship between educational status and participation in the NGO-led food security programmes?

METHODOLOGY

Study Area

The study was conducted in Bo District (See Figure 1)in the Southern Region of Sierra Leone. Bo District is 152 miles south of Freetown located 8^0 $00^/$ N11o40W. It has a total area of land area of 5,473.6 km2 (2,113.4 sq mi)) with population of 463,668 (SSL, 2004). Bo District is bounded to the North by Tonkolili District, North–Northeast by Kenema District, to the South by Pujehun District, to the Southwest by Bonthe District, and to the West and West-north by Moyamba District. The entire district comprises of fifteen (15) chiefdoms: Badja, Bagbew, Bagbo, Baoma, Bumpeh Ngao, Gbo, Jaiama Bongbor, Kakua, Komboya, Lugbu, Niawalenga, Selenga, Tikonko, Valunia and Wunde chiefdoms. Trading, gold and diamond mining are major economic activities for the district; as well as agricultural production of rice growing, and tree crops such as coffee, cacao and oil palm. There are many primary and secondary schools, health centres and hospitals in Bo District, with many roads linking Bo District with other parts of the country. The population of the district constitutes several ethnics and cultural groups such as Mende, Temne, Limba, Loko, Fullah, Susu, Kono, Creole, Mandingo, Shebro, Kissy and Yaronka. Mende, however, form the bulk of the population.

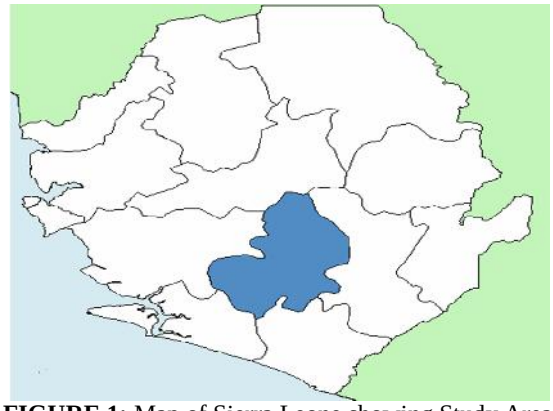

FIGURE 1: Map of Sierra Leone showing Study Area

Study population

The sample frame of the study consisted of all farmers participating in the NGO-led food security programmes and NGOs implementing food self-security programmes in Bo District.

Sampling Technique and Sample Size

The sample frame of the study is the list of farmers participating in NGO-led food security programmes. The study utilizes multistage random sampling techniques. In the first stage, Bo District was purposively selected since it contains the farmers of interest to the study. Second, the farmers and the NGO executive members were selected using simple random sample proportionate of each Chiefdom was then generated using the list of farmers participating in NGO-led food Security programmes to make up a total random sample of 100(85 farmers and 15 NGO Executive Officers).

The Research Instrument

The research instrument used was a questionnaire with both Semi-structured and structured questions. The

questionnaire also contained both closed-ended and open-ended questions. The instrument was consisted of five (5) subsections. The first section sought out information on the relationship between sex of beneficiaries and decision-making in the NGO-led food security programmes. Second section gathered data pertaining to the age, marital status, household size, and other occupations of beneficiaries; the third section solicited information on the religion of beneficiaries and participation in the NGO-led food self-security programmes. The fourth section of the instrument gathered information on beneficiaries' educational level and participation in NGO-led food security programmes. The instrument for the data collection was subjected to pre-test on 10 farmers in Pujehun District which was not part of the sample, while the validity tests test were carried out by four experts from the extension Department of the Ministry of Agriculture Forestry and Food Security(MAFFS), Njala University, SLARI, NGOs and other related Institutions. These experts confirmed that the questionnaire contained items that would solicit the intended responses on the relationship between beneficiaries' characteristics and participation in NGO-led food security programmes. Also, the experts reviewed the items of clarity and ensured all that could confuse respondents and enumerators are removed. The construct validity was ensured by correlating the score of test administration of the instrument with that of another one with high level of construct using Pearson Product Moment Correlation. A correlation of the test scores of the two instruments on the 10 farmers gave a correlation coefficient of 0.76. This is significant at <p=0.05. This indicated that the instrument clearly measures appropriately the same construct measured with other instrument. Only farmers who would not constitute part of the final study were used in the construct.

Data Collection

Data for this study was collected using a structured interview schedule during the schedule during the months of April and May, 2015. Before the field work, researchers made several visits to the district and the various chiefdoms to get firsthand information and the reality on the ground. During these visits the researchers held many meetings with the local authorities, other stakeholders including the farmers where they explain the purpose and the future benefits of the research. Four Extension assistants helped the authors to collect the primary data. A one-day training workshop for enumerators was held to review the final questionnaire. The goals of the training were to have field enumerators contribute to the instrument design; insure their understanding of the instrument and identify sampling frames. Revisions of the instrument included the delectation of several items to reduce the length of the questionnaire. All questionnaires were completed through personal interviews conducted by enumerators. Each enumerator completed 25 questionnaires with either farmers or executive officers. Primary data for this study was gathered by using structured questionnaire, interview, and checklist and participant observations. Questionnaire focused on the demographic and socio-economic characteristics of farmers and was administered to all units of the inquiry in the study area. Semi-structured interviews were conducted with beneficiaries and executive officers. Checklist was used to collect relevant information related to NGO-lead food self security programmes, the extent of the participation of beneficiaries in Ngo-led food security programmes, the kind of intervention directed by NGOs to promote NGO-led food security in the District. Secondary data were obtained from NGO Executive Officers, project documents, library books, internet, and project reports.

Data Analysis

Data Analysis was based on descriptive statistics, facilitated by the use of a computer programme named: statistical Package for Social Science (SPSS). The non-parametric data were analyzed using Chi-Squire (X^2) to compare relationships between variables and beneficiaries' participation in NGO-led food self security.

RESULTS

Sex of Beneficiaries against decision-making in the NGO-led Food Security Programmes

The sex of sample respondents was assessed and the results showed that majority of the respondents (65.0%) were males, while the rest of them (35.0%) were females.

The relationship between sex and participation in food security programmes was tested. The Chi-Squire (X^2) result of 11.72 with 1 degree of freedom is greater than the X^2 table value of 3.841 at 5% level of significance. There is therefore significant evidence for a relationship between sex and participation in NGO-led food security programmes in the study area. The proportion of males participating in NGO-led food security programmes differs significantly from females. More men than expected were participating in NGO-led food security programmes in the study area.

TABLE1: Sex of Respondents against Decision-Making in NGO- Led Food Security Programmes

	Sex		Total
Decision -Making	Male	Female	
Participation	A 34(26)	B 6(14)	40
Non-Participation	C 31(39	D 29(21)	60
Total	65	35	100

$$ {}^{E}f_A = \frac{65 \times 40}{100} = 26 \qquad {}^{E}f_B = \frac{35 \times 40}{100} = 14 \qquad {}^{E}f_C = \frac{65 \times 60}{100} = 39 \qquad {}^{E}f_D = \frac{35 \times 60}{100} = 21 $$

$$ X^2 = \sum \frac{(0-E)\,2}{E} $$

$$ X^2 = \frac{(34-26)^2}{26} + \frac{(6-14)^2}{14} + \frac{(31-39)^2}{39} + \frac{(29-21)^2}{21} $$

$$= \frac{(8)^2}{26} + \frac{(-8)^2}{14} + \frac{(-8)^2}{39} + \frac{(8)^2}{21}$$

$$= \frac{64}{26} + \frac{64}{14} + \frac{64}{39} + \frac{64}{21} = 2.46 + 4.57 + 1.64 + 3.05$$

$= 11.72$: $\aleph^2 cal = 11.72$

df = 1

P = 0.05

$\aleph^2$ Tab = 3.84

$\aleph^2$ cal = 11.72

Age, Marital Status and Size of households of beneficiaries of NGO-led food security programmes

The average age of all the farmers interviewed was 44.4years with a standard deviation of 10.2 years, and a range from 24 to 74 years. The median and modal age values were 37 and 39 years respectively. Three-fifths of the farmers (60.0%) were below the mean age value and slightly below two-fifths (37.1%) were 44.4years and above. Very few farmers (2.9%) were under 25 years of age, indicating that very few people start farming at an early age on their own (SLG: Agricultural Statistical Survey-1970/71). The results further revealed that nearly half of the respondents (45.0%) were married, while over one-third (38.0%) were widowed. Also, above one-tenth (12.0%) were single and a small proportion (5.0%) divorced.

When data on household sizes of respondents were analyzed, the results showed minimum and maximum sizes of 1 and 20 persons respectively. The modal household size value for the sample was 6.0 persons and the mean was 7.0 persons, while the median household size was 9 persons. This result indicates that majority of the respondents in the study area still have large family sizes as compared to the national household size of 7 persons. Other occupations in which sample beneficiaries were engaged in are presented in Table2. The main occupation of beneficiaries was farming. Table revealed that two-fifths of farmers (40.0%) were engaged in other economic activities other than farming. The study also revealed that one-tenth of the respondents (10.0%) were engaged in teaching, but females were higher than males, while slightly less than one-tenth of them (9.0%) were traders and males were higher. Less than one-tenth of the sample (6.0%) had mining as their other sources of income and men were higher. Small proportions were involved in administrative works (4.0%), carpentering (3.0%), traditional leaderships (3.0%), and medical works and blacksmithering (2.0%) in each case. Only one person was engaged in Social work (1.0%).

TABLE 2: Socioeconomic Characteristics of Beneficiaries of the NGO-led food security programmes

Variables/Categories	Frequency	percentage	mean	Standard Deviation
Age				
Young (25 -35 years)	56	20.0	44.4	10.2 years
Middle (36 – 50 Years)	30	50.0	years	
Ageing (51- 65 years)	9	19.0		
Old (Above 65 years)	5	5.0		
Marital Status				
Single	12	12.0		
Married	45	45.0		
Divorced	5	5.0		
Widow/widower	35	38.0		
Family Size				
0-5 members (Small)	25	25.0	7.0	6.0 persons
6-10 members (medium)	63	63.0	persons	
11-20 members (large)	12	12.0		

Beneficiaries involvement in other Occupations

	Males		Females		Total	
Occupation	No.	%	No.	%	No	%
Teaching	4	16.0	6	40.0	10	10.0
Trading	4	16.0	5	3.0	9	9.0
Mining	4	16.0	2	13.0	6	6.0
Administration	4	16.0	0	0.0	4	4.0
Carpentry	3	12.0	0	0.0	3	3.0
Traditional Leaders	2	8.0	1	6.7	3	3.0
Medical Workers	1	4.0	1	6.7	2	2.0
Blacksmithing	2	8.0	0	0.0	2	2.0
Social Worker	1	4.0	0	0.0	1	1.0

Religion of Beneficiaries and Participation in decision-making in NGO-led Food Security Programmes

Majority of the respondents (58.0%) were Muslims, while 33.0% were Christians. A very small proportion of them (9.0%) practice African traditional religion. The relationship between religion and participation in NGO-led food security programmes was tested. The Chi-Squire (X^2) test result of 37.82 with 2 degree of freedom at 5% level of significance is greater than the X^2 table value of 5.991. This shows that there is a significant evidence of relationship between religion and participation in the NGO-led food security programmes in the study area. The proportion of males participating in NGO-led food security programmes differs significantly from females. More men than expected were participating in programmes in the study area.

TABLE 3: Religion against Participation in Decision-Making in NGO-led Food Security Programmes

	Religion			
Decision-Making	Muslims	Christians	Tradition Lists	Total
Participation	A25 (23.2)	B10 (13.2)	C5 (3.6)	40
Non-Participation	D33 (34.8)	E23 (19.8)	F4 (5.4)	60
Total	58	33	9	100

$^{G}F_A = \frac{58 \times 40}{100} = 23.2 \quad ^{E}F_B = \frac{33 \times 40}{100} = 13.2 \quad ^{E}F_C = \frac{9 \times 40}{100} = 3.6$

$^{E}f_D = \frac{58 \times 60}{100} = 34.8 \quad ^{F}f_E = \frac{33 \times 60}{100} = 19.8 \quad ^{F}f_F = \frac{9x\ 60}{100} = 5.45$

$X^2 = \frac{(25 - 23.2)^2}{23.2} + \frac{(10 - 13.2)^2}{13.2} + \frac{(5 - 3.6)^2}{3.6} + \frac{(33 - 34.8)^2}{34.8} + \frac{(23 - 17.8)^2}{19.8} + \frac{(4 - 5.4)^2}{5.4}$

$= \frac{(1.8)^2}{23.2} + \frac{(-3.2)^2}{13.2} + \frac{(1.4)^2}{3.6} + \frac{(1.8)^2}{34.8} + \frac{(3.2)^2}{19.8} + \frac{(-1.4)^2}{5.4}$

$= \frac{3.24}{23.2} + \frac{10.24}{13.2} + \frac{1.96}{3.6} + \frac{3.24}{34.8} + \frac{10.24}{19.8} + \frac{19.6}{5.4}$

$= 0.014 + 0.078 + 0.054 + 0.016 + 3.62 = 3.782$

$=X\aleph^2$ cal = 3.782, X^2 tab = 5.991, df = 2, P = 0.05

Position Holding of Beneficiaries and participation in Ngo-led Food Security Programmes

Position holdings among respondents were investigated and the results indicated that majority of the respondents (65.0%) were not position holders. Over one-third of them (35.0%) were position holder. Most of those who reported holding positions were NGO workers. Only small proportions (8.6%) were women and youth leaders. The relationship between position holding and sex was tested. The X^2 test result of 1.675 with 1 degree of freedom at 5% level of significance is less than the tabulated X^2 value of 3.841. This shows that there is no significant evidence of relationship between sex and position holding in the NGO-led food security programmes

TABLE 4: Position holding and Participation NGO-Led Food Security Programmes

	Position Holding		
Sex	Position Holders	Non-Position Holders	Total
Male	27(22.75)	38(42.25)	65
Female	8(12.23)	27(22.75)	35
Total	35	65	100

$E_A = \frac{35 \times 65}{100} = 22.75, \quad E_B = \frac{65 \times 65}{100} = 42.25,$

$E_C = \frac{35 \times 35}{100} = 12.25, \quad E_d = \frac{65 \times 35}{100} = 22.75$

$X^2 = \frac{(27 - 22.75)^2}{22.75} + \frac{(38 - 42.28)^2}{42.28} + \frac{(8 - 12.25)^2}{12.25} + \frac{(27 - 22.23)^2}{22.75}$

$= \frac{(4.25)^2}{22.75} + \frac{(-4.25)^2}{42.25} + \frac{(-4.25)^2}{12.25} + \frac{(4.25)^2}{22.75}$

$= \frac{13.0625}{22.75} + \frac{18.0625}{42.25} + \frac{18.0625}{12.25} + \frac{18.0625}{22.75}$

$= 0.079 + 0.043 + 1.474 + 0.079 = 1.675$

X^2 cal = 1.675

X^2 tab = 3.341 df = 1 P = 0.05

Beneficiaries' Educational Level and participation in NGO-led food Security Programmes

The educational level of respondents is presented in Table1. The results showed that less than two-fifths of all those interviewed (38.0%) were illiterates and the rest (62.0%) had received some formal education. Of these who received formal education, about one-fourth (27.4%) attained vocational education and the number of women was higher than men. Also, nearly one-fourth of them (24.2%) received secondary education and the number is higher for men than women. Above one-fifth of the sample (21.0%) received teacher training educations and the percentage was higher for women than men. Nearly one-fifth of the respondents (19.4%) attained university education and men were higher than women. Below one-tenth (8.0%) received primary education and the number was higher for females than males. On the whole, the number of sample respondents who had received former education would have implication on the NGO-led food security programmes. The relationship between educational status and participation was tested. The X^2 test result of 41.615 with 1 degree of freedom at 5% level of significance is greater than the tabulated X^2 value of 3.841. This is an indication that there was a great significant evidence of relationship between educational status and participation in the NGO-led food security programmes. More men than expected were participating in the NGO-led food security programmes in the study area.

TABLE 5: Relationship between Educational Status and Participation in NGO-led Food Security Programmes

Educational Level	Respondents					
	Males		Females		Total	
	No.	%	No.	%	No.	%
Primary	2	6.3	3	10.0	5	8.0
Secondary	8	25.0	7	23.3	15	24.2
Vocational Institution	8	25.0	9	30.0	16	27.4
Teacher Training College	5	15.6	8	26.7	13	21.0
University	9	28.1	3	10.0	12	19.4
Total	32	100.0	30	100.0	62	100.0

Participation	Educational Status		
	Had Formal Education	Had no formal Education	Total
Participate	45(29.28)	3(18.72)	48
Do not Participate	17(31.72)	35(20.28)	52
Total	62	38	100

$$E^1 = \frac{(45 - 29.28)^2}{29.28} = \frac{(15.75)^2}{29.28} \qquad E^2 = \frac{(17 - 31.72)^2}{31.72} = \frac{(-15.75)^2}{31.72}$$

$$E^3 = \frac{(3 - 18.72)^2}{18.72} = \frac{(-15.75)^2}{18.72} \qquad E^4 = \frac{(35-20.28)^2}{20.28} = \frac{(15.75)^2}{18.72}$$

$$X^2 = \frac{(15.75)^2}{29.28} + \frac{(-15.75)^2}{31.72} + \frac{(-15.75)^2}{18.72} + \frac{(15.75)^2}{31.75}$$

$$= 8.439 + 7.790 + 13.201 + 12.185 = 41.615$$

X^2 cal = 41.615

X^2 tab = 3.841 df = 1 P = 0.05

DISCUSSION

Various studies have shown that males predominantly participated in development programmes (Foubert, 1987; Sinha, 1976; and Staves, 1994). In this study, the majority of the respondents were males, indicating that male clienteles are still the focus of development programmes. The percentages of male NGO members and beneficiaries participating in the NGO-led food security programmes were higher than women. According to Arusha (1990), difference in gender participation could be due to difference in philosophy and programme emphasises. Foubert (1987) suggested that where there is tendency for men to dominant participation in development programmes, conscious effort should be made to encourage women's participation. The proportion of female clientele (35.0%) participating in the NGO-led food security programmes was, however, greater than that shown in the Agricultural Statistical Survey (2004) (about 9.8 percent) for the country SSL 2004). The trend shows increase in women participation in development programmes. This finding indicates that the scenario in the country in general and the study area in particular is changing.

PEMSD (1999) reported that the mean age of 45 years as the cut off point between young and old farmers. Josiah's study (1988) of farmers in the Eastern Area Integrated Agricultural Project gave the average age of farmers to be 44.9 years. In this study, the average age of respondents participating in NGO-led food security programmes was 44.4 years with standard deviation of 10.2 years. This result was almost the same as that reported in the PEMSD (1999) survey and findings reported by Josiah (1988). The future of farming and participation in agricultural and other rural development programmes in the study area is at stake due to the non- increasing number of young farmers. This implies that in the 10-15 years time, there would be no people with energy and enthusiasm to undertake development programmes; especially food security programmes because of their labour requirements.

Marriage confers status and responsibility on individual. Usually, a person's marital status is considered relative to his or her social status, level of responsibility and moral behavior. Moser (1993) study of responsiveness of NGOs to recipients participation in development showed that majority of the participants of NGOs was within economically productive age group (21-40 years). It was, therefore, not surprising that most of the respondents in this study were married. This pattern suggests that marriage is still an important social institution in the study area. Marriage is a symbol of respectable social status, high level of responsibility and acceptable moral behaviour, and offers status and responsibility. The analytical report on production and household survey in Sierra Leone (SSL, 1985) reported average household size of 6.6 for the country and 7.7 for the districts of the Northern Province. These figures suggest that majority of the community farmers have the labour potential to participate in intensive subsistence farming and NGO-led food security programmes. This form of farming and programme implementation are overwhelmingly dependent on manual power and, thus, large household sizes are needed. This will reduce the need for hired labour and will minimize drudgery on household members because a large household often has a large number of working members. The average household size of the respondents in this study area was 6 persons. This average household size is almost equal to that reported for the country, but less than the average household for the Northern Province. Small household sizes were found in chiefdoms and district headquarters towns. This may have implication for labour requirement for farming using traditional tools. In the East Province of Sierra Leone, in terms of religion, Muslims predominate (Josiah, 1988). The predominance of Muslims is not peculiar of the region but it is a common feature in all rural areas of Sierra Leone (Commonwealth Facts Sheet, 1980). In this study, majority of the respondents (58.0%) were Muslims, Christians (33.0%) and the rest were traditionalists (9.0%). The effect of religious beliefs and differences in rituals on adoption of innovations has been discussed by Bajrachary's study in Napal, cited by Agarwal (1983). In that study, it was revealed that while the Rias and Qurunas, who were indigenous caste groups with different religious beliefs and rituals, resisted the adoption of the use of wood-stove , the Brahin and Chhetri , who had migrated from outside accepted the stove. The time religious activities are performed need to be considered in planning and implementation of development and food security programmes as it may affect the level of participation in the programmes. In terms of social status, more than half of the respondents (65.0%) interviewed did not hold positions in their communities. Of the 45 people who were reported holding positions, 35 were executive members and 10 were influential people within the communities. Kerem, *et al.* (1986) showed that position held by organization members may have either negative or positive impact on the level of decision-making in rural organizations. These position holders fall into the high status category in the community (Bunch, 2004)). They usually have a relatively high income status which gives them an advantage in taking up new practices. This was particularly true of the position holders in the study area. Nonetheless, the implication of this is that the poor-resource farmers would pledge their royalty to these elite farmers as they would be their sources of financial assistance- money lenders.

The effectiveness of any development depends on the level of knowledge attained by the participants in the programmes (World Bank, 2003). But one common feature of rural areas of most developing countries is the low level of education. This had implications for position holding and decision-making in the NGO-led food security programmes that were implemented. The educated few, who had attained high level of education, were enjoying special privileges in NGO-led food security and other development programmes that were implemented, dominated in decision-making, discussions, and benefit sharing, as they are looked up to as spoke persons for the communities. Foubert (1987), in his study of farmers groups in Sierra Leone, revealed that although the main occupations of members in these groups was farming, were other occupations such as government employees, drivers, petty traders and blacksmiths. Johnny (1995) studied two villages (Foindu and Molema) in the southern region of Sierra Leone and reported that the average non-farming income was estimated to be 30% of the total household cash income. Bawa, *et al*. (2010) reported this fact and noted that off-farm employment is a key factor in rural diversification and commercialization. In this study, sample respondents were engaged in several incomes – generation activities, both agricultural and non-agricultural. These non-farming activities provide substantial amounts of cash for farmers which will enhance their capacity to adopt costly improved NGO-led food security innovations. The high percentage of farmers with additional income indicates that adoption of the NGO-led food security technologies would be enhanced if farmers have supplementary sources of income. The findings of this study confirm the findings of Foubert (1987). The implication of respondents engaging in other occupations is that it may provide more resources, but may also create competition for labour required for farming.

CONCLUSION

From the findings of this study, was concluded that certain characteristics such as sex, religion and education level highly affected the participation, while position holding does not affect participation of the beneficiaries in the NGO-led food Security Programmes and that even though less female farmers participated in the Ngo-led food security programmes, there was not much significant evidence of relationship between sex and decision-making in for participation in the NGO-led food security programmes. These factors would continue to make the NGOs incapable of effectively producing desired results, realizing their goals, matching organizational capacity with client needs, and facilitating beneficiaries' participation in NGO-led food security programmes.

RECOMMENDATIONS

It was recommended that NGOs include functional in-serve training of the NGO-led food security programme beneficiaries. Also, the NGOs should make fervent efforts to identify those factors which hinder beneficiaries' effective participation in food self-security programmes in

the District and to conduct especial skill trainings programmes to remove these factors.

REFERENCES

Agarwal, B. (1983) Diffusion of Rural Innovations: Some Analytical Issues and the Case of Wood-burning Stoves. World Development, vol. 11, No. 4, pp359-376, Pergamon Press.

Akinbile, L.A., Hussan, L.A. & Yekinni, O.T. (2008) SDA/CBO Participation in Community-Based Poverty Reduction Projects in Selected Communities in Ekiti State, Nigeria. Niger. J. Rural Sociology, 8(1): 41-47.

Aref, F. Marof, R. and Sarjit, S.G. (2010) Community Capacity building: A review of its implications in tourism development. Journal of American Science 6(1); 172- 180.

Arusha, B. (1990), ACCA Study Text, Professional Paper 12", Management and Strategy, London, BPP Publishing Limited, London

Bawa, D. B., Donye, A.O. & Nuhu, H.S. (2010) Analysis of involvement of women inseed system in Bomo State, North-East Nigeria. Agriculture and Biology Journal of North America: http://www.scihub.org/ABJNA

Bunch, R. (2004) People- Central Agricultural Improvement. In Harverkort, B: Kampa Vardai and Waters –Bayer A.A. (Eds). Journal of Experiences in Participatory Development: London It Publishers.

Commonwealth Institute (1980) Commonwealth Fact Sheet on Sierra Leone, London

Foubert (1987 "Evaluation Report of the FFH/AD Programmes of Support for Agricultural Development Initiatives by Farmers Association in Sierra Leone", Freetown, Sierra Leone

Johnny, M. (1979) Traditional Farmers' Perceptions of Farming Problems in the Moyamba Area, Sierra Leone, M.A Thesis, University of Sierra Leone, Freetown.

Josiah, B.P. (1988) "Farmers' Perceptions of Innovation Practices and Decision-making, with Reference to Cocoa and Swamp Rice Cultivation in the Eastern Sierra Leone", Unpublished PhD.

Karen, M. & Drorack, M. (1986) The Roots of Participation in Farmers Cooperatives, Iowa State College, Iowa.

Moser, C.A. & Kalton, G. (1990) (2nd Ed.,) Survey Methods in Social Investigations, Heinemann Educational Books, London.

Oakley, E.A. (2002) Projects with people. The Practice of Participation in Rural Developments Geneva ILO Pp. 98-112.

PEMSD/MAFS (1999) Agricultural Household Census Report on Agricultural Farm Families", Ministry of Agriculture and Food Security, Freetown, Sierra Leone.

Sinha, P.R.R., Chakravarty, T.K. & Arya, A.P.S. (1976) Village Level Workers: A Study of the Factors Influencing their Performance, National Institute of Community Development, Hyderabad Press, India.

Statistic Sierra Leone (1985) "The Analytical Report on Population and Housing Census in Sierra Leone", Freetown, Sierra Leone.

Stavis, B. (1994) Rural Local Governance and Agriculture in Taiwan, Rural Development Committee, Center for International Studies, Cornell University, Ithaca, New York.

Subedi, R. (20008) Women Farmers' Participation in Agricultural Training in Kaure District of Nepal Laren Strein University of Applied Science, Kathmandu.

World Bank (2003) Community-Based Poverty Reduction Programme. International Capacity Studies of Local Communities in Six Pilot States. In Olayemi J.K (Eds) Synthesized Report Pp 1–5, Washington D.C USA, Washington D.C USA.