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Reducing the Incidence Household Food Insecurity via Crop Production among Farmers in Patigi Local Government Area, Kwara State

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Abstract: The study was conducted to examine the reduction in the incidence of household food insecurity via crop production among farmers in Patigi Local Government Area, Kwara State. Simple random sampling was used to select 120 farmers. The sample size were drawn from the three districts in the area, five villages from each districts and eight farmers from each village which make a total of 120 farmers. Primary data was obtained with the use of questionnaire. Data collected were analyzed using frequency and percentages. The study revealed that the level of farming in the area is high because all the respondents are farmers. Only few of the farmers are involved in non-farming activities such as trading (16%), civil servant (13%) and other activities (25%). It is equally discovered that their involvement in farming activities towards household food security is however, high. The result also revealed that, rice, sorghum, maize, groundnut, melon, millet, yam, cassava, beans and sweet-potatoes are the major type of crops grown in the area. But they grow more of rice (73%), sorghum (60%), melon (26.7%), groundnut (23%), maize (22.5%), yam (22.5%), cassava (20.8%) and millet (1.7%). They also consume more of rice (74.2%), sorghum (85%), cassava (72.5%), maize (27.5%), yam (20.8%), beans (10.8%) and sweet-potatoes (4.2%). They earned more revenue from rice (87%), sorghum (35%), melon (14.2%), yam (10.8%), maize (7.5%), groundnut (7.5%), cassava (5%) and millet (0.8%). Some of the factors found to be affecting household food security in the area were storage facilities (99.2%), access to credit (95.8%), farm inputs (72.5%), favorable government policy (23%) and other factors like bad road, electricity, irrigation system (50.8%). It was recommended that production of rice, sorghum and cassava should be intensified in the area as they contribute tremendously to food security in the area.

Key words: Food security, sorghum, nutrition, insecurity, crop, production

INTRODUCTION

Food security at the national and household levels as well as access to adequate basic health services are essential pre-requisites for food nutrition. Good nutrition is necessary to achieved a healthy and active life, educational performance and enhance productivity. The general economic situation in most of the developing countries has subjected majority of the households into problem of food crisis (food insecurity) and this condition further aggravated the poor nutrition and health status of the citizenry (Ijarotimi and Oyeneyin, 2005). Food security is defined as the point when all people at all times have both physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life (Ijarotimi and Oyeneyin, 2005). Food security may have different meanings to different people. The International Conference on Nutrition (ICN) held in Rome in 1992, defined food security as access by all people at all times to the food needed for a healthy life (AWDR, 2009). Adequate food availability at the national, regional and household levels obtained through markets and other channels, is the cornerstone of nutritional well being. At the household level, food security implies physical and economic access to foods that are adequate in terms of quantity, nutrition quality, safety and cultural acceptability to meet each person's needs. Household food security depends on adequate income and assets, including land and other productive resources owned. Food security is ultimately associated with access to nutritionally adequate food at household level that is the ability of households or individuals to acquire a nutritionally adequate diet at all times (AWDR, 2009).

Increased and diversified production of food for family consumption or income is a basic pre-requisite for improve household food security (AWDR, 2009). A family can secure food in two main ways: food production and food purchase. Both require adequate resources or

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income. Findings have shown that households most likely to be food insecure are the poorest, that is food insecurity exists when people lack access to sufficient amount of safe and nutritious food (Ijarotimi and Oyeneyin, 2005). It is in view of the contribution that food crops provide to household food security that research intends to evaluate the extent at which food crops grown by the farmers contribute to household food security in the study area.

MATERIALS AND METHODS

Study area: The study was conducted in Patigi Local Government Area of Kwara State. The Local Government Area is situated at Kwara North. The area geographical map is located at longitude 5°C 48 sec and latitudes 8°C 33 sec. It has a total land area of 2743 Km^2 and a population of about 110, 852. The climate is characterized by rainy and dry seasons. The rainy season begins from early April and end in October and the dry season begin from end of November to end of March.

Sampling procedure and sample size: The sample of the study was drawn from the population using simple random sampling. The sample size was obtained from the sampling frame acquired from the farmers' associations. The sample size was drawn from three districts in the Local Government Areas namely: Patigi, Lade and Kpada districts, five villages from each district namely, Godiwa, Edogi-kpansanako, Kusogi, Likofu, Tswatagi (Patigi district), Sakpefu, Edogi-chapa, Gada, Latah, Esanti (Lade district), Rogun, Kusogi-danchi, Gakpan, Duro and Koro (Kpada district). Eight farmers were selected from each village which gave a total of 120 farmers.

Data collection: The data for the study were collected from two major sources: primary data collected with the use of questionnaires while secondary information were obtained from journals, internets and past projects.

Data analysis: The data was collected from the field and analyzed using descriptive statistics such as frequency and percentages.

RESULTS AND DISCUSSION

Age: Table 1 shows that 54.167% of the farmers are in the age class of 40-59 while 45 and 0.83% were between 20-39 and 60-79, respectively. This showed that majority of farmers are in their economically active age because at this age, they are physically fit and mentally alert to effectively cope with rigours of farm work. The findings confirm the fact that only the young and adult are actively involved in farm activities. This implies that the young and adult farmers possess the energy needed for farm activities that will generate more income and improve their living standard.

Table 1: Socio-economics characteristics of the farmers

Characteristics	Frequency	Percentage
Age		
20-39	54	45.0
40-59	65	54.0
60-79	1	1.0
Gender		
Male	116	97.0
Female	4	3.0
Marital status		
Married	120	100.0
Single	-	-
Household size		
1-9	36	30.0
10-19	75	62.5
20-29	8	6.5
30-39	1	1.0
Total	120	100.0

Field survey, 2009

Table 2: Distribution of farmers according to level of education

Level of education	Frequency	Percentage
Qur'anic only	109	90.8
Adult only	23	19.0
Primary only	49	40.8
Secondary	26	21.7
Tertiary only	1	0.8
Total	208*	173.0*

Field survey, 2009; *Multiple responses

Gender: Table1 showed that 97% of the farmers are males and 3% females. The greater percentage of male farmers is because the husbands supply the basic food for the family while the females are involved in buying, selling and processing of some farm products.

Marital status: Table 1 also showd that all the farmers interviewed were married. This so because they have all reached the age of marriage and the culture and the religion of the emphasized a lot on marriage.

Household size: Table 1 showed that 62.5% of the farmers have a family size of 10-19, 30%; 1-9 household size, 6.5% and 1% have 20-29 and 30-39, respectively. The large number of household size may be due to the dominance of polygamous families found mostly among the Muslims. The implication of this is that the larger the household size, the higher the labour supply which will lead to greater productivity of the farmers. Oladoja *et al.* (2008), indicated that a large family size is an indication of available family labour for the farming operations. This implies that, the greater the number of hands available, the greater the likelihood of high output.

Table 2 showed that 90.8% of the farmers had Qur'anic education and 19% had adult education while

Table 3: Distribution of farmers based on occupation

Occupation	Frequency	Percentage
Farming	120	100*
Trading	19	16
Civil servant	16	13
Others (specify)	30	25
Total	185*	154*

Field survey, 2009; *Multiple responses

Table 4: Distribution of farmers based on the type of crops grown on the farm

Crops grown	Frequency	Percentage
Rice	88	73.0
Sorghum	72	60.0
Maize	27	22.5
Melon	32	26.7
Cassava	25	20.8
Yam	27	22.5
Groundnut	28	23.0
Millet	2	1.7
Total	301*	250.0*

Field survey, 2009; *Multiple responses

Table 5: Distribution of farmers based on whether they grow all the crops on their farm

Do you grow all crops on your farm	Frequency	Percentage
Yes	110	92
No	10	8
Total	120	100

Field survey, 2009

40.8% had primary education and 21.7% secondary school. Finally, only 0.8% had tertiary education. This implies that the farmers have one form of education or the other. Though not adequate, it could affect adoption of new innovations. It has been indicated that the relative level of education is expected to favour adoption of innovations by farmers (Oladoja *et al*., 2008). Table 3 showed the various occupations the farmers were involved in order to generate income. Farming was found to be practiced by major all the farmers in the study area (100%). The minor occupations of the farmers were trading (16%), civil servant (13%) and others (25%) handled other activities to supplement their farm income. The reason for this minor occupation may be that farming cannot provide them with enough income needed to satisfy their household needs. Table 4 shows that, 73% of the farmers planted rice, 60% planted sorghum, 26.7% planted melon, 23% planted groundnut, 22.5% planted maize, 22.5% planted yam while 20.8 and 1.7% planted cassava and millet, respectively on their farm.

They planted rice mostly because it earns them more income and is consumed more in the area. Akande (2002) reported that rice is an important staple fod for over 60% of the world population and is also grown for sale. Table 5 shows that 92% of farmers interviewed grow all crops that are planted in their area, on their farm. This may be as a result availability of land and large family size that help to supply the labour needed for the farm work. While 8% of farmers grow only few of the crops on their farm this could be as a result low family size of the farmer that will help to supply labour for farm work and they no

Table 6: Distribution of farmers based on the contribution of crops to their household food security

Contribute to household food security	Frequency	Percentage
Yes	119	99
No	1	1
Total	120	100

Field survey, 2009

Table 7: Distribution of farmers based on whether they consume all the crops they grow

Do you consume all the crops grown	Frequency	Percentage
Yes	43	36
No	77	64
Total	120	100

Field survey, 2009

Table 8: Distribution of farmers according to the crops they consume more

Crops farmers consume more	Frequency	Percentage
Rice	89	74.2
Sorghum	102	85.0
Cassava	87	72.5
Yam	25	20.8
Maize	33	27.5
Beans	13	10.8
Sweet potatoes	5	4.2
Total	354*	295.0*

Field survey, 2009; *Multiple responses

enough capital to carryout some farm operation. Table 6 showed that 99% of the farmers reported that the crops they grow have contributed to their household food security as they have increased the farmers level of income and have improved their household food security. Only 1% of them said that the crops have not really contributed to his household food security, this may be as a result of the inability of the farmers to cultivate enough food crops that will make them to be food secure. Table 7 shows that 64% of the farmers did not consume all the crops they produced but only consume some and sell the remaining which serve as their source of income. While the remaining 36% of farmers consume all the crops they produced because they did not produce enough for their home consumption.

Table 8 showed that 85% of the farmers consumed sorghum, 74.2%, rice, 72.5%, cassava, 27.5%, maize, 20.8%, yam, 10.8 and 4.2% of them consume beans and sweet potatoes, respectively. Farmers consumed more of these crops because they are widely grown in the area and serve as their main staple food crops. Table 9 shows that 72.5% of the farmers earn more revenue from rice, 35%, sorghum, 14%, melon and 10.8% from yam. Rice earns more revenue because it is one of the common food crops that people prefer most due to its good taste and flavor. Francis (1988) observed that rice is easy to produce, prepare and is grown for both sale and home consumption.

Table 10 shows that 100% of farmers used the income realized from the sales crops to solve other family problem like ceremonies, children school fees, health care for their family and themselves. The implication of this is that farmers largely depend on farming. About 17.5% of them

used their own revenue to buy other food items they do not produced and 10% used income realized to assist others like their friends, relatives and neighbors that are in need. Table 11 shows that all the crops consumed and the revenue realized have improved the living standard of the farmers (100%) in the study area. Table 12 shows that 77.5% of the farmers reported that it have improved their living standard very well. 21.7% agrees that it improved their living standard moderately while 0.8% agrees that it improved their living standard in a small way. This proves that the crops that are grown by these farmers have helped improved their living standard enormously. This could be because they provide food for consumption and also generate income for the farmers.

Table 13 showed that 99% of farmers interviewed said that storage facilities is a serious factor affecting household food security in the area (96%), access to credit (62%), affordability of farm inputs (51%), bad roads, irrigation and electricity and 34% unfavorable government policy. The implication is that farmers produce a lot but there is no adequate processing and storage facilities that can be used to process and store their farm produce and thus prevent them from spoilage, this causes a lot of wastage.

Table 9: Distribution of farmers based on which crops earn them more revenue

Crops that earn farmers more revenue	Frequency	Percentage
Rice	87	72.5
Sorghum	42	35.0
Maize	9	7.5
Cassava	6	5.0
Yam	13	10.8
Groundnut	9	7.5
Melon	17	14.0
Millet	1	0.8
Total	184*	153.0*

Field survey, 2009; *Multiple responses

Table 10: Distribution of farmers based on what they do with the revenue realized from the sold crops

What do you with the money realized from the sales of crops	Frequency	Percentage
Buy other food items I do not produce	21	17.5
Solve other family problems	120	100.0
Assist others	12	10 .0
Total	153*	127.5*

Field survey, 2009; *Multiple responses

Table 11: Distribution of farmers based on whether this has improved their living standard

Has this improved your standard of living	Frequency	Percentage
Yes	120	100
No	-	-
Total	120	100

Field survey, 2009; *Multiple responses

Table 12: Distribution of farmers based on how these have improved their living standard

Extent to which it improves their living standard	Frequency	Percentage
Very well	93	77.5
Moderately	26	21.7
Little	1	0.8
Not at all	-	-
Total	120	100.0

Field survey, 2009

Table 13: Distribution of farmers based on the factors affecting household food security in the area

Factors affecting household food security	Frequency	Percentage
Affordability of farm inputs	74	62
Availability of storage facilities	119	99
Availability of land	-	-
Climatic condition	-	-
Pest and diseases	1	1
Unfavorable government policy	41	34
Access to credit	115	96
Others specify	61	51
Total	411*	343*

Field survey, 2009; *Multiple responses

CONCLUSION

In this study, it is observed that all the crops grown by the farmers have contributed to their household food security having increased the farmers' level of income and also improved their household food security.

RECOMMENDATIONS

- Since processing and storage facilities, low income, access to credit, favorable government policy etc are important factors affecting food security, effectors should be made at providing farmers with all these needed factors in order to improve food security level and reduce food insecurity in the area
- Production of rice, sorghum and cassava should also be intensified in the area as they contribute tremendously to food security in the area

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