

Contribution of Food Crops to Household Food Security Among Crop Farmers in Patigi Local Government Area, Kwara State, Nigeria

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ABSTRACT: This study was designed to assess the contribution of the major food crops grown by farmers to household food security in Patigi Local Government Area, Kwara State. Simple random sampling was used to collect the data. The sample size were drawn from the three districts in the area, five villages from each districts and eight farmers from each village which makes a total of 120 farmers. Primary data were obtained with the use of questionnaire. Data collected were analyzed using frequency and percentages. The results revealed that rice, sorghum, maize, groundnut, melon, millet, yam, cassava, beans and sweet-potatoes are the major crops grown in the area. Farmers 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 earn 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). The study also showed that farmers in the study area are relatively food secure. Inputs such as fertilizer, processing and storage facilities, improved seedlings, tractor, access to credit loan etc. should be made available to encourage farmers to improve household food security and raise their living standard. In addition, efforts should be made by research institutes to generate improved technologies on farming.

INTRODUCTION

Nigeria as a country is blessed with potentially good land and water resources required for sustainable agriculture development. Available evidence indicate that 39 percent of the land mass (923,768km²) of the country is potentially suitable for agriculture and out of this, between 4 to 4.5 million hectares (approximately 4.5 to 5 percent of land) are suitable for irrigated agriculture but only 1.1 million hectares can be supported by available water, the remaining 3.4 million being Fadama, (Oladoja *et al.*, 2008).

Food crops such as rice, maize, cowpea, melon, groundnut, cassava, sweet potatoes, millet, sorghum, etc. are crops that contribute to food security to meet the consumption needs of the households, and as a source for livestock feeds. Its production is therefore important in meeting the food need of the poor rural households in particular and Nigeria in general. AWDR (2008) indicates that, Household food security will only be stable when there is good food availability at relatively low prices. Ojogbane (2003) reported that the harvest of new crops is a source of small agricultural jobs and income for poor households who use their labour force for harvesting, and transporting

crops to market. Combined impact of low prices, access to food and income earning opportunities is contributing to the reinforcement of food insecurity conditions of poor household in Nigeria Odebode and Ogunsusi (2006).

Food crops make significant contributions to food security of rural population by providing a vast array of foods that supply essential nutrients to them (Omonona and Agoi). However, few studies have focused on the links between food crops and household food security. Therefore, the essence of this research work is to evaluate the contribution of food crops to household food security of the farmers in the study area.

METHODOLOGY

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 is located between latitudes 8° 33' and longitudes 5° 48'. It has a total land area of 2743 square kilometers and a population of about 110, 852. (NPC, 2006). The climate is characterized by rainy and dry season. The rainy season begins from early

April and ends in October and the dry season begins at the end of November to March NSG (2006).

Sampling Procedure and Sample Size: The sample of the study area was drawn from the targeted population using simple random sampling, after establishing the sampling frame by getting the list of the farmers from the village heads. The sample size was drawn from three districts in the Local Government Area namely: Patigi, Lade and Kpada districts and five villages from each district were selected 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), and eight farmers from each village were selected randomly which gave a total of 120 respondents.

Data Collection: The data for this research were collected from two major sources: primary data were collected with the use of questionnaire instrument, consisting of both closed and open ended questions while secondary information were obtained from journals, internets and past projects.

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

RESULTS AND DISCUSSION

Table 1 shows that 73 percent of the farmers planted rice, 60 percent planted sorghum and 26.7 percent planted melon.

Table 1:- Distribution of farmers based on the type of crops they grow on their farm

Crops grown more on the farm	F	%
Rice	88	73
Sorghum.	72	60
Maize	27	22.5
Melon	32	26.7
Cassava	25	20.8
Yam	27	22.5
Groundnut	28	23
Millet	2	1.7
Total	*301	*250

Source:-Field survey, 2009

*Multiple responses.

Others (23) percent planted groundnut, 22.5 percent planted maize, 22.5 percent planted yam while 20.8 and 1.7 percent planted cassava and millet respectively on their farm. Rice and sorghum are grown more in the study area because they serve as important food crops and also earn them income.

Table 2:- Distribution of farmers based on the crops they consumed more

Crops consume as staple food	F	(%)
Rice	84	70
Sorghum.	120	100
Cassava	102	85
Maize	25	20.8
Yam	32	26.7
Beans	37	30.8
Sweet potatoes	15	12.5
Millet	4	3
Total	*419	*349

F= frequency

Source:-Field survey, 2009

*Multiple responses.

Table 2 shows that all the farmers interviewed consumed sorghum as their staple food, 70 percent consumed rice, 26.7 percent yam, 30.8 percent of them beans, and 21 percent, maize. They consume these crops more because they are their traditional food and they are the crops that are grown more in the study area. According to FAO (2009), food production by the farmers forms the basic pre-requisite for improved household food security.

Table 3 shows that 92.5 percent of farmers grow enough food that lasts them for one year, while 7.5 percent of them did not grow enough food to last them for one year.

This reveals that majority of the farmers (93%) interviewed grow enough food that last them for one year. Those that did not grow enough food may be due to insufficient labour supply and low capital. According to Ijarotimi and Oyenehin (2005), food insecurity exists when people lack access to capital to produce food and this leads to insufficient amount of safe and nutritious food required for normal growth and development of healthy life.

Table 4 revealed that 5.83 percent of them grow crops that will only last them for 10 months, while 1.67 percent of farmers only grow food that will last them for 8 months. The implication of this is that most of them grow food that last them for 10 months only and this shows that food crops grown by the farmers make significant contribution to their household food security.

Table 3:-Distribution of farmers based on whether they grow enough food to last for one year

Do you grow enough food to last for one year?	F	(%)
Yes	111	92.5
No	9	7.5
Total	120	100

F= frequency

Source:-Field survey, 2009

Table 4:- Distribution of farmers based on how long does the food last

How long does it last?	F	(%)
12 months	111	93
10 months	7	6.0
8 months	2	1.7
Total	9	7.5

F= frequency

Source:-Field survey, 2009

In the case of farmers whose food did not last for 12 months, this could probably be due to low capital to purchase inputs needed for the production of food i.e. fertilizer, labor etc.

Table 5:- Distribution of farmers according to how they cope for the remaining period

How they cope	F	(%)
Get assistance from others	1	0.83
Do some private work	8	6.67
Total	9	7.5

F= frequency

Source:-Field survey, 2009

Table 5 shows that 6.67 percent of the of the farmers do some private work in order to get food for the remaining period, while 0.83 percent of them gets assistance from their colleagues. This means that majority of the farmers whose food did not last them for one

year, engaged in one private work or the other in order to get income to buy food that will sustain them and their family for the remaining period.

Table 6:- Distribution of farmer based on whether the farmer or any member of his family goes to sleep without eating whole day

Do you or member of your family go to sleep without eating whole day	F	(%)
Yes	0	0
No	120	100
Total	120	100

Source:-Field survey, 2009

Table 6 revealed that, 100 percent of the farmers and their family eat whole day, which means that none of them go to sleep without eating. This may be because farmers are able to produce all the food needed for their family consumption. This means that farmers in the study area are relatively food secure. Food availability for the household means ensuring sufficient food is available to them through own production (Omonona and Agoi, 2007).

Table 7:- Distribution of farmers based on whether the farmer or any member of his family misses three meals for the last one week

Three meals missed in the last one week	F	(%)
Yes	0	0
No	120	100
Total	120	100

F= frequency

Source:-Field survey, 2009

Table 7 indicates that none of the farmers and members of their family misses three meals for the last one week, which means 100 percent of them eat food three times daily. This is because they grow enough food crops for their consumption.

Table 8 shows that all the farmers and members of their family consume food available to them. However, they did not consume what they wanted at anytime they

needed it. This phenomenon may be as a result of low income to purchase the variety of food they wanted anytime.

Table 8:- Distribution of farmers based on whether the farmer or any member of his family consumes the type of food he/she wants at any time they need it

Consumption of food varieties	F	(%)
Yes	-	-
No	120	120
Total	120	100

F=frequency

Source:-Field survey, 2009

Table 9 shows that, 100 percent of the farmers and members of their family do not consume balance diet. Balance diet means food that contains all the necessary food nutrients such as protein, carbohydrate, fat and oil, vitamins, minerals and water which are needed by the body for growth and development. While some of the farmers who do not consume balance diet, this may be due to ignorance (many of them do not really know what balance diet is all about): others may be due to insufficient income to buy food items that contains all the balance diet.

Table 9:- Distribution of farmers based on whether the farmer or any member of his family consume balance diet daily

Do you and members of your family consume balance diet	F	(%)
Yes	0	0
No	120	100
Total	120	100

F=frequency

Source:-Field survey, 2009

Table 10 shows that 100 percent of the farmers mentioned both insufficient credit and inputs, 91 percent, inadequate processing and storage facilities and 85 percent poor roads as problems causing food insecurity in the study area.

According to farmers, they produce a lot crops but there are no adequate processing and storage facilities that can be used to process and store their farm product so as to prevent

them from spoilage which can lead to wastage of the products. The findings of this study agree with Idachaba (1989); Olayemi (1996) and Omonona and Agoi (2007) who reported that poor accessibility to credit facilities, storage and marketing facilities, production inputs etc. are important factors causing food insecurity in Nigeria.

Table 10:- Distribution of farmers based on the problems farmers think are causing food insecurity in the study area

Factors causing food insecurity	F	(%)
Inadequate inputs	120	100
Inadequate processing and storage facilities	110	91
Insufficient credit	120	100
Inadequate roads	102	85
Poor irrigation system	53	44
Total responses	*505	

F=frequency

Source:-Field survey, 2009

**Multiple responses.

Table 11:-Distribution of farmers according to their suggestions regarding ways of improving food insecurity in the study area.

Suggestion regarding ways of improving food security in their area.	F	(%)
Provision of irrigation system	51	42.5
Access to credit	102	85
Good roads	101	84.2
Processing and storage facilities	109	90.83
Electricity	87	72.5
Tractor	103	85.83
Improved seedlings	108	90
Fertilizers	111	92.5
Chemicals	82	68.33
Government assistance	7	5.83
Total responses	*861	

F=frequency

Source:-Field survey, 2009

*Multiple responses

Table 11 shows that, 92.5 percent of the farmers suggested that provision of fertilizer at cheaper rate is a way to improve food security

in the area, 90.83 percent processing and storage facilities, 90 percent improved seedlings, 85.83 percent provisions of tractor, 85 percent access to credit loan, 84.2 percent good roads for transportation, 72.5 percent electricity and 68.33 percent suggested provision of chemicals. The implication of this is that if farmers can have access to all these inputs listed above, it can go a long way in improving food security in the area as this can help farmers achieve high crop yield, ability to process and store their farm products, time spend on farm will reduce and purchase all the necessary things needed for farming. They will also be able to transport their farm products to market and to control pest and diseases.

Conclusion: The study reveals that farmers grow different crops and produce enough to cater for their food security in the study area; however, they do not consume balance daily due to ignorance.

Recommendations

1. Since processing and storage facilities, low income, access to credit, favorable government policy etc are important factors affecting food security, efforts should be made at providing farmers with all these needed inputs in order to improve food security level in the area.
2. Farmers should also engage themselves in non-farm activities to enhance their income and food security status.
3. Efforts should be made by research institutes to generate improved technologies on farming.

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