



EVALUATION OF FARMER'S PARTICIPATION IN NATIONAL SPECIAL PROGRAM FOR FOOD SECURITY IN NIGER STATE, NIGERIA

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ABSTRACT

The study evaluates farmer involvement in National Special Program for Food Security in Niger State, Nigeria. Purposive sampling techniques was used to select participants from the three Agricultural sites of the programme using structured interview schedule to gather information from one hundred and three respondents. Descriptive statistics, Likert scale and t-test were used to analyze the data collected. Results emerging from analyzed data indicate that 55.9% of farmers participated in crop production which led to increase in their farm size, output and income. Farmers' participation is low in marketing of the farm products (13.7%) and fairly high in livestock (30.2%). The study also indicated that respondents expressed satisfaction in terms of involvement in the implementation of NSPFS programme components identified. Loans provided for the project participants assisted the recipients in boosting their farm production. The t-test result revealed that significant increases were found in the farm size, output, $p \leq 0.01$ (1%) and income of participants after the programme. This means that the programme has impacted positively on the participants especially in Agricultural production. The study concluded that farmer's participation in NSPFS programme actually poverty reduced poverty level and significantly contributed to food security. This has given them more access to production credit and other specific benefits. It has increased their output and improved their living condition. It was recommended that the programme should have more sites and participants so as to better raise their output, income and farm size.

Key words: Food Security, poverty alleviation, farm size, income, output.

INTRODUCTION

Food security is currently both a fundamental objective and an expected output of development policies in Nigeria, as the country currently faces a challenge in meeting the basic food needs of its population. The majority of Nigerians depend largely on subsistence agriculture, which is hardly sufficient to meet the food needs of the population. However, notwithstanding the many policies, programs, and investments by various local and international agencies operating in the country, food security and the nutrition situation are worsening (Ukeje 2003).

In Nigeria, males and females-headed households are frequently the most chronically poor within rural communities. Though female farmers play significant roles in rural economic activities, women have lower social status than men and consequently less access to schooling and training, particularly in child care and health practices. While the number of men migrating from rural areas in search of employment has increased over the last decades, the numbers of female-headed households has risen substantially. Females struggle to cope as the burden of work at home and in the fields, fall on their shoulders. Malnutrition is a frequent problem in these households. In order to better integrate females into the socioeconomic life of Nigeria, education and employment opportunities must be improved and women should be encouraged to participate more

actively in development activities International Fund for Agricultural Development (IFAD, 2006). Women are the key to food and nutrition security (Quisumbing et al 1995; Ukeje, 2003). They play an important role as reducers of food, as managers of natural resources, in income generation and as providers of care for their families. Yet, female farmers in Nigeria often continue to have limited access to land, education, credit, information, technology, and decision making bodies. The control of land confers on the owner access to credit, and inputs such as agricultural extension service, seeds, modern irrigation systems, fertilizers, pesticides, and membership of co-operative societies. Without land, the women have no security and have to depend on landowners for employment. In the eastern part of the country where the population density is high, the break-up of communal land holdings has led to the transfer of executive land rights to male-headed households (Ukeje 2003). This ignores both the existence of female-headed households and the right married women to joint share. Women are either dependent on the goodwill of their husbands and the availability of land to grow food or have to lease farmland.

The problem of food and nutrition security in Nigeria has not been adequately and critically analyzed, despite various approaches addressing the challenge.

The enormous amount of money spent in attempting to ensure the food security of Nigerians without success calls for a fundamental review of the past of the approaches and achievements to see what lessons can be learned to re-strategize and to develop an approach that will ensure that better progress is made toward achieving the first Millennium Development Goal (Sanusi *et al* 2006).

Since the majority of Nigerians (70 percent) live in rural areas, an analysis of the food and nutrition security status of rural dwellers will provide a clear picture of what needs to be done to ensure food security in Nigeria with the attendant improvements in nutrition status when all the other necessary conditions, such as adequate health and care, are present. And as a first step towards the Millennium Development goals target of reducing by half of the number of hungry people by 2015, the Federal Government of Nigeria operated a pilot project of the NSPFS in 3 sites of Kano State, Federal Government of Nigeria (FGN, 2006). Based on the successful experience, a five year nationwide National Special Programme for Food Security (NSPFS) was launched in 2001 with the objective to increase and establish food production rapidly and sustainable through the wide spread dissemination of improved technology and management practice in areas with high potentials, and to create an economic and social environment conducive to food production as well as reaching some 30,000 farming families in each selected areas (FGN, 2006).

The study was designed to evaluate the level of male and female farmers involvement in NSPFS in Niger State. Specially, the study will;

1. Identify and access the level of farmers participation in various projects.
2. Identify specific benefits of the programme that accrued to the participants; and
3. Compare the farm size, output and income of participants before and after participation in the programme. The justification of the study lies on the fact that farmers (males and females) play a significant role in the overall welfare of their families, the state and the nation at large.

RESEARCH HYPOTHESIS

Based on the objectives of the study, the following hypothesis was postulated.

Ho1: There is no significant difference between the participants' farm size, outputs, and incomes before and after their participation in the NSPFS programme.

MATERIALS AND METHODS

The study area (Niger State) is located in north central Nigeria and it's the largest state in the country in terms of landmass. The state is bordered in the north by Zamfara state, east by Kebbi, and federal capital territory borders the state at both north-east and south-east. It shares a common boundary with the republic of Benin at Banana in Borgu local government area. Niger state lies in the Guinea savannah

vegetation of the country with favourable climate condition for crops and livestock production. The state has total population of 3,950,249 and about 85% of the populations are farmers'. Only about 15% are involved in other activities such as white-collar jobs, business e.t.c. (FGN, 2006). Purposive sampling technique was used to select a total of 103 respondents from the three Agricultural zones in the state, namely; Nassarawa (zone I), GidanMangoro (zone II), Secondly, each site was stratified into three farming groups with its membership ranging from 15 to 20. A scale of 60% was used to select the number of respondents for the study. Lastly, 34, 35 and 34 were randomly selected from Nassarawa, Gidanmangoro, Lioji sites respectively, thus, given a total sample size of one hundred and three (103) respondents for the study. Structure interview schedule was used to elicit information from the respondents. Descriptive statistics, likertscale and t-test were used to analyse the data collected. Sunusi *et al* (2006). The participation level of the respondents involvement in the project implementation was assessed using mean satisfaction level scores of the involvement in project implementation as shown by literature of Ayoola (2001).

RESULTS AND DISCUSSION

Various Projects which farmers participate In

The results are presented in the tables that follow. The tables were also discussed as pertain to the significance of the results. Table 1 shows that majority of the respondents participate in crop production (55.9%) while (30.2%) participated in livestock production. Marketing (13.7%) have the least number of participant. This implies that arable farming is the enterprise which women mostly participated in, as such NSPFS needs to enlighten them on the importance of enterprises diversification thereby remaining active in economic ventures throughout the year since crop production is seasonal (Rainfed agriculture). The level of the farming reveals Subsistence Agriculture in the area. The farmers are peasant farmers providing only their needs.

Participation level of respondent involvement in project implementation

Table 2 reveals that the level of females farmers in the NSPFS programme the respondent component identified is satisfactory. These components of evaluation were identified (x=1.2), planning (x=1.2) decision making (x=1.1), and implementation (x=1.3). This implies that the beneficiaries were involved in the implementation of all aspect of the programme. In conformity, Ayodele *et al* (2011) reported that women may be more aware of their rights and possibilities in the household. The awareness of the women lead to the satisfactory response in the NSPFS programme. However, According to Ayoola (2001), project implementation has always been the bane to agricultural development in Nigeria.

Table 1: Distribution of Respondents According to Various Projects.

Enterprises	Frequency	Percentage
Livestock		
Cattle fattening	21	5.9
Poultry	18	5.0
Goat fattening	51	14.3
Sheep fattening	18	5.0
Crops		
Vegetable	23	6.4
Yam	9	2.5
Rice	58	16.2
Maize	77	21.5
Groundnut	33	9.3
Agribusiness		
Marketing	49	13.7
Total	357*	100

Table 2: Mean satisfaction level scores of involvement in project implementation

Components	HI(2)	MI(1)	LI(0)	Weighted sum	Mean	Involvement level
Identification	43	40	20	126	1.2	HI
Planning	42	37	24	121	1.2	HI
Decision making	38	35	30	111	1.1	HI
Implementation	53	33	17	139	1.3	HI

Source: Field survey, 2012

HI = Highly involved; MI = Moderately involved; LI = lowly involved

Specific Benefit that accrued to the participants'

Table 3 reveals the specific benefit derived by the respondents. These benefits were grouped into four categories. A total of 33.9% of the respondents derived benefits from subsidized agro-chemicals given to them, 22.1% of the respondent derived from the loan, 26.5% derived benefits in terms of extension

contacts, 13.6% in terms of goods marketing information, while 3.9% derived benefit from processing facilities given. This indicates a good overall performance of the NSPFS in terms of impact on the target. This finding is in conformity with that of Adekoye *et al* (2000) who also showed that closely related percentage of the respondent indicates good overall performance.

Table 3: Distribution of respondent by specific benefits derived

Benefits	Frequency	percentage
Loan	86	22.1
Processing facilities	15	3.9
Marketing information	53	13.6
Access to extension service	103	26.5
Fertilizer	53	13.6
Improved seed	41	10.5
Insecticides	15	3.9
Herbicides	23	5.9
Total	389*	100

Note: *implies that multiple respondent was recorded.

Source: field survey, 2012

Farm size, output and income level before and after participation in the programme

Table 4 indicates the level of farm size, output and income level of the participant before and after the programme. The t-value (-3.542) of the farm size before and after participation in the programme is significant at 1%. This implies that the participant's involvement in NSPFS enabled them to expand their farm size as a result of loan received and accessibility to other benefits of the programme. The t-value (-5.258) in the output of crops before and after participation in the programme is significant at 1%. This indicates that the participant's had higher yield after participating in the programme, which implies that participants judiciously utilized the loan obtained from the programme coupled with increased farm size

to increase agricultural yield. The t-value (-8.121) in the output of livestock before and after participation in the programme is significant at 1%. This implies that the participant's involvement in NSPFS enabled them to increase their livestock size as a result of loan received and accessibility to other benefits of the programme. Lastly, t-value (12.611) in income level before and after participation in the programme is significant at 1%. This implies that participation in the programme enables the participants to generate more income from higher output. This increase in income will reduce poverty level, thereby improving their livelihood status. In accordance, Dauda and Ajayi (2009) reported that the aim of NSPFS is to assist farmers to improve on their livelihood status.

Table 4: A result of student T. test analysis on the farm size, output and income levels before and after participation in the programme

Parameters	t-test
Farm size before in hectares/ farm size after in hectares	-3.542***
Outputs of crops before in kg/ Outputs of crops after in kg	-5.258***
Outputs of livestock before / Outputs of crops after	-8.121***
Income before/income after	-12.611***

Source: field survey, 2012

Note: ***, **, * implies 1%, 5% and 10% level of significance

HYPOTHESIS TESTING RESULTS

Ho1: there is no significance difference in the farm size, output and income of participants before and after participation in the programme.

It was expected that the participant farm size, output and income, would increase after the programme. The t-test analysis was carried out to ascertain whether there is any significant increase to the farm size, output and income. The calculated t-ratio exceeds the tabulation t-ratio at 0.01 level of significance. Therefore there is a significant increase in the participant farm size, output and income after the programme.

CONCLUSION

Poverty reduction and food security in Niger state have proved to be of immense challenge not only to

the state but to the nation as a whole. The result provided indicated an increased farm size, output, income and family welfare.

Recommendations

Based on the results of the study, it is therefore recommended that;

- 1) The programme should be expanded to cover more areas, thus increasing the number of sites and participants. This would also extend the benefits of the programme to more people.
- 2) Participants should be encouraged to utilize their loan judiciously and possibly be given more training along with the loan to have maximum returns.

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