### Modalities for the Implementation of Special Programme for Food Security (SPFS) by Enugu State Agricultural Development Programme (ENADEP), Nigeria

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#### Abstract

The overall purpose of this study was to investigate the modalities for the implementation of the special programme for food security in Enugu State by Enugu State Agricultural Development Project. The area of study was Enugu state ADP Agricultural zones. Survey research design was used and the instrument used for data collection was a questionnaire. Five research questions were formulated in line with five specific objectives of the study. Similarly, three null hypotheses were formulated and tested at 0.05 level of significance. The population of the study comprised 420 farmers and 18 extension staff involved in the special programme for food security in Enugu State. A representative sample of 210 farmers and 18 extension staff were randomly selected from the population. The data collected were analysed using mean scores for answering research questions while t-test was used in testing the null hypotheses. The following findings were made: (1) farmers and extension staff established that livestock and fishery activities were promoted by ENADEP through group formation, supervision, provision of inputs, credit facilities etc; (2) the measures adopted by ENADEP in increasing crop production and profitability include farmer group formation, supervision, use of demonstration farm, etc; (3) the various ways irrigation scheme was carried out include development of tube well, micro earth dams, etc (4) the implementation of special programmes for food security by Enugu State ADP was hindered by some constraints such as lack of land, capital, communication facilities, etc; (5) some alternative ways of overcoming the constraints include implementation of Land Use Decree of 1978, provision of communication facilities at zero interest rate, etc. The following recommendations were made: government should establish adult or evening schools and standard markets for the farmers' benefits and finally, the monthly allowances of ENADEP Staff and their mobility facilities should be improved considerably.

Keywords: food security, farmer improvement, extension services, agriculture, agricultural development programme

#### 1. Introduction

The capacity to produce sufficient food for all the people in the world requires concerted efforts, particularly in low-income food deficit countries. According to the World Summit Plan of Action, adopted in November 1996, high food production needs to be achieved while ensuring both productive capacities, sustainable management of natural resources and protection of the environment. Sufficient food production alone will not guarantee food security unless action is also taken to ensure access to food by all people.

Food security ensures food availability, food access and utilization (United States Agency for International Development (USAID), 1995). Food availability is achieved when sufficient quantities of food are consistently available to all individuals within the country. Food access is ensured when households and all individuals within them have adequate resources to obtain appropriate food for a nutritional diet. Food utilization is the proper biological use of food, requiring a diet providing sufficient energy and essential nutrients, potable water and adequate sanitation (USAID, 1995).

However, to reduce food insecurity, the Food and Agriculture Organisation initiated the Special Programme for Food Security (SPFS) in 1994. The SPFS was strengthened and its implementation accelerated after the 1996 World Food Summit. In 2003, the SPFS was operating in over 70 countries (Food and Agricultural Organisation (FAO, 2003). It began with a number of objectives aimed at increasing production and small-scale water control but has gradually expanded to embrace related rural development programme. The organizational set up for this programme spans from members of the Federal Executive Council to National Council on Agriculture, Ministerial Coordinating Committee, Technical Management Committee, National Coordinating Unit, and the state level, where there are in existence; State Technical Management Committee and State level Coordinator, down to the local government level, where the programme implementation is through the local (site) management committee (FAO, 2003).

Nevertheless, the implementation of this programme focuses on the effective utilization of available water resources through development of tube wells, micro earth dams, construction or rehabilitation of water conveyor structures, provision and maintenance of water lifting device. Their second focus is on crop intensification through the provision of inputs, the establishment of demonstration plots to train farmers on improved agronomic practices, the introduction of improved agronomic practices, the introduction of improved land preparation techniques using locally developed hand tools, power tillers and draught animals, facilitation of access to credit for farm production by formation and support to saving/credit, self-help and cooperative societies (FAO, 2003).

Diversification of livestock and fishery activities adapted to local conditions is another focus. This is achieved through making small-scale egg and broiler production feasible, small-scale rearing and fattening of sheep, goat and pig, supporting the rehabilitation and maintenance of local veterinary clinic and developing community-based animal health service delivery systems. Technicians and farmers are trained on the fish production, processing, storage and marketing, and supporting local production of fingerlings. The programme also focused on the identification of major constraints by the formation of farmer groups that included women, conducting participatory base-line data collection, development of monitoring indicators and preparation of monitoring reports during full-scale project implementation (FAO, 2002).

Agricultural extension services were at the centre of the Special Programme for Food Security (SPFS). Aside from providing the structural unit within which SPFS, they work to prepare farmers to better manage soil and water, diversify their animal production and intensify their agricultural interest such as the building of greenhouses and processing facilities. Thus, the rural farmers began to experience improved nutritional intake and enhanced income generation (Jogo, 2001).

Successful Special Food Security programme not only assist poor rural population to produce more and diversify products, but also to produce a surplus that can be marketed and thereby generate income for the purposes of improving quality of life through improved nutrition, investment in production and as collateral for credit to purchase inputs and other supplies to enhance agriculture and non-agriculture enterprise. Hence, modalities for implementation of Special Food Security programme in Enugu State ADP is imperative for food availability, accessibility and utilisation to the whole nation

#### 2. Statement of the Problem

Despite the growing interest in agricultural production and organisational activities of this nation, the problem of food insecurity is still massive. Two-thirds of the population is poor with minimum access to basic needs including, adequate nutrition, clean water, proper sewage and health care (FAO and World Bank, 2000).

Since Nigeria got her independence 58 years ago, she had embarked on several agricultural schemes in an attempt to solve the problem of food scarcity. Some of such efforts include: the introduction of the National Accelerated Food Production Programme (NAFPP) in 1973, the 1976 Operation Feed the Nation (OFN); the Green Revolution Programme of 1980, and the Operation Return to Farm call, which emphasised the need for Nigerians to go back to the farm (Anderson and Feder 2003).

Recently, the Federal government of Nigeria inaugurated Special Programme for Food Security, with the following objectives:

- to promote efficient and profitable livestock and fishery activities.
- to increase crop productivity and profitability, and improvement of irrigation systems
- Despite the objectives of this Special Food Security Programme, there is still the poor production of livestock and fish, crops and poor irrigation system, as a result of problems of the land tenure system, poor communication system, illiteracy on the part of farmers and inadequate input supplies (Abrew, 2003). In view of this, there is the need to ascertain the modalities adopted by the ADP for implementation of the Special Programme for Food Security in Enugu State, Nigeria.

#### 3. Purpose of the Study

The overall purpose of the study was to investigate the modalities for the implementation of the Special Food Security programme by the Enugu state ADP. Specifically, the study was designed to:

- 1. ascertain the ways livestock and fishery activities were promoted for increased production by ENADEP;
- 2. examine the measures adopted by the ENADEP in increasing crop productivity and profitability;
- 3. find out the ways irrigation schemes were carried out;
- 4. find out the constraints to the implementation of Special Programme for Food Security by Enugu State ADP;
- 5. determine the ways of overcoming the hindrances to the implementation of the programme

#### 4. Research Questions

The following research questions guided the study.

- 1. What were the ways livestock and fishery activities promoted for increased production by the ENADEP?
- 2. What were the measures adopted by the ENADEP in increasing crop productivity and profitability?
- 3. What were the various ways irrigation schemes were carried out?
- 4. What were the constraints to the implementation of Special Programme for Food Security by Enugu

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State ADP?

5. How could the constraints to the implementation of the Special Programme for Food Security be overcome?

#### 5. Research Hypotheses

The following hypotheses were tested at 0.05 level of significance.

- **HO**<sub>1</sub> There was no significant difference in the mean responses of farmers and extension
- officers on the ways livestock and fishery activities were promoted for increased production by the ENADEP.
- **HO**<sub>2</sub> There was no significant difference in the mean responses of farmers and extension officers on the measures adopted by the ENADEP in increasing crop productivity and profitability.
- HO<sub>3</sub> There was no significant difference in the mean responses of farmers and extension officers on the various ways irrigation schemes were carried out.

#### 6. Methodology

The study was carried out using a survey research design. The area of study is Enugu State Agricultural Zones which was divided into three zones and sites: Enugu north (Adani site), Enugu East (Amugunze site) and Enugu West (Nenwe site). These three sites were the locations where the Special programme for Food Security existed in Enugu state.

The target population for the study was 438 which was made up of 420 Farmers that benefited from SPFS and 18 ADP Extension officers. A sample of the study consisted 228 made up of 210 farmers and 18 Extension officers. Proportionate random sampling technique was used to select 210 farmers that benefited from the special programme for food security in Enugu State. This represented 50% of the population. The entire 18 ADP Extension Staff in the state was included in the study.

The instrument used for data collection was the researchers' made structured questionnaire. This was divided into two sections (A and B). Section A was used to obtained background information of the respondents. Section B sought information to answer research questions and test the null hypotheses.

The instrument was developed on four-point response options of strongly agree (SA), agree (A), disagree (D) and strongly disagree (SD). The instrument was validated by three experts and their comments, observations, and suggestions were used to improve the instrument. The reliability of the instrument was determined using Cronbach alpha to establish its internal consistency which yielded a coefficient of 0.82. Data were collected by the researchers with the help of three research assistants. Data collected were analysed using mean to answer the research questions. Any item that had a mean score of 3.50 and above was interpreted as strongly agree, 2.50-3.49 as agree, 1.50-2.49 disagree while 0.50-1.49 was interpreted as strongly disagree. Similarly, t-test statistic was used to test the null hypotheses at 0.05 level of significance. Any null hypothesis whose t-calculated value was less than the t-table of 1.96 at 0.05 level of significance was accepted while a null hypothesis was rejected when the t-calculated was higher than the t-table of 1.96 at 0.05 level of significance.

#### 7. Results

The result of the research questions and hypotheses were presented below

Table 1: Mean and t-test Analysis of Farmers and Extension Officers Ratings on the Ways Livestock and
Fishery Activities are Promoted for Increase Production by ENADEP

S/N	Item Statements	·	Farmers		s Extension		t-	Rem
		_		CD1	Sta	off CD2	cal	
		ХG	X 1	SDI	X 2	SD2		
1	Formation of farmer group for male and female or mixed	3.58	3.47	0.53	3.70	0.48	0.81	NS
2.	Supervision and monitoring of SPFS activities by the site	3.70	3.59	0.52	3.80	0.42	0.76	NS
	manager and site extension agents.							
3.	Provision, use and maintenance of water pumps and integrated	3.50	3.39	0.61	3.60	0.51	0.69	NS
	rice/fish farming.							
4.	Provision/supply of inputs such as feeds, lime, organic matter,	3.16	3.21	0.71	3.10	0.88	0.31	NS
	drugs vaccines, birds (day-old), etc.							
5.	Financial empowerment through formation of farmers'	3.50	3.39	0.65	3.60	0.50	0.68	NS
	savings/credits self help and co-operative societies.							
6.	Provision of credit facilities at zero interest rate to the farmers.	3.57	3.33	0.67	3.80	0.42	1.54	NS
7.	Production of livestock through making small-scale egg	3.54	3.38	0.59	3.70	0.48	1.08	NS
	(pullets) and broiler production feasible.							
8.	Minimizing losses associated with free-range village poultry	3.50	3.39	0.61	3.60	0.51	0.69	NS
	production through procurement of drugs, inoculation							
	vaccination and monitoring of the birds on the periodical basis							
	by the veterinary doctors.							
9.	Marketing of eggs and broilers.	3.27	3.24	0.80	3.30	0.48	0.18	NS
10.	Making small-scale rearing and fattening of sheep, goat and pig	3.38	3.26	0.63	3.50	0.53	0.78	NS
	feasible through the periodical provision of concentrate feeds							
	like groundnut cake, soya bean cake and salt lick.			0.70		· · ·	<b>.</b>	
11.	Reducing pre-weaning losses associated with village sheep, goat	3.37	3.23	0.69	3.50	0.55	0.85	NS
	and pigs through hanging of feeds and building of a slated							
	platform for efficient production.		• • •			a ( <b>a</b>	<b>.</b>	
12.	Improving on-farm and local processing of animal products	3.13	3.05	0.72	3.20	0.63	0.45	NS
10	(meat, milk, hides and skins).	2.45	2 40	0.50	2.42	0.61	0.54	
13.	Fishery production through supporting participatory	3.45	3.48	0.53	3.42	0.61	0.54	NS
1.4	construction and maintenance of fish ponds.	2.24	2.17	0.00	2.50	0.52	1.04	NG
14.	Stocking of ponds with fingerlings and maintenance of ponds	3.34	3.17	0.68	3.50	0.53	1.04	NS
1.5	through provision of feeds, liming and organic matter.	2 20	2.24	0.00	2.50	0.50	0.75	
15.	Training the technicians and farmers on fish production,	3.38	3.26	0.69	3.50	0.53	0.75	NS
16	processing, storage and marketing.	2.25	2 20	0.75	2.20	0.62	0.20	NG
16.	Supporting local production of fingerlings.	3.23	3.30	0.75	3.20	0.63	0.30	NS NC
1/.	Supporting the establishment of nomestead fish farm.	5.42	3.34	0.79	3.50	0.53	0.48	IN S
NI-2	10 N2-19 $44$ -11-10( NS-N-4 Similar V $\alpha$	~		V.		. V		-

N=210, N2=18, t-table=1.96, NS=Not Significant, X G =Grand Mean, X 1=Mean 1, X 2=Mean 2, SD1=Standard Deviation 1, SD2=Standard Deviation2

Table 1 shows that items 1, 2, 3, 5, 6, 7 and 8 had their mean values ranging from 3.50-3.70 which were within the range of 3.50 and above. This implies that formation of farmers group; supervision and monitoring of SPFS activities; provision, use and maintenance of water pumps; financial empowerment; provision of credit facilities; among others, were strongly agreed by the respondents as the ways livestock and fishery activities were promoted through the implementation of the SPFS by the Enugu State Agricultural Development Programme. Similarly, items 4, 9, 10, 11, 12, 13, 14, 15, 16 and 17 had their mean values ranging from 3.13-3.45 which were within the range of 2.50 to 3.49. This implies that the respondents agreed that supply of inputs; marketing of eggs and broilers; provision of concentrate feeds; processing of animal products; supporting participatory construction and maintenance of fish ponds; among others, are the ways ENADEP promoted livestock and fishery activities through the implementation of SPFS.

Table 1 also shows that the t-calculated of the items 1-17 were less than t-table of 1.96. Therefore, the null hypothesis which states that there was no significant difference between the mean responses of farmers and extension officers on the ways in which livestock and fishery activities were promoted for increased production by ENADEP is upheld while the alternative hypothesis is rejected.

## Table 2: Mean and t-test Analysis of Farmers and Extension Officers Ratings of the Measures Adopted by ENADEP in Increasing Crop Productivity and Profitability

S/N	Item Statements		Farm		Exter Sta	Extension Staff		Rem
		$\overline{\mathbf{X}}_{\mathbf{G}}$	$\overline{X}_1$	SD1	<u>X</u> <sub>2</sub>	SD2		
1.	Formation of farmer groups for male and female or mixed.	3.59	3.48	0.52	3.70	0.46	0.78	NS
2.	Supervision and monitoring of SPFS activities by the site extension agents.	3.73	3.65	0.57	3.80	0.40	0.84	NS
3.	Establishment of demonstration plots to train farmers on improved agronomic practices.	3.55	3.50	0.62	3.60	0.49	0.83	NS
4.	Provision/supply of inputs such as seeds, fertilizers, agrochemicals on cost recovery basis.	3.68	3.56	0.53	3.80	0.40	0.86	NS
5.	Financial empowerment through formation of farmers' savings/credit self-help and cooperative societies.	3.51	3.51	0.67	3.50	0.50	0.03	NS
6.	Provision of credit facilities at zero interest rate to the farmers.	3.62	3.33	0.71	3.90	0.30	1.89	NS
7.	Provision of crops through the practice of irrigation farming (fadamas) with such crops as vegetables (Telfaria, pepper, <i>Amaranthus spp</i> ) and rice (swamp rice).	3.46	3.31	0.68	3.60	0.49	0.93	NS
8.	The practice of rainfed farming through the production of crops such as rice (upland), sole maize, cassava intercropped with maize, ware yam intercropped with maize and yam minisetts intercropped with maize.	3.57	3.33	0.64	3.80	0.40	1.56	NS
9.	Use of improved varieties of cassava such as NR 8083, TMS 30572.	3.70	3.59	0.64	3.80	0.40	1.56	NS
10.	Use of improved maize seeds e.g. OBA Super 2.	3.69	3.57	0.53	3.80	0.40	0.83	NS
11.	Use of yam minisetts techniques to produce seed yam.	3.48	3.36	0.67	3.60	0.49	0.77	NS
12.	Soil nutrient management through planting cover crops, crop rotation, application of organic fertilizer.	3.46	3.31	0.86	3.60	0.49	0.85	NS
13.	Promotion of homestead market gardening, compost making from manure and household and crop residues.	3.37	3.14	0.76	3.60	0.49	1.41	NS
14.	Integrated pest management programme.	3.37	3.24	0.66	3.50	0.50	0.77	NS
15.	Participatory production of high-quality seeds and seedlings for major crops, fruits and tree planting.	3.31	3.22	0.63	3.40	0.49	0.61	NS
16.	Establishment of community nurseries for effective tree planting.	2.97	2.94	0.84	3.00	0.63	0.17	NS
17.	Replacement of old cocoa, oil palm and rubber tree with high yielding varieties.	3.03	3.06	0.83	3.00	0.45	0.18	NS
18.	Construction of on farm storage structure for grains and root crops.	3.34	3.17	0.85	3.50	0.50	0.97	NS
19.	Provision of market information.	3.47	3.33	0.83	3.60	0.49	0.80	NS
N=2	210, N2=18, t-table=1.96, NS=Not Significant, $\overline{X}_{G}$ =	Grand	Mean	$\overline{X}_{1=}$	=Mean	$1 \overline{X}$	2=Me	an 2

N=210, N2=18, t-table=1.96, NS=Not Significant,  $\mathbf{A}$  G =Grand Mean,  $\mathbf{A}$  1=Mean 1,  $\mathbf{A}$  2=Mean 2 SD1=Standard Deviation 1, SD2=Standard Deviation2

Table 2 indicates that items 1, 2, 3, 4, 5, 6, 8, 9 and 10 had their mean scores ranging from 3.51-3.73 which were within the range of 3.50 and above. This signifies that formation of farmer groups; supervision and monitoring of SPFS activities; establishment of demonstration plots; supply of inputs; financial empowerment; provision of credit facilities; among others, were strongly agreed by the respondents as the measures adopted by the ENADEP in increasing crop productivity and profitability through the implementation of the special programme for food security. Moreover, items 7, 11, 12, 13, 14, 15, 16, 17, 18 and 19 had their mean scores ranging from 2.97-3.48 which were within the range of 2.50-3.49. This as well implies that irrigation farming; use of yam minisetts; soil nutrient management; compost making; integrated pest control; participatory production; community nurseries; among others were agreed by the respondents as the measures adopted by ENADEP in increasing crop productivity and profitability through the implementation of the SPFS.

Table 2 also indicates that the t-calculated of items 1-19 were less than the t-table value of 1.96. Therefore, the null hypothesis which states that there was no significant difference between the mean responses of farmers and extension officers on the measures adopted by the ENADEP in increasing crop productivity and profitability is upheld while the alternative hypothesis is rejected.

## Table 3: Mean and t-table Analysis of Farmers and Extension Officers Ratings on the Various Ways Irrigation Schemes are Carried Out.

S/N	Statement items		Fa	rmers	Exten Sta	sion ff	t- cal	Rem
		$\overline{\mathbf{X}}_{\mathbf{G}}$	$\overline{\mathbf{X}}_{1}$	SD1	$\overline{\mathrm{X}}_{2}$	SD2		
1.	Development of tube wells.	2.97	2.53	0.89	3.40	0.70	2.42	S
2.	Development of micro earth dams.	2.94	2.48	0.99	3.40	0.52	2.53	S
3.	Development of other water harvesting technique.	2.80	2.80	0.88	2.80	0.63	0	NS
4.	Provision, use and maintenance of water lifting devices including motorized pumps.	3.21	3.12	0.89	3.30	0.67	0.50	NS
5.	Training of farmers on improved irrigation practices.	3.31	3.22	0.88	3.40	0.52	0.52	NS
6.	Construction and rehabilitation of water conveyor structure.	2.94	2.88	0.96	3.00	0.67	0.32	NS

N=210, N2=18, t-table=1.96, NS=Not Significant, S=Significant,  $\overline{X}$  G =Grand Mean,  $\overline{X}$  1=Mean 1,

X 2=Mean 2, SD1=Standard Deviation 1, SD2=Standard Deviation 2

Table 3 above shows that items 1, 2, 3, 4, 5 and 6 had their mean scores ranging from 2.80-3.31 which are within the range of 2.50-3.49. This signifies that development of tube wells; micro earth dams; development of water harvesting techniques; provision, use and maintenance of water lifting devices, training on improved irrigation practices and construction and rehabilitation of water conveyor were agreed by the farmers who participated in the programme and extension officers as the various ways irrigation schemes were carried out by the ENADEP during the implementation of the SPFS.

Table 3 also shows that t-calculated of items 1 and 2 were greater than the t-table of 1.96. This shows that there was a statistically significant difference (p>0.05) in the mean responses of farmers who participated in the programme and extension officers on the various ways irrigation schemes were carried out by the ENADEP. Therefore, the null hypothesis was rejected for the two items. Similarly, items 3, 4, 5 and 6 had their t-calculated less than the t-table value of 1.96. This implies that there was no statistically significant difference (p<0.05) in the mean responses of the respondents on the various ways irrigation schemes were carried out by the ENADEP. Therefore, the hypothesis of no significant difference was accepted for the items.

 Table 4: Mean Analysis of Farmers and Extension Officers Ratings of the Constraints to the

 Implementation of Special Programme for Food Security

N = 228

S/N	Item Statements	X
1.	Inadequate land/land tenure system problem	2.78
2.	Poor communication facilities.	3.08
3.	Illiteracy on the part of the farmers.	3.16
4.	Inadequate input supplies.	3.24
5.	Inadequate monthly allowances of SPFS implementers.	3.18
6.	Insufficient mobility facilities.	3.31
7.	Inadequate financial/credit facilities.	3.22
8.	Effects of gender discrimination	2.67
9.	The problem of pest and diseases.	3.23
10.	Poor marketing systems.	3.18
11.	Late release of fund/input to farmers.	3.42
12.	Low recovery rate from the benefiting farmers.	3.08

Table 4 shows that all the items were within the mean range of 2.50-3.49. This implies that inadequate land; poor communication facilities; farmers' illiteracy; inadequate monthly allowances; insufficient mobility facilities; inadequate finance; gender discrimination; problem of pests and diseases; poor marketing system; late release of fund and low recovery rate from the benefiting farmers were agreed by the respondents as the constraints to the implementation of the SPFS by the ENADEP.

# Table 5: Mean Analysis of Farmers and Extension Officers Ratings of the Ways of Overcoming the Hindrances to the Implementation of the Programme NI = 228

N = 228				
S/N	Items Statements	$\overline{\mathbf{X}}$		
1.	Implementation of land use Decree of 1978	3.18		
2.	Provision of communication system/facilities	3.31		
3.	Encouragement of adult literacy	3.43		
4.	Subsidizing of input facilities	3.34		
5.	Improvement of the ENADEP officials' monthly allowances	3.37		
6.	Provision of mobility facilities	3.44		
7.	Provision of credit facilities at zero interest rate to the farmer	3.33		
8.	Provision of the available and standard market	3.38		
9.	The release of fund/input to farmers on time	3.59		

Table 5 shows that items 1-8 had the mean values ranging from 3.18-3.44 which were within the range of 2.50-3.49. This signifies that the respondents agreed that the implementation of land use decree of 1978; provision of communication systems/facilities; encouragement of adult literacy; subsidizing of inputs; improvement of the ENADEP officers' monthly allowances; provision of mobility facilities; credit facilities; among others, are the ways to overcome the hindrances to the implementation of the special programme for food security. Similarly, item 9 had a mean value of 3.59 which was above 3.50. This also implied that the respondents strongly agreed that the release of fund/inputs to farmers on time is the way of overcoming the hindrances to the implementation of the implementation of the programme.

#### 8. Discussion of the Findings

#### The findings were discussed as follows:

#### *Ways livestock and fishery activities are promoted for increased production by ENADEP*

It was found out that livestock and fishery activities were promoted through the formation of farmer groups, supervision and monitoring of the SPFS, provision of water pumps, provision of input, credit facilities, financial empowerment, stocking of ponds with fingerlings and maintenance of ponds, reducing pre-weaning losses and marketing of eggs and broilers. This was in line with the study carried out by World Bank (2003) which found that provision of credit facilities and inputs increased farmers production.

#### Measures adopted by the ENADEP in increasing crop productivity and profitability

It was found out that the increase in crop productivity and profitability in special programme for food security was possible by the formation of farmer groups, supervision and monitoring of the SPFS activities, establishment of demonstration plots to train farmers, financial empowerment, provision of credit facilities, provision of inputs and improved varieties of crops, practice of irrigation farming, soil nutrient management, integrated pest management programme, participatory production, establishment of community nurseries, construction of farm storage structures, provision of market information. This was in line with the study of Alex, Zijp and Byerlee (2001) who reported that the encouragement of farm participation through small group approach and promotion of small-scale credit scheme enhances farmer's productivity.

#### Various ways irrigation schemes were carried out

Here, it was discovered that development of tube wells, micro earth dams and other water harvesting techniques, construction and provision of water conveyor structure, water lifting devices and training of farmers on improved irrigation practices were the ways irrigation schemes were carried out. This was in agreement with the study by Egwu (2003), who discovered that applying irrigation in rice nursery bed when water is lacked, draining water flooded paddy soil before transplanting and flushing the paddy land after transplanting comprised measures for improving the farmer's rice production operations.

#### Major constraints to the implementation of special programmes from food security

It was found out that one of the major constraints to the implementation of the special programme for food security is the land tenure system. This confirms what Jongo (2001) reported that land is faced with excessive fragmentation making it very difficult and uneconomical to work, and that sharing of land among family members denies other non-members who may be interested in farming.

Inadequate input supplies were also discovered as a constraint to the SPFS programme implementation. In line with the study carried out by Farrington, Chrostoplos, Kidd and Beckman (2002), the traditional system of farming in Nigeria, which is characterized by the use of unscientific implements, small sized farms, low yielding crop varieties, as well as pest and disease inversion suggest no increase in production. Inadequate monthly

allowances to the SPFS officials and lack of mobility facilities were also discovered from the study as hindering factors to the programme implementation as extension officer were unable to pay regular visit to farmers to monitor and supervise the on-going programme. Also, inadequate finance/credit facilities have caused obstruction to the implementation as most of the Nigerian farmers were unable to provide resources for their production. Anosike (1999) supporting this by reporting that farmers have always found it difficult to perform well in their occupational production operation due to the problems of finance.

Furthermore, the effect of gender discrimination has been discovered as a constraint. This is in line with the study carried out by Bremback (2002), that female farmers have poor attitude and interest and consequently achieve less than the male counterpart in production operations. Pest and disease problems, late release of fund/input to farmers and low recovery rate from the benefiting farmers were discovered to be the problems which hindered the expansion of the programme. This recovery rate could be traced to the problem of poor marketing system where farmers could not easily sell their produce; and this had resulted to wastage of perishable agricultural products, selling below the cost of production which therefore discourages many farmers from participating in the programme.

#### Ways of overcoming the constraints to the implementation of the programme

It was discovered from the result that one of the ways of overcoming the constraints to the programme implementation is the release of fund/input facilities to farmers on time, implementation of land use decree of 1978, provision of communication facilities, credit facilities at zero interest rate to farmers, standard market, encouragement of adult literacy, subsidizing of input facilities and improvement of ENADEP monthly allowances.

#### 9. Conclusions

The problem of hunger and food insecurity in Enugu State, Nigeria would be met through the promotion of efficient and profitable livestock and fish production, increase in crop productivity and profitability and improvement in irrigation systems. The means through which these would be met was expected to be through implementation of Land us Decree of 1978, provision of the communication system, mobility facilities, credit facilities at zero interest rate to farmers, timely information of market situations, among others. It also involves encouragement of adult literacy, subsidizing input/facilities, improvement of the ENADEP officials' monthly allowance and release of fund to farmers on time.

#### **10. Recommendations**

Based on the findings of the study, the following recommendations were made:

- 1. The government should enforce the implementation of Nigerian Land use Decree of 1978.
- 2. Credit facilities should be provided to farmers at zero interest rate to encourage them in their production.
- 3. The monthly allowances of the ENADEP officials should be improved and mobility facilities should be provided for the extension officers to make them effective in discharging their duties.
- 4. Input facilities should be made available to farmers at subsidized rates.
- 5. Adult and evening schools should be established in rural areas to expose farmers to formal education as this will enhance the adoption of innovative agricultural practices.

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