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Assessment of the Availability and Adequacy of Farm Inputs for Sustainable Agricultural Production in Ekiti State

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Abstract

The main purpose of the study was to assess the availability and adequacy of farm inputs supplied to farmers by Agricultural inputs supply Agency (AISA) for sustainable Agricultural production. This study was carried out in Ekiti State. The population of the study was 800 register farmers in the three agricultural zones in Ekiti State. The sample of study was 264 selected through (33%) proportionate random sampling technique. A 24 items structured questionnaire was used to collect data for the study. It was found out that: farm inputs such as agro-chemicals, livestock feeds, improve seeds, fertilizers and farm tools were made available by Agricultural Input Supply Agency (AISA) for farmer's use; Storage services of AISA were inadequate. It was recommended that the state government and the administrator of AISA should improve the storage services of AISA to reduce the problem of wastage of agricultural produce in the State.

Keywords: Assessment, farm-inputs, Agricultural-produce, Sustainable-production, Availability and Adequacy.

Introduction

Sustainable agricultural production has remained a fundamental concern of the people of Nigeria. Okigbo in Njoku (2000) explained sustainable agricultural production as maintaining an acceptable and increasing level of crop and animal production that satisfies present and future food consumption needs of the people. In this study, sustainable agricultural production implies the production of crops and animals that

will meet the need of the growing population in Ekiti State through the use of appropriate farm inputs by the farmers. In order to attain sustainable agricultural production in Ekiti State, Agricultural inputs supply agency (AISA) was established in 1996 by the state government and saddled with the responsibility of providing adequate agro-inputs to the teaming farming population at the right quality, time and place.

Ekiti State has a unique climate condition that combines the characteristic of guinea savanna (as in Northern Nigeria) with rain forest (as in Southern Nigeria). The Northern part of the state is suitable for the growth of arable crops like maize, rice, yam, sorghum and rearing of animals. While the southern part is suitable for the cultivation of cash crops like cocoa, oil palm, plantain and kola nut. This dual image of being able to produce what different parts of the country produce place the state in a very important position in agricultural production in the country. Agricultural Input Supply Agency (AISA) was established for sustaining agricultural production in the state through their adequate supply of farm inputs to farmers.

Farm inputs according to Iwena (2008), are fertilizers, herbicides, improved seed and seedlings, tools, equipments machines and farming system employed in the production of crops and animals. The international Institute of Tropical Agriculture IITA (2000), explained that farm inputs are seed and seedlings, tools, machines and improved practices employed by farmers in the production of crops and animals. In this study, farm inputs are fertilizers, pesticides, tools, machines, storage facilities, improved seeds herbicides and livestock feeds that should be made available in adequate quantity by Agricultural Input Supply Agency (AISA) to farmers at affordable price for the production of crops and animals to a sustainable level in Ekiti State. To attain this singular goal of sustainable agricultural production in the state, (AISA) has the following objectives to:

(a) enhance agricultural production in the state by providing farmers with high quality and low cost agro-chemicals, fertilizers, improved seeds and other relevant farm inputs at appropriate time and locations.
(b) operate pest/disease control services to help farmers in combating the menace of these pest and diseases
(c) provide storage and warehousing facilities to farmers.
(d) engaged in the production of livestock feeds to service numerous livestock farmers in the state, among others (AISA 1997).

In order to determining whether the stated objectives of AISA is achieved in the state, AISA programme or activities need to be assessed. Assessment in the view of Scriven (1991) is the action taken to determine the importance, size or value of a thing or substance. Olaitan, Nwachukwu, Igbo, Onyemachi and Ekong (1999) stated that assessment is the process of determining the functionality or usefulness of a programme to the products and other

stake-holders in the word of work. The authors further stated that in assessing a programme, assessment efforts usually indicate the level of achievement of the objectives of the programme. Assessment in this study therefore is the determination of the extent to which farm inputs are made available to farmers by AISA for sustainable agricultural production in the state.

The privileged position of Ekiti state to be able to produce many varieties of crops and animals has also made it vulnerable to invasion of farm pest and diseases. The farming community in the state are daily faced with problem of wastage of agricultural produce, as large part of what is produced in the state seems to be unavailable to the consumers because substantial part of the farm produce are probably lost between harvest and consumption due to pest invasion or lack of storage facilities. There is the need to combat the menace of pest and diseases with agro-chemicals and improved technology through the services of AISA.

Purpose of the Study

The main purpose of the study is to assess the availability and adequacy of farm inputs supply to farmers by AISA for sustainable agricultural production in Ekiti State. Specifically, the study determined:

1. Agro-chemicals made available to farmers by AISA;
2. Feed stuff, improved seed and farm tools made available to farmers by AISA;
3. The adequacy of storage services made available to farmers by AISA.

Research Questions

The following research questions guided the study.

1. What are the Agro-chemicals made available to farmers by AISA in Ekiti state?
2. What are the feed stuff, improved seed and farm tools made available to farmers by AISA?
3. How adequate are the storage services of AISA made available to farmers?

Methodology

Research Design: Survey design was adopted by the study. The survey design in the view of Owens (2002) is that in which the same information is gathered from on unbiased representative group of interest. It is a valuable tools for assessing the opinion and trends from representative group of population. Survey design is appropriate for the study as data were collected from the representative group of the population of the study.

***Area of the Study*:** The study was carried out in Ekiti state made up of three agricultural zones with the sixteen local government in the state spread across the three agricultural zones.

Population, Sample and Sampling Technique: The population of the study was 800 register farmers in the three zones. The sample of the study was 264 farmers from the three zones selected through (33%) proportionate random sampling technique.

Instrument for Data Collection: The instrument used for data collection was a 24 items structure questionnaire. The

instrument had a 5-point response options of very highly available (VHA), highly available (HA), moderately available (MA), poorly available (PA) and Not available (NA) with corresponding value of 5, 4, 3, 2 and 1 for section B of the questionnaire. While another 5-point response options of very adequate (VA), adequate (AD), moderately adequate (MA), inadequate (IA) and very inadequate (VIA) with corresponding value of 5, 4, 3, 2 and 1 for section C.

The instrument was face validated by three experts in the Vocational Teacher Education Department, University of Nigeria, Nsukka. Their suggestions were used to improve the final copy of questionnaire that was utilized to collect data for the study. Cronbach Alpha method was adopted to determine the internal consistency of the questionnaire items. A coefficient of 0.85 was obtained.

***Method of Data Collection*:** 264 copies of questionnaire were administered on the farmers in the three agricultural zones by the researcher with help of 9 extension agents of Agricultural Development Project (ADP). The 264 copies of the questionnaire distributed among the 9 extension workers, that is, three extension workers from each agricultural zone to administer the questionnaire. Total of 240 copies of the questionnaire were retrieved out of the 264 copies administered given a retrieval rate of 90.9%.

***Method of Data Analysis*:** Data collected were analysed using mean (X) to answer the research questions while standard deviation (SD) was used to determine the closeness or the departure of the respondents from the Mean. The values attached to the response options of the questionnaire were as follows:

Very highly available (VHA) or Very adequate (VA) = 5, Highly available (HA) or Adequate (A) =4, Moderately available (MA) or Moderately Adequate (MA) = 3, Poorly available (PA) or Inadequate (IA) = 2 and Not available (NA) or Very Inadequate (VIA) = 1.

3.00 was used as cut off point, any item with a Mean of 3.00 or above was regarded as available or adequate. While any item with a Mean value less than 3.00 was regarded as unavailable or inadequate. Any item with a low standard deviation indicates that the respondents were not too far from the Mean and from one another in their responses and it added reliability to the value of the Mean. But any item with a high standard deviation indicates that the response were far from the Mean in their responses.

Findings of the Study

The following findings were made:

(a) Available Agrochemicals supplied to farmers by AISA: Findings are summarized in table 1.

Table of Results

Table 1: Mean ratings of the responses of farmers on the available of Agro-chemicals supplied by AISA.

N = 240

S/No	Farm Inputs Supplied by AISA	Mean ($\overline{X}$)	Standard Deviation (SD)	Remarks
A	**Agrochemicals**			
1	Livestock drugs	3.71	1.00	Moderately Available
2	Herbicides	4.09	0.75	Highly Available
3	Fungicides	4.01	0.84	,, ,,
4	Insecticides	3.98	0.83	Moderately Available
5	Storage chemicals	4.03	0.78	Highly Available
B	**Fertilizers**			
6	NPK	4.14	0.83	,, ,,
7	SSP	3.65	0.99	Moderately available
8	Urea	3.75	0.96	,, ,,

Table 1 above reveals that the eight farm inputs items (agro-chemicals) had their Means ranged from 3.65 to 4.14 and were all above the cut-off point of 3.00 on 5 – point rating scale. This implied that all the eight items (agro-chemicals) were made available by AISA for farmers use in their agricultural production in Ekiti State. The standard deviation of the eight agro-chemical items ranged from 0.75 to 1.00 and were low. This indicated that the respondents (farmers) were not too far from the Mean and from one another in their responses.

(b) Available Feed stuff, improved seeds and farm tools supplied to farmers by AISA: Findings are summarized in table 2

Table 2: Mean ratings of the responses farmers on the availability of feedstuff, improved seeds and farm tools supplied to farmers by AISA.

N = 240

S/No	Farm Inputs Supplied by AISA	Mean ($\overline{X}$)	Standard Deviation (SD)	Remarks
A	**Feed stuff**			
1	Broiler starter	3.92	1.02	Moderately Available
2	Growers mash	3.84	0.92	,, ,,
3	Layers mash	3.79	0.95	,, ,,
B	**Improved seeds**			
4	Maize seed	3.92	1.04	Moderately available
5	Beans seed	3.52	1.12	,, ,,
6	Rice seed	3.54	1.09	,, ,,
7	Vegetable seed	3.41	1.15	,, ,,

8	Cassava cutting	3.15	1.26	,,	,,
C	**Farm tools**				
9	Cutlass	3.92	1.02	Moderately available	
10	Hoes	3.51	1.21	,,	,,
11	Files	3.65	1.14	,,	,,

Table 2 above reveals that the eleven farm inputs items had their Means ranged from 3.15 to 3.92 and were all above the cut-off point of 3.00 on 5 – points rating scale. This implied that all the eleven farm inputs items were made available by AISA for farmer's use in their Agricultural production in Ekiti state. The standard deviation of the eleven items farm inputs ranged from 0.92 and 1.26 and were low. This indicated that the respondents (farmers) were not very far from the Mean and from one another in their responses.

(c) Adequacy of storage services made available to farmers by AISA: findings are summarized in table 3.

Table 3: Mean ratings of the responses farmers on the adequacy of the storage services of AISA available for use by farmers in Ekiti State.

N = 240

S/No	Farm Inputs Supplied by AISA	Mean ($\bar{X}$)	Standard Deviation (SD)	Remarks
1	Refrigeration services	2.69	1.68	Inadequate
2	Silo services	2.53	1.37	,,
3	Barn services	2.55	1.43	,,
4	Crib services	2.66	1.36	,,
5	Chemical treatment services	2.87	1.37	,,

Table 3 above reveals that the five item storage services of AISA had their Means ranged from 2.53 to 2.87 and were all below the cut-off point of 3.00 on 5-point rating scale. This implied that all the five items storage services of AISA were inadequate for use by farmers in Ekiti State. The standard deviation of the five items storage services of AISA ranged from 1.36 to 1.68 and were low. This indicated that the respondents (farmers) were not very far from the Mean and from one another in their responses.

Discussion of Findings

The result of the study revealed that the farm inputs items (such as agro-chemicals, livestock feeds, improved seed, fertilizers and farm tools) were made available by AISA for the use of farmers in their agricultural production. The finding was in agreement with the findings of Ochu (1991) in a study carried out on the assessment of the impact of Agricultural Development project and National Root crops center on food production in Imo state where it was found out that the two programmes

made fertilizers, seed and seedlings available for the use of farmer in their crop production.

It was also found out by this study that the storage services of Agricultural Input Supply Agency (AISA) were inadequate for use by farmers in Ekiti State. This finding was in consonance with the finding of Banjo (2001) in a study carried out on the assessment of farmers participation in on-farm Adaptive Research (OFAR) on cassava/maize technologies of the Ogun state Agriculture Development Programme (OGADEP) where it was fund out that. The storage services of (OGADEP) were inadequate and this led to low involvement of farmers in the use of their storage services.

Conclusion

Ekiti state was privilege to be able to produce varieties of crops and animals. But, the farming community in the state were faced with problem of wastage of agricultural produce due to pest and disease invasion. The state government established Agricultural Inputs Supply Agency (AISA) and was saddled with the responsibility of supplying farm inputs such as agro-chemical, storage facilities, tools) to combat the wastage of agricultural produce in the state. It is necessary to assess the performance of AISA in achieving its objectives in the state. The study therefore found out that farm inputs such as agro-chemicals, livestock feeds, fertilizers, farm tools and improved seeds were made available by AISA for the use of farmers in their agricultural production. But, the storage services of AISA were grossly inadequate.

Recommendations

Based on the findings of this study, it was recommended that:

1. Ekiti state government and administrator of AISA should improve the storage service of AISA to reduce problem of wastage of Agricultural production in the state.
2. Administrators of AISA should procure more farm inputs in order to increase the level of their availability to farmers.

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