
ANALYSIS OF FARM INPUTS DISTRIBUTION AND INFORMATION LINKAGES AMONG FARMERS IN EKITI STATE, NIGERIA.

A. B. Sekumade, S. O. W. Toluwase, Owoeye, R. S. And Sedowo M. O.

Department of Agricultural Economics and Extension Services, Ekiti State University, Ado – Ekiti, Nigeria.

ABSTRACT: *The study assessed the needs for farm inputs distribution to the farming households of Ekiti State, Nigeria. A simple random sampling of three hundred farmers were undertaken. Descriptive statistics was employed to analyze the obtained data. Result of the socio-economic attributes of the respondents revealed that 46 years was found to be the mean age of the respondents interviewed. It was also revealed that 73% of the respondents were married while 42% of the respondents had secondary education. Majority (46%) of them indicated 6-10 years as farming experience while 40.7% cultivated 1-2 hectares of land. According to the respondents, their major sources of farm inputs are reserve from previous harvest, friends/ relation, open market. Challenges encountered in accessing farm inputs as reported in multiple responses form, are; high cost of farm inputs (67.00%), extension education needs (66.00%), climate change problem (63.00%), limited access to modern agricultural technology (62.33%)*

KEYWORDS: Farm inputs, information linkages, descriptive statistics

INTRODUCTION

The prevailing hunger and poverty situation in Nigeria, despite amidst vast natural resources have spurred various stakeholders in the food and agricultural sector to action on devising means of enhancing farm productivity in recent times. The problem of food insecurity has been aggravated by the dwindling revenue from crude oil and low agricultural productivity. It is notable however, that Nigeria could feed her teeming population if all the necessary quality farm inputs and support services for optimum farm productivity are made available to farmers. This provision must nonetheless, be adequate, timely, affordable and accessible.

The backbone of any agricultural revolution is access of farmers to modern agricultural inputs. These agricultural inputs range from improved seeds, fertilizers and crop protection chemicals to machinery, irrigation and knowledge. Seeds are critical to successful crop production and inevitably, farm productivity and profitability. Fertilizer supplies nutrients to the soil that are essential for growth. Increased use of fertilizer and improved seeds are partially credited with the large increases in agricultural productivity growth in Asia during the Green Revolution in the 1960s. Irrigation is also essential for growth as it enables off-season farming, provides the potential for multiple harvests per year, and brings additional land under cultivation. Crop protection chemicals (pesticides, herbicides, insecticides and fungicides) control weed species, harmful insects and plant diseases that afflict crops. Finally, technical knowledge and machinery enhance human labor effectiveness and increase farm productivity.

Improved access to seed and fertilizer can greatly improve food security and farm productivity in Nigeria. Farmers have a greater chance of profiting from the use of modern seed and fertilizer if they are readily

available, are of high quality, and are used effectively. Without the establishment of more seed companies and a developed network of agro-dealers, agricultural productivity will remain low, and Nigerian farmers will be unable to exploit the growing demand for grain and other raw materials needed by the expanding agro-processing industry.

A 2012 study by the Department of Agricultural Economics, University of Ibadan, on rice farming populations in the three major rice-growing regions in Nigeria, showed that in one farming season, the adoption of improved agricultural inputs and technology to rice farming, gave farmers a 358.89kg/ha (approximately 9%) advantage over their peers who neither adopted improved inputs nor technology into farming processes (Awotide *et. al.*, 2012). In the case of cassava, of which Nigeria is the world's largest producer, current production costs could be reduced by up to 40.5% with the planting of improved varieties and the mechanization of planting and harvesting. Applied with the ultimate goal of maximizing agricultural productivity, agricultural inputs definitely have a huge potential to scale-up and unlock agricultural productivity in Nigeria, most especially at such a crucial time in the development of the nation's agriculture landscape.

On the basis of the need to alleviate poverty and hunger through enhanced farm productivity in Ekiti State, the Department of Agricultural Economics and Extension Services of Ekiti State University (EKSU) hereby proposes to conduct a research to investigate farm inputs distribution among household farmers in Ekiti State.

It is not an understatement that the numerous small scale farmers in Nigeria and in particular Ekiti State are faced with many problems such as lack of credit facilities, poor energy supply, shortage of man power and many more. It is noteworthy however, that even when conditions are met, farm productivity is grossly hampered by dearth or shortage of input supply. Even, when these inputs are available for use, they are mostly inadequate and leave much to be desired in quality and distribution.

The project aimed at assessing and analyzing farm inputs distribution among farmers in Ekiti State, Nigeria through investigating the sources of farm inputs available to the farmers and how accessible they are; determining the economic, social, political and environmental challenges militating against smallholder farmers' access to adequate and quality farm inputs; knowing how access to inputs translates, if ever, to farm yield; and investigating the nature of gaps, if any, existing between the farmers and the input suppliers.

Justification of the study

At the end of this study, thorough understanding of smallholder farmers' accessibility to farm inputs was achieved. With this, intervention in the forms of inputs and farm service delivery centers were established to address the needs of the farming households, as it was determined in the research. However, this work would benefit the farmers in the following ways:

- Availability of viable and quality seeds for farmers to enhance food productivity and security.
- Increase in credit access to farmers
- Reduction in farm output losses

- Link farmers to possible market outlets
- Increase in the Internally Generated Revenue (IGR) of Ekiti State University.
- Generate data bank for researchers.
- Projecting the image of Ekiti State University positively in terms of its involvement in community service delivery and development

METHODOLOGY

Study Area:

The study was conducted in Ekiti State, Nigeria. Ekiti is one of the States in the South Western Region of Nigeria. The State is within the tropics. It was created on the 1st of October, 1996 and comprises of 16 Local Government Area (LGAs). Ekiti State occupies land mass of approximately 6,6028km² and a population of 2,432,321 (NPC 2006). It is located between longitude 7° 45' and 5° 45' East of the East of the Greenwich meridian and latitudes 7° 45' East and 8° 5' North of the equator. It comprises sixteen (16) Local Government Areas with Ado – Ekiti as the State capital. Ekiti State is bounded in the North by Kwara and Kogi States, in the south by Ondo – State, in the west by Osun State and in the East by Ondo – State. Ekiti State has a mean annual rainfall of about 1400 mm and a mean annual temperature of about 27°C. Its vegetation ranges from rain forest in the south to guinea savannah in the North with soil largely rich in organic minerals thereby making the State a major producer of tree and food crops. According to 2006 population and housing census, the State has 2.5 million people and is made up of predominantly of the Yoruba ethnic groups with a few other ethnic groups that have settled in the State. Majority of the people in the study area are peasant farmers who live in rural community settings. They are closely related in tradition and culture, speaking the same language with minor dialect differences. For this reason, Ekiti State has been described as unique in composition as it is the only State in Nigeria with homogenous ethnic group (Adeniran, 2003). The state has two main seasons i.e. the rainy season and dry season. The occupation of the people is farming with food crops like yam, maize, cassava, rice and cocoyam etc. and some cash crops such as cocoa, kola nut, cashew and oil palm with reasonable percentage of them engaging in other forms of occupation such as trading, weaving and hand craft etc. hence Ekiti State is predominantly agrarian in nature.

Sampling Technique and Data Analysis:

A simple random sampling of three hundred (300) farmers was undertaken with one hundred (100) farmers from each of the three Agricultural Development Programme (ADP) zones in Ekiti State. A pre-project implementation survey was conducted to elicit information on input demand-supply system and other services like marketing, transport, storage and processing of agricultural inputs in the study area through distribution of well-structured questionnaire, field interview and contact groups. Scientific methods such as descriptive statistics were used to analyze the socio-economic attributes of farmers, available linkages, knowledge and information flows as well as the constraints militating access to farm inputs. This served as a guide in providing baseline information for the successful implementation of the project and equally assisted in drawing inferences upon which conclusion and recommendation of the research were based.

Data Analysis

Descriptive Statistics Analysis

This was used to analyze all the objectives of the study. This includes percentage, frequency, mean, minimum and maximum values, standard deviation etc.

RESULT AND DISCUSSION

Socio-Economic Characteristics of the Respondents

This section reveals the socio-economic details of the respondents interviewed. Age categorization of the respondents revealed that majority (37.7%) were within the age bracket 41-50 while only 12% of the respondents were above 60 years of age and 46 years was found to be mean age of the respondents. This showed that the respondents were relatively young and still in their active farming capacity. It was also revealed that 73% of the respondents were married while 19.6% were single and only 2.7% were widowed, implying that the higher number of the respondents in the married category revealed that the respondents had responsibilities and hence would be willing to procure inputs that would increase their productivity. Table 1 further revealed that 42% of the respondents had secondary education and 31.7% had post-secondary education while only 9.3% had no education. The higher literacy level among the respondents would predispose them to adoption of improved inputs in their farming activities. The mean household size of respondents is 5 persons. The majority of respondents (48%) had between 3-4 members and only 7.3% of the respondents had household above eight members. Majority (46%) of them indicated 6-10 years as farming experience while 40.7% cultivated 1-2 hectares of land, and only 28.7% of the respondents were visited by the extension agents.

Variables	Frequency	Percentage
Age of respondents (Years)		
20 – 30	16	5.3
31 -40	64	21.3
41 – 50	113	37.7
51 – 60	71	23.7
Above 60	36	12.0

Total	300	100.0
Marital status		
Single	59	19.6
Married	219	73.0
Divorced / Separated	14	4.7
Widowed	8	2.7
Total	300	100.0
Educational Status		
No formal Education	28	9.3
Primary Education	51	17.0
Secondary Education	126	42.0
Tertiary Education	95	31.7
Total	300	100.0
Household size (Number)		
1 – 2	19	6.3
3 – 4	144	48.0
5 – 6	77	25.7
7 – 8	38	12.7

Above 8	22	7.3
Total	300	100.0
Farming Experience (Years)		
1 – 5	59	19.6
6 – 10	138	46.0
11 – 15	45	15.0
16 – 20	38	12.7
Above 20	20	6.7
Total	300	100.0
Hectarages Cultivated (Ha)		
1 – 2	122	40.7
3 – 4	53	17.7
5 – 6	45	15.0
7 – 8	38	12.7
9 – 10	27	9.0
Above 10	15	5.0
Total	300	100.0

Extension contact		
Yes	86	28.7
No	214	71.3
Total	300	100.0

Table 1: Socio-Economic Characteristics of the Respondents**Source: Field Survey, 2016.****Sources of Farm Inputs Available to the Farmers**

The distribution of farmers based on sources of farm inputs is reported in multiple responses from in Table 2 below. From the result, it is revealed that 48.33 % of the farmers relied on reserve from previous harvest as their main source of inputs supply. This is followed by 34.67% who indicated friends/relations as their major source while 25%, 22.67% and 17% of the farmers revealed that their sources of farm inputs supply were open market, individual supplying agents and small store owners respectively. The result disclosed further that 14.33% and 14% of the farmers Indicated agro-dealers and extension agents as their main sources of farm inputs supply while 11.67%, 9.67%, 9% and 5% of the remaining farmers made it known that ADP, research institute (NIFOR, IITA etc.), lead-farmers and tertiary institutions were major sources of their farm inputs supply respectively.

S/NO	Sources inputs supply	Frequency	Percentage
1	Reserve from previous harvest	145	48.33
2	Friends/relations	104	34.67
3	Open Market	75	25
4	Individual supplying agents	68	22.67
5	Small store owners	51	17
6	Agro-dealers	43	14.33
7	Through Extension agents	42	14
8	ADP	35	11.67

9	Research institute e.g. IITA, NIFOR, IR&T etc.	29	9.67
10	Through lead-farmers	27	9
11	Tertiary Institution (Faculty of Agriculture)	15	5

Table 2: Distribution of Farmers based on Source of Farm Inputs**Source: Field Survey, 2016.****3.3 Effects of Access to Input on Selected Crops' Output**

Table 3 below shows the difference in output/ yield of some selected crops before and after access to inputs. From the result, it was revealed that the mean output values of maize before and after the farmers had access to inputs were 1,500 kg and 2,700 kg respectively while yam showed 800 kg (from 2,500 to 3,300 kg) improvement on output. The result revealed further that 1,100 kg difference was recorded for cassava and 400 kg for vegetable. From the result, it is evident that having access to farm inputs greatly improved crops' output.

Previous output (mean value)				Present output (mean value)			
Maize (kg)	Yam (kg)	Cassava (kg)	Vegetable (kg)	Maize (kg)	Yam (kg)	Cassava (kg)	Vegetable (kg)
1,500	2,500	4,100	800	2,700	3,300	5,200	1,200

Table 3: Effect of Access to Input on Selected Crops' Output**Source: Field Survey, 2016.****3.4: Nature of Gaps Existing between the Farmers and the Input Suppliers.**

Result on the nature of gap between the farmers and input suppliers is reported in multiple responses from where 81% of them indicated high cost of inputs. This is followed by 43.7% of them who said inaccessibility of the inputs. The result reported further that lack of subsidy, conservativeness on the part of the farmers and no awareness accounted for 36%, 28.3% and 26.3% respectively.

S/NO	Nature of gaps	Frequency	Percentage
1	High cost of inputs	243	81
2	Inaccessibility of the inputs	131	43.7
3	Lack of subsidy	108	36
4	Conservativeness on the part of the farmers	85	28.3
5	No awareness	79	26.3

Table 4: Nature of Gaps Existing between the Farmers and the Input Suppliers.

Source: Field Survey, 2016.

3.5 Challenges Militating against Smallholder Farmers' Access to Farm Inputs

The different forms of challenges militating against smallholder farmers' access to farm inputs are reported in multiple responses form. The challenges with the proportion of smallholder farmers that indicated them are shown in Table 2 below where; high cost of farm inputs (67.00%), extension education needs (66.00%), climate change problem (63.00%), limited access to modern agricultural technology (62.33%), poor marketing (57.33%), inadequate agricultural credit (55.67%), lack of information to smallholder farmers (44.67%), delayed and insufficient in inputs delivery (40.67%), poor quality (38.00%), unavailability of agricultural inputs at farmers disposal (37.33%), insufficient skilled man power (32.67%), lack of support from local government councils (32.33%), source from far distance (29.67%), lack of flexibility of policy (28.33%), absence of strong quarantine for imported and shopped crop varieties' seeds (25.67%), misplaced priorities (24.00%) and low attention with regards to seed biodiversity

S/NO	Challenges	Frequency	Percentage
1	High cost of farm inputs	201	67.00
2	Extension education needs	198	66.00
3	Climate change problem	189	63.00
4	Limited access to modern agricultural technology	187	62.33
5	Poor marketing	172	57.33
6	Inadequate agricultural credit	167	55.67
7	Lack of information to small holder farmers	134	44.67
8	Delayed and insufficient in inputs delivery	122	40.67
9	Poor quality	114	38.00
10	Unavailability of agricultural inputs at farmers disposal due to lack of transport, storage, etc. facilities	112	37.33
11	Insufficient skilled man power	98	32.67
12	Lack of support from local government councils	97	32.33
13	Source from far distance	89	29.67
14	Lack of flexibility of policy	85	28.33
15	Absence of strong quarantine for imported and shopped crop varieties' seeds.	77	25.67
16	Misplaced priorities	72	24.00
17	Low attention with regard to seed biodiversity	58	19.33

Table 5: Distribution of the Smallholder Farmers according to Challenges Encountered in Accessing Farm Inputs

Source: Field Survey, 2016.

CONCLUSION AND RECOMMENDATIONS

From the study, it was concluded that, majority of the respondents interviewed were fairly educated, experienced and operated on small scale. Majority of them did not have access to extension services. The study further concluded that larger percent of the respondents relied on reserve from previous harvest and friends/ relations as their main sources of input supply. A great difference mean value of output was realized when comparing the two periods i.e. time of access to input supply and the time when there was no access at all. The study inferred that respondents in the study area encountered series of challenges in their bid to

access farm inputs. The study therefore recommended that; extension workers should endeavor to get farmers informed on how to access improved farm inputs rather than solely relying on reserve from previous harvest, collaborative efforts from governmental and private financial institutions should be employed to ensure seamless access to credit, and all the concerned bodies should make efforts to bridge the gaps between the farmers and the input suppliers

References

- Adeniran, O. A. (2003): "It's all about Ekiti" Creation, Politics and Development of Ekiti State. Published by Babalogbon Printing Press, Ado – Ekiti, pg 14–15.
- Amalu, U.C. (1998). *Agricultural Research and Extension Delivery systems in Sub-saharan Africa*: Calabar: University of Calabar Press
- Awotide, B.A., Diagne, A. and Omonone, B.T. (2012). Impact of improved agricultural technology Adoption on sustainable rice productivity and rural farmers welfare in Nigeria. A local average treatment effect (LATE) Technique being a paper presented at the African Economic conference between 04.30 and mar 2.2012, kisali, Rwanda.
- Asiabaka, C.C. (2002). *Agricultural Extension; A Handbook for Development Practitioners*. Omoku, River State: Molsystem United Services.
- Ayoola, G.B. (2014). *Essays on the Agricultural Economic: A book of Readings on Agricultural Development Policy and Administration in Nigeria*. Ibadan: T.M.A. Publishers.
- Food and Agricultural Organization (FAO), (2004). *The Ethics of Sustainable Agricultural Intensification*.
- FAO Rome, Italy www.fao.org: Editorial Production and Design Group Publishing Management Services. <http://E:/presidentialresearchandcommunicationsunitgovernmentinaction.htm> accessed 23/05/08. <http://www.fadama.org/> accessed 23/05/08
- Idachaba, F.S. (1988). Strategies for achieving food self-sufficiency in Nigeria. Key Note Address, 1st National congress of science and technology, University of Ibadan: 16th August, 1988.
- Kirkpatrick T.O. (1987). *Supervision*. Kent Publishing Company: Boston.
- Madukwe M.C. (2008). Practices without Policy. The Nigeria Agricultural Extension Service 30th inaugural lecture of the University of Nigeria, Nsukka delivered on April 29, 2008, published by the University of Nigeria Senate ceremonials committee. University of Nigeria Press Ltd, Nsukka.
- National Economic Empowerment and Development Strategy (NEEDS) (2004). Abuja: National Planning Commission.
- Olatunji, S.O. (2005). Monitoring and evaluation of Agricultural Extension programmes. In; Nwachukwu.I. and Onuekwusi G. (eds.) *Agricultural Extension and Rural Sociology*. Enugu: Snap press Ltd. 287-306.
- The Washington Times (1999). A special international Report prepared by the Washington Times Advertizing Department, 1999. www.monster.ca accessed 23/05/08