

CONTRIBUTIONS OF SESAME PRODUCTION TO SUSTAINABLE LIVELIHOOD OF FARMERS HOUSEHOLD IN SOUTHERN TARABA STATE, NIGERIA

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ABSTRACT

This study examined the contributions of Sesame production to sustainable rural livelihood in Southern Taraba State, Nigeria. Specifically, the objectives of the study were to; estimate the profitability of Sesame produced in the study area; identify the benefits derived from Sesame production in the study area and identify the constraints to Sesame production in the study area. Purposive and random sampling techniques were employed in selection of respondents for the study. Data were collected from primary source using well-structured questionnaire and were analysed using descriptive and Farm budgeting technique. The findings from this study showed that Sesame production was profitable with Net farm income of ₦78, 307.70 and contributed to farmers household's sustainable livelihood. The major constraints of the farmers were poor access to credit, lack of extension services and High cost of inputs. It was recommended that all surviving credit facilities and schemes put in place to assist farmers should be fortified so that farmers can have access to soft loan, and such loans should be interest free with no stringent condition so that farmers can enlarge their scale of production.

Key words; Sesame, production, Farmers household and livelihood.

INTRODUCTION

Agriculture is the main engine of Nigerian economy and contributes massively to poverty reduction especially on areas of rural income, food security and is one of the pillars of implementation of National Strategy for Poverty Reduction (NSPR) (National Association of Nigerian Traders (NANT), 2012). Contribution of Agriculture and agribusiness is still immense in the Nigerian economy contributing over 40% of Nigeria's Gross Domestic Product (GDP), provides 80% of food consumed, employing about 66% of the labour force in the country, producing over 50% of the raw materials required by the industries for further production, and holding immense potentials essential for the success of the Transformation Agenda presently operating in Nigeria (National Association of Nigerian Traders (NANT), 2012). With the enormous role of Agriculture, the sector is

dominated by peasant farmers mostly dwelled in rural areas cultivating crops like Melon, Groundnut, Yam, and Sesame among others for sustainable livelihoods.

Sesame is an important crop to Taraba State and Nigerian agriculture at large, it is quite extensively cultivated and used in Nigeria and is an important component of Nigeria's agricultural exports. As a small scale crop, the extent of cultivation is poorly known and there is minute information on its productivity as well as its contribution to sustainable livelihoods of farmers in Southern Taraba State. For the most part the surplus crop is commercialized bulked up and exported with minimal processing limited to drying and cleaning (RMRDC, 2004).

Farming in sub-Saharan African is characterized by semi-subsistence, low-input

and low-productivity (Govere and Jayne, 2003; Gray, 2005). The Sesame production systems reflect similar synopsis with objectives such as income generation, household food security, livelihood and seeds for the next cropping season. These intentions have been impaired by the nonstop reduction in production and productivity which characterized the Nigerian agricultural sector thereby limiting the ability of the sector to perform its traditional role of economic development (Akubuilu, 2008). To date, little studies focused on the importance of traditional practices related to African vegetables such as Sesame, its nutritional value and contributions to rural livelihood. Other major socio-cultural uses of crops like melon, Sesame and so on include income generation, household food, and as gift to relatives (Achigan-Dako et al., 2008). Sesame farmers depend on the income generated from the crop to pay their children school fee, provide shelter and improve their lives. As a household food, it is one of the most affordable and suitable dietary sources of vitamins and minerals (Rukwe, et al., 2020). Despite the socioeconomic and food importance of Sesame, information is lacking on the background that contributes to the farmers' households' livelihood. It is therefore essential to evaluate these challenges as it will have bearing on the contributions of Sesame production to sustainable farmers' livelihood in Southern Taraba State, Nigeria. Specifically, the objectives of the study are to:

- i. estimate the profitability of Sesame produced in the study area;
- ii. identify the benefits derived from Sesame production in the study area and

- iii. identify the constraints to Sesame production in the study area.

METHODOLOGY

The Study Area

The study was conducted in Southern part of Taraba State, Nigeria. The southern part is made up of five Local Government areas (Takum, Wukari, Donga, Ussa, and Ibbi) and one special Development Area (Yangtu). It lies between latitudes 8°30'0" and 9°30'0"N of the Equator and between longitudes 8°30'0" and 10°30'0"E of the Greenwich Meridian. The area covers an area of 14,099 Km² land mass with a population of about 687,077 people as at 2006 (NPC 2006). The National Population Commission had projected an annual growth rate of 3.5% which brought the population figure to 969,189.96 people as at 2016 (Taraba State Government (TRSG), 2016). The area shares boundaries with Gassol, Bali, Kurmi, Gashaka and Karim-lamido Local Government areas in the North, Nasarawa State and Plateau State to the North-west, Benue States in the South-West and Republic of Cameroun in the South-East. It has a tropical wet and dry seasons, well drained alluvial soils and characterized by both savannah and rainforest vegetation. Its dry season lasts for a minimum of four months (December to March) while the wet season spans early March to late November in the south. The area has mean annual rainfall of 1800mm. Majority of the population consists of peasant farmers cultivating food and cash crops like Sorghum, Yam, Maize, Cassava, Sesame, Rice e.t.c, at a small-scale level, fresh water fishing and forestry. Livestock keeping is a minor occupation of the population of the area dealing on goats, sheep, rabbits and fish farming. Other activities include trading and civil service. The people live mostly in organised

settlements, towns and villages. The indigenous ethnic group found in the area is Jukun (that is Kuteb, Wapan, Wanu, Kpanzun, and Ichen) and others are Tiv, Chamba, and Hausa just to mention a few (Elizabeth, 1997).

Method of Data Collection

Data for this study were collected mainly from primary source. The data were collected using well prepared questionnaire for 2019 farming season.

Sampling Technique and sampling size

Multi-stage sampling procedure was used for this study. In the first stage, two Local Government Areas from the zone (Takum and Ussa), were purposively selected based on their relative importance in Sesame production. In the second stage, two villages (Manyar, Tati, Kwentam and Kwesati) from each of the selected Local Governments Areas were randomly selected. In the third Net Farm Income is expressed as follows:

$$\text{NFI} = \text{TR} - \text{TC} \dots\dots\dots(1)$$

Where:

NFI = Net Farm Income

TR = Total Revenue (total income realized from sale of Sesame)

TC = Total Cost (summation of total variable cost and total fixed cost)

The rate of returns on investment which is a measure of financial success or failure was estimated.

$$\text{Average rate of returns on investment} = \frac{\text{NFI}}{\text{TC}} \dots\dots\dots(2)$$

Where NFI = net farm income

TC = total cost

Gross ratio (GR) is the total farm expenses divided by the gross income. Gross ratio measure the overall financial success of a farm. The lower the ratio, the higher the return per naira invested. A higher but less than 1 ratio are disastrous for a farm business and might indicate over utilization of certain resources.

$$\text{GR} = \frac{\text{TFE}}{\text{GI}} \dots\dots\dots(3)$$

Where GR = gross ratio

stages, respondents were selected from each of the two villages in proportion to their population randomly. A well structure questionnaire was proportionally administered to 52 respondents.

Analytical Techniques

Descriptive statistics was used to achieve benefits derived from Sesame production and constraints associated with sesame production in the study area (objectives ii, and iii). This involved the use of measures of central tendency such as frequency distribution and percentages and measures of dispersion such as ranking.

Farm Budgeting Technique was used to estimate the profitability of sesame farming in the study area (objective i).

Farm budgeting enables the estimation of the total expenses (costs) as well as total receipts (revenue) within a production period (Olukosi and Erhabor, 1988).

TFE = total farm expenses

GI = gross income

RESULT AND DISCUSSION

Profitability of Sesame production

Result in Table 1 shows the estimated Net farm income from Sesame production in the year 2019. The results showed an estimated Net farm income of ₦78,307.70. Return on investment was ₦2.3k, implies that for every ₦1.00 invested on the farm, ₦2.3k was realized. This amount of return on capital from Sesame production serves as an additional source of income to a farming household. This implies that, Sesame production in the study area provides options for improved income to the farming households studied. This is in line with the

findings of Sharon (2016) who found that the profitability index estimated was ₦1.24kobo indicating that for each naira invested, there is a return of ₦1.24kobo. Similar finding was reported by Makama et al. (2011) who found out that investing ₦1 in sesame production in Jigawa State the farmers realized ₦1.40 kobo. The gross ratio which measures the overall financial success of a farm was 0.3kobo. This ratio shows that the total farm costs was about 30% of the gross income. The lower the ratio, the higher the return per naira invested (₦2.3kobo).

Table 1: Average Costs and Returns of Sesame Farmers (₦/ha)

Variables	Values (₦)
Seed (kg)	1,550.50
Labour (man-days)	21,000.00
Fertilizer (kg)	3,800.00
Herbicide (Litres)	5,600.00
Sacks	1,200.00
Total Variable Cost	33,150.50
Fixed cost	
Cutlass	450.80
Hoes	240.41
Sprayers	650.59
Total fixed cost	1,341.80
Total	34,492.30
Gross farm income	112,800.00
Net farm income	78,307.70
Return on Investment	2.3
Gross Ratio	0.3

Source: field survey, 2019

Benefits of Sesame Production

The result in Table 2 showed that all (100.00%) of the respondents farm Sesame for income generation. This means that the farmers in the study area used the income

realized from sales of Sesame produced in purchasing other food stuffs to sustain the family food needs, payment for health care services rendered to them as after food and

good health is required for the individual to be able to properly participate in the day to day farming activities. Other uses to which the income realized from Sesame is being put are; payment of house rent, payment of children's school fees, expenditure on other Household needs and purchase of farm inputs among other needs. Others benefits includes food (94.20%), Seed for next

cropping (67.31%) and 44.23% of the respondents gave out part of their harvest as gifts to their relatives and friends. This finding agreed with that of Sodiya and Oyediran (2014) and Achigan-Dako et al. (2006) who reported that the respondents used melon as food, source of income generation and as seeds for next cropping.

Table 2: Benefits Derived from Sesame Production

Benefits	Frequency	Percentage	Ranked order
Income generation	52	100	1 st
Food	49	94.20	2 nd
Seed for next cropping	35	67.31	3 rd
Gift	23	44.23	4 th

Source: field survey, 2019

Production constraints of sesame

The problems faced by sesame farmers in the study area were ranked according to their magnitude as stated by the farmers. Table 3 shows that poor access to credit, lack of extension services and High cost of inputs were the major constraints to an increased sesame production in the area. The problem of poor access to credit was the most severe constraint. The implication of this result is that the acquisition of inputs such as improved seeds, fertilizer, agro-chemical, labour and farm expansion might be difficult by farmers. This finding corroborates that of Sodiya et al. (2011); von Braun and Torero, (2008) who opined that credit is an important input for expansion of agriculture. The ultimate aim of extension services is to enhance farmers' ability to efficiently utilize resources through the adoption of new and improved methods used in sesame production instead of using traditional methods which are inefficient, resulting to low yield (Abu et al., 2012). Poor road network, weed control and

inadequate labour supply were the least constraints amongst others. This implies that most of the farmers used family labour as a source of labour because of large household size.

Table 3. Constraints to Sesame production

Constraints	Frequency	Percentage	Ranking
Poor access to credit	52	100	1
Inadequate extension contact	50	96.15	2
High cost of inputs	29	55.77	5
Poor road network	23	44.23	6
Weed control problem	12	23.08	7
Inadequate labour supply	8	15.38	8

Source: field survey, 2019

Multiple responses were allowed.

CONCLUSION AND RECOMMENDATIONS

The findings from this study showed that Sesame production was profitable and contributed to farmers' household livelihoods, served as source of income to farmers, food, seeds for next cropping season and gift to relatives. However, a number of challenges are barriers to the full potential of Sesame in the study area.

Based on the findings of the study, it is hereby recommended that:

1. Credit facilities and schemes put in place to assist farmers should be fortified so that farmers can have access to soft loan, and such loans should be interest free with no rigid condition so that farmers can expand their scale of production

2. National Agricultural Extension and Research Liaison Services through Taraba State Agricultural Development Projects (TADP) should design and provide necessary supports that can boost Sesame production in the study area.

3. Farm inputs should be made available at affordable prices by Government and agro service providers to the Sesame farmers so as to boost the production of Sesame.

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