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COST AND RETURN OF RICE PRODUCTION IN MUBI NORTH LOCAL GOVERNMENT AREA, ADAMAWA STATE, NIGERIA

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Abstract: ***This study investigate the cost and return of rice production in Mubi North local Government Area, Adamawa State, Nigeria. The aim of this study is to estimate the profitability in rice production in the study area. In carrying out this study questionnaires were used to collect data from respondents and a research design was adopted with a sample size of 89. The statistical tool used was the Gross Margin. Gross margin analysis revealed that the total variable cost was ₦8092.84 while the fixed cost was ₦7241.18 making the total cost of production to be ₦15660.67. The total revenue was ₦57655 which gives gross margin and net farm income of N49562.16 and N42320.98 per hectare respectively. The business of rice cultivation in Mubi North Local Government Area is profitable since an average farmer in the study area whose average hectare is (2.3) of land earns N99124.32 in 3months of rice farming which is far above the minimum wage earned by a civil servant at local government level.***

Keywords: Cost, Return, Rice Production and Mubi

Introduction

The plant rice *(Oryza sativa)* belongs to the family of cereal grasses along with wheat;the grass family provides the world with over 60% of its calorie intake and over 75% of the protein for developing nations. Rice is consumed by over 4.8 billion people in 176 countries of the world and is one of the most important food crops for over 40million people in Africa (FAO, 1996). Rice is consumed by over half of the world population. The total unmilled rice is around 592 million tones (mt) (based on average production for 2000 and 2001)

ninety percent of this total is grown in developing countries (F AOSTAT, 2001).

African account for about 2% worlds Output of rice. In sub-Saharan Africa, West Africa is the leading producer and consumer of rice. In 2002, Nigeria accounted for nearly 44% of the total rice output and 57% of the total rice producing area in West Africa (WARDA, 2002). In Nigeria rice is produced in the middle Belt, south East and some four Northern States (Audu, 2008). The importance of rice in Nigeria is no longer the question but rather, how we can meet the growing demand, reduce import and be self-sufficient in its production.

According to FAO (2010), the Nigerian rice sub-sector witnessed a remarkable increase in output from 2.5 million metric tons in 1990 to about 4.2 million metric tons in 2008. This increase in output of rice over the years was as a result of increase in hectare cultivated. However, there has been falling yield of rice in Nigeria from 2069.54kg per hectare in 1990 to 1754.40kg per hectare in 2008 (FAO, 2010). This falling yield of rice led to supply deficit situation in the country.

Although rice production in Nigeria has boomed over the years, there has been in a considerable lag between production and demand level with importation (Akande, 2003). As peer the Nigerian agricultural policy document (Nigeria, 1989), specific objective of agricultural sector policies is the attainment of self-sufficiency in basic food commodities with particular reference to those food commodities which consume considerable shares of Nigeria's foreign exchange and which can be produced locally within the

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country. In this regard therefore, Nigeria will aim to be more than self-sufficient in the production of a cereals expect wheat, most roots and tubers, most grain legumes, most oil seed and nuts, most vegetables and fruits and most vegetable oils (Akande, 2003)

Going by this policy scenario therefore production of rice in Nigeria is bound to expand for several reasons; rice import consumes considerable share of Nigeria' foreign exchange, the proportion of rice in the food basket of Nigerians has continued to rise and Nigeria has the capacity for the expansion of rice production.

Methodology

Study Area

The Study was conducted in Mubi North Local Government Area of Adamawa State, Nigeria. Mubi is the capital of Mubi North Local Government Area of Adamawa State in Nigeria. Mubi north local government area consists of four districts namely; Mubi, Bahuli, Muchalla and Mayo-bani. (Adebayo 2004). The local government has an estimated land area of 871.9km and an estimated population of 177.785. The major economic activities of the people are farming. The major crops cultivated in the area are rice, sorghum, maize, cowpea, groundnut and sugar-cane. A combination of random and purposive sampling techniques was used to select the respondents for the study. These were conducted in the following manner.

Stage 1: The first stage of the level was randomly sampling of the district in Mubi North Local Government areas of Adamawa State. This gives a total of four (4) districts in the Local Government Area but (3) district were purposively

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sample because of their level of involvement in rice production, which are Mubi, Bahuli and Muchalla.

Stage II: At the second stage, two autonomous communities were randomly sampled form each of the three (3) districts in the local Government Areas. This gave a total of six (6). Finally, 15 rice farmers were administered the questionnaires for the study. That is a total of 90 respondents were sampled. But only 89 questionnaires were filled appropriately and received for the study. The data were analyzed using the gross margin analysis.

Gross margin analysis.

The gross margin (GM) analysis was used to examine costs and returns in rice production. The tool was employed to estimate the costs and returns. The total variable cost and total revenue was estimated. The difference between the total revenue and total variable cost is the gross margin (GM). The gross margin analysis was used with assumption that fixed costs in small scale farming are negligible (Olukosi and Erhabor, 1988). Gross margin is expressed as:

Gross margin is stated as

GM = TR - TVC

Where;

Gm = Gross margin (N)

TVC = Total variable cost

TR = Total Revenue

Profit were given by

p = GM - TFC

Where

p = Profit

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GM = Gross margin

TFC = Total Fixed cost

RESULTS AND DISCUSSION

Profitability Analysis of Rice farmers in the study area.

In table 4.1. The table revealed that, the average total cost of production per hectare was N15660.67. This was largely attributed to the high cost of fertilizers used in the production and high cost of farm tools in the study area and having converted family labour cost at prevailing market price rate. The average outputs of the respondents were 8.87bags per hectare while the market selling price was N6500 and the revenue generated were N49562.16 per hectare for rice production.

The table reveals that rice production had gross margin and net farm income of N49562.16 and N42320.98 per hectare. The study therefore revealed that, the business of rice cultivation in Mubi North Local Government Area is profitable since an average farmer in the study area whose average hectare is (2.3) of land earns N99124.32 in 3months of rice farming which is far above the minimum wage earned by a civil servant at local government level.

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Table 4.11: Average Costs and Returns per Hectare of Rice Production

Production variable	**Value in (₦/ha)**
A. Variable Cost	
Seed	853.73
Herbicide	1200.40
Fertilizer	3149.40
Transportation	827.86
Storage	860.59
Labour	1200.86
Variable cost for Rice	**8092.84**
Total variable cost (TVC)	**8092.84**
B. Fixed Cost	
Farm tools	7241.18
Total Fixed Cost	**7241.18**
Total cost of production (A + B)	**15660.67**
C. Returns	
Average output	8.87bags
Average price for Rice (₦/kg)	6500
Revenue for Rice	N57,655
Total revenue	N57,655

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Gross Margin (GM)	**N49562.16**
PR0FIT	**N42,320.98**

CONCLUSION

The business of rice cultivation in Mubi North Local Government Area is profitable since an average farmer in the study area whose average hectare is (2.3) of land earns N99124.32 in 3months of rice farming which is far above the minimum wage earned by a civil servant at local government level.

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