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ECONOMICS OF SHEEP PRODUCTION IN ZURU LOCAL GOVERNMENT AREA OF KEBBI STATE NIGERIA

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ABSTRACT

This study was carried out to investigate the profitability of sheep production in Zuru local government area of Kebbi State. It examined the costs and returns of sheep production as well as problems encountered in sheep production in the study area. Data were collected from a total of 100 respondents using simple random sampling technique in 2014. Descriptive statistics and farm budgeting technique were used in the analysis of data. The costs and returns analysis indicated that, variable cost constituted 69.83% of the total cost of sheep production in the study area, while the fixed cost constituted 30.17%. However, the average total cost of production was ₦307, 491.57, the average total revenue was ₦376, 312.00, gross margin was ₦161, 572.43 and the net income was ₦88, 820.43 indicating that sheep production was profitable. Despite the profitability of sheep production, sheep farmers identified feed problem (92%) as their major problem. It is therefore, concluded that sheep production in the study area was profitable. With this level of profitability in sheep enterprise, it is recommended that this finding be disseminated to all practicing and potential sheep farmers in the study area and other communities. It is also recommended that more farmers in the study area and elsewhere should go into sheep production because of its profitability. There should also be practical application of new knowledge to sheep under traditional husbandry system in the study area.

Keywords: Economics, Sheep, Production, Profitability, Zuru, Kebbi state.

Contribution/ Originality

This study contributes in the existing literature on sheep production and livestock economics. Sheep production as an approach to economic growth could be relevant in improving the quality of life of farmers. Information on the economics of sheep production is necessary in view of the emerging food crisis in Nigeria.

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1. INTRODUCTION

Sheep were among the first domesticated animals and their role in ancestral agro-ecosystem was critical for the development and advancement of human civilization. As ruminant, they serve a multitude of function from food to fertilizer that is essential to human life in both rich and poor countries [1]. Sheep are widely distributed in the semi-arid region of the tropics as compared to humid and semi humid region and have great importance as major source of livelihood of the small farmer and the landless in rural communities. In tropical Africa however, research have shown that productivity of sheep is low and there is an ample opportunity for improvement in the livelihood of the farmer. About 1/3 of the sheep population found in Nigeria are often used during festivals and preferred especially in the northern part of the country. This signify that rural people enjoy more income through sales of their stock and other by-products derived from sheep e.g. skin, blood meal, organic manure etc. [2].

Owolabi [3] reported that high percentages between (75% to 90%) of traditional households keep sheep and or goat for various purposes such as meat production, income from sales and security against crop failure among other reasons. From the foregoing, it is important to study economics of sheep production in Zuru local government area (LGA), Kebbi State in order to assess the type of management system, determine the profit associated with the enterprise and problems of sheep production in the study area. The findings of the study will be useful in policy formulation towards achieving increased sheep production in the country. Therefore, this study was designed to determine the resources, costs and returns and problems affecting sheep production in Zuru Local government Area of Kebbi State.

2. METHODOLOGY

The study was carried out in Zuru Local Government Area (LGA) of kebbi State. The Area is located within latitude 11° 35' and 11° 55'N and longitude 4° 45' and 5° 25'E of the equator approximately [4]. Zuru LGA is geographically located in the south-eastern part of the state. The estimated population of the LGA is 165,547 people [5]. The weather is marked by a single rainy season and long dry season, the average rainfall is 1025mm/annum, the rainy season is between May to October, the rainy season last for four – five months. The climatic condition of the area is characterized by hot and wet season as in the tropics; the month of November to January is the hamattan period. The soil type is sandy loam and rich, which makes it suitable for agriculture [4].

Simple random sampling method was employed to select respondents. 100 sheep farmers were selected. The main instrument for data collection was structured questionnaire. Data were collected on socio-economic characteristics of the respondents, system of management, problems of sheep production, prices of input and output. Analysis of the data was done using descriptive statistics and farm budgeting technique. Simple descriptive statistics such as frequency counts and percentages were used. The budgeting technique employed was the net farm income. The

difference between the gross revenue (GR) and total cost (TC) gives the net revenue (NR), net farm income (NFI) is expressed as:

NFI = GR – TC..... eq (1)

Where

NFI = Net Farm Income

GR = Gross Return

TC = Total Cost (₦)

TC = (TVC + TFC)

TFC = Total Fixed Cost (₦)

TVC = Total Variable Cost (₦)

3. RESULTS AND DISCUSSION

3.1. Socio-Economic Characteristics of Respondents

The result indicated that about 58.3% of the sampled farmers are female, while the remaining 41% are males. This indicates that women contribute greatly to the agricultural sector of the economy. The average age of the respondents and years of farming experience are 35 and 15 years respectively. About 37.5% of the sampled farmers had primary education. This finding has therefore reflected the importance of education in agricultural production activities. The more an individual is exposed to any form of education, the more likely he will have a better understanding of his environment. The average household size was ten, while most farmers (55.8%) had a flock of between 5 – 10 sheep's and most farmers (48.3%) obtain their stock through purchase. Therefore, the finding of this study agrees with the assertion of Aganga and Fasanya [6] reported that livestock for agricultural production are mostly obtained through purchase. The result also indicated that, about 65% of the respondents employed family labour in managing their enterprise. However, the results further revealed that majority of the farmers (66.7%) are using the extensive system of management. This is in line with findings of Jirgi and Tanko [7] find out that under the extensive system of management, animals are kept either in huts or in open shade, this exposes the animals to unfavourable conditions which lead to disease infection, hence low productivity.

3.2. Costs and Returns

The profitability of any business can be deduced from the relationship between the cost incurred in running the farm business and the returns accruing to it Adegeye and Dittoh [8]. The costs and returns associated with sheep production in the study area are presented in Table 1. The result of the farm budgeting analysis revealed that the variable cost constituted 69.83% of the total cost of production of sheep enterprise. Fixed capital accounted for 30.17%. The result further revealed that a typical farmer realized a net farm income of ₦88, 820.43 per production cycle and the average production cycle is five months. The result showed that sheep farmers realized profits; however, profit can be enhanced if they improve on the management practices.

Table-1. Average Costs and Returns of Sheep Production/Production Cycle

Items	Average Value (N)	Percentage
Variable Costs		
Labour	86,193.00	28.03
Medication	12,250.00	3.98
Feeds	97,360.17	31.66
Foundation Stock	18,936.40	6.16
Total Variable Cost (TVC)	214,739.57	
Fixed Costs		
Fixed cost	92,752.00	30.17
Total Fixed Cost (TFC)	92,752.00	
Total Cost (TC)	307,491.57	
Revenue		
Total Revenue (TR)	396,312.00	
Net Farm Income (NFI)=ATR-ATC	88,820.43	

Source: Field Survey Data and Computation by the Researcher, (2014).

3.3. Problems of Sheep Production

The problems encountered in sheep production in the study area were feed problem, management problem and disease problem as indicated by as many as 92%, 54% and 53% of the respondents, respectively. Further to this, there is labour input problem to a small extent (36%). With respect to marketing, 22% of the farmers indicated that, they faced problem of lack of organized livestock marketing system which resulted in the farmers selling their sheep's to middlemen which consequently hamper the profitability of the enterprise.

Table-2. Problems Encountered in Sheep Production

Problem	Frequency	Percentage
Feed Problem	92	92
Management Problem	54	54
Disease Problem	53	53
Labour Input Problem	36	36
Lack of Organised Market	22	22

Source: Field Survey Data and Computation by the Researcher, (2014).

4. CONCLUSION

The study examined the economic analysis of sheep production in Zuru Local Government Area of Kebbi State. The study revealed that feed cost, medical cost, labour cost, other inputs and fixed cost are the major variables which significantly explain changes in income of sheep farmers. It is however; found that sheep production in the study area was highly profitable. Nevertheless, majority of the sheep farmers were faced with problems of management, market, feeds and capital.

5. RECOMMENDATIONS

With this high level of profitability in sheep production, it is recommended that this finding be disseminated to all practicing and potential farmers in these and other communities. It is also recommended that more farmers in the study area and elsewhere should go into sheep production because of its profitability. There should also be practical application of new knowledge to sheep under traditional husbandry system in the study area.

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