

Economic Efficiency and Profitability of Cowpea Production in Billiri Local Government Area of Gombe State, Nigeria

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Abstract : This study evaluated the economic efficiency and profitability of cowpea production in Billiri Local Government Area of Gombe State, Nigeria. The objectives were to describe the socioeconomic characteristics of cowpea farmers, analyze the costs and returns of production, determine technical and allocative efficiencies, and identify constraints to cowpea farming. Using multistage, purposive, and simple random sampling techniques, we selected 200 cowpea farmers. Data were collected through structured questionnaires and analyzed using descriptive and inferential statistics. Results indicated that 76% of farmers were under 45 years old, with a mean age of 36.3 years. The majority (74%) were male, 73% married, and had an average family size of 8. About 46% were full-time farmers, 95.5% were literate, with an average farming experience of 15.45 years and an average farm size of 3.08 hectares. Cowpea production proved profitable with a gross margin of ₦326,740.25 per hectare, a gross income of ₦525,020.00 per hectare, and total variable costs of ₦198,279.75 per hectare, resulting in an operating ratio of 0.61. The return on investment was 2.21, with a mean technical efficiency of 0.75 and a mean economic efficiency of 0.71. The findings suggest that cowpea production is profitable, yielding ₦2.21 for every ₦1.00 invested. Enhancing farming practices could further improve efficiency and profitability.

Keywords : economic efficiency, profitability, cowpea production, technical efficiency, allocative efficiency, Gombe State

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