Review on Analyses of Private and Public Benefits of rice Processing Intervention under IFAD-Value Chain Development Programme in Niger State, Nigeria

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Abstract
Agriculture remains the base of the Nigerian economy, providing the main source of livelihood for most Nigerians. The sector is currently faced with numerous challenges bordering on low private and public productivity and efficiency, limited value addition and market potentials, culminating in dwindling foreign exchange. IFAD is promoting modern rice processing techniques in Nigeria to enhance the quality and purity of locally processed rice under the Programme to meet with the growing demand for rice. Rice processing in Niger State is generally undertaken by small-scale processors who lack technological know-how. Paddy processing into rice by private operators is considered as the critical point for the determination of the rice quality

Introduction

In spite of its oil production potentials, agriculture remains the base of the Nigerian economy, providing the main source of livelihood for most Nigerians (Food and Agriculture Organization (FAO), 2016). However, the sector is currently faced with numerous challenges bordering on low private and public productivity and efficiency, limited value addition and market potentials, culminating in dwindling foreign exchange. Recently, focus has been on diversifying the economy towards ensuring self sustaining agribusiness, focused economy and making the agricultural sector productive, efficient and effective (Federal Ministry of Agriculture and Rural Development (FMARD), 2015).

The International Fund for Agricultural Development (IFAD) assisted Value Chain Development Programme (VCDP) aims at reducing rural poverty and achieving accelerated sustainable economic growth in six intervention States, namely; Anambra, Benue, Ebonyi, Ogun, Taraba and Niger. Its development objectives are to increase incomes and food security of poor rural households engaged in production, processing and marketing of rice and cassava in targeted Local Government Areas of the implementing States. IFAD is promoting modern rice processing techniques in Nigeria to enhance the quality and purity of locally processed rice. Rice is an important food in Nigeria and the second most important crop in the world. It is the staple food for about half of the human race, and it is the most widely consumed in Nigeria (FAO, 2012). Rice is rapidly becoming the preferred staple food in the urban areas where annual consumption exceeds 47 Kg/capita.Generally farmers sell 80 percent of the rice they produce, making it a very important source of income for smallholder producers, complementing other agricultural production. Also, considering that total sales of rice exceed $5 billion per year, 60% of which are from imports, there exist significant rice markets in Nigeria (Hamilton, 2009).

Rice processing in Niger State is generally undertaken by small-scale processors who lack technological know-how. It is believed that one of the major constraints that affect the development of the Nigerian rice sector is the inability of the local rice to match the quality of imports (Adegun *et al*., 2012). Paddy processing into rice by private operators is considered as the critical point for the determination of the rice quality (Lançon, 2003).

Cost-Benefit and Cash Flow Analysis

According to the research on economic profitability of rice processing in Kano State, Nigeria, which was carried out by Inuwa *et al.,* (2011) it was observed that rice millers obtained BCR of 2.51, IRR of 140%, NPV of 10,555,709. With respect to the Project's Design Report of the IFAD Assisted Livelihood Improvement Family Enterprise in the Niger Delta region of Nigeria, the estimated financial indicators were, IRR of 85%, NPV was ₦3.9m while the incremental benefit to be ₦0.99m, while for the estimated economic analysis IRR was put at33%, NPV stood at₦1.3m with an incremental benefit of ₦0.4m.

Rationale for Government Intervention

If the real world to fulfill the assumptions of the fundamental theorems of welfare economics, the market would produce every good in demand and there would be no need for governments to provide any good or service. Equity considerations then would be the only economic justification for governments' intervention. However, the real world is a far cry from the idealized Arrow-Debreu world. In many cases private markets fail to produce the socially optimal quantities of goods and services and, in principle, government becomes inevitable and intervention can enhance welfare. Numerous reasons are adduced for government intervention, including; instances of natural monopolies, externalities, public goods, merit goods, non-rival goods, asymmetric information and incomplete markets. Others comprise complementary markets, risk aversion, cost of capital and size of project.

Private and Public Analyses of Rice Processing Interventions

The economic and financial analysis on climate-resilient rice commercialization sector development program (2012), reported the economic IRR (EIRR) of rice price to be 22.6%, the financial IRR (FIRR) to be 11.9%, the sensitivity towards EIRR to be 1.4, sensitivity towards FIRR to be 1.5, switching value towards EIRR to be 60 and switching value towards FIRR to be 81 respectively. Wen *et al.,* (2020) in their study reported a return on investment with $ 160, acapitalturn over of 2.6 and a benefit cost ratio of 3.1 respectively in their study on the profitability analysis of rice production, constraints and consumption in Tanzania. Cost-benefit analysis of Senegal's rice value chains by Hashemi M., and Schults, M., (2017) showed that milled rice had ENPV of US$ 50.68 million for medium rice millers, FNPV was at US$ 0.51 million and MIRR was at 17%.

Referent group and Standing

Referent groups simply refer to the group of individuals that will directly benefit from a project or a programme, (Campbell and Brown, 2016). These groups are the economic agents the decision makers or researchers identifies as the stakeholders to be considered in appraising the project. These maybe be residents of a region, members of a social or ethnic group or any other

identifiable group determined by the decision maker. Therefore, referent group analysis refers to the calculation of the net benefits of the project that accrue to the referent group. On the other hand, standing refers to the domain: to which the analysis refers either to the LGA, State or Country.

Conclusion

Rice processing is yet to receive the optimal attention to meet the demands of the country. This seems to have led to a significant increase in rice importation. It thus becomes important to look into the opportunities and incentives abound in the rice value chain, particularly the rice processing to stimulate increase private and public participation. Not many studies have been undertaken on the analysis of private and economic efficiencies of rice processing within Niger State. The study will further provide insight into the distribution of net benefits across the stakeholders involved in the project. It will further reveal how favourable, rigid or liberal the country's fiscal policy (tax) regime is currently constituted.

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