

A Study on The Economic Efficiency of Paddy Cultivation in Vellore District of Tamil Nadu

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Abstract: Limitations more chaffy grains are collected in November and December. Skilled Paddy Yellowing of transplanted seedlings throughout winter season. The primary food crop of Tamil Nadu, paddy, is widely grown in the Vellore District over an area typically covering 42,900 hectares. The State Government has made numerous efforts over the years to deploy a wide range of advanced technology under different schemes in an effort to increase farm output. The Rice Intensification System (SRI) in Vellore District, a variety of technology techniques for water usage was pushed. The use of this innovative technology resulted in a 30% increase in productivity compared to the traditional farming approach. Farmers were introduced to this technique through demonstrations conducted as part of several Central and State government programs. Large numbers of middlemen, pricing fluctuations, payment delays, a lack of market information, and a lack of cooperative markets are examples of marketing issues. The bulk of rice farmers rely significantly on government marketing assistance, input subsidies, support prices, and useful rates of deduction for input costs.

Key words: Paddy cultivation, Marketing, problems and suggestions.

I. Introduction

India's principal food crop is paddy. Twenty percent of the world's rice is produced in India, making it one of the biggest producers of both brown and white rice worldwide. India was one of the world's largest exporters of both basmati and non-basmati rice; imports of the same types of rice were negligible in 2009–10 and 2016–17 (as of January 2017). The state of Tamil Nadu contributes 7% of India's total rice production. In 2016, the state of Tamil Nadu produced 75.85 lakh tonnes of rice.

Given that rice is a staple food, part of millions of people's cultures, customs, and means of subsistence, it is rightfully considered the most valued good in the world. It is a substantial staple meal that meets between 66 and 70% of a person's daily energy needs. Under the current Five Years Plan, agricultural growth is expected to be 3.28 percent, falling short of the 4% target. Minimum agricultural growth must be accomplished in order to attain inclusive growth, reduce poverty, strengthen the rural economy, and raise farm incomes. India is a developing country with a largely agrarian economy. India's economy remains predominantly dependent on agriculture, even with its recent economic progress and industrialization. It functions as the nation of India.

The main pillar of the economy. Beyond those who work directly in the agriculture industry, a sizable section of the population engages in agro-based activities. India's vast population depends on agriculture to meet their food demands. Paddy cultivation is the primary use of wet farming, when the majority of the planted land is devoted to a single crop. There are several cropping patterns in dry regions, and no single crop makes up a sizable share of the entire planted area. In these locations, cash crops and millet are the predominant farming practices. Farmers grow rice anywhere there is water, including in desert regions. Paddy fields occupy the largest area under agriculture. In Vellore, Pennathur, Palikonda, Gudiyatham, Odugathur and Thiruvallam, Paddy is mostly grown.

Objectives

- To know the Paddy growing areas in Vellore
- To analyze the Paddy varieties in Vellore
- To be aware of the issues to paddy marketing in the region.
- To provide recommendations for enhancing the paddy's marketing.

II. Methodology

The Empirical nature forms the basis of this work. Data was gathered from secondary sources for the study's objectives. The secondary data were gathered from reports, books, journals, and news sources. A number of government representatives from the Department of Agriculture were consulted, their professional advice was sought, and valuable information was gathered from the Vellore district.

Design of the study

For the investigation, a random sample approach was used. K.V. Kuppam and Arcot blocks in the Vellore district were purposefully chosen based on the overall area used for rice cultivation. The input-output data from sample farmers in the Vellore districts served

as the study's foundation. A multi-stage sampling design was used to choose the farms. Two significant paddy producing blocks that used the traditional and SRI methods of rice production were purposefully chosen for this procedure's first stage. Six significant paddy-growing villages using both techniques of rice farming were chosen at the second stage from each block. Ten farmers were chosen at the end from each hamlet, five using the SRI approach and five using the traditional method of rice cultivation.

III. Review of Literature

This chapter includes a review of the literature on previous research projects that have examined paddy production and technology, resource use efficiency in terms of cost and return, and marketing of agricultural commodities. Even though these fields have a wealth of literature, just a select few significant connected works are discussed here. The review has been arranged into the following headings for easier understanding.

Junakar (1980) investigated the joint hypothesis of Indian farmers' competitive and profit-maximizing actions. The study's foundation was cross-sectional data from farmers in Thanjavur district of Tamil Nadu who farmed paddy in 1969 and 1970.

Kalirajan (1981) Using the profit function in conjunction with four variables from put-and-demand equations for labor, chemical fertilizer, pesticides, and bullock pairs, investigated the economic efficiency of farmer groups.

Anitha Jose's.S (2016) The Primary goals of research were to understand the potential of rice farming, the current technology that can be used in agriculture, the different issues that paddy cultivation faces, how to acquire yield, and how to sell paddy.

David Groenfeldt (2004) According to study from 22 years ago, the foundation of traditional Southeast Asian cultures and the means of subsistence for their members is paddy agriculture. In the past, paddy farming has served multiple purposes, including providing the raw materials for trade and subsistence, as well as acting as the hub of family, community, and spiritual and religious expression for several India. Even though a lot has changed over the years, this study contends that paddy cultivation's multipurpose character is still significant and that these cultural aspects should be taken into account when defining rural "livelihood."

Jeenasrinivasan (2012) In his study "An Economic analysis of paddy cultivation in the Keralan kole land," the author observed that the percentage of Kerala's total cropped area that was planted to rice, the state's principal crop, had decreased from 32% in 1961–1962 to approximately 8.77 percent in 2009–2010. By 2009–10, the area under paddy cultivation has steadily decreased from 7.53 lakh hectares during 1961–1962 to 8.76 lakh hectares during 1975–1976. In around 34 years, the area under paddy dropped to 2.34 lakh hectares, a 73.28 percent decrease. More precisely, the paper's goal is to assess the current condition of paddy farming in Kole land in terms of yield, profitability.

Ramasuntharam. M & Banukumar. K (2012) Using MapInfo and GIS, studied the crop combination region in Tamil Nadu. To determine which crop and crop combination regions are ranked Tamil Nadu crop combination

Richard Paul V. and Radha Devi (2017) examined the cultivation of paddy in various sizes of armor sand using constraint analysis and came to the conclusion that increasing financial support and setting up agriculture information centers to help farmers properly use input variables could boost paddy output.

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Varieties of Paddy in India: There are numerous types of paddy cultivation in India. 74 counts, Aizon Rice, Ambemohar, Annapoorna, Atop, Basmati Rice, Bhut Muri (keras), Champaa Rice, Clear field Rice, Gandhasala, Gobindo Bhog, Hansaraj, HasanSerai, HMT rice, Idly Rice-Short grain, and Champaa Rice are a few notable paddy types. Coarse, Parmal, Swarna, Super Fine, Patnai Fine, CR 1009, No I, Jay Shri Rama Rice, Joha Rice, Jyothi, Kamini Rice, katta sambar, Laxmi Bhog, Minicate, Super Minicate, M, Patna Rice, Masori, BPT, Fine, No – III, 2716, and So on. (2019, Kasula Sekhara)

Varieties of Paddy in Vellore

One well-liked paddy type that may be grown in Vellore is ADT 36. This type is renowned for having outstanding grain quality and a significant potential for production. It demonstrates resilience against key pests and diseases and develops in roughly 135-140 days, making it an excellent fit for the agro-climatic conditions of this region.

Another popular paddy variety in Vellore is ADT R 43. It is a type of rice with fine grains that takes 135 to 140 days to mature. ADT R 43 is in high demand on the market due to its delicious taste and exceptional cooking qualities. It has nice qualities as well.

CO 43: Grown in Tamil Nadu, particularly Vellore, this is the predominant variety of paddy. This variety is well-known for having a high potential yield and for being able to adapt to different agro climatic conditions. CO 43 has a growth cycle that is medium in length, mature in 125–130 days. It yields long, thin grains that cook well, making it a popular option for both home and export use.

Marketing of Paddy

In Vellore district of Tamil Nadu, paddy selling is essential to the area's agricultural economy. For the farmers of Vellore, paddy is a vital source of income because it is a staple crop and an important part of their diet. There are many obstacles in the marketing process that affect farmers and the supply chain as a whole. The majority of farmers are small and marginal, which makes it difficult for them to bargain together.

Farmers, mill owners, wholesalers, and retailers are the four middlemen that make up paddy marketers. A significant quantity of unnecessary intermediaries lowers the portion of profit that farmers make. The commission agents' operations are not regulated by any entity in Vellore. They engage in dishonest business practices including under-invoicing, fraudulent accounting, counterfeit weighing, and so forth. Communication facilities are available for every regulated market. In order to give the growers knowledge about the prices that is being charged in surrounding markets. Based on market variables pertaining to supply and demand, commission brokers set the price of the paddy. Commissions vary from location to location and are typically based on sales volume.

Problem of Paddy Cultivators

There are several obstacles to rice growing in Vellore area, which affects both the farmers' lives and the state of agriculture as a whole. These concerns cover a wide range of topics, including socioeconomic limitations and environmental variables. Comprehending these obstacles is crucial in order to formulate efficacious remedies and enhance the welfare of rice growers in the area. These are a few issues that paddy farmers in the Vellore area deal with.

Scarcity of water is a major problem. Since the Vellore district has a mostly arid environment, water supply for agriculture is a constant source of worry. Rice farming is directly threatened by insufficient rainfall and declining groundwater levels. Reduced yields and financial hardship are often the results of farmers' struggles to obtain enough water for their crops.

Problems with water are made worse by the region's unpredictable monsoon cycles. A rice crop's ability to germinate and grow might be hampered by unequal water distribution caused by unpredictable rainfall. Farmers find it challenging to properly organize their activities due to irregular precipitation patterns that throw off the typical farming calendar.

In the Vellore area, the problem of unhealthy soil also has a significant impact on rice farming. Soil degradation is the result of ongoing farming without appropriate soil management techniques. The nutrient content of rice crops is impacted by reduced soil fertility, which lowers yields and lowers product quality. Financial limitations frequently prevent farmers from investing in soil rejuvenation techniques, which feeds the downward spiral in agricultural productivity.

The issues that rice farmers in the Vellore district confront are made worse by the lack of technological improvements in agriculture. Inadequate availability of contemporary equipment and methods reduces farming operations' productivity and efficiency. Even though they are based on regional customs, traditional methods might not be enough to satisfy the markets and population's expanding needs. Crops that are not properly stored are also more vulnerable to deterioration, which lowers their market value.

Profit in paddy cultivation per acre

Paddy (grain plus husk, or the outer covering of the grain) costs approximately Rs 1600 and yields more than 30 quintals per acre. In other words, gross revenues come to about Rs 48000, whereas the cost of cultivation is about Rs 18000/acre. The net returns are approximately Rs 30,000 per acre.

Largest producer of rice in Tamil Nadu

Among the Indian states, Tamil Nadu produces the third most rice. While there is paddy cultivation in all of Tamil Nadu's districts, the districts of Thanjavur, Tiruvarur, Tiruvallur, Kancheepuram, Villupuram, Cuddalore, and Tirunelveli have the highest concentration of paddy.

Suggestions

The price of fertilizers and manures is extremely high. Their cost is 55% of the paddy production cost. Therefore, the government must provide a subsidy.

In order to meet the growers' needs for planting, maturing, irrigation, and other related cultural operations in order to prepare their fields for cultivation, financial help may be provided.

The majority of farmers are ignorant of the market's regulation. Publicity can therefore be used to inform farmers about the presence and operation of a controlled market in their area.

The government might establish sizable warehouses and processing facilities to store and handle the paddy.

The growers may be provided with financial support to meet their needs for planting, maturing, irrigation, and other comparable cultural operations in order to prepare their fields for production.

Water is essential to all plants. In this research location, there is a summertime water shortage that hinders paddy cultivation. Therefore, the government may implement beneficial programs and provide loans to paddy farmers so they can drill wells or bore wells in this area.

IV. Conclusion

Based on the research mentioned above, it can be inferred that rice growers encounter numerous challenges in both production and marketing. Monsoon failure, a lack of water resources, high fertilizer costs, a scarcity of labor, a paucity of bullocks, and a dearth of green leaf bio fertilizers are some of the issues facing production. Large numbers of middlemen, pricing fluctuations, payment delays, a lack of market information, and a lack of cooperative markets are examples of marketing issues. The bulk of rice farmers rely significantly on government marketing assistance, input subsidies, support prices, and useful rates of deduction for input costs. However, the aforementioned issues remain unresolved and require correction by the government in order to enhance paddy output in our nation going forward.

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