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An Economic Studty of Paddy Cultivation in Panchampatti Village of Rajapalyam Taluk in Virdhunagar District

Dr.T.Selvakumar[1]* and S.Chinnasmy[2]

[1]*Assistant Professor, PG and Research Department of Economics, The American College,Madurai,India.
[2]Full Time Ph.D Research Scholar in Economics, Department of Economics, Annamalai University, Chidamparam, India.
*Corresponding Author Email Id: selvakumar12mku@gmail.com

Abstract

Rice is the world's most important food crop, cultivated over an area of about 155 million hectares with a making of about 596 million tonnes (paddy). In terms of area and production, it is second to wheat. It provides about 22 percent of the world's supply of calories and 17% of the proteins. Maximum area under rice is in Asia. Among the rice growing countries, India has the largest area (44.8 million hectares) followed by China and Indonesia. These papers have made an attempt of "An economic study of Paddy Cultivation in Panchampatti Village of Rajapalyam Taluk in Virudhunagar District of Tamilnadu. The major work was done by the researcher to find out the occupational pattern, Income and expenditure of the paddy cultivating farmers and finally problems faced by the farmers who are engaged in paddy production in the selected area respectively.

Keywords: Paddy Cultivation, Income, Expenditure, Cost of Production, Marketable surplus, Climate, Rainfall.

Introduction

Agriculture has been a way of life and continues to be the single most essential Livelihood of the masses. Agricultural policy spotlight in India across decades has been on self-sufficiency and self-reliance in food grains production. extensive progress has been made on this front. Food grains production rose from 52 million tonnes in1951-52 to 244.78 million tones in 2010-11. The share of agriculture in real GDP has fallen given its lower growth rate relative to

industry and services. However, what is of concern is that growth in the agricultural sector has quite often fallen short of the Plan targets. During the period 1960-61 to 2010-11, food grains production grew at a compounded annual growth rate (CAGR) of around 2 percent. In fact, the Ninth and Tenth Five Year Plans witnessed agricultural sectoral growth rate of 2.44 per cent and 2.30 per cent respectively compared to 4.72 percent during Eighth Five Year Plan. During the current Five Year plan, agriculture growth is estimated at 3.28 per cent against a target of 4 per cent. The Approach Paper to the Twelfth Five Year Plan emphasizes the need to "redouble our efforts tonsure that 4.0 per cent average growth" is achieved during the Plan if not more. Without incremental output gains and expertise diffusion across regions, achieving this higher growth may not be feasible and has implications for the macroeconomic stability given the rising demand of the 1.2 billion people for food. Achieving minimum agricultural growth is a requirement for inclusive growth, reduction of poverty levels, development of the rural economy and enhancing of farm incomes.

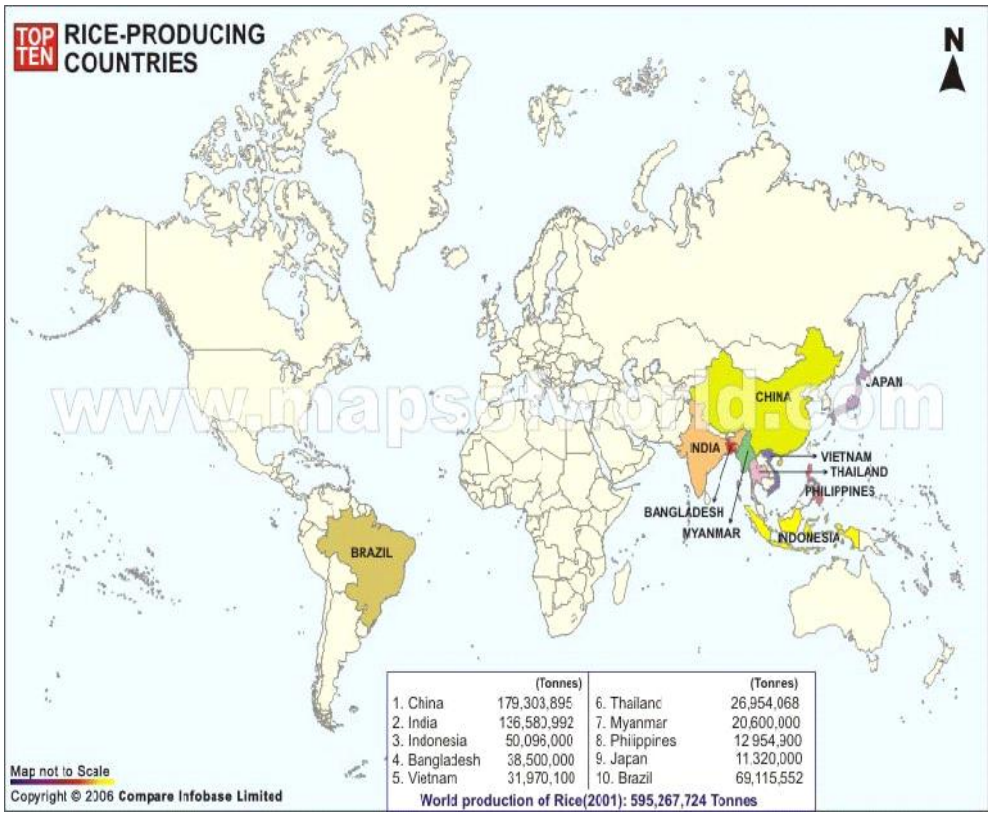
Importance of Agriculture

Agriculture is the backbone of our Indian economy. Agricultural development is a prerequisite of our national wealth. It is the main source of earning livelihood of the people. Nearly two-thirds of its population depends straight on agriculture. Agriculture provides direct employment to 70 percent of working people in the country. It is the main live of India's economy. Apart from those who are directly involved in the agrarian sector, a large number of the population is also engaged in agro-based activities. Agriculture meets the foods requirements of the large population of India. It ensures food security for the country. Significant increase in the production of food grain like rice, wheat and non-food grains like tea, coffee, spices, fruits and vegetables, sugar, cotton has made India self-sufficient. Agriculture also contributes to the national income of our country. It accounts for 26 percent of the gross home product. The growth of most of the industries depends on agriculture. It produces several materials for industries. It forms the basis of many industries of India like cotton, textile, jute, sugar industries etc by provided that cotton, sugarcane and oilseeds. People occupied in agriculture also purchase the products of industries like tractors, pesticides, fertilizers and pump-set. Agriculture contributes in foreign exchange of our country. India exports agricultural products like tea, coffee, sugar, tobacco, spices etc and earns foreign currency. Exports from the agricultural sector have helped

India in earning valuable foreign exchange and thereby boosting economic development. From above mentioned facts it is very clear that in spite of industrial development still agriculture is the backbone of the Indian economy.

Paddy Production in the Global Scenario

Since January the estimate of world paddy production in 2011 has been lowered by 1.4 million tonnes to 720.0 million tonnes (480.1million tones, milled basis), reflecting deteriorating prospects in several countries, in particular Bangladesh. Yet if confirmed, world output would surpass the already bright 2010 outcome by 2.5 percent or17.7 million tones. This would be rather positive result, given take erratic climatic conditions that have characterized the season under the lingering la Nina, which only, now, is dissipating. Much of the 2011 expansion stemmed from gains in major Asia rice producing countries, especially India, where output surpassed 100 million tones of milled rice for the first time .Record crops were also harvested in Latin America and the Caribbean, while production in Oceania preceded on a recovery path. These gains served to more than compensate for falling production in Africa, North America and Europe.



Source;www.fao.org

Paddy Production in India

The demand for rice in India is projected at 128 million tonnes (M t) for the year 2012 and will require a production level of 3,000 kg/ha…significantly greater than the present average yield of 1,930 kg/ha[1]. This low level of productivity can be increased substantially by growing high yielding varieties/hybrids and by increasing both the area underbalanced fertilizer use and application rates. India is the seventh largest country in the world by area, with 329million hectares (M ha). It is also the second-most populous country (1billion people). Demographers indicate that by 2012 India's population will reach 1.2 billion. The net area sown is nearly 142 M ha, of which only 39 percent is irrigated, while the gross cropped area is approximately 189 M ha. There are about 106 million operational holdings with an average size of 1.57 ha. About 78 percent of the holdings are less than 2 ha, belonging to small and marginal farmers, and cover 32 percent of the total cultivated area. Despite this, the success of Indian agriculture has received worldwide appreciation as food grain production increased from50.8 M t in 1950-51 to 203 M t in 1998-99.The 189 M ha of cropped area is normally allocated accordingly:126 M ha to food grain crops, including 44.6 M ha in rice, 26.0 M ha in wheat, 32.4 M ha in coarse cereals, and 23.3 M ha in pulse crops. About 63 M ha are planted to other crops. The 203 M t food grain production in 1998-99 was comprised of 86 M t of rice, 70.8 M t of wheat, 31.4 M t of coarse cereals, and 14.8 M t of pulses. Of the total rice area, only 51 percent is irrigated, and 49 percent is rain fed. Total food grain production has followed the ups and downs of rice production in India. Rice continues to hold the key to sustained food security in the country. So even if rice production areas stabilize or register negative growth, future rice production targets must be achieved exclusively through yield improvement.

Paddy Cultivation in Tamil Nadu

The agricultural economy of the Tamil Nadu State is dominated by food grains. In spite of the fact that rice production occupies an important place in the state economy, the requirements of the people in the state are not fully met with. The average area under rice has increased from 35 per cent of the gross cropped area in 1961-62 to 42 per cent in 1999-2000. However, there was a fall in the area under paddy during 2010-2011 due to monsoon failure in

the gross irrigated area, 45 per cent has been under food grains and paddy is the principal crop accounting for 54 per cent of the area under food grains.

Statement of the Problem

Paddy is an important food crop and it has greater economic importance among the food crops, since it is one of the leading commodities in agricultural exports. Hence, the production performance of the crop is of critical importance in improving the efficient use of resources. The cost of production and net returns obtained per unit would determine the profitability of the crop. The profitability of an enterprise depends upon the efficient use of the resources in production. Further, the study of cost and returns structure of paddy would help the farmers in ensuring proper resources combinations to augment the paddy yield, thereby increasing the profits. Hence, the present study is an attempt to analyses the cultivation of paddy in panchampatti village in Virudhunagar District.

Objectives of the Study

The general aim of the study is to analyses "An Economic Study of Paddy Cultivation in panchampatti village of RajaapalayamTaluk in virudhunagar District of Tamil Nadu". The specific objectives are:

1. To study the socio economic conditions the sample respondents and their farming activities.
2. To estimate the cost and returns structure of paddy cultivation in the sample respondents.
3. To suggest the measure to increase the production of paddy in the study area.

Need for the Study

India is an agricultural country; the Indian economy is basically agrarian. In spite of economic development and industrialization, agriculture is the backbone of the Indian economy. Apart from those who are directly involved in the agrarian sector, a large number of the population is also engaged in agro-based activities. Agriculture meets the foods requirements of the large population of India. It ensures food security for the country.

Scope Of The Study

This study deals with cost of production, productivity, returns, marketing and which are useful for the economic evaluation of paddy production. It also brings to light specific constraints in production. It identifies the scope for increasing yield of paddy in the short run with the given technology, by estimating farm size and productivity and identifying causes. It identifies the strategy for helping farmers solve their production problems. Analysis of cost and returns will be useful to farmers to find ways means for the use of resources in an efficient way so as to minimize cost and increasing returns.

Methodology

Designing a suitable methodology and selection of analytical tools are important for meaningful analysis of any research problem. This section devoted to a description of the methodology, which includes, sampling procedure, period of study, collection of data and tools of analysis.

Nature of the Study

The present Study is descriptive in nature consisting variety of qualitative and quantitative data relating to the cultivation of paddy, Cost of production, benefits and constraints faced by the paddy cultivators in the study area.

Sampling procedure

The total sampling for the present study is 50. By using Simple random sampling method the samples were selected.

Collection of Data

This study is mainly based on primary data, collected by personal interview method from the farmers engaged on paddy cultivation. A detailed questionnaire was designed to collect specific information regarding age, occupational structure cost, returns, problems, etc...

Tools of Analysis

Simple percentage analysis has been used to study the socio-economic conditions of paddy cultivating farmers in the selected area, using the Bar diagram and Pie diagram for explain the given table value, Garrett's Ranking Technique was adopted in order to rank the problems faced by the cultivators in production and marketing of paddy respectively..

Period of Study

The required data for the study were collected from all the selected paddy cultivation farmers during December 2013 to February 2014.

Results and Discussions

As an astrictive phenomenon, age is intimately related with the nature of adjustment to work and adaptive capacities of the person. The distribution of sample respondents by age is presented in Table 1.1

Table 1.1Distribution of the Sample Respondents by age

Age (In Years)	**No. of Respondents**	**Percentage**
Below 40	13	26.00
Above41	37	74.00
Total	**50**	**100**

Source: compiled from Primary Data

It is reveals that a majority the sample respondents 74 percent of them are in the age group of above 41years, and remaining 26 percent of them are in the age group of below 40 years.

Community-Wise Classification

Community is yet another social factor that influences the economic behavior of any group in the society. Community is usually classified in to Forward, Backward, Most Backward, Scheduled Caste, and Scheduled tribes by the state government.

Table 1.2.Distribution of the sample Respondents by Community

Community	No. of Respondents	Percentage
Forward class	2	4
Backward class	8	16
Most backward class	9	18
Schedule caste and Schedule tribes	31	62
Total	**50**	**100**

Source: compiled from Primary Data

The above analysis shows that 62 per cent of the respondents belong to the Schedule Cast and Schedule Tribe; 18 per cent of respondents belong to the Most Back Ward Class; 16 per cent of the respondents are most Back Ward Class and the remaining four per cent of the respondents belongs to forward class.

Figure 1.1 Distribution of the sample Respondents by Community

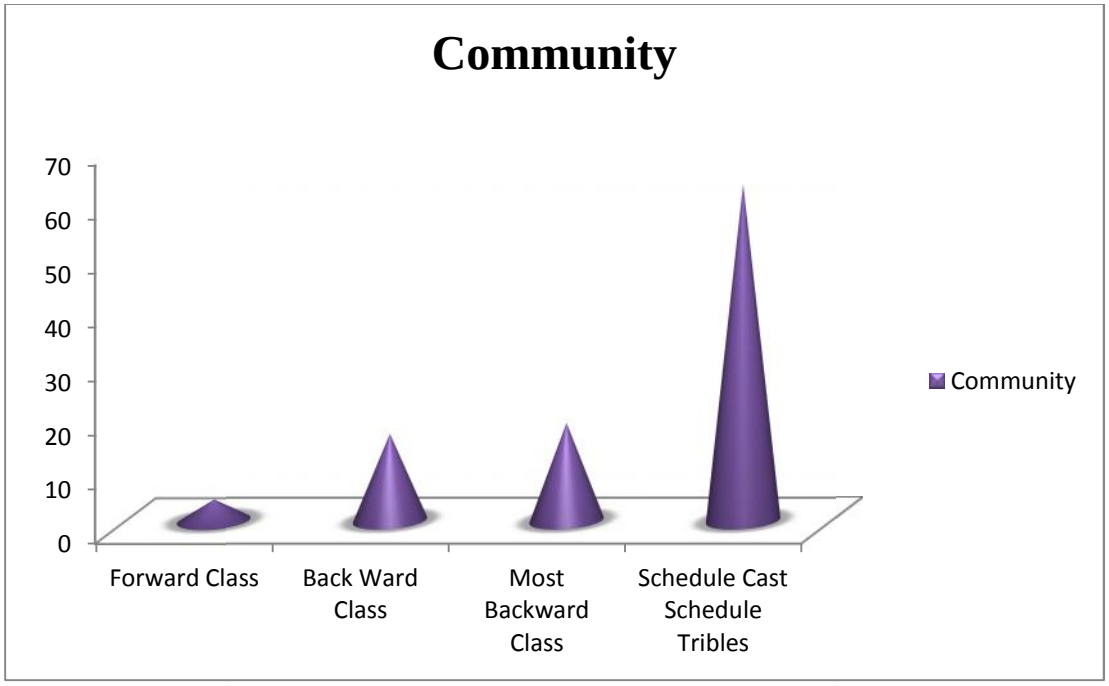


Figure 1.2 Family Sizes

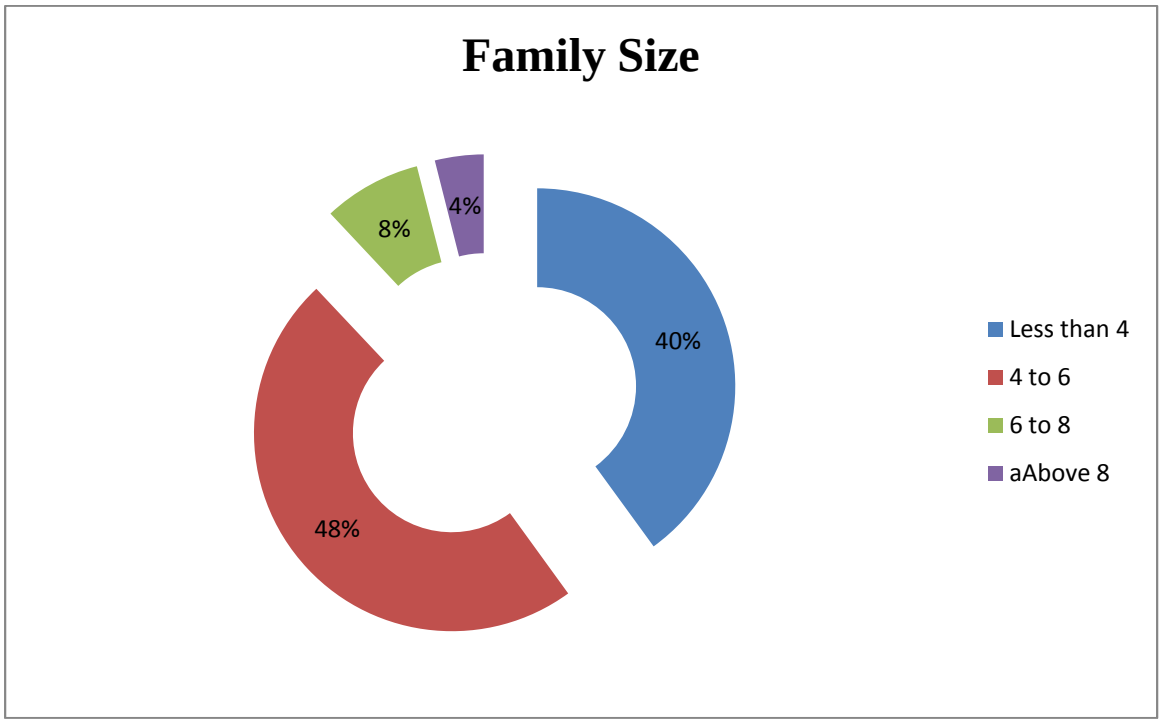


Table 1.3.Distribution of the sample Respondents by Family members engaged in Cultivation

Family members engaged in cultivation	No. of Respondents	Percentage
Below 2	38	76
3 to 4	10	20
Above 4	2	4
Total	**50**	**100**

Source: compiled from Primary Data

The above table shows that majority 76 per cent of them are family member engaged in cultivation in below 2 members, 20 per cent of them are in 3 to 4 members and remaining four per cent of them are above 4 members engaged in cultivation.

Table 1.4.Distribution of the sample respondents by Maintenance Cost

Maintenance Cost	No. of Respondents	Percentage
Below 10000	16	32
10001-20000	17	34
20001-30000	8	16
Above 30000	9	18
Total	**50**	**100**

Source: compiled from Primary Data

The table shows that maintenance cost including building, pump set, oil engine and tractor. The table shows that majority of the sample respondents 34 per cent of them maintenance cost of Rs.10001-2000. It's followed that 32 per cent of them are below Rs.10000, 18 per cent of them are above Rs.30000 and remaining 16 per cent of them are Rs.20001-30000.

Table 1.5Distribution of the sample Respondents by Yield of paddy

Yield of paddy (in kg)	No. of Respondents	Percentage
Less than 3000	1	2
3001 to 5000	25	50
5001 to 10000	17	34
Above 10000	7	14
Total	**50**	**100**

Source: compiled from Primary Data

The above the table shows that majority of the sample respondents are 50 per cent of per hectare yield of paddy is 3001-5000kg. It's followed by 34 per cent of them are 5001-10000kg, 14 per cent of them are above 10001kg, and remaining 2 per cent of them are less than 3000kg yield paddy.

Table.1.6.Distribution of the sample Respondents by Human Labour

Human Labour	No. of Respondents	Percentage
Below 10000	9	18
10001-20000	31	62
20001-30000	9	18
Above 30000	1	2
Total	**50**	**100**

Source: compiled from Primary Data

It is evident from table shows that cost of input per month of human labours, included owned and hired. Its reveals that majority 62 per cent of the sample respondent per month cost of input of human labour is Rs.10001-2000. It's followed by 18 per cent of them both below Rs.10000 and Rs.20001-30000, and remaining 2 per cent of them are above Rs.30000.

Table.1.7.Distribution of the sample Respondents by pesticides

Pesticides	No. of Respondents	Percentage
Nill	11	22
1- 10000	10	20
10001-20000	21	42
20001-30000	6	12
above 30000	2	4
Total	**50**	**100**

Source: compiled from Primary Data

The above table 3.13 reveals that cost of input per month of pesticides, included owned and hired. The table 3.13 shows that majority of 42 per cent of the sample respondents are per month cost of input of Rs.10001-20000, it's followed by 20 per cent of them are less than Rs.10000, 12 per cent of them are Rs.20001-30000, 4 per cent of them above Rs.30000, and remaining 22 per cent of them are no cost of input of pesticides.

Table 1.8.Distribution of the sample Respondents by storage

nature of storage	No. of Respondents	Percentage
Leas	19	38
Owned	31	62
Total	**50**	**100**

Source: compiled from Primary Data

The table shows that sample respondents 62 percentage of nature of storage is owned. And it followed by 38 percentage of nature of storage is lease.

Table 1.9.Distribution of the sample Respondents by Marketing of paddy

The marketing of paddy	No. of Respondents	Percentage
Below 1000	14	28
1001-2000	23	46
2001-3000	9	18
Above 3000	4	8
Total	**50**	**100**

Source: compiled from Primary Data

The above table shows that the marketing of distribution majority 46 percentage of Rs.1001-2000,28 percentage of sample respondents of below 1000,18 percentage of sample respondents of below 1000, 8 percentage of sample respondents of above 3000.

Suggestions and Conclusions

Suggestions

- The Government of Tamil Nadu should arrange storage facilities so as to encourage the farmers to store and sell their produce and use the pledge loan system at their convenience. Such measures and precautions would enable the farmers to obtain a fair price for their produce.

- The marketing cost constitutes a major portion of the consumer price. Hence, the Government should encourage the farmers to start Co-operative Societies in the study area in order to develop a direct link between the wholesalers/retailers, processors and exporters to cut down the marketing cost incurred for lengthy channel.

- Majority of the farmers prefer middlemen to sell their produce because of the credit facilities extended by them. The long chain of channels affects the procurement price of paddy. Therefore, the Government should direct the Co-operative and Commercial Banks in the study area to provide adequate loan facilities at reasonable rate of interest to the farmers without any rigid formalities.

- Agricultural Research should be directed at evolving high yielding varieties of paddy by using new techniques such as genetic transformation, marker assisted selection, forecasting of pest epidemics, and promotion of hybrid and disease resistant varieties to meet the challenges under the new agricultural trading environment.

- Improved crop management techniques may be imparted to the farmers by the extension agencies for effecting improvement in the operation of cultivation.

- . Further, a new mechanism has to be innovated to break the stagnation in the production of paddy through adoption of most modern methods of cultivation and to ensure stable remunerative prices to the farmers. The Government should initiate action to improve market information system and market intelligence. Existing techniques disseminating marketing information should be reviewed. Visual media like television can be used for providing market information to farmers of rural areas. Modern devices such as computers may be employed wherever necessary to make a meaningful estimate of marketable surplus and daily average price.

Conclusion

Thus, it is concluded from the analysis of the study that small farmers are economically more efficient of paddy cultivation in the study area. This could be due to the better supervision and more efficient farm management favored by the smaller size of operational holdings. This

indicated that apart from efficient allocation of inputs, direct supervision and farm management are crucial determinants of economic efficiency.

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