Research Paper

Volume : 4 | Issue : 10 | October 2015 • ISSN No 2277 - 8179

A Comparative Study of Production of Banana And Paddy in Tirunelveli District

Economics

KEYWORDS :

Dr.S.Sarasudevi Assistant Professor in Economics, Rani Anna Government College for Women, Tirunelveli

INTRODUCTION

Agriculture plays a predominant role in the economic development of a country. It is the primary sector of an economy that provides the basic things, which are necessary for the existence of human beings. It also provides some raw materials for industries. As the agriculture is the biggest industry in the country, the development of other industries as well as of the development of the country is not possible without the development of the agriculture sector.

The role of agriculture in the Indian economy is very crucial. Agriculture forms the backbone of the Indian economy and despite concerted industrialization in the last two decades; agriculture still occupies a predominant place. A flourishing agriculture sector is of much importance for the development of Indian economy. Being a largest industry in the country, agriculture is the main source of livelihood for over 70 per cent of population in a country.

STATEMENT OF THE PROBLEM

Since both banana and paddy come up in the same agro climatic conditions, they are substitute for each other. In the present study area, tank-fed irrigation is possible about eight months in a year and the remaining period irrigation is supplemented by well water. The cultivators of banana exploit tank – fed water optimum and when it is exhausted they utilize well water to save the standing crop of banana. At the same time, paddy cultivators prefer to depend wholly on tank – fed watering which is available maximum for two complete crops. And, it is observed among the paddy cultivators that they do not like to venture for a third crop of paddy absolutely depending on well watering. Normally, banana is an annual crop and duration of a paddy crop varies from 90 to 145 days. That is how the paddy cultivators go for two crops annually. In the light of the above explanation, without loss of generality, the study can assume that a single crop of banana could replaced two crops of paddy in the study area.

The Tirunelveli district is one among the districts in Tamil Nadu producing more quantity of banana and paddy. Moreover the major crop is paddy and the agro climatic conditions are more suitable for raising paddy. Again, the agriculturists that are mainly driven by profit motive want to cultivate banana in the areas where paddy is cultivated. Even though blackgram, bajra, chillies, coriander and banana are the crops raised next to paddy in order, the paddy and banana are the twin crops that could be produced in the same soil under the same climatic conditions. Further, it is also observed that the area under banana cultivation is increasing over time while area under paddy is declining in this district. Therefore, a study of this kind will throw light on the reasons for the decline in paddy cultivation and increase in banana cultivation. These are the reasons for selecting the topic **"A comparative study of production of Banana and Paddy in Tirunelveli District".**

OBJECTIVES OF THE STUDY

The specific objectives of the study are :

- To examine the factors responsible for the shift of the area from paddy to banana.
- To study the cost, returns and income distribution of banana and paddy with different farm groups.
- To identify the factors determining the yield of banana and paddy.
- To compare the resource – use efficiency of factor inputs of banana and paddy and
- To study the yield gaps and constraints of yield gap.

HYPOTHESES :

1. Ho: There is no structural difference between the large and small farms in both crops.
2. Ho: There is no significant difference between per acre net income of banana and paddy cultivation.
3. Ho: There is no significant difference between income inequality of banana and paddy cultivation.
4. Ho: There is no influence of farm size in the prevalence of income inequality.

METHODOLOGY :

Choice of the Study Area

The economy of Tirunelveli District mainly depends on agriculture. Nearly 70 per cent of the population in this district depends on agriculture. Tirunelveli is one among the district in Tamil Nadu noted for producing quantity banana and paddy. Though, the major crop is paddy, the agriculturists who are mainly driven by profit motive want to shift from paddy to banana. Further, it could also be observed that there is the shifting of area from paddy to banana over a time in this district. Both paddy and banana are the twin crops that could be produced in the same soil and under the same climatic conditions. These are the main reasons to select Tirunelveli District for a comparative study of production of banana and paddy.

SAMPLING TECHNIQUE

Multistage random sampling technique has been adopted and taking Tirunelveli District as universe, the block as the stratum, village as the primary unit and cultivators as the ultimate unit.

Among the twelve blocks in the district, two blocks namely Tirunelveli and Ambasumudram , which accounted for a **relatively greater shift from paddy to banana and a double cropping area of paddy,** have been selected for the present study. Ten villages, five from each block are selected at random. A total of 300 sample farmers, 15 each from among banana and paddy cultivators from each village are chosen randomly for primary data collection.

PERIOD OF STUDY

The primary data collected pertains to the Kharif and Rabi seasons of the agricultural year 2014-15.

TOOLS OF ANALYSIS

The semi-log model, multiple linear regression model, Garrett Ranking Technique, The concept of Cost A and Cost C and Disparity Ratio, Lorenz Curve have been used to analys the data.

SUMMARY OF FINDINGS, SUGGESTIONS AND CONCLUSION

The major findings from the analysis along with conclusions and suggestion are now presented below.

SHIFTING PROCESS

The study reveals that the area under paddy declines whereas

the are under banana swells in the study area. The main reasons are as follows: Irrigation facilities, the red soil prevalent in the area (80%), better marketing, expansion of large size of farms under cultivation and introduction of high-yielding varieties and fertilizers.

PREFERENCE OF BANANA CULTIVATION

The respondents prefer banana cultivation because of the following economic factors as per the order of priorities.

- High net income
- Repeated failure of paddy
- Uneconomical nature of paddy cultivation
- Ready market for banana

Therefore higher net income is the main reason resorting to banana cultivation. Paddy cultivation, on the other hand, leads to crop failures and low yield.

INPUT- OUTPUT STRUCTURE

Cost and returns analysis is used to find out the cost and profit margins of banana and paddy. The results reveal that the small farmer group incurs greater expenses on labour employment compared to the large farmer group in the case of banana whereas in the case of paddy, large farmers incur greater expenses on labour employment compared to the small farmers. Most of the farm activities have been performed by men in banana cultivation and by women in paddy cultivation in the study area.

COST AND RETURNS

The results of cost and returns analysis show that the cost of banana cultivation is 2.5 times greater than that of the cost of paddy cultivation taking into account double cropping cost in the present study.

COST – BEBEFIT RATIO

The cost-benefit ratio reveal that it is 0.76 for small farmers and 0.83 for large farmers in the case of paddy cultivation whereas it is 0.76 and 1.04 for small and large farmers in banana cultivation.

INCOME DISTRIBUTION

The hypothesis tested reveals that there is a significant difference between per acre net income of banana and paddy cultivation.

Farm size-wise analysis of the distribution per acre net income shows that the concentration is found in high-income category of large farmers and middle-income category of small farmers cultivation banana in the study area. In the case of paddy, heavy concentration is found only in lower income category for both small and large farmer groups.

YIELD DETERMINANTS

The results of fitted log-linear multiple regression model for identifying the determinants of yield reveal that the capital flows, farm yard manure and irrigation are found to be more important factor inputs for small, large and pooled category of banana cultivation in the study area. In the case of banana, fertilizers, farm yard manure, irrigation and capital flow are positively related to the yield of banana.

STRUCTURAL DIFFERENCE

In order to examine the structural difference between small and large farmers, chow's test has been applied and the results reveal that natural technical change is found for both small and large farmer groups.

YIELD GAP

The analysis shows that the yield gap in banana cultivation in large farms is 52.28 quintals and in small farmers it is 54.34. Therefore is no significant difference in yield gap. In paddy, it is 4.87 quintals for small farms and it is 8.08 quintals for large farms. There is significant difference showing that the yield gap is higher in the case of large paddy farms.

YIELD CONSTRAINTS

The yield constraints as per ranking is the same for both banana and paddy cultivation i.e. insects (II) and credit inadequacy (III). The main constraint for banana cultivation is heavy wind and water shortage in paddy cultivation.

SUGGESTIONS :-

- The continuous process of shifting the area of cultivation from paddy to banana may provide solace to the farmers in the short run. In the years to come such shifting will not yield expected dividends due to competition in the marketing of banana. This is evident from the present scenario where glut in the market deescalates the price.
- If such shifting is continuous over a long period the production of rice will dwindle and cause food shortage.
- Therefore the farmers have to be calculative in allotting the land for raising both the crops in an optimum manner so that it may be good for the individual as well as the nation.
- Higher net income is the main reason for resorting to banana cultivation. Farmers are driven by the lure of profit towards banana cultivation. A hike in the price of rice would help the farmers to retain the paddy cultivation.
- The need of inputs for small farmers is higher. Therefore small farmers need more financial assistance. Further, the cultivators of paddy need more attention. They are in need of more help by way of finance and other inputs at subsided price.
- The banana cultivators enjoy more economic advantage and earn more profit than the paddy growers. Most of them are in the middle and higher income category.
- A study of the small and large farmers in paddy and banana cultivation shows that the yield constraints are insects and credit inadequacy. Therefore, adequate financial help and supply of insecticides should be provided.
- Further, to safeguard the standing crops of paddy proper water supply should be ensured by scientific water distribution.
- To step up production of both banana and paddy, adequate supply of fertilizer and finance should be ensured.

CONCLUSION

The researcher finds that there is further scope for research in this area. The researcher has undertaken two major crops cultivated in the same agro climatic conditions. Crops raised on similar conditions can be undertaken for further study and suggestions could be made to increase total production on the basis of analysis on the lines of the topic.

REFERENCE

1. Agarwal G.D, "Principles of Evolution and Apportionment of items of cost," Indian Society of Agricultural Economics, Bombay 1960. 2. Bernard C.S. and Nix T.S, "Farm Planning Control," Cambridge University Press, 1973. 3. Chandhuri, Pramit (ed), "Readings in Indian Agricultural Development" George Allen and unwin Blackik India Limited, Delhi 1972. 4. Das, H.C.L., "Agricultural Efficiency in India, Mital Publications, New Delhi 1993. 5. Hubert. Blalocs, "Social Statistics," Mc Graw Hill Hogakusha Lts., Tokyo 1972.