

An Empirical Analysis of Cost of Cultivation of Paddy

Namrata Deogam¹, Marripelli Manideep², Yeluri Narashimha³, Avinash Kumar⁴
^{1,2,3,4}Lovely Professional University, Jalandhar, Punjab – 144411

Abstract - The study was based on cost of cultivation of paddy on 30 farmers which are selected randomly from Jharkhand and Telangana village. Rice is cultivated throughout the country. In Jharkhand rice is cultivated in 18 districts and in that 1 district (Sahebganj) is under medium low productivity group, 10 districts (Pakur, Dumaka, Deoghar, Giridih, Ranchi, Hazaribagh, Kodama, Dhanbad, Bokaro, Chatra) are under low productivity group and 7 districts (Godda, Lohardagga, East Singhbhum, Palamau, Gumla, Garba, West Singhbhum) are under very low productivity group. And in Telangana 10 districts namely Adilabad, Hyderabad, Karimnagar, Khamman, Mehaboobnagar, Medak, Nalgonda, Nizamabad, Rengareddy and Warangal. The area under the paddy crop in kharif is 9.73lakh ha and in Rabi it is 6.38lakh ha.

Index Terms - Paddy, cost of cultivation, net income, benefit cost ratio.

INTRODUCTION

India is an 2nd largest producer of rice. It is originated from China and it is a staple food for 60% of the world population. In India rice is grown on 45 million ha land and the highest production is in West Bengal & UP whereas Punjab have highest rice productivity. The highest productivity in Punjab 6000kg/ha (2013) and in Egypt 9.5 tons/ha. India exported 40,45,796.25 MT of Basmati rice of Rs. 22718.44Cr. UP export 443957.16 MT of Rs. 2722.65Cr (2015-16). Rice is mainly grown in rain fed areas that receive heavy annual rainfall. It needs a hot a hot and humid climate. It is mainly grown clayey loams soil which can retain water and the average temperature is 21-37degree Celsius. It can be cultivated in different methods according to the regions. But in India farmers follow the traditional methods for harvesting rice. Ploughing is done with the help of bullock and tractor and then they apply some fertilizer like cow dung etc. and then seedlings are transplanted into the main field. Fertilizers should be applied on time and weeding should be done. Harvesting should be done when 80% of the panicles turn straw colour.

In Telangana, it is a major source of income of the rural people. Most of the agricultural production depends upon the distribution of rainfall, ground water level, bore wells and adequate electricity supply. Paddy is one of the major crops in the state and the area under the crop is 17.5lakh ha.

In Jharkhand, 1.4million ha is under rice cultivation which is mainly rainfed shallow and upland area. The area is slightly decreased from 1.48-1.36 million ha during last 7yrs. The productivity is about 1.2tonnes/ha.

METHODOLOGY

The present study is based on cost of cultivation of paddy in which data is collected from 30 farmers. And then compared whether the benefits cost ratio is increased or not in the states of Jharkhand and Telangana. In order to analyse the trend in cost of cultivation we should require these factors namely, family human labour, hired labour, machine hrs., fertilizer required, weedicide, pesticides, seed quantity, irrigation quantity were considered for detailed analysis. These major contributing factors were compared to the cost of cultivation with respects to (i) actual values, (ii) changes over the decade and (iii) percentage to cost of cultivation. Cost of cultivation formulae: (Total fixed cost +total variable cost), Net return formulae: Total income- cost of cultivation and the benefit cost ratio formulae: Net return/ cost of cultivation.

RESULT

The cost of cultivation of any crop is the most important aspects of the farm economy. It will help in further experiments. The table given below for analysis of cost of cultivation of paddy.

Analysis of cost of cultivation of paddy (Rs/Acre)

Table 1: Cost of cultivation of paddy

| Variable Cost (Rs.) | Jharkhand | Telangana |
|---------------------|-----------|-----------|
| 1.Seed (Rs.) | 1165.68 | 780.02 |
| 2.Fertilizer (Rs.) | 377.85 | 390.32 |

| | | |
|----------------------|----------|----------|
| 3.Pesticide (Rs.) | 729.84 | 729.84 |
| 4.Weedicide (Rs.) | 50.02 | 63.21 |
| 5.Irrigation (Rs.) | 954.72 | 766.23 |
| 6.Human labour (Rs.) | 5198.37 | 3721.95 |
| 7.machine (Rs.) | 630.75 | 653.23 |
| 8.bullock (Rs.) | 1352.69 | 2108.03 |
| Total Cost (Rs.) | 10459.92 | 9213.63 |
| Gross return (Rs.) | 22365.69 | 27661.29 |
| Net income (Rs.) | 8351.15 | 15506.66 |
| B:C ratio | 1.6 | 2.28 |

As we can see from the above table that the cost of seed in Telangana (780.02rs/acre) is lesser than Jharkhand(1165.68rs/acre). But in Jharkhand weedicide (50.02Rs/acre, fertilizer (377.85Rs/acre), bullock (1352.69Rs/acre) cost is lesser than Telangana (63.21Rs/acre, 390.32Rs/acre and 2108.03Rs/acre, respectively). The benefit cost ratio of rice in Jharkhand is 1.6 and in Telangana it is 2.28. It shows that in Jharkhand the cost of cultivation of paddy is lower than Telangana.

CONCLUSION

In this we have studied about cost of cultivation of paddy in Jharkhand and Telangana. Rice is mainly grown in Jharkhand and Telangana because their staple food is rice only. In this we also came to know about the rate of fertilizers, weedicides are different in both states. And we also studied about net income, gross income, and benefit cost ratio. Based on this we concluded that cost of cultivation of paddy in Jharkhand is lesser than Telangana.

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