SHORT COMMUNICATION

Cost and return of paddy cultivation in Erode district, Tamil Nadu

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ABSTRACT

This study was on cost and return analysis in major paddy production area in selected villages of Erode District, Tamilnadu. Specifically, the study described the socioeconomic characteristics of paddy farmers, estimated costs and returns from production and examined socioeconomic factors affecting paddy production in the area. The sample farmers in this revenue village were randomly selected from the list of framers in the revenue village. The random sampling technique was employed to obtained primary data from hundred respondents (100) with the aid of a well-structured questionnaire. Conventional percentage method, average method, standard deviation, co-efficient of variation and analysis of variance were employed for the analysis of cost and returns data. The study revealed that paddy production in the area was heavy expenditure on transplantation, fertilizer application; manure application, ploughing and irrigation. After harvest cultivation activities consume a significant part of the expenditure incurred towards paddy production. Caste and size of land holding were the significant factors that affected cost of paddy production in the study area, other factor viz., education showed no variation in the cost of cultivation. However the net returns received by the paddy farmers varied across all the socio economic factors. The net return received from paddy cultivation is comparatively at a very low level as compared with that of the net return obtained from other commercial crop. The study recommended that the increase in the price of fertilizer is the reason for higher cost incurred towards fertilizers application. Hence, fertilizer price must be reduced through government subsidy or farmers can switch over to organic manures use which will reduce the cost in paddy cultivation.

Key words: Paddy, agriculture, cost, return, price

Agriculture constitutes the nerve centre of all economic activities in countries - both developed and under-developed - all over the world. In fact the very survival of mankind depends exclusively on the myriad varieties of food grains produced. Of the many kinds of food grain available, rice is the staple food for about 50 per cent of the world's population that resides in Asia, where 90 per cent of the world's rice is grown and consumed. In Asia, India has the largest area under rice. It was 44.5 million hectares i.e., 29.4 per cent of the global rice area. Of the total harvested area, about 46 per cent is irrigated, 28 per cent is rainfed lowland, 12 per cent is rainfed upland and 14 per cent is flood prone. Rice is one of the largest traded commodities in the world with a total quantity touching 16.4 million tonnes. The south-east countries account for about 40 per cent of the rice trade in the world. (Rai, 2004).

In India, rice cultivation has a long history marked by a series technological break-through. Rice environments in the country are also extremely diverse. India has the largest area under rice in the world. Of the 42 million ha of harvested rice area, about 33 per cent are rain fed lowland, 45 per cent irrigated, 15 per cent rain fed upland, and 7 per cent flood prone. Green revolution technology has been most effective not only in expanding area under this crop but also in increasing its production and productivity. The public sector researches under the aegis of ICAR further intensified the process of improvement in rice yields through rice breeding programme. The impressive growth in rice production and productivity over the last three decades is the testimony of successful accomplishment of the rice researches in India.

Rice exports from India have grown steadily

during the last decade reaching 4.1 million tonnes during 2002. India now occupies second position in rice exports, next only to Thailand among the rice trading countries of the world. 'However, keeping in view the decadal population growth of around 15 per cent, it is estimated that rice demand in 2010 will be 100 million tons. Contributing consistently to around 45 percent of India's cereal production, rice continue to hold the key factors to sustained food security as well as food sufficiency in the country. However, with rice area getting stabilized, the achievement of future rice targets on account of growing demand in domestic as well as international markets has to be exclusively through progressive yield growth. Moreover, there exists a definite opportunity for increasing the overall rice production by reducing the existing yield gap in different parts of the country. Thus this paper is an attempt to examine the generic issues of the development and different characteristics of the evolving rice economy and trade prospects in India. This study was undertaken to analyze the cost of cultivation and return from paddy in Erode district, Tamil Nadu.

Erode district was divided in to five taluks and these five taluks were further divided into fourteen blocks. Among this only four blocks were selected randomly and it has seventy nine village panchayats. Out of which only four village panchayats were selected randomly namely Pariyur, Gudakarai, Perumugai, veerapandi. In the next stage, 25 samples were selected at randomly each villages like as on the basis of major paddy producing area representing homogeneous geographical and irrigation conditions. Totally 100 farmers were selected from this village panchayats. The study is made with reference to the crop year 2016-17.

The farmers were interviewed with a well structured schedule prepared for that purpose. The schedule has been prepared in such a way so as to collect the data regarding personal particulars of the farmers such as age, sex, education, occupation, religion, farming experience, income of the family, assert of the family, etc and the cost of cultivation of paddy particulars such as cost of ploughing, cost levelling, cost of applying manure, cost of applying green manure, cost of bunding, irrigation cost, cost of raising nurseries, cost of transplantation, weeding cost, cost of pest control, cost of applying fertilizer, cost of harvesting, cost of

marketing.

The collected data were consolidated in the form of master schedule and then checked and gross checked. Omissions and errors if any are identified and rectified. Systematic classification of the data has been made keeping the objectives of the study in view. Conventional percentage method, average method, standard deviation, co-efficient of variation, analysis of variance were employed for the analysis of cost and returns data.

Cost of cultivation of paddy in Erode district

Paddy is a tropical crop grown on irrigated lands having good drainage. It grows well in clay soils. As such its cultivation can be seen in coastal districts and river valleys. It is a labour intensive crop requiring higher amount of farm yard manure and chemical fertilizers. Since it is a sensitive crop to pests and weeds, it requires intensive care in its cultivation. Moreover, processing and marketing is a greater task in the paddy cultivation. Processing involves a sizeable amount of cost by way of labour input and chemical input. An analysis of cost of cultivation may likely bring out the possible pattern of cost of cultivation which would enable the farmers to undertake cost saving measures in the cultivation of paddy.

The analysis of cost of cultivation by different cultivation activities made for Erode district, presented in Table 1 reveals that the Erode District farmers on an average incur Rs.20678.77 per acre towards the

Table 1. Cost of cultivation of paddy in Pariyur, Gudakarai, Perumugai, Veerapandi panchayats of Erode district by the cultivation activities (Cost Per Acre in Rs.).

Components of cost of cultivation	Average cost per acre in Rs.	Percentage
Cost of ploughing	1965.43	9.50
Cost leveling	698.71	3.38
Cost of applying manure	2333.67	11.29
Cost of applying green manure	e 324.35	1.57
Cost of bunding	1029.59	4.98
Cost of raising nurseries	1324.88	6.41
Cost of transplantation	2696.18	13.04
Irrigation cost	1046.28	5.06
Weeding cost	1532.73	7.41
Cost of pest control	1444.58	6.98
Cost of applying fertilizers	2315.22	11.19
Cost of harvesting	3269.60	15.81
Cost of marketing	697.53	3.37
Total	20678.77	100

Table 2. Caste of the Farmers and Cost of Cultivation of Paddy in Pariyur, Gudakarai, Perumugai, Veerapandi panchayats of Erode district (Cost Per Acre in Rs.).

Components of cost of cultivation	Kongu Ve	llalars	Narambuv Gounder			Padaiyachi Gounder	Other Non-Agricultural communities	
	Avg.cost	percent	Avg.cost	percent	Avg.cost percen	Avg.cost percent	Avg.cost	percent
Cost of ploughing	2009.52	8.74	1921.36	8.90	1904.33 7.22	1968.26 9.25	2023.67	7.98
Cost levelling	666.79	2.90	691.89	3.21	715.06 2.71	656.08 3.08	763.74	3.01
Cost of applying manure	2303.45	10.01	2482.23	11.49	2915.79 11.06	2442.32 11.48	2849.57	11.24
Cost of applying green manure	333.20	1.45	303.54	1.41	338.59 1.28	234.59 1.10	411.83	1.62
Cost of bunding	869.29	3.78	1031.56	4.78	1071.48 4.06	1038.89 4.88	1136.76	4.48
Cost of raising nurseries	1156.67	5.03	1293.23	5.99	1398.67 5.31	1291.44 6.07	1484.38	5.85
Cost of transplantation	2618.79	11.39	2746.56	12.72	2565.09 9.73	2681.39 12.60	2869.03	11.31
Irrigation cost	1068.27	4.65	995.15	4.61	1061.32 4.02	999.32 4.69	1107.32	4.37
Weeding cost	1633.12	7.10	1527.03	7.07	1501.43 5.69	1376.06 6.47	1626.01	6.41
Cost of pest control	1378.57	5.99	1533.07	7.10	1493.56 5.66	1366.17 6.42	1451.57	5.72
Cost of applying fertilizers	2388.62	10.39	225.33	10.31	2555.15 9.69	2058.24 9.67	2348.79	9.26
Cost of harvesting	3281.57	14.27	2417.29	11.19	4421.45 16.77	2582.69 12.14	3645.01	14.37
Cost of marketing	532.86	2.32	551.09	2.55	1022.35 3.88	415.65 1.95	965.75	3.81
Total	22989.43	100	21585.55	100	26363.36 100	21278.15 100	25362.69	100

cultivation of paddy. It is relatively very high which the small and marginal farmers are not offered to bear. Unless, institutional finance in made to these farmers they could not take up paddy cultivation. Out of this cost, cost of harvesting constitutes a significant proportion (15.81 percent) followed by cost of transplantation (13.04 percent). Cost of applying manure accounts for (11.29 percent) and cost of applying fertilizer constitutes (11.19 percent).

Cost of levelling, applying green manure and raising nurseries together constitute about 11.36 percent in the total cost of cultivation of paddy. Since paddy requires a great amount of farmyard, manure and intensive ploughing, it is not surprising to note that the land preparation cost constitutes about 12.88 percent in the total cost of paddy cultivation. The general cost structure faced by the farmers may very across the farmers depending on their socio-economic profiles.

Caste of the farmers and cost of cultivation of paddy

Caste plays an important role in human life as well as in human activities. Each caste is also cited with a specific occupation and claiming common descent from a mythological ancestor. Therefore caste involves specialization of work which results in minimization of cost and maximization of output. In this regard the farmers belonging to a caste associated with farming activity are expected to incur lesser cost of cultivation than the farmers belong to other castes. The result of the analysis of cost of cultivation by the caste of the farmers, presented in Table 2, indicates that the Padaiyachi Gounder who have taken agriculture as their community adopted occupation have incurred lower cost as compared with that of other agricultural communities viz., Narambu Vettigounders and Kongu Vellalars. There is marketable variation in the proportion of harvesting cost across the caste of the farmers. In the case of all other costs, there is only slight variation in cost proportion across the different communities of the farmers. Its lowest value of co-efficient of variation of the average cost incurred towards cultivation of paddy, presented in the Table 3. confirms the consistency of his average cost of cultivation. While Kongu Vellalars have incurred Rs.22989.43 acre towards the cost of cultivation of paddy, the Narambuvetti Gounders have incurred only Rs.21585.55 whereas the Pillais have incurred Rs.26363.36 and Padaiyachi Gounders have

Table 3. Average Cost of Cultivation of Paddy in Pariyur, Gudakarai, Perumugai, Veerapandi panchayats of Erode district.

Caste	Mean cost per acre		Co-efficient of Variation
Kong Vellalars	22989.43	2746.09	8.37
Narambuvetti Gounder	21585.55	1573.59	13.72
Pillai	26363.36	5170.36	5.09
Padaiyachi Gounder	21278.15	3147.30	6.76
Other Non-agricultural	25362.69	6996.97	3.62
Communities			

Table 4. Caste of the farmer and cost of cultivation of paddy-analysis of variance.

Source of variation	Sum of square	Degree of freedom	Mean square	Estimated F value	Theoretical F value *
Between the group	205296398.60	8	51324099.65	2.684	2.5252
With in the group	860517436.91	90	19122609.77		

^{*} At 5percent level of significant

incurred Rs.21,278.15.

The significance of the difference between the average cost of cultivation of paddy incurred by the farmers belonging to different castes is tested by applying the analysis of variance technique. The result of the analysis is given in Table 4.

The result of the analysis shows that there exists significant difference between average cost of cultivation incurred by different caste groups. Hence, it can be said that caste has a bearing upon the cost of cultivation of paddy.

Education of the decision making farmers and cost of cultivation of paddy

Education of the farmer has a great bearing upon his decisions particularly so in his investment decisions with regard to paddy cultivation. The literate farmers are expected to incur lesser expenditure by following the modern methods of cultivation such as intensive application fertilizer and adoption of proper spacing in transplantation than that of illiterate farmers. The proportion of various types of costs incurred on paddy cultivation by the illiterate and literate farmers is shown in Table 5.

The proportion of cost of raising nurseries in the total cost of paddy cultivation is lesser in the case of literature farmers than in the case of illiterate farmers. The proportion of the cost of ploughing, transplantation, weeding and harvesting has varied over the literacy level of the farmers. However, the proportion of all other costs in the total cost of paddy cultivation has varied in significantly across the educational status of the farmers.

The analysis of average cost of cultivation made across the educational level of the decision making farmers, presented in Table 6 reveals that farmers with primary education on an average have incurred a maximum of Rs.25561.77 towards cultivation of one acre of paddy, while the collegiate educated farmers have incurred the lowest average cost of Rs.21424.52. However, the efficient of variation indicates that the average cost of cultivation in the case of collegiate educated farmers is less consistent. The literature farmers have incurred Rs.22712.71 towards paddy cultivation which is comparatively higher and more consistent as compared to the cost incurred by collegiate educated farmers.

The variation in the cost of cultivation across

Table 5. Economics of Cost Of Cultivation Of Paddy in Pariyur, Gudakarai, Perumugai, Veerapandi panchayats of Erode district By the Literacy Levels Of The Farmers (Cost per acre in Rs.).

Components of cost of cultivation	Illiterate		Primary	Primary			Collegiate	
	Avg.cost	percent	Avg.cost	percent	Avg.cost	percent	Avg.cost	percent
Cost of ploughing	1922.23	8.46	1943.02	7.60	1970.35	9.03	2160.24	9.19
Cost leveling	704.62	3.10	714.24	2.79	655.87	3.01	681.78	2.89
Cost of applying manure	2446.06	10.77	2794.97	10.93	2467.94	11.31	2587.43	11.00
Cost of applying green manure	289.58	1.27	393.45	1.53	278.49	1.28	563.35	1.12
Cost of bunding	968.69	4.26	1129.18	4.42	924.60	4.24	1019.44	4.34
Cost of raising nurseries	1372.14	6.04	1323.12	5.18	1290.48	5.91	1228.77	5.23
Cost of transplantation	2624.18	11.55	2703.72	10.60	2793.97	8.03	2758.34	11.73
Irrigation cost	1040.27	4.58	1070.68	4.19	1000.95	4.59	1039.91	4.42
Weeding cost	1461.79	6.44	1530.82	5.99	1751.43	12.80	1496.43	6.36
Cost of pest control	1468.77	6.47	1465.34	5.73	1286.65	5.89	1490.61	6.34
Cost of applying fertilizers	2187.58	9.63	2467.87	9.65	2202.78	10.09	2345.97	9.98
Cost of harvesting	3113.39	13.71	4010.19	15.69	2598.41	11.91	2176.11	9.25
Cost of marketing	661.22	2.91	875.93	487.38	487.38	2.23	486.77	2.07
Total	22712.71	100	25561.77	100	21820.33	100	23515.84	100

Table 6. Average cost of cultivation of paddy in Pariyur, Gudakarai, Perumugai, Veerapandi panchayats of Erode district the education level of the farmers.

Educational level	Mean cost	Std.	Co-efficient
	per acre	deviation	of variation
Illiterate	22712.71	4250.55	5.34
Primary	25561.77	5669.27	4.51
Secondary	21820.33	2563.83	8.51
Collegiate	21424.52	799.33	26.80

the educational level of farmers has been tested by applying the analysis of variance technique, the results of which is presented in Table 7.

The result of the analysis shows that there exists no significant difference between the average cost of cultivation incurred by the farmers with different levels of education. Hence, it can be said that education has no bearing upon the cost of cultivation of paddy.

Size of land holding and cost of cultivation of paddy

Land size is an important determining factor in the cost of cultivation of paddy. Marginal the size of land holding, lesser will be economics in the cost of cultivation. Large the size of land holding, greater will be the economics in the cost of cultivation. This expectation is based on the economics involved in the level of operation. In this regard, a lower cost of cultivation of paddy is expected in the case of farmers with larger holdings than in the case of farmers with small holdings. The analysis of cost of cultivation, presented in Table 8, do confirm the above expectation. The cost of cultivation increases with the decrease in the size of holdings of farmers.

While considering the composition of various types of cost of cultivation, it is understood that the farmers with marginal holdings have incurred greater proportion of the cost of cultivation and applying green manure harvesting and marketing of paddy when compared with that of farmers with medium, small and large holdings and vice-versa is observed in the case of other cost components. On the whole there is a significant difference in the cost structure faced by the farmers across the size of land holdings.

The analysis of average cost of cultivation of paddy by the size of land holding of farmers, presented in Table 9 also confirms the variation in the cost of cultivation across the farmers with different size of land

Table 7. Education levels of the farmers and cost of cultivation of paddy in Pariyur, Gudakarai, Perumugai, Veerapandi panchayats of Erode district analysis of variance.

Source of variation	Sum of square	Degree of freedom	Mean square	Estimated F value	Theoretical F value *
Between the group	67534726.62	6	22511575.54	1.69	2.80
With in the group	610950728.00	92	13281537.56		

^{*} Table F at 5 percent level of significant.

Table 8. Economics of cost of cultivation of paddy in Pariyur, Gudakarai, Perumugai, Veerapandi panchayats of Erode district by the size of land holdings of the farmers (Cost per acre in Rs.).

Components of cost of cultivation	Marginal holding (Less than 1.5 acres)			Small holding (1.5 acres-2 acres)		Medium holding (2 acres - 3 acres)		ng cres)
	Avg.cost	percent	Avg.cost	percent	Avg.cost	percent	Avg.cost	percent
Cost of ploughing	2028.45	8.81	1987.50	10.25	1868.93	10.17	1800.00	9.89
Cost leveling	715.58	3.11	698.16	3.60	682.63	3.72	655.00	3.59
Cost of applying manure	2560.91	11.13	2435.71	12.56	1885.01	10.26	1855.71	10.19
Cost of applying green manure	397.55	1.73	273.47	1.41	246.04	1.34	285.71	1.57
Cost of bunding	1033.94	4.49	1043.88	5.40	1025.49	5.58	977.86	5.37
Cost of raising nurseries	1455.76	6.33	1220.46	6.29	1231.51	6.70	1209.43	6.64
Cost of transplantation	2718.21	11.82	2763.52	14.25	2538.74	13.82	2694.00	14.80
Irrigation cost	1093.64	4.75	1024.36	5.28	981.98	5.35	1015.00	5.57
Weeding cost	1677.82	7.29	1405.31	7.25	1503.12	8.18	1304.43	7.17
Cost of pest control	1453.12	6.32	1485.15	7.66	1375.87	7.49	1417.14	7.78
Cost of applying fertilizers	2400.03	10.43	2317.96	11.95	2207.45	12.02	2128.42	11.69
Cost of harvesting	4472.73	19.44	2226.58	11.48	2418.13	13.16	2429.00	13.34
Cost of marketing	995.97	4.33	510.05	2.63	1406.73	2.12	432.86	2.38
Total	23003.70	100	19392.12	100	18371.63	100	18204.57	100

Table 9. Average cost of cultivation of paddy in Pariyur, Gudakarai, Perumugai, Veerapandi panchayats of Erode district by the size of land holding of the farmers.

Size of land holding	Mean cost	Std	Co-efficient of
	per acre	deviation	variation
Marginal	23003.69	4397.78	5.23
Small holding	19392.11	1403.16	13.82
Medium holding	18371.63	1582.03	11.61
Large holding	18204.57	1235.99	14.73

holdings. While the marginal farmers have incurred Rs.23003.70 towards paddy cultivation, the small, medium and large farmers have incurred Rs.19392.12, Rs.18371.63 and Rs.18,204.57 respectively on its cultivation. The lower co-efficient of variation confirms the consistency of the averages. The average cost incurred by the farmers toward paddy cultivation increases with the decrease in the size of land holding.

The analyses of variance presented in Table 10 confirm this result. As the estimated F value is greater than theoretical F value at 5 percent level of significance we have to reject the null hypothesis and concluded that there is difference in the average cost of cultivation of paddy between the farmers with different size of land holdings.

Hence, it is established that the size of land holding has bearing upon the cost of cultivation.

Returns in the cultivation of paddy

Paddy is an important cereal crop cultivated for its uppermost staple grain. Commonly known as paddy, it is used for wide range of food category purposes in Indian households. The crop requires proper care in the cultivation. The largest quantity of paddy is utilized as rice in the households for cooking food. Raising of paddy involves an intensive process. It requires intensive care and greater human efforts. However, there is a need to increase the net returns from paddy cultivation. In this regard, an analysis of present cost and returns status of paddy cultivation is considered important which would help the farmers to undertaken cost saving and revenue maximizes innovations in the

Table 11. Economics of cost and returns in paddy cultivation in Pariyur, Gudakarai, Perumugai, Veerapandi panchayats of Erode district.

Cost and returns	Value in Rs. per acre
Returns	26022.32
Operational cost	20678.77
Net returns	5343.55
Ratio of net returns to operational cost	0.26

cultivation of paddy. Table 11 gives the economics of paddy cultivation in selected revenue villages. On an average, the farmers made total return of Rs.26022.32 per acre, of which Rs.1440 (5.53 percent) is the return obtained by sale of hay. Over and above the operational cost of Rs.20678.77, the farmers receive Rs.5343.55 (26 percent) percent as net returns from paddy cultivation.

The net returns cost ratio works out to 0.26 which is at a very low level when compared with that of the ratio realized in the case of commercial crops.

Land holding and returns in the paddy cultivation

The efficient use of money in investment projects to a great extent depends upon the level of family assets. More the level of family assets, greater will be the involvement of the persons as the spending capacity may not be a hurdle in making adequate investment. Hence, the cultivators with large land holdings are expected to realize more economy in their investment then the cultivators with small and medium holdings.

The net-return analysis, presented in Table 12, reveals significant difference between the cultivators with different levels of land holdings in realising the benefit for their unit operational cost investment. The large farmers realized greater economies in the cultivation of paddy not only by maximizing the returns but also by minimizing the operational cost. The large farmers on an average made a net return of Rs.7601.5 per acre in the paddy cultivation. Following large farmers, the medium and small farmers in their order showed their efficiency in maximizing the net returns

Table 10. Size of land holdings of the farmers and cost of cultivation of paddy analysis of variance.

Source of variation	Sum of square	Degree of freedom	Mean square	Estimated F value	Theoretical F value *
Between the group	220607199.65	6	73535733.21	7.388	2.80
Within the group	457878254.97	92	9953875.10		

^{*} Table F at 5 percent level of significant.

Table 12. Economics of cost and return in paddy cultivation in Pariyur, Gudakarai, Perumugai, Veerapandi panchayats of Erode district by the land holding of the farmers (Value in Rs. per acre).

Cost and returns	Marginal farmer	Small farmer	Medium farmer	Large farmer
Returns	26450.45	26108.67	24961.56	25806.07
Operational cost	23003.69	19392.12	18371.63	18204.57
Net returns	3446.76	6716.55	6589.93	7601.5
Ratio of returns to operational cost	0.15	0.35	0.36	0.42

Table 13. Economics of cost and returns in paddy cultivation in Pariyur, Gudakarai, Perumugai, Veerapandi panchayats of Erode district by the educational level of farmers (Value in Rs. per acre).

Cost and returns	Illiterate	Primary	Secondary	Collegiate
Returns	25613.88	26531.88	24394.44	27533.20
Operational cost	19971.64	22140.67	19337.87	19735.19
Net returns	5642.24	4391.21	5056.57	7798.01
Ratio of returns to operational cost	0.28	0.20	0.26	0.40

Table 14. Economics of cost and returns in paddy cultivation by the caste of the farmers

Cost of returns	Kongu Vellalar	Narambuvetti	Pillai	Padaiyachi	Other non-agricultural
		Gounder		Gounder	community
Returns	25481.49	26136.74	27128.02	25524.21	25841.13
Operational cost	19970.71	19719.34	22964.26	18621.12	22118.44
Net returns	5510.78	6417.4	4163.76	6903.09	3722.69
Ratio of returns of operational cost	0.28	0.33	0.18	0.37	0.17

in paddy cultivation.

Education and returns in the cultivation of Paddy

Education is the significant factor influencing the decision of the cultivators. Hence, it is supposed that the paddy cultivators with greater educational status are economizing more than the cultivators with lesser level of and education. The result of net-return analysis, presented in Table 13, seen to have established our supposition. A net return to operational cost ratio is the highest for the paddy cultivators with collegiate level of education. The cultivators with collegiate level of family education have not only incurred higher cost but also obtained higher returns when compared with that of the cultivators with lower level of family education or with no literacy. Because of this, the ratio of net returns to operational cost is higher in the case of the cultivators with collegiate level of education. Following the farmers with collegiate level of education, the farmers with illiteracy and secondary level of education realizes greater economics in paddy cultivation.

From the above findings, it can be concluded that Erode district farmers have incurred a great amount on paddy cultivation by way of heavy expenditure on transplantation, fertilizer application, manure application ploughing and irrigation. After harvest cultivation activities consume a significant part of the expenditure incurred towards paddy production. Cost of marketing forms a significant part in the production and marketing of paddy which need to be reduced. While caste and size of land holding are factors producing variation in the cost of paddy cultivation in Erode district, other factor *viz.*, the education, showed significant variation in the cost of cultivation. However, the net returns received by the paddy farmers varied across all the socio-economic factors.

The paddy farmers realize return from paddy cultivation by way of producing the product paddy and by product, hay. The net return received from paddy cultivation is comparatively at a very low level as compared with that of the net return obtained from other commercial crops.

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