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RESEARCH ARTICLE

AN ECONOMIC ANALYSIS OF PADDY CULTIVATION IN DISTRICT GHAZIPUR OF UTTAR PRADESH

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ABSTRACT

The present study has been carried out for the estimation of costs and returns in Paddy production in the district Ghazipur of Uttar Pradesh. The primary data on costs and returns in the cultivation of Paddy have been collected from 150 farmers of marginal, small and large categories from two sample villages of Jakhania block in district Ghazipur for the year 2021-2022.The concepts of costs and returns suggested by the Commission for Agricultural Costs and Prices (CACP) have been used for estimation of costs and returns in Paddy cultivation.

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INTRODUCTION

Rice is grown mostly in irrigated and rain fed lowland areas in tropical countries. Irrigated rice systems, which are largely located in alluvial floodplains, terraces, inland valleys, and deltas in Asia's humid and subhumid subtropics and humid tropics, account for 78 percentof all rice production and 55 percent of total harvested rice area. India cultivates rice in 43.86million hectares, producing 112million tons of milled rice with an averageyieldof 2.6 tons per hectare. The crop is farmed in a wide range of environments, from hills tobeaches. It is primarily a kharif crop grown in one or more locations of the country through out the year. India has attained rice self-sufficiency and exportsurplus also. The toprice-producingstates are West Bengal, UttarPradesh, Punjab, Odisha, Andhra Pradesh, Bihar, and Chhattisgarh. Rainfed rice covers over 40 percent of India's rice land, with eastern India accounting for morethan70 percent.

MATERIALS AND METHODS

A multistage purposive cum random sampling technique has been used in the selection of district, block, villages and farmers. Ghazipur district was selected purposively for obtaining the required information conveniently. Jakhaniya block having highest area in Paddy was selected purposively out of 16 blocks in the district Ghazipur. There were 550 villages in the selected block. One village namely Sonahara has been selected randomly. One adjoining village namely Shankerpur has been included for making a cluster of two villages for the study.

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A list of all the farmers of the sample village have been prepared and distributed into three categories as listed below.

- Marginal farmers (having land below I ha.)
- Small Farmers (having land 1 to 2 ha.)
- Large Farmers (having land 2 ha and above)

There were 150 farmers in all the three categories. There were 50 marginal, 75 small and 25 large farmers in the sample. The detailed information on cultivation of Paddy crop have been collected from the sample farmers. The cost of cultivation of Paddy has been worked out using standard Hired machinery method suggested by Commission for Agricultural Costs and Prices (CACP) as detailed below.

Cost A1

1. Value of hired human labor
2. Value of hired bullock labor
3. Value of owned bullock labor
4. Value of owned machinery used
5. Hired machinery charges
6. Value of seed
7. Value of insecticides and pesticides
8. Value of manure
9. Value of fertilizer
10. Depreciation of implements and farm building
11. Irrigation charges
12. Land revenue
13. Interest of capital

Cost A2 = Cost A1 + rent paid for leased in land
Cost B1 = Cost A1 + interest on the value of owned fixed capital assets
Cost B2 = Cost B1 + rental value of owned land

Table 1. Cost of cultivation of Paddy (Rs/ha)

Particular	Marginal	Small	Large	Average
Hiredhumanlabor	20795	23844	25904	25514
Machinery	4889	5154	5465	5169
Seed/plants	1644	1890	2060	1864
Fertilizer	6223	7428	7840	7163
Irrigation	280	360	410	350
Interest on working capital	726	746	796	756
CostA	34557	39422	42475	38818
Rental value of land	4000	4000	4000	4000
Intereston fixed capital	70	70	70	70
CostB	38627	43492	46545	42888
Value of family humanlabor	1684	2242	3525	2484
CostC	40311	45734	50070	45372

Table 2. Perhectareyield and grossincome on different size of sample farms

Size group	YieldofGrain(qt/ha)	Yield ofStraw (qt/ha)	ValueMain Product	Value of By product	Grossincome
Marginal	66	29	144078	11600	155678
Small	70	33	152810	13200	166010
Large	72	36	157176	14400	171576
Average	69	32	151354	13066	164421

Table 3. Perhectarereturnsfrom Paddycroponsamplefarm (Rs/ha)

Particular	Marginal	Small	Large	Average
Gross Return	155678	166010	171576	164421
CostA	34557	39422	42475	38818
CostB	38627	43492	46545	42888
CostC	40311	45734	50070	45371
Farm Business Income (Return over cost A)	121121	126588	129101	125603
Family Labor Income (Returnover Cost B)	117051	122518	125031	121533
Net Income (Returnover Cost C)	115367	120276	121506	119049

Cost C1 = Cost B1 +imputed value of family labor
Cost C2 = Cost B2 + imputed value of family labor

RESULTS AND DISCUSSION

The cost of cultivation of Paddy on the sample farms has been estimated and presented in Table 1. The expenditure on all the items of cost A was lowest on marginal farms followed by small farms and highest on large farms. Cost A was Rs. 34557 on marginal, Rs. 39422 on small farms and Rs. 42475 on large farms with an average of Rs. 38828 per hectare. The similar trend has been observed in the costs B and C also. The averages of costs B and C are Rs. 42888 and 45372 per hectare respectively. The yield of paddy and income on all the categories of farms have been estimated and presented in table 2. The yield of Paddy on sample farms were 66, 70 and 72 on marginal, small and large farms receptively. The gross income has also been estimated as Rs. 155678, 166010 and 171576 respectively on marginal, small and large farms respectively. The average gross income was Rs. 164421 per hectare in the study area. The income from Paddy cultivation over costs A, B and C have also been estimated and given in table 3.Thefarm business income, family labor income and net income have been estimated as Rs. 121121, 117051 and Rs. 115367 respectively on marginal farms. The table indicates the highest profitability of large farmers followed by small and marginal farmers from Paddy crop in the Gazipur district.

CONCLUSION

The estimation of costs and returns from Paddy crop reveals that the total cost of cultivation was Rs. 40311, 45734 and 50070 on marginal, small and large farms respectively.

The similar trend has been observed in net returns also. The net income from Paddy crop was highest on large farms followed by small and marginal farmers. The higher profitability on large farms was due to the adoption of improved practices of Paddy cultivation.

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