

A STUDY OF EXPENDITURE AND INCOME LEVEL OF SMALL AND MARGINAL FARMERS IN SOUTH HARYANA

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ABSTRACT

The present study deals with the expenditure on agriculture and income of small and marginal farmers of South Haryana. The study is based on the field survey conducted in three districts namely Gurugram, Rewari and Mahendergarh with a sampled size of 360 agricultural households. The study analyses the average level of expenditure and income in these areas both in rabi and Kharif season. District wise variations were also observed in the study. Apart from district level analysis, the study also examines the level of expenditure and income based on the category of farmers. The study suggested that to solve the livelihood issues of small and marginal farmers, more subsidies should be provided to farmers so that cost of cultivation can reduce. The study recommends that opportunities to start other rural non-farm activities should be provided to the farmers to enhance the income level.

KEYWORDS: *Expenditure, Income, Farmers, Non-Farm, Cost of Cultivation.*

Introduction

During 1960s, the strategy of green revolution was adopted by the government to make the country self-sufficient in food grains (Tripathi & Prasad, 2009). Indian agriculture has experienced the immense growth in production of food grains after green revolution. In 1950-51 the total production was 51 million tonnes and it has increased to 285 million tonnes in 2017-18 (Economic survey 2019-20). The major impact of green revolution was mainly on Punjab, Haryana and western parts of Uttar Pradesh. Green revolution turns the subsistence farming into commercialized farming as the use of agricultural inputs and hired labour increased with good pace. Green revolution was capital intensive in nature and due to this, credit needs of farmers also increased which resulted increase in the expenditure on agricultural activities. In spite of fulfilling the aim of self-sufficiency in terms of production Indian agriculture has been facing several issues related to indebtedness, crop failure, high cost of cultivation and farmer's suicide (Kannan, 2015). The government subsidies increased but the government spending on agricultural sector starts declining and the private investment on agricultural sector starts rising which resulted into increase in cost of cultivation (Chand, 2003). The agriculture sector has undergone through a phase of decline in average size of operational holdings. During a decade from 2000 to 2010 the average size of holding was declined from 1.33 hectares to 1.15 hectares which leads to increase the numbers of more small and marginal farmers (Agricultural Statistics at Glance, 2017). According to Agricultural Census 2010-11, eighty five percent of operational holdings belong to small and marginal farmers. Because of the small size of holdings, the average income of farmers is not sufficient to meet the average monthly expenditure which increases the vulnerability of farm households. The present study has covered the level of income and expenditure of small and marginal farmers, the cost of cultivation of major crops in *rabi* and *kharif* season and the returns from farming.

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Review of Literature

Narayanamoorthy (2013) examined the profitability in cultivation of crops in India using the data from Commission for Agricultural Costs and Prices and covered the time period from 1975-76 to 2006-07. Six crops namely wheat, rice, sugarcane, groundnut, cotton and gram were taken into consideration. The study was based on two concepts of cost to measure the profitability namely cost C2 and cost C3. The study found that due to rise in cost of cultivation and reduction in production, the income level of farmers also declined. In most of states, returns from farming were not sufficient to meet the expenditure incurred on cost of cultivation per annum in mostly states. The study suggested that price incentives in form of increasing minimum support prices and provision of more public investment in agriculture sector can increase the returns from cultivation.

Singh (2013) conducted a study on income and subsistence issues of farmers. The study was based on primary survey conducted during July to November 2012. The study found that farm's income was not sufficient to meet daily requirements of farmers. The study calculated that the income of marginal farmer was ₹ 15 per day, small farmer earned ₹31, medium farmers earned ₹45 and large farmers earned ₹84 per day during the period. The study suggested to develop a multi-sectoral strategy for promoting farming and non-farming activities in rural areas for the upliftment of farmers.

Panday (2016) conducted a study in Bihar regarding income and inequality among farmers. A total of 528 farm respondents of different categories were selected through multistage stratified random sampling. The study found that major source of income was farming business in which on an average the farmers earned ₹8117 per annum. This study found a negative relationship between farm size and productivity. The study suggested integrating agricultural sector with rural non farm sector and utilizing the resources which were locally available.

Gururaj et.al (2017) conducted a study in Karnataka measure the income of small and marginal farmers. The study identified the determinants which affect income level using multiple linear regression model. Irrigational availability mechanization, farm size and experience in farming were emerged as significant determinants which affects farm income. This study was also depicted that mostly marginal farmers earned their income from non-farm business and small farmers mainly earned through their farms. The study suggested that farmers should also indulge themselves in rural non-farm business to enhance their income.

Pushpa et.al (2017) examined the cost of cultivation and returns from cultivation from major crops in Deoria district of Uttar Pradesh with a sample of respondents. Three crops namely sugarcane, paddy and wheat were taken to understand which crop was better in terms of better returns. The study found that in comparison to wheat and Paddy, sugarcane was more profitable crop. The cost of cultivation of sugarcane was ₹78-79 per quintal (avg.) and a return was ₹54956.01 per hectare. The study suggested that farmers should growth more sugarcane so that they can get better returns.

Jodha and Dahiya (2018) depicted the difficulties faced by small and marginal farmers for cause of their subsistence. The study was based on Rewari and Mahendra garh district of Haryana. A total of 300 respondents were considered for the study. The study categories several problems related to livelihood of farmers. The study found that small size of land ranked first among various problems related to agriculture category. Lack of capital was ranked first among problems related to household category, low support price ranked first among problems related to government category, price fluctuations of output ranked first among problems related to market category and lack of natural water resources ranked first among problems related to climate category. The study suggested that government policies should focused to create better livelihood opportunities.

Objective, Data and Research Methodology

The main objective of this study is to estimate the expenditure and income of small and marginal farmers of South Haryana from cultivation process based on primary investigation in three districts namely Gurugram, Rewari and Mahendergarh. The primary data was collected through field survey which takes into account a sample size of 360 indebted agricultural household for the study. Two blocks from each district were selected and three villages from each block were taken into consideration. A total of 18 villages from 6 six blocks were taken for the study. The study used the simple statistical tools to analyze the data.

Results & Discussion

Expenditure and Income Level at National Level

Following table shows the average monthly income and expenditure of farmers according to land possessed by them.

Table 1: Average monthly income (₹) and Consumption expenditure (₹) per agricultural household according to land possessed (ha)

Land Possessed	Average monthly income			Total income	Average monthly expenditure	
	Income from wages	Net receipts from farm business				Net receipts from non-farm business
		Cultivation	Farming of animals			
<0.01	2902	30	1181	447	4561	5108
0.01-0.40	2386	687	621	459	4152	5401
0.41-1.00	2011	2145	629	462	5247	6020
1.01-2.00	1728	4209	818	593	7348	6457
2.01-4.00	1657	7359	1161	554	10730	7786
4.01-10.00	2031	15243	1501	861	19637	10104
10.00+	1311	35685	2622	1770	41388	14447
All sizes	2071	3081	763	512	6426	6223

Source: NSS

The above table shows the average monthly income and expenditure of per agricultural households according to the size of land possessed. The average total income of all size of holding was ₹ 6426 and the average monthly expenditure was ₹ 6223. It means the Return from agriculture sector was negligible and it is very difficult to survive in such circumstances where inflation and increase inputs cost. The condition of marginal farmers is vulnerable because their average monthly expenditure was more than their income. The above table concludes that the returns were low as compared to their expenditure on agriculture. It implies that agriculture is not a profitable business in India.

Expenditure on Cultivation and Income of Marginal farmers of South Haryana

Table 2 shows that average expenditure on cultivation and income received from per acre of marginal farmers. The study found that on an average, total expenditure on per acre of cultivation was ₹16241.6 in Gurugram district, ₹17121 in Rewari and ₹18517 in Mahendergarh district of *rabi* season. The income received per acre was ₹37357.9 in Gurugram, ₹36334.4 in Rewari and ₹37093 in Mahendergarh district. In case of *kharif* season, the average expenditure incurred on per acre of land cultivation was ₹9650.03 in Gurugram, ₹10693 in Rewari and ₹25723.9 in Mahendergarh District. Whereas, the income received on per acre of land cultivation of *kharif* season was ₹19285.3 in Gurugram, ₹18968.2 in Rewari and ₹57682.9 in Mahendergarh district. The cost of cultivation per acre was high in Mahendergarh district followed by Rewari and Gurugram district. The average total expenditure incurred in *kharif* crops of Mahendergarh district was high because majority of marginal farmers produced cotton there and the cost of cultivation of cotton was high which was not affordable for marginal farmer. In Rewari and Gurugram districts, majority of marginal farmers did not produce and because of this, their average total expenditure was less than Mahendergarh district.

Table 2: Average Cost of Cultivation and Average Income of Marginal farmers of South Haryana (Per Acre)

District	Rabi Crops includes Wheat and Mustard (October-February)		Kharif Crops includes Bajara and Cotton (June-September)	
	Average. total expenditure (₹) per acre	Average. total Income (₹) per acre	Average total expenditure (₹) per acre	Average total income (₹) per acre
Gurugram	16241.6	37357.9	9650.03	19285.3
Rewari	17121.7	36334.4	10693	18968.2
Mahendergarh	18517	37093.4	25723.9	57682.9

Source: Calculated from field survey.

Expenditure on Cultivation and Income of Small Farmers of South Haryana

Table 3 describes the average expenditure on cultivation per acre of land of small farmers of South Haryana. The study found that in case of *rabi* crops, on an average the expenditure incurred on per acre of land cultivation was ₹16220.3 in Gurugram, ₹16820.42 in Rewari and ₹18303.48 in

Mahendergarh district whereas the income received on per acre was ₹37342.05 in Gurugram, ₹36166.95 in Rewari and ₹37032 in Mahendergarh district. In case of *kharif* crops, the average total expenditure on per acre of land cultivation was ₹9729.11 in Gurugram, ₹10541 in Rewari and ₹25629.65 in Mahendergarh district and the income received on per acre of land was high in Mahendergarh followed by Gurugram and Rewari district. The average total expenditure per acre of small and marginal farmers were almost similar whereas their size of landholding were different it's because of the reason that the inputs used by small farmers were fully utilized whereas the inputs used for cultivation were not fully utilized by the marginal farmers because of their small size of holdings.

Table 3: Average Expenditure on Cultivation and Average Income of Small Farmers of South Haryana (Per acre)

District	Rabi Crops includes Wheat and Mustard (October-February)		Kharif Crops includes Bajara and Cotton(June-September)	
	Average. total expenditure(₹) per acre	Average. total Income (₹) per acre	Average total expenditure (₹) per acre	Average total income (₹) per acre
Gurugram	16220.3	37342.05	9729.11	19240
Rewari	16820.42	36166.95	10541	18932.72
Mahendergarh	18303.48	37032.86	25629.65	57496.52

Source: Calculated from field survey.

From table 4, it is shown that the average monthly expenditure was found high in small and marginal farmers of Mahendergarh followed by Rewari and Gurugram. The average monthly income of small and marginal farmers was higher than their average monthly expenditure. In case of small farmers, the average monthly expenditure was ₹ 2162.45 in Gurugram, ₹2280.15 in Rewari and ₹3661.09 in Mahendergarh district and the average monthly income was ₹ 4715.17 in Gurugram, ₹4591.63 in Rewari and ₹7877.44 in Mahendergarh district. In case of marginal farmers the average monthly expenditure was ₹2157.63 in Gurugram, ₹2317.89 in Rewari and ₹3686.74 in Mahendergarh district and the average monthly income was ₹4720.26 in Gurugram, ₹4608.55 in Rewari and ₹7898.02 in Mahendergarh district.

Table 4: Average Monthly Expenditure and Average Monthly Income of Small and Marginal Farmers on Cultivation of Crops of Rabi and Kharif Season

(Per Acre)

District	Category of Farmer	Average Monthly Expenditure (₹)	Average Monthly Income(₹)
Gurugram	Small Farmer	2162.45	4715.17
	Marginal Farmer	2157.63	4720.26
Rewari	Small Farmer	2280.15	4591.63
	Marginal Farmer	2317.89	4608.55
Mahendergarh	Small Farmer	3661.09	7877.44
	Marginal Farmer	3686.74	7898.02

Source: Calculated from field Survey

Conclusion

The study concludes that in all sizes of categories, the average monthly income was ₹6426 and the average monthly expenditure was ₹ 6223. The average total expenditure on cultivation was high in Mahendergarh district followed by Rewari and Gurugram districts and the average total income received from cultivation was high in Gurugram district followed by Mahendergarh and Rewari district in case of *rabi* crops. In case of *kharif* Crops, the highest average total expenditure was found in Mahendergarh district followed by Rewari and Gurugram. The study recommends that as cost of cultivation is increasing continuously, so appropriate subsidy will be provided on necessary inputs used for the cultivation process. The income received by small and marginal farmers is not sufficient from farm activities so other opportunities to start other rural non-farm activities should be provided to the farmers, these non-farm activities will be helpful to enhance the income levels of small and marginal farmers.

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- 12 Inspira- Journal of Commerce, Economics & Computer Science: Volume 06, No. 01, January-March, 2020
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