



## **An Economic Analysis of Farmer's Suicides in Prakasam District of Andhra Pradesh**

**T Siva Parvathi , G Raghunadha Reddy , D V S Rao and V Srinivasa Rao**  
Department of Agricultural Economics, Agricultural College, Bapatla 522 101

### **ABSTRACT**

The present study was taken up to highlight the reasons for the negative levels of net income of the deceased families. For this, a multiple linear regression model was fitted. The analysis revealed that the size of the land holding was positively significant, farm expenditure per year, family expenditure per year, debt burden and tenancy were found to be negatively significant and education found to be non-significant with the net income.

**Key words :** Deceased family, Economic loss, Farm expenditure, Net income.

In Andhra Pradesh, farmers suicides has gone to a condition to call it as a common phenomenon. It dates back to 1987-88, when desperate cotton growers took their lives in Prakasam district, and it became most virulent situation today. The occurrence of these suicides is on the increase and reported frequently, even after the restructuring of economy. The main reasons for the present agrarian crisis in general were the resource and institutional constraints faced by the small and marginal farmers particularly the constraints in getting institutional credit, which result in low adaptation of modern technological innovations in agriculture (Reddy and Mishra, 2006). The majority of suicides were concentrated in the households of annual income up to ₹ 27,924 which includes earnings from cultivation, wage, non professional business and allied occupations. It was clearly revealed that as the income level decline the suicide rate increased (Kale *et al.*, 2010). The present article aims at analyzing the factors influencing the net income of the deceased families.

### **MATERIAL AND METHODS**

An exploratory design of social research was adopted for this study. Through purposive sampling method 40 deceased families (since 2006) were identified from the district, based on the data provided by the District Revenue Department. A well structured interview schedule was employed

to collect the requisite information from the sample families and other related institutions. The data pertaining to the period 2006-2010 was collected from the selected farm families for the present study.

The secondary data pertaining to names, addresses and the ex-gratia given by the government for the suicidal farmer's collected from the district level committee headed by Collector. Also the data relevant to the study were collected from different public resources like village institutions, NGOs, MFIs etc for the present study.

### **RESULTS AND DISCUSSION**

#### **1.1 Asset position of the sample farmers**

The asset position of the sample farmers was studied, as it was useful in knowing the economic background of them. The farm productivity, economic efficiency and the risk bearing ability of the farmers largely depend up on the value of farm assets owned by the farmer.

It was evident from the table 1 that, the average value of all the farm assets across the sample families amounts to be ₹3.043 lakhs. The relevant shares of these assets in total assets value indicated that, residential accommodation and land value account for significant shares viz., 72, 25 per cent respectively. In case of sprayers and cultivators, the shares were almost negligible and the number of farmers having those items were

also low. This was due to the inadequate supply from agricultural department according to the information given by the respondents.

### 1.2 Family expenditure pattern

The consumption expenditure pattern of selected farm families was studied and presented below. From the table 2, it was observed that the average total family expenditure per house hold was ₹ 59,443 which included all the items pertaining to necessities, comforts and luxuries.

On over all households 46.2 per cent of total expenditure was spent on food, 9.76 per cent on clothing, 8.72 per cent on fuel and lighting, 4.64 per cent on house rent and repairs, 1.93 per cent on foot wear, 16.64 per cent on education, 5.58 per cent on medicines, 7.36 per cent on recreations and functions and comforts and luxuries. The major contributions were food and education expenses. The expenditure pattern was observed as normal and cannot be denied.

### 1.3 Details of family income of sample families

The source-wise income of the sample families was studied, and the particulars were presented in table 3. On an average 93.85 per cent of income was earned through farming, 3.25 per cent through wages, 2.73 per cent through dairy and 0.17 per cent through other means by the sample families. The average income of the sample farmers was about ₹148798.

### 1.4 Gap between income and expenditure of sample farmers

The gap between income and expenditure of sample farmers was studied, as it can provide the amount and extent of loss or profit gained by them. Here income includes farm, livestock and non farm incomes and expenditure includes family, farm and livestock expenditures.

From the table 4 we can observe that, all the sample farmers were having considerable amount of income gap. Among them owner-cum-tenant farmers and tenant farmers were worst effected with highest income gap of ₹78647, ₹76186 respectively. This is because of, the victims were incurred heavy losses in the farm-business due to irregular and inadequate rain fall coupled with non

remunerative market prices of their farm produce. We also can easily inferred that, the tenant farmers who were having low asset base incurred more on farm business without proper assessment of their risk bearing ability.

The income gap which is otherwise called as amount of net income of the sample families was considered as the influencing factor on farmers mind in committing suicide. In this context, to study the factors influencing net income, a multiple linear regression model was fitted. The variables included in the model were size of land holding( $X_1$ ), total farm expenditure per year( $X_2$ ), family expenditure per year( $X_3$ ), debt burden( $X_4$ ), education( $X_5$ ) and tenancy ( $X_6$ ) as independent variables and magnitude of net income (Y) as dependent variable. The results pertaining to the regression analysis is presented in table 5.

The coefficient of multiple determination ( $R^2$ ) was 0.93 (significant at 1% level) which indicates that, 93 per cent of variability in the net income was explained by the selected independent variables.

The analysis revealed that the size of the land holding was positively significant which means with the increase of size of land holding the net income of the farmers also increases. And among the remaining variables farm expenditure per year, family expenditure per year and tenancy were found to be negatively significant which means that, with the increase of these variables the net income decreases and debt was found positively significant with less coefficient i.e, 0.07. The variable education found to be non-significant, indicating that, the education level of farmers has not influenced the net income of the farmer.

### POLICY SUGGESTIONS

To curb the farmer's suicides the following policy suggestions were framed based on surveying the farmers for the present study.

1. The philosophy behind is not only declaring of adequate MSP but implementation should also be strictly followed by the Govt.
2. The mechanism of modern input supply system, provision of sprayers and farm equipment on subsidized schemes, easy flow of credit to small

Table 1. Average asset position of the sample farmers.

S.No	Items	Average value ( Rs )		% to total
1	Agricultural land	2,18,674.40	(27)	71.85
2	Residential accommodation	76,625.00	(34)	25.18
3	Livestock	6,750.00	(9)	2.22
4	Vehicles(Cycle)	137.50	(3)	0.05
5	Sprayers	212.50	(2)	0.07
6	Cultivators	0.00	(0)	0.00
7	Tobacco barn	1,250.00	(1)	0.41
8	Television	700.00	(5)	0.23
	Total	3,04,349.40	(40)	100

Note: Figures in parentheses indicate frequency of the farmers having the item

Table 2 Family expenditure pattern of sample farmers.

S. No	Particulars	Average value ( Rs)	% to total
1	Food	25925	46.20
2	Clothing	5475	9.76
3	Fuel and Lighting	4893	8.72
4	House rent and Repairs	2602	4.64
5	Foot Wear	1085	1.93
6	Education	9338	16.64
7	Medicines	3129	5.58
8	Recreations and Functions	4130	7.36
9	Comforts and Luxuries	2868	5.12
	Total expenditure	59443	100.00

and marginal farmers, product marketing facilities are to be ensured by concerned Govt. authorities to make agriculture profitable.

3. The amendments should be done in the Land revenue act for tenants, so that the banks should provide the credit for all the tenant farmers with less rate of interest.

4. The state govt. should encourage co-operative farming and contract farming, which will be helpful for the sustainability of tenant, small and marginal farmers.

5. The state should provide non-farm opportunities for the peasants as an alternative occupation.

6. Establishment of agro-based industry at each mandal in the form of growth centers, so that the farmers can get profitable returns from their produce.

7. The government should provide promised amount of ex-gratia to all the victim families without any delay, for their sustenance for repaying the debts and further production activities.

Table 3. Source-wise income of the sample families (n=40).

S. No	Particular	Average value (₹)	% to total
I	Farm income	139643.25	93.85
<b>II</b>	<b>Nonfarm income</b>		
	a. Wage income	4837.50	3.25
	b. Live stock income	4067.50	2.73
	c. Others	250.00	0.17
	Total	148798.25	100.00

Table 4. Gap between income and expenditure of sample farmers (n=40).

S. No	Particulars	Tenant	Owner-cum- Tenant	Owner	Overall
1	Total income ( Rs)	136891.15	138649.74	192250	48798.25
2	Total expenditure ( Rs)	213076.92	217296.84	206443.75	213754.75
3	Gap between income	-76,186.00	-78,647.00	-14,194	64956.50

Table 5. Factors influencing net income of sample farmers (n=40).

S. No	Particulars	Regression Coefficients	Standard error
1	Intercept	41174.72	5522.720
2	Land holding ( $X_1$ )	11692.69 *	1618.360
3	Farm expenditure per year ( $X_2$ )	-0.254*	0.037
4	Family expenditure ( $X_3$ )	-1.667*	0.084
5	Amount of debt ( $X_4$ )	0.077*	0.016
6	Education ( $X_5$ )	383 NS	262.190
7	Tenancy ( $X_6$ )	-6480.12 *	2399.983

Co-efficient of multiple determination  $R^2 : 0.93^{**}$

\*Significant at 1% level,

NS= Non-significant

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