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A probe into socio-economic and psychological profile of farmers' suicide in Karnataka

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Abstract: An attempt has been made to understand the nature and causes of suicides, socio-economic and psychological profile of sample farmers in the present paper. Required data were obtained from the families of selected suicide and non-suicide cases and secondary data from the official sources. Influence of various socio-economic factors on the probability of incidence of suicide was investigated through LOGIT Model. Findings revealed that that the spread of suicide victims was largely concentrated between the age group of 36-50 years (middle age), which sems to be prone to suicides. The fact that among the suicide cases about 87 per cent depended upon agriculture especially on dry farming with negligible supplementary enterprises revealed farmers' vulnerability for risks. Socio-psychological characteristics of suicide farmers as given by the surviving members of the family revealed that about 58 per cent suffered from stress, which could be due to heavy pressure and humiliation from private moneylenders, crop failure, debt burden etc. Though the parameters were subjective, it was noticed that about 73 percent of farmers did have conflict with wives, which could be external manifestation of the deeper economic crisis. Farmers who committed suicide seem to be sensitive and socially upcoming conscious personalities. Among the ten most important causes of suicides, debt burden was the major cause for taking the extreme step of committing suicide. As a policy it is recommended that supplementary occupations have to be promoted among the farmers. There is need to invest more on dry land development and simultaneously enhance accessibility to sustainable irrigation. Since debt burden was identified as the major cause of farmers' suicides, it has to be tackled effectively through an appropriate farm credit policy. Further, an all India level expert committee involving farmers' representatives, agricultural scientists and policy makers should assess the extent and pattern of farmers' suicides across the country. From a sociological perspective there is need to organize non-political, non-profit, non-governmental associations involving agricultural experts, intellectuals, social workers, litterateurs and farmers' leaders to attend to farmers in distress, create awareness about their self dignity, rights, modus operandi of the profit making agencies and instill a sense of confidence.

Key words: Farmers suicides, socio-economics, psychological

Introduction

Tens of thousands of farmers in different states of India have committed suicide. It is shocking to note the figures on farmers' suicides in the country given out by the Central Home Ministry in the parliament. Accordingly between 1995 and 2003, 9.26 lakh farmers have lost their lives in the country (Anonymous, 2000). On the number of deaths of farmers in Karnataka, Veeresh Committee (2002) reported that during 1996 and 2000 there were 10,959 victims under the farming and agricultural activity category (Anonymous, 2002). Though farmers' suicides have been occurring in Karnataka since 1998, what is alarming is the scale and spread of such incidents. The year wise figures were 2,079 for 1,996, 1,832 for 1997, 2,039 for 1998, 2,379 for 1999 and 2,630 for year 2000. Press reports indicated that at least 3,000 farmers had taken their lives between 2000 and 2003. Regional and local press reported an average of about four farmer suicides per week. Over 276 farmers committed suicides in Karnataka within a span of five and a half months from April 1, 2003. The suicides were intense between August to September 2003. There was an average of five suicides for every two days. Of late the Karnataka Government has accepted the fact of farmers' suicide and revealed that 708 in 2003-04, 271 in 2004-05 and 143 farmers in 2005-06 did commit suicide (Anonymous, 2006).

These suicides can no more be considered isolated cases of farmer's deaths but a symbol of deepening crisis of Indian agriculture. There is a debate regarding causes and number of deaths of farmers in the country. In the initial period of late 1990s when there were sporadic incidents of suicides across the country there was general indifference and apathy towards these incidents. But, when in early 2000 and onwards the number of farmers' deaths started rising fast in Andhra Pradesh, Karnataka, Kerala, Maharashtra and Punjab, the Governments started feeling the pinch of growing public wrath. While some Governments took immediate relief measures, some appointed commissions to probe into the truth of the matter. There are a few pertinent questions to be answered in the context of farmers' suicides in the country. Do farmers really commit suicide due to agrarian distress or simply it is a public and media hype; what is the number of genuine incidents; what are the objective reasons for farmers' suicides. These have been debated widely in parliament, state legislatures, academia and the press. There are differing views. There were also attempts to pass on the buck to sundry reasons like family conflict, alcoholism etc by some reports, brushing aside the ground realities of agrarian crisis and the resultant tragedy of farmers' deaths. Nature and causes of suicides, the socio-economic and psychological profile of the sample respondents are discussed in the present paper.

Material and methods

For evaluating specific objectives of the study, primary data were obtained from the families of selected suicide and non-suicide cases, through personal interviews with the help of structured schedule. Secondary data on the number of suicides

in the districts were collected from the offices of Joint Director of Agriculture and Deputy Commissioner Offices of Bijapur and Bagalkot districts. The data so collected pertained to the agricultural year 2004-2005. The influence of various socio-economic factors on the probability of incidence of suicide has been investigated through LOGIT Model (Anonymous, 2006). The dependent variable (probability of incidence of suicide) is expected to lie between 0 and 1.00. In the present study suicide farmers and non-suicide farmers made the dependent variable discreet. Thus, the univariate LOGIT Model was used for the analysis. The LOGIT Model was estimated by using SPSS package.

The specific LOGIT model to predict the odds of a farmer committing suicide was specified as follows.

$$Ln[Pi/(1-Pi)]= \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \beta_6 x_6 + \beta_7 x_7 + ui$$

Where,

Pi=Probability that the ith farmer will be a farmer who committed suicide

1-Pi=Probability that the ith farmer will not commit suicide

X_1=Age of the respondent

X_2=Education

X_3=Family size

X_4=Land holding

X_5=Occupation

X_6=Net income

X_7=Indebtedness

Results and discussion

Average age, which is an important variable affecting decision making is similar between suicide and non-suicide groups (Table 4.1). However, the proportion of middle aged farmers was more in both the groups. This is the age when family responsibilities increase and many households decisions have to be taken. This reflects upon the probable reason that middle aged group is more prone to suicides as against the younger or older age group.

Majority of farmers who committed suicide were having low level of education and they dropped out before the high school levels (Table 4.1). There were no cases of farmers committing suicides with higher education. Another important fact that emerged from the study was that education level of control cases was relatively higher than that for victims. In other words, education along with broad world outlook seems to discourage suicides. But, it should also be clear that education of the individual alone cannot prevent the victim from committing suicide, family also plays an important role in averting such incidents.

Average family size (Table 4.1) in the suicide cases with an average number of 6.33 members was found to be slightly larger when compared to the non-suicide cases (5.33). Within the family there was not much difference in the distribution of the male, female and children in suicide and non-suicide cases.

Table 4.2 gives the profile of land holding of sample respondents. The proportion of large farmers was found to be higher in both the cases followed by the medium type of farmers. There was no significant difference between the two groups in the average per capita land holding. However, dry farming dominated total land holding in both the groups exposing such farmers to greater risks.

Table 1. Social characteristics of the sample respondents

Particulars	Suicide farmers		Non-suicide farmers	
	Frequency	%	Frequency	%
Age				
Young (<35)	10	33.33	9	30
Middle (36-50)	14	46.67	9	30
Old(>50)	6	20.00	12	40
Average	42		45.73	
Education				
Illiterate	9	30.00	2	6.67
Primary	15	50.00	21	70.00
Secondary school	5	16.67	4	13.33
Average	4		4.77	
Family Size				
Male	53	27.89	48	30.00
Female	54	28.42	46	28.75
Children	83	43.68	66	41.25
Total	190	100	160	100
Average	6. 33		5.33	

Occupational pattern of suicide and non-suicide farmers (Table 2) revealed that majority of them were dependent on agriculture alone as main source of livelihood and the percentage of farmers with supplementary business was slightly less. Greater dependency of farmers on dry farming with negligible supplementary enterprises revealed their vulnerability for natural and financial risks.

Study found out that the number of suicides was more among the male farmers (about 97 %) as compared to female farmers (Table 3). Only a single case of farm woman committing suicide (3%) was reported in the study. This indicated that men were more prone to suicides than women in agrarian crisis related cases. The fact that the male members of the household in our society own the land and bear risk explains why more men committed suicides. Similar conclusion was reached by Vidyasagar and Chandra (2004).

Table 4 reveals that a large number of suicide victims consumed insecticide/pesticide (53%). This observation is supported by the reports of Madhavan *et al.* (1998). Other methods used were hanging and jumping in to the well. In the commercial farming, farmers have got easy accessibility to pesticides and when farmer is in most distressed condition he makes use of the means on which he could lay his hand easily. When, these are not available and the distressed period take longer time he resorts to jumping into well or hanging.

Table 5 presents socio-psychological characteristics of suicide farmers as expressed by the surviving members of the family revealed that about 58 per cent of farmers who committed

Table 2. Agro-economic profile of respondents

Particulars	Suicide farmers		Non-suicide farmers	
	Frequency	%	Frequency	%
Land holding				
Marginal (<1ha)	1	3.33	2	6.67
Small (1ha)	0	0.00	0	0.00
Medium (1-2ha)	13	43.33	7	23.33
Large (>2ha)	16	53.33	21	70.00
Total	30	100	30	100.00
Occupational pattern				
a. Agriculture	26	86.67	28	93.33
b. Agriculture + Business	4	13.33	2	6.67
Sub total	30	100	30	100
Total dry land (ha)	64.99	75.75	89.53	93.32
Total irrigated land (ha)	20.80	24.25	6.40	6.67
Total land holding (ha)	85.79	100	95.93	100
Average land Holding (ha)	2.86		3.20	

Table 3. Gender ratio of suicide farmers

Gender	Number of suicides	Percentage
Male	29	96.66
Female	1	3.34
Total	30	100

suicide suffered from stress. Heavy financial commitments on account of education and marriage of children often put the head of household under stress. No farmer was found to be suffering from diseases like blood pressure or diabetes.

Inter-personal relations of deceased farmer with family members and immediate associates would also indicate the tendency of the farmer. Though the parameters were subjective, it was noticed that about 73 percent of farmers did have conflict with wives. This observation needs elaboration, as there seems to be general misunderstanding. The immediate conflict with wife or a close family member is taken as cause for suicide. But, the conflict is only a manifestation of deeper economic crisis. When farmer faces risks and is under stress he has to have an outlet and under Indian family system wife is the immediate target. About nine per cent of farmers who committed suicide similarly had strained relations with children or brothers or neighbors. Even though questions were asked about their relations with official personnel, it was observed that they did not have any conflict with them.

As depicted in Table 6, with regard to social participation it was seen that majority of farmers had medium level participation in social activities like public function (53%), religious function

Table 4. Means of farmers' suicides

Means of death	Number of suicides	Percentage
Hanging	12	40.00
Poison	16	53.34
Jumping into well	2	6.66
Total	30	100

Table 5. Socio-psychological profile of the suicide farmers

Particulars	Numbers	Percentage
Whether farmer consulted doctor for		
Frequent headache	6	31.58
Sleeplessness	0	0.00
Stress	11	57.89
General physical weakness	2	10.53
B.P/Diabetes	0	0.00
Total	19	100
Quarrel/conflict with		
Wife	28	72.72
Children	1	9.09
Brother	1	9.09
Sister	0	0.00
Neighbour	1	9.09
Labourers	0	0.00
Banker	0	0.00
Social leader	0	0.00
Agri/Dept. Officials	0	0.00
Total	30	100

(53%) and private social function (53%). This indicated that farmers who committed suicide were neither highly motivated nor docile but were sensitive, socially conscious and upcoming persons.

Among the 10 most important causes of suicides identified (Table 7), debt burden was the major cause forcing farmer to take extreme step of committing suicide. Indian farmer is caught in the debt trap because commercial farming has forced him to invest heavily by taking risk in anticipation of higher returns. But, due to the intervening factors like drought, failure of water sources, crop failure and non-remunerative prices the debt instead of reducing over the years keeps increasing. Meanwhile there are social obligations to farmer like any other member of society. These include marriage of family members like daughter or sister, socio-religious obligations etc. Debt trap keeps working in a vicious way and is interwoven with loss of farm activities, failure of bore wells and decline in repaying capacity etc. Alcoholism is also attributed as one of the reasons (9 %). But, closer probe in to the family situation revealed that it was a secondary development. The probable reason for the farmers taking to consumption of alcohol was to escape from the insecurities arising from agrarian crisis.

The results of logistic regression model revealed that the incidence of suicide depended upon seven variables among which five variables namely age, education, land holding, occupation and net income had significant negative influence. Co-efficient of land holding suggested that an increase in gross cropped area reduced the incidence of suicide. Co-efficient of occupation, net income, age and education had negative influence on the incidence of suicide. The analysis indicated a positive relationship of incidence of suicide with indebtedness. The value of R^2 suggested that variables included in the model were appropriate in explaining variation in the incidence of farmers' suicide. Any agrarian policy formulation, therefore,

Table 6. Social participation of the suicide farmers

Particulars	Numbers	Percentage
General /public function		
High	11	36.67
Medium	16	53.33
Low	3	10.00
Private religious function		
High	9	30.00
Medium	16	53.33
Low	5	16.67
Private social function		
High	5	16.67
Medium	16	53.33
Low	5	16.67

Table 7. Distribution of suicide cases by retrospectively reconstructed reasons (N=30)

Reasons for suicides	Number	Percentage
Marriage of daughter/sister	12	40.00
Alcoholic	9	30.00
Excessive social expenditure	8	26.67
Loss in agricultural activities	16	53.33
Borrowing repaying capacity	19	63.33
Failure of bore wells	9	30.00
Illicit relation	1	3.33
Crop failure	13	43.33
Agricultural debt	29	96.67
Gambling	1	3.33

should take into consideration these factors while establishing interconnections in the agrarian system. These results are indicative of dependence of social tendency on these economic parameters. Incidence of suicides depends upon indebtedness, which in turn is decided by the farm incomes. This fact is corroborated by the results of logistic regression and the findings of Anonymous (2006), which reiterated that indebtedness and absence of bullocks were important factor in explaining differences between suicide case and non-suicide control households.

The findings of the study revealed that spread of suicide victims was largely concentrated between the age group of 36-50 years (middle age), which sems to be prone to suicides. The fact that among suicide cases about 87 per cent depended upon agriculture especially on dry farming with negligible supplementary enterprises revealed farmers' vulnerability for risks. The number of suicide cases reported were more in the male farmers (about 96.66%) compared to female farmers in the study area. Socio-psychological characteristics of suicide farmers as given by the surviving members of the family revealed that about 58 per cent suffered from stress, which could be due to heavy pressure and humiliation from private moneylenders, crop failure, debt burden etc. The inter-personal relations of deceased farmer with family members and immediate associates would also indicate the psychological predisposition of the farmer. Though the parameters were subjective, it was noticed that about 73 percent of farmers did have conflict with wife, which could be external manifestation of deeper economic crisis. Farmers who committed suicide seem to be sensitive and socially upcoming conscious personalities. Among the ten most important causes of suicides, debt burden was major cause for taking the extreme step of committing suicide. However, this is not the primary cause, it is manifestation of secondary effects like crop failure, non-remunerative prices for their produce etc. The debt trap keeps working in a vicious way and is interwoven with loss of farm activities, failure of bore wells, decline in repaying capacity etc. Since heavy indebtedness has been identified as the primary cause for farmers' suicides it has to be tackled effectively through an appropriate farm credit policy. Further, to assess the extent and pattern of farmers' suicides across the country, an All India Level Expert Committee involving farmers' representatives, agricultural economists and policy makers should be appointed immediately by the Central Government. From a sociological perspective there is need to organize non-political, non-profit, non-governmental voluntary associations. These organizations should go to the farmers in distress, create awareness about their self dignity, rights, modus operandi of the profit making vested interests and instill a sense of confidence. These bodies can include agricultural experts, intellectuals, social workers, litterateurs and farmers' leaders.

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