



AN ECONOMIC ANALYSIS OF FARMERS' SUICIDE IN KARNATAKA: A CASE STUDY ON DAVANGERE DISTRICT.

Economics

Mr. Anneshi R.

Research Scholar, Department of Studies in Ecoeconomics, Shivagangothri Campus, Davangere University, Davangere-577002, Karnataka.

Dr. N.K. Gowda

Professor, Department of Studies in Ecoeconomics, Shivagangothri Campus, Davangere University, Davangere-577002, Karnataka.

ABSTRACT

Indian peasant is born in debt, lives in debt and dies in debt (During 1929). Today many of the farmers die not in debt but commit suicide due to debt. Indebtedness has long been treated as distress phenomenon. It is indeed so if the debt taken is not used for productive purpose or creation of assets that augment the earning base of the borrowers and instead is used for consumption purposes or marriages and social ceremonies. Debt can also become a distress phenomenon if the borrowers' crop fails due to natural culminant or drought or other unforeseen reasons or if production becomes uneconomic because of high input costs, stagnant technology and lack of remunerative prices which make it impossible for the farmers to repay his loan and interest. Finally, and this is quite common, interest becomes a heavy liability if the loan is taken from non-institutional sources at high rates of interest. The accumulated liability of principal and compound interest can something become crippling and the borrower is forced to mortgage or sell his land losing thereby his only many of livelihood. In some cases, indebtedness and failure to pay can become one of the important causes for farmers suicides.

KEYWORDS

Socio Economic Conditions of suicide farmers, Terms of Agriculture credit.

Introduction

Karnataka, many farmers' are committing suicide. For many rural residents of Karnataka, agriculture is the major occupation. A total of 123,100 sq. km of land is cultivated in Karnataka constituting 64.6% of the total geographical area of the state. Only 26.5% of sown area (30,900sq. km) is under irrigation. In the total state domestic product, the contribution of agriculture is 16.22%. Fifty six percent of work force in the state depends on agriculture (Economic survey, 2011). Agriculture in Karnataka is heavily dependent on the southwest monsoon, since the extent of dry land in the state is second next to Rajasthan.

The farmer is in pathetic weak condition due to incomplete agricultural facility provided. Lack of small irrigation projects, below average rainfall, heavy load-shedding, poverty, pressure of private moneylenders and banks, absence of adequate social support infrastructure at the level of the village, taluk and district.

Agriculture in Karnataka is plagued by many problems; initially, economic problems like lack of credit facilities, lack of marketing facilities, lack of incentives, lack of transport facilities, lack of scientific price, rural indebtedness which make it impossible for the farmers to repay his loan and interest. And this is quite common; interest becomes a heavy liability if the loan is taken from non-institutional sources at high rate of interest. The accumulated liability of principal and compound interest can something become crippling of the borrower in forced to mortgage on sell his land losing thereby its only mean of livelihood. In some cases, indebtedness and failure to pay can become one of the important cause for farmers' suicide.

Further, Natural calamities like, uncertain rainfall, Nature's influence, soil erosion, loss of fertility, pests and crop diseases, destruction of forest, natural calamity or drought or other unforeseen reasons. Also, technical problems like, out dated agricultural techniques in adequate irrigation facilities, lack of fertilizers, lack of improved seeds, lack of pesticides.

The agricultural technology could not offer any satisfactory solution to the problems of poverty, low income, unemployment and wide economic disparity in the rural sector. Farmers are traditionally bounded and do not adopt advanced techniques of production. Improved implements like steel plough, seed drills, water lifts and small pump sets etc. used only on a limited scale. The Indian farmers select the seeds indiscriminately and consequently the yield also becomes poor.

Out-dated implements, inferior seeds and inadequate fertilizers, lack of plant protection measures. In unscientific method of cultivation

contribute to low yield the agriculture high input costs, stagnant technology and lack of remunerative prices which make it impossible for the farmers to repay his loan and interest.

Institutional problems like, uneconomic holding, overcrowding, due to rapid growth of rural population and division of families the farm land has undergone rapid fragmentation.

Social problems like, Social environment, Illiteracy, Ignorance, Superstitions, irrational behavior, caste system, family disputes, adverse effect on social states, daughter and sister marriage and social ceremonies, employment problem of the farmers' children, decreasing interest of the young generation in farming, rapid urbanization, cumulative effect of all these are evident on psyche of the people of Karnataka in general and farmer in particular.

In recent years the cost of production of various crops has been increasing at much faster rate than the rate of increase in the productivity. Due to declining profitability, the loans obtained for investment in machinery irrigation structure, fertilizers and agrochemicals were partly spent for their bare subsistence and for fulfillment of their social obligations. Consequently, they were borrowed fresh loans from non-institutional agencies at higher rate of interest to pay back the old dues. Therefore, the economic factors like decreasing productivity, falling Profits and the social factors like Consumerism, heavy expenditure on social ceremonies.

Objective of the study

1. To study the socio-economic condition of the farmers in Karnataka
2. To analyse the availability of credit for agricultural operations in Davangere district

Methodology

Source of Data: This study relied on both primary and secondary data. To explain the Suicide Farmers' condition in the study area and also to adopt the suitable sampling procedure, secondary data were collected from various governmental departments.

Primary data were used to test the core hypotheses of the study. These primary data are to be collected from the sample respondents.

This study is on socio economic dimension of farmer suicide in davangere district. Therefore farmer who have committed suicide in davangere district constitute the population for the study. I have collected the data on the addresses of the farmer, who have omitted suicide since 1998 from this study area, the 1998 is specifically fixed because 1998 is year in which davangere district has been formed or

established. On the information on the addresses of the farmer suicide has been collected from CRB and from that data it was observed that totally 200 farmer have committed suicide from davangere district for the last 17 years these suicides are the conformed suicides it means which have been in the enquiry it was reported that farmer suicide are genuine so I have selected all the addresses or respondents so it is something like this study like based on census method since number of farmer suicide are not so large census method has been adopted collect information from the families where in suicide have been taken place since the beginning this district. I have visited all the 200 houses but unfortunately 56 respondents families are not found in original addresses they have left their place origin some of them have went in search of job in neibore districts are Bangalore, goa and some families were not found so only I could get some family members of these these selected households only for 144 households therefore I have collected data from the 144 households who are available in davangere district and that to from the family where in some suicide taken place since the formation of davangere district. Therefore this study is based on or this study adopted something like census method to select the sample respondents.

Analytical Techniques

Data collected from these respondents has been transfer to MS excel work sheet for these data some statistical values like arithmetic mean, frequency distribution have been computed and results have been consolidate in the tabular format or the result presented in the tabular format and this method mainly computed arithmetic mean, frequency distribution these are the statistical values that have been computed for the data collected from the respondents and to draw the inference about the hypothesis formulated for this study

The chi-square (χ^2) test: chi square test has been used to test the significance of association between some important variable related to farmer suicide and their socio economic variables.

$$\chi^2 = \sum \frac{(O_i - E_i)^2}{E_i}$$

Where

O_i = Observed frequency

E_i = Expected frequency,

$[(\text{Colum total}) * (\text{Row total})] / [\text{grand total}]$

To draw the inference calculated χ^2 value was compared with table value at $(r-1) * (c-1)$ degrees of freedom where, r & c represent the number of rows and columns respectively. If the calculated value is greater than the table value at the pre-determined level of probability, then the association between the variables considered being statistically significant.

Average or percentage: were used to compute the different farm house holds & farmer suicide and or average or percentage terms.

Result and Discussion

Table No.1: Socio-Economic Conditions of sample Respondents Households

Sl. No.	Particulars	General Information of the families of Farmers' Suicide			
		Small Farmers (110)	Medium Farmers (28)	Large Farmers (06)	Overall (144)
1	Age of the Respondent (Avg)	41.63	41.75	41.50	
2	Literacy Rate	59 (40.97%)	20 (13.88%)	5 (3.47%)	84 (58.33%)
	Illiterate	57 (39.58%)	8 (5.55%)	1 (0.69%)	66 (45.83%)
	Primary (Count)	20 (13.88%)	8 (5.55%)	2 (1.38%)	30 (20.83%)
	Secondary	25 (17.36%)	7 (4.86%)	1 (0.69%)	33 (22.91%)
	College Education	8 (5.55%)	5 (3.47%)	1 (1.38%)	17 (11.80%)
	Total				

4	AYS of Households (Educated count)	5.7498	5.846538	6.992857	6.196404
5	Occupation Pattern				
	Agriculture	62 (43.05%)	27 (18.75%)	5 (3.47%)	94 (65.27%)
	Agriculture Labor	74 (51.38%)	11 (7.63%)	1 (0.69%)	86 (59.72%)
	Government Employ	8 (5.55%)	2 (1.38%)	2 (1.38%)	12 (8.33%)
	Private (Business)	0 (0%)	2 (1.38%)	1 (0.69%)	03 (2.08%)
	Any Other	63 (43.75%)	21 (14.58%)	3 (2.08%)	87 (60.41%)
	Total				
7	Caste of the Respondents				
	SC	17 (11.80%)	1 (0.69%)	0 (0%)	18 (12.5%)
	ST	10 (6.94%)	0 (0%)	1 (0.69%)	11 (7.63%)
	Others	83 (57.63%)	27 (18.75%)	5 (3.47%)	115 (79.86%)
	Total	110 (76.38%)	28 (19.44%)	6 (4.16%)	144 (100%)
8	Pattern of Landholdings				
	Dry	70 (48.61%)	18 (12.5%)	1 (0.69%)	89 (61.80%)
	Wet	25 (17.36%)	6 (4.16%)	5 (3.47%)	36 (25%)
	Dry and Wet	15 (10.41%)	4 (2.77%)	0 (0%)	19 (13.19%)
	Total	110 (76.38%)	28 (19.44%)	6 (4.16%)	144 (100%)

Source: Field Survey

General Information of the families of Farmers' Suicide is given in table 5.1., Among small farmers, average age of sample respondents 41.63, literacy rate was 59(40.97%), Illiteracy rate was 51(35.41%), primary education level was 20(13.88%), secondary education rate was 25(17.36%),college education level was 14(9.72 %).

Among medium farmers, average age of sample respondents 41.75, literacy rate was 20(13.88%), Illiteracy rate was 8(5.55%), primary education level was 8(5.55%), secondary education rate was 7(4.86 %),college education level was 5(3.47 %).

Among large farmers, average age of sample respondents 41.50, literacy rate was 5(3.47%),Illiteracy rate was 1(0.69%),primary education level was 2(1.38%),secondary education rate was 1(0.69 %),college education level was 2(1.38%),

Altogether, among literacy rate was 84(58.33%), Illiteracy rate was 60(41.36%), primary education rate was 30(20.83%), secondary education rate was 33(22.91%),college education rate was 21(14.57 %).

Among average year of schooling, small farmers were 5.7498, medium farmers were 5.846538 and large farmers were 6.992857 and overall 6.196404.

Among small farmers, the occupation was agriculture 62(43.05%), agriculture labor was 74(51.38%), Government employee was 8(5.55%), private sector was 0(0%) and any other was 63(43.75%)., Among medium farmers, the occupation was agriculture 27(18.75%), agriculture labor was 11(7.63%), Government employee was 2(1.38%), private sector was 2(1.38%) and any other was 21(14.58%).

Among large farmers, the occupation was agriculture 5(3.47%), agriculture labor was 1(0.69%), government employee was 2(1.38%), private sector was 1(0.69%) and any other was 3(2.08%).

And overall, the occupation was agriculture 94(65.27%), agriculture labor was 86(59.72%), government employee was 12(8.33%), private sector was 3(2.08%) and any other was 87(60.41%).

Among small farmers, 17(11.80 %), belongs to SC, 10(6.94%) belongs to ST,83(57.63) belongs to others and overall 110(76.38%).. Among medium farmers,1(0.69 %) belongs to SC,0(0 %) belongs to ST,27(18.75%) belongs to others and overall 28(19.44%).. Among large farmers,0(0 %) belongs to SC,1(0.69%) belongs to ST,5(3.47 %) belongs to others and overall 6(4.16%).. All together 18(12.5 %) belongs to SC,11(7.63%) belongs to ST,115(79.86%) belongs to others and total 144(100%).

Among small farmers, farmers with dry land was 70(48.61%) ,farmers with wet land was 25(17.36%),farmers with both dry and wet land 15(10.41%) and total 110(76.38%).. Among medium farmers, farmers with dry land was 18(12.5%) ,farmers with wet land was 6 (4.16%), farmers with both dry and wet land 4(2.77%) and total 28(19.44%).. Among small farmers, farmers with dry land was 5(3.47%) ,farmers with wet land was 1(0.69%),farmers with both dry and wet land 0(0%) and total 6(4.16%).

Altogether, farmers with dry land was 93(64.58%) ,farmers with wet land was 32(22.22%),farmers with both dry and wet land 19(13.19%) and total 144(100%). was 208,medium farmers was 53,large farmers was 10nificant

Table No. 2 : Term of Agriculture Credit among Sample Respondents Households

Sl. No.	Farm Size	Term of Agriculture Credit				χ^2
		Short term	Medium Term	Long Term	Overall	
1	Small Farmers	67 (46.52%)	38 (26.38%)	05 (3.47%)	110 (76.38%)	38.698
2	Medium Farmers	17 (11.80%)	5 (3.47%)	6 (4.16%)	28 (19.44%)	
3	Large Farmers	4 (2.77%)	1 (0.69%)	1 (0.69%)	6 (4.16%)	
4	Total	88 (61.11%)	44 (30.55%)	12 (8.33%)	144 (100%)	

Source: Field Survey

In this table Term of Agriculture Credit among Sample Respondents Households is a important variable which indicates their socio economic status as well as their it influence on the land holding by suicide farmers' therefore classified respondent in to three different strata one is Short term credit and another one is medium term credit and still another one is long term credit which I made classification and also their distribution of the farmers' across these different variable as given separately for the small farmer, medium farmer and large farmers' because farm size is the one which influence on the varies socio economic strata as well as their farming practices and also as well as agronomy practices therefore distribution of the farmer suicide family across the different types of the land as given separately for small, medium and large farmer, small farmer those who are having less than 5 acres of land ,medium farmer those who are having 5 to 10 acres of land still farmer those who are having more than 10 acres of land so consolidated in this table observed that majority of the respondents belongs to small farmer which account third fourth (4/3) of the total respondents and of this (110) majority of suicide farmer Short term credit 67(46.52%) and very little are following medium term credit and long term credit.

In order to test the significance of association between the Farm Size and Term of Agriculture Credit among Sample Respondents Households ' chi-square value has been calculated. calculated chi-square value (38.698) is found to be more than 9.49 for 4 degree of freedom therefore calculated value (38.698) is found to be more than table value or 1% probability level therefore we accepted the null hypothesis the conclusion that there is association between the Farm Size and Term of Agriculture Credit among Sample Respondents Households is statistically significant

Conclusion

The Farmers' suicide from the above-discussion calls for an emphasis on the larger crisis; that of low returns and declining profitability from agriculture and that of poor non-farm opportunities. Risk management in agriculture should address yield, price, credit, income or weather related uncertainties among others. Improving water availability will facilitate diversification of cropping pattern, but this should go hand in

hand with policies that increase non-farm employment. Improving agricultural extension that addresses deskilling because of technological changes and also facilitates appropriate technical know-how for alternative forms of cultivation such as organic farming will be of help. Availability of affordable credit requires revitalization of the rural credit market. There is also a strong case for regulating private credit and input markets. A challenge for the technological and financial gurus is to provide innovative products that reduce costs while increasing returns. Organizing farmers through a federation of self-help groups (SHGs) with government, banks and other stakeholders playing a pro-active role would be welcome. Besides, public institutions, there is need for a greater involvement from the civil society.

References:

1. Deshpande, R.S., and NageshPrabhu, (2005), "Farmer Distress Prof Beyond Question", Economic and Political Weekly, 2.
2. Jeromi P.D. (2007), "Impact of Agricultural Trade Liberalization: Farmers Indebtedness and Studies in Kerala", Indian Journal of Agricultural Economics, Vol.62 (2). 3.
3. Kareemulla. K. (2008), "Bank Credit for Agriculture Versus Farm Indebtedness in Uttar Pradesh", Senior Scientist (Agril. Econ.) National Research Centre for Agro Forestry, Jhansi – January
4. Sharma R.K, Mohanakumar S, (2006), "Analysis of Farmers Suicides in Kerala". Economic and Political Weekly, April. 5.
5. Singh, Sukhpal., (2004) "Crisis and Diverfication in Punjab Agriculture Role of State and Agri business", Economic Political Weekly, December.
6. Vaidyanathan, A. (2006) "Farmers' Suicides and the Agrarian Crisis", Economic and Political Weekly September, Pp, 4009.
7. Narayanamoorthy. A (2006), "Study of India's Farmers", Economic and Political Weekly, February.
8. Vidyasagar, R. andSuman Chandra, K., (2004), "Farmers' Suicides in Andhra Pradesh and Karnataka". Nariond Institute of Rural Development, Hyderabad, P.133.