

Livelihood Pattern of Suicide Farmers of Vidarbha Region

N.M. Kale¹, S.R. Khonde² and U.G. Thakare³

Introduction

In recent years, a larger agrarian crisis, particularly in low rainfall and low irrigation tracts of Vidarbha region of Maharashtra has precipitated a spate of suicide deaths among farmers. This is a matter of serious concern and has been drawing wide attention among the policy makers. As per Government records a total of 2616 farmers committed suicide during 2001 to 2006 in six districts of Vidarbha region viz; Yavatmal, Buldana, Amravati, Akola, Washim from Amravati revenue division and Wardha from Nagpur revenue division.

As suicide is a complex social and psychological phenomenon, identification of relevant factors chiefly responsible for suicides in Vidarbha region of Maharashtra and zeroing down to the specific factor is a big question. Many factors combine to cause one particular individual to divert his aggression upon himself in the form of suicide. While neurobiological risk factors are inherent, the socio economic dimensions of risk factors that are external to the individual can be identified.

For the current research study on farmers' suicides, research methodology for assessing the livelihood pattern of an individual deceased farmer and his family members was formulated with the following objectives:

1. To find out the annual income of the victims from all sources and their share in total income
2. To study the expenditure pattern of the farmers who have committed suicide.

Methodology

The present study is based on exploratory design of Social Research and carried out in six districts of Vidarbha region of Maharashtra where percentage of farmers' suicide was found relatively more than in other districts. These districts were Yavatmal, Washim, Buldana, Akola, Amravati from Amravati revenue division and Wardha from Nagpur revenue division.

¹Associate Professor, Department of Extension Education, PGI, Dr. PDKV, Akola

²Ex-Director of Extension Education, PGI, Dr. PDKV, Akola

³Research Associate, Department of Extension Education, PGI, Dr. PDKV, Akola

In this study the respondents were the households of selected victims who have committed suicide during 1st January 2006 to 31st December 2006 and were declared as legal victims by a district level committee headed by the Collector of the respective district and were the recipients of compensation amount of Rs. 1 lakh. The time period 1st January to 31st December 2006 was selected purposively since it coincided with the maximum number of suicides that have occurred in the aforesaid districts.

Two stage sampling technique was adopted in the present study. The first stage involved contacting the Collectorates in the selected districts and obtaining the complete list of farmers who have committed suicide during 1st January to 31st December 2006. Out of the total 1448 suicide cases in the selected six districts, 874 cases were declared as illegal and 574 cases were declared as legal victims. The final stage involved selection of 200 victims, on proportionate random sampling method, out of 574 legal suicide cases in the six districts.

As suicide is a sensitive social issue, the investigation needs to be carried out in a very guarded and careful manner, and without hurting the sentiments of the family. Data were collected by personal interview method with the help of a specially designed structured interview schedule. Interview was conducted at the residence of the 200 respondents to review the over all situation of the family by the researcher. The data was collected for the agricultural year 2005-06.

Results and Discussion

The results and discussion are presented under different heads viz; livelihood pattern, livelihood sources of the victims and their share in the income, expenditure pattern of the households and; the gap between income and expenditure.

Livelihood pattern

Livelihood defines the means of living or sustenance of an individual. In Vidarbha, farmers' have been committing suicide over the last five years. In the present study, it was assumed that, the unsustainable livelihood pattern was the root cause of the suicides. Hence this is an important aspect of the present study which indicates the livelihood status of an individual deceased farmer.

In the present study, the livelihood pattern of the victim and his households refers to the engagement of the victim and his households in different livelihood sources or occupations or employment and income generated through it, with their annual expenditure on various items. The data with regard to the livelihood pattern have been furnished in detail in Tables 1 and 2.

Table 1. Distribution of victim households according to their Livelihood sources and their Income (2005-06)

(Rupees in 1000's)

S. No.	Land size.	No. of victims	Livelihood sources and annual income															Total Income
			Agriculture			Allied occupations			Wage earning			Non professional business			Service/Pension			
			No	Income	Share	No	Income	Share	No	Income	Share	No	Income	Share	No	Income	Share	
1.	Upto-1 Ha.	47 (100)	47	301.20	37.65	0	0	0					43.00	5.37	1(2.13)	39.40	4.92	800.10 100.00
2.	1.01-2 Ha.	87 (100)	87	1235.10	57.46	2 (2.30)	72.00	3.35	64 (7.56)	701.30	32.63	7 (8.05)	117.00	5.44	1 (1.15)	24.00	1.12	2149.40 (100.00)
3.	2.01-4.00 Ha.	41 (100)	41	910.10	75.46	0	0	0	26 (63.41)	225.90	18.73	2 (4.88)	46.00	3.81	1(2.44)	24.00	1.99	1206.00 (100.00)
4.	4.01-10.00 Ha.	25 (100)	25	1255.70	87.86	0	0	0	8 (32.00)	53.50	3.74	1 (4.00)	60.00	4.20	1 (4.00)	60.00	4.20	1429.20 (100.00)
	Total.	200 (100)	200	3702.10	66.29	2 (1.00)	72.00	1.29	141 (70.50)	1397.20	25.02	13 (6.50)	266.00	4.76	4 (2.00)	147.40	2.64	5584.70 (100.00)

No: Number of households., Share:- Relative share in total income of respective size class. (Percentage)
 Figures in parenthesis indicate the percentage to total victims' households in respective size class

Livelihood Sources of the Victims and their share in Income (2005-06)

As livelihood sources of the peasant community mostly depend on size of the land holding, the distribution of the selected victims and their households, according to their livelihood sources and their income from respective sources, has been analysed according to their land size groups. The data may be seen in Table 1.

It can be seen from the table that the suicides were most prevalent (43.50 per cent) on small farms followed by 23.50 per cent on marginal farms, 20.50 per cent on medium farms and 12.50 percent on large farms.

The avenues of livelihood were from five sources viz; agriculture, allied occupations, wage earnings and non professional business and service / pension. The total annual income derived from the different sources revealed no significant relationship with land size. The total annual income was the lowest (Rs. 800.10) on land size up to one hectare and highest (Rs. 2149.40) on land size between 1.01 to 2 hectares. The same was Rs. 1206 and Rs. 1429.70 on land size of 2.01 to 4 hectares and 4.01 to 10 hectares respectively. Although the total annual income was maximum (Rs. 2149.40) on land size of 1.01 to 2 hectares, the highest suicides accounting to 43.50 per cent were evidenced in this category.

The above analysis reveals the complex and jinxed livelihood system existing in the region. The results indicate that across the different land sizes, the major source of income contribution was from agriculture. For the sample as a whole, agriculture contributed to 66.29 per cent of the total income. Between the land sizes, it ranged from 37.65 per cent on land size of up to one hectare to 87.86 per cent on land size of 4.01 to 10 hectares. The same was 57.46 and 75.46 per cent on 1.01 to 2 hectares and 2.01 to 4 hectare land size groups respectively.

The wage earning formed the next major source of income accounting for 25.02 per cent of the total sample. The data revealed that 70.50 per cent of the total sample depended on wage earnings. The land size-wise analysis indicated 91.49 per cent, 73.56 per cent, 63.41 per cent and 32.00 per cent of the respondents in the different land sizes viz; up to one hectare, 1.01 to 2 hectares, 2.01 to 4 hectares and 4.01 to 10 hectares respectively depended on wage earnings for their sustenance.

The land size-wise analysis revealed an inverse relationship of income generation from wage earnings. It was 52.06 per cent, 32.63 per cent, 18.73 per cent and 3.74 per cent respectively on the land size of up to one hectare, 1.01 to 2 hectares, 2.01 to 4 hectares and 4.01 to 10 hectares.

The other sources of income from allied occupations, non professional business and service / pension altogether was less than 10.00 per cent across the different land size groups. However, their contribution to income was very meager.

It can be summarized that agriculture and wage earnings are the chief sources of income of the respondents in the study area and the social wellbeing of the respondents primarily depended on the outcome of the above said activities.

The other sources of income, be it from allied occupations, non professional business and service / pension were not contributing much to the total income derived by the respondents.

Majority (63.88%) of the deceased farmers were cultivators and agricultural labourers and only one victim was dependent on agriculture and livestock for livelihood security.

This calls for a comprehensive / holistic intervention by the Government / Policy Planners for a realistic sustainable action plan so as to enhance the income of the individual households which can prevent the farmers from committing suicides.

Expenditure Pattern

The details pertaining to expenditure incurred by the respondents on different items are presented in Table 2.

Table 2. Annual Expenditure pattern of the Victim Households on different Items (Years 2005-06)

(Amount in Thousands)

Sl. No.	Items	Up-to 1 Ha. (Marginal)		1.01-2 Ha (Small)		2.01- 4 Ha. (Semi-medium)		4.01- 10 Ha. (Medium)		Total	
		Amount	Percentage	Amount	Percentage	Amount	Percentage	Amount	Percentage	Amount	Percentage
1	Food	848.20	71.25	1862.40	60.41	985.60	64.72	714.20	43.89	4410.40	59.41
2	Clothing	75.000	6.30	181.30	5.88	108.20	7.10	95.80	5.89	460.30	6.20
3	Housing	0.700	0.06	27.00	0.88	0.00	0.00	28.10	1.73	55.80	0.75
4	Education	47.35	3.98	75.00	2.43	62.40	4.10	121.80	7.48	306.55	4.13
5	Health	105.40	8.85	364.70	11.83	137.80	9.05	149.00	9.16	756.90	10.20
6	Traveling	43.30	3.63	94.95	3.08	62.50	4.10	71.20	4.38	271.95	3.66
7	Lighting	28.86	2.42	84.14	2.73	55.46	3.64	48.92	3.01	217.38	2.93
8	Religious functions	37.10	3.12	339.40	11.01	46.80	3.07	103.40	6.35	526.70	7.09
9	Agriculture	0.43	0.04	29.85	0.97	57.30	3.76	246.45	15.14	334.03	4.50
10	Taxes	4.17	0.35	12.42	0.40	6.89	0.46	7.24	0.44	30.72	0.41
11	Others	0.00	0.00	12.00	0.38	0.00	0.00	41.30	2.53	53.30	0.72
12	Total	1190.51	100.00	3083.16	100.00	1522.95	100.00	1627.41	100.00	7424.04	100.00

The pattern of expenditure indicates the standard of living of the individual and also the capability of the individuals for capital formation in agriculture.

In the present study, it was assumed that those who had committed suicides in Vidarbha region incurred higher expenditure over their realized income. They might have perhaps been under severe financial stress to met the obligatory expenditure and perhaps have resorted to suicides.

The data reveals that the maximum expenditure across different farm size categories was incurred towards food. It was 59.41 per cent for the sample as a whole. Between the farm size groups, it ranged from 43.89 per cent on medium farms to 71.25 per cent on marginal farms. The same was 60.41 and 64.72 per cent on small and semi-medium farms respectively.

The expenditure on health was 10.20 per cent for the sample followed by expenditure on religious functions (7.09 per cent), clothing (6.20 per cent), agriculture (4.50 per cent), education (4.13 per cent), traveling (3.66 per cent) and lighting (2.93 per cent). The expenditure on housing, taxes and others put together were nearly 2 per cent.

It can be concluded that the respondents spend a considerable amount of their total expenditure towards food. The magnitude of expenditure incurred by the individual farm size groups suggests that they seem to consume food for their survival sans balanced diet. This is a very precarious scenario since it indicates ill balanced food dietary constituents thus resulting in mal nourished individuals.

The pattern of expenditure on health though not very alarming is an indicative symptom of decline in immunity on account of the poor nutritional aspects.

There is need for immediate intervention by the Government to intensify the existing food and health related programmes to check malnutrition and likely health hazards. This can go a long way in improving the life span of the people.

The expenditure on agriculture, education, traveling and lighting were 4.50 per cent, 4.13 per cent, 3.66 per cent and 2.93 per cent respectively, while share of expenditure on housing (repairs/construction), taxes and others were noted to be very negligible. Critical examination of the data shows that marginal farmers (land upto 1.00 ha) spend more than 70.00 per cent (71.25 per cent) on food only; while in the small farmers group it is evident that along with food (60.41 per cent) their maximum expenditure was noted on health (11.83 per cent) and religious functions (11.01 per cent).

Gap between Income and Expenditure of the deceased Farmers

The gap between income and expenditure of the deceased farmers was analysed, for demonstrating the income and expenditure status of the deceased farmers. The study revealed that in a majority of cases, expenditure was found more than their annual

income. The income gap is computed as the excess expenditure incurred by the victim as against his annual income. The gap is considered 'nil' if the gap between expenditure and income is zero or if the income is greater than the expenditure. The details are presented in Table 3 wherein the distribution of the victims in accordance with the gap existing is classified as per the range of gap.

Table 3. Distribution of selected victims according to the identified gap between Annual Livelihood Income and Expenditure

Sl. No.	Gap Range in Rs.	Number of Victims	Percentage
1	No Gap	24	12.00
2	Upto 3000	29	14.50
3	3001 to 6000	32	16.00
4	6001 to 9000	42	21.00
5	Above 9000	73	36.50
	Total	200	100.00

Average Gap = Rs. 9196

It is evident from the table that there was wide variation in the income gap prevailing for the sample. As much as 88.00 per cent of the respondents had an income gap ranging from upto Rs. 3000 to above Rs. 9000. A closer perusal of the table indicates that 36.50 per cent of the victims had an income gap of Rs. 9000 and above, followed by 21.00 per cent in the income gap of Rs. 6001 to 9000, 16 per cent in the income gap of Rs. 3001 to 6000 and 14.50 per cent in the income gap of up to Rs. 3000.

On the contrary, around 12 per cent of the victims had no income gap indicating that they were forced to curtail their expenditure in accordance with their income.

It can be summed up that the extent of suicides were higher on the income gap prevailing situations. This warrants for appropriate micro level policy implications to create alternative employment opportunities for enhancing the livelihood security system to curtail the extent of suicides.

Conclusion

Thus, it could be concluded that overall agriculture (66.29%) with wage earning (25.02%) is the major livelihood source of deceased farmers and contributed to total 91.31 per cent share in their total annual income. There are quite a few cases where the victim's families earned their livelihood by engaging in subsidiary occupations to supplement their income. The average annual income of all the selected households comes to Rs. 27924. Of the total expenditure of overall deceased farmers, the expenditure on food occupies the largest share (59.41 per cent), followed by expenditure on health,

religious functions and clothing which is 10.20, 7.09 and 6.20 per cent respectively. The average annual expenditure of the selected victims was estimated at Rs. 37,120. Here it is shocking to note that the average annual expenditure of the deceased farmers was found higher, than the annual income by Rs. 9196. This is due to the low income of 88 per cent of the victims to fulfill the essential family expenditure hence there exists an income gap. From the data it is also clear that as income gap increases, the suicide rate increases and hence it is clear that the present spate of suicides in Vidarbha is due to an economic crisis.

This study suggests that the situation can be improved, if economic empowerment is ensured by creating subsidiary occupations in the study area. It is observed that 99 per cent respondent suicide victims had no subsidiary occupations to support their livelihood and a majority of them have medium to large family size. This implies that efforts are needed by respective line departments to involve such farmers in watershed based activities, development of social overheads in agriculture and allied activities viz., horticulture, soil conservation activities, dairy enterprise and poultry (backyard poultry and small dairy units for nutritional security), sheep and goat rearing etc.

The policy measures should be focused on appropriate micro level planning to ensure for provision of employment to wean away the farmers from committing suicides. This would be a very effective way to uplift the distressed poor farmer families to an economically strong position.

References

- Durkheim, E. 2002. (first published in French in 1897). *Suicide*. London and New York, Routledge Classics.
- Madan, G.R. 1980. *Indian Social Problems, Volume-I*. New Delhi, Allied Publishers Private Limited.
- Mann, J. 2002. A current perspective of suicide and attempted suicide. *Annals of Internal Medicine*. Vol. 136. pp 302-311.
- Rauscher, W.V. 2000. *To be or not to be: A pastoral view of suicide in today's world*, Xlibris Corporation.
- Singh, K. A. 2005. Suicide by farmers in Andhra Pradesh - An analysis. *Agricultural Extension Review*. May-June. Vol. 17(3):pp 21-23.
- Dandekar, A., S. Narawades, R. Rathod; R. Ingle; V. Kulkarni and Y.D. Sateppa (2005). *Causes of farmers suicides in Maharashtra : An Enquiry, Final Report Submitted to the Mumbai High Court, Tata Institute of Social Sciences, Rural Campus, Tuljapur*.