



**AN EMPIRICAL STUDY OF
ECONOMIC DISTRESS AMONG SUICIDE VICTIM FARMERS
OF MARATHWADA REGION OF MAHARASHTRA**



Dr. Hari Pandhari Wangarwar,

Assistant Professor in Economics,

B.Y.K. (Sinnar) College of Commerce, Nashik- 05, MS, India

Email: haripinkey@gmail.com

ABSTRACT

Agriculture is the major source of employment and livelihood in Marathwada region of Maharashtra. However, farmers are suffered from economic distress and large numbers of farmers are committing suicide in same region. This paper mainly focuses on socio economic situation of suicide victim farmer households of Marathwada region. An increasing number of small and marginal

operational holdings, rainfed and seasonal nature of agriculture sector have creating many issues in farm sector. The income generated through farming is unable to meeting the consumption expenditure of suicide victim households. A per capita income of more than 59 percent selected suicide victim farmers was found less than below poverty line and 31 percent had maximum double of

below poverty line (BPL). Therefore, large number of farmers had taken loan for meeting the expenses of consumption and large number of farmers committed suicide for permanent outcome from the pressure of money lenders and bank officials. Therefore, focus of government should be improving standard of living of

farmers by providing easy employment opportunities through extension of subsidiary business and cottage industries than immediate relief to victim farmers.

Keywords : farmers' suicide, agriculture, income, below poverty line, indebtedness, distress

RESEARCH PAPER

An issue of farmers suicide have been discussed intensively and extensively by media and social, economic and political thinkers since beginning of 21st century in the state of Maharashtra, Karnataka, Andhra Pradesh, Punjab, Kerala of India.¹ As well as central and state governments have formed many inquiry committees to ascertain the causes of agrarian crisis and farmers suicide and suggesting measures for preventing suicide epidemic.² A brief review of issues indicates that the dependency of rural community is solely on agriculture sector rather farm business, scarcity of irrigated water, reduction in size of operational holding and increasing number of marginal and small land holders, higher proportion of farm families having income lower than subsistence level, crop failure,

high indebtedness and pressure of banks and private money lenders on farmers are largely responsible for increasing distress and frustration among farming community in major suicide prone states of India. These factors are largely affected survival of farmers' rather small and marginal farmers. The study of farmer's suicide is complex and complicated phenomenon to ascertain psychology of suicide victim because it depends on information provided by family member while nature of farming to be diversified in any particular region. The present study is based on the field survey conducted in Marathwada region of Maharashtra with the objective of ascertain socio economic status of suicide victim farm families. Here, Nanded and Beed districts were chosen for survey of suicide victim.

Villages and suicide cases are selected according to list of suicide victim farmers provided by department of disaster management and Rehabilitation of respective districts.³ A data of 89 suicide victim households spread across 61 villages have been collected and found the economic status of suicide victim and indebtedness.

This paper is subdivided into two parts. Part first consists with suicide scenario. The second part related to micro level study of suicide victim families including farming activity, annual income, indebtedness and factors responsible for increasing economic distress.

Suicide scenario:

More than 22 lakh people were committed suicide during 20 years period of 1995-2014 all over India. In terms of gender composition, a male suicide comprises comparatively large share in total suicide in India.⁴ The

share of male suicide was 58.5 percent in 1995 and increased up to 67.7 percent in 2014. Therefore, male suicide rate has increased from 12.5 percent to 14.1 percent and female suicide rate has been declined from 8.5 percent to 8.1 percent during 2001-2011 period (see table 1). An issue of suicide epidemic is more serious in Maharashtra. The number of peoples committed suicide in state were 2.79 lakh during 1995-2014 that contributed 12.2 percent in total suicide of nation but accounted 9.4 percent geographical area and population. Further, percentage of male suicide in total suicide has continuously higher in Maharashtra than all India. It had 63.9 percent in 2001 and 72.5 percent in 2011 in Maharashtra. Similarly, suicide rate of male and female is also comparatively higher than all India suicides rate in Maharashtra (see table 1).

Table: 1

General suicide rate and farmers' suicide rate by gender in India and state of Maharashtra

General Suicide Rate	All India			Maharashtra		
	Male	Female	Total	Male	Female	Total
2001	12.5	8.5	10.5	18.5	11.4	15.1
2011	14.1	8.1	11.2	18.6	9.4	14.2
Farmers Suicide Rate ⁵						
2001	16.2	6.2	12.9	44.08	11.5	29.9

2011	14.6	5.4	11.8	40.7	4.9	26.5
------	------	-----	------	------	-----	------

Source: (i) Census of India 2001, 2011 (ii) Accidental deaths and suicides in India 1995-2014, National Crime Records Bureau, New Delhi (iii) Agricultural Statistics at a Glance- 2012, 2014, Ministry of Agriculture, Government of India.

However, suicides among farming community is become serious issue in some major states of India and it spread rapidly all other states of nation. More than 3.08 lakh farmers were committed suicide all over India and 62700 in Maharashtra during 1995-2014, that contributed 13.5 percent and 22.5 percent of total suicides of India and Maharashtra respectively. The number of farmers' suicide has been rapidly growing in Maharashtra than all over India. The total number of farmer suicide in state increased from 1083 in 1995 to 4453 in 2006. As well as relative share of farmer suicide to total suicide has increased from 9.1 percent to 28 percent during same period. It is important that the suicide rate among female farmers have been lower than male all over India and Maharashtra and it indicated declined trend of female farmers' suicide. However, the issues of farmers' suicide have not been spread equally all over Maharashtra. Most of the farmers were committed suicide in

Vidarbha region and followed in Marathwada region of Maharashtra. Osmanabad and Nanded districts of Marathwada have been selected by planning commission as less agriculturally developed and most distressed districts.⁶ **Micro level study of suicide victim families:**

Farming is the main business of people in Marathwada region. Despite of 02 suicide victim, all other victims had agricultural land and cultivating farm. It is found that 78.6 percent suicide victim had marginal and small farmers and only 21.4 percent were medium and large farmers. The percentage of marginal and small farmers was at 81.6 in Nanded district and 75 percent in Beed district. The average size of operational holding of selected victim farmers had 1.8 ha further, it had 0.67 ha of marginal farmers and 1.55 ha of small farmers. It clearly supports to suicide epidemic among marginal and small farmers is found more in many states of India (Deshpande 2002, Mishra 2006).

Table 2: Size of land holding of selected suicide victim

Size of land holding (1)	Number of farmers (2)	Average Size (acre) (3)	No. of Irrigated farmers (4)
Landless Farmers	02 (2.2)	-	-
Marginal Farmers	29 (32.6)	0.67	00
Small Farmers	41 (46.1)	1.55	10 (24.4)
Small and marginal	70 (78.6)	1.2	10 (14.3)
Medium and Large Farmers	17 (21.4)	4.5	03 (17.6)
Total samples	89 (100)	1.52	13 (14.6)

Source: Field Survey

Note: figures in Parenthesis in column 2 represents percentage to total number of farmers and in 4 represents to percentage of respective class (column 2).

Large number of victim farmer families was rainfed cultivators. Only 13 suicide victims had irrigation access. Therefore, most of the farmers were dependent on rainfall for cultivation. Similarly, Beed district is coming under the dry belt in Maharashtra.

The respondents of suicide victim families reported major three crops according to proportion of land using for particular crop. Marathwada is famous for cotton cultivation. It is

found that four suicide victim families had already leaved farm business due to lack of able member for doing farm business. The number of victims had cultivated single crop were 26 (31.3 percent), two crops 09 (10.8 percent) and three or more crops were 52 (62.6 percent) leaving 6 victim families in Marathwada region. Here, researcher has categorised crops as major first, second and third crop according to proportion of land used for particular crop of each victim family.

Table 3: Major crops cultivated by suicide victim

Crop	First	Second	Third	Total
Cotton	61	13	0	74
Soybean	21	31	15	67
Tur	0	02	10	12
Gram	0	0	8	08

Wheat	0	0	6	06
Jowar	0	11	03	14
Bajara	0	0	05	05

Source: Field survey

Cotton, soybean and jowar were major crops of victim farmers in Marathwada region. According to number of farmers cultivating crop, cotton is producing 74 (89.1 percent), Soybean (80.7 percent), jowar (16.9 percent), and tur 12 (14.4 percent). Similarly, victim using largest cultivable land for cotton cultivation was 61 (73.5 percent) and soybean 21 (25.3 percent). It means cotton is the major crop by land using in Marathwada (see table 3). Cotton has been adversely affected economic status of farmers due to low cost benefit ratio (NCF 2004).

Annual income of victim farmers' households:

The small and marginal farmers are playing dual role as a farmer and labour in rainfed region and income as agricultural labour has a significant share in total income of farmers (Selvaraj & Ramasamy 2006). The reported average annual income of selected suicide victim farmers from main business had Rs. 46390 and Rs. 14570 from secondary business and Rs. 60970 total average income. It is almost Rs. 167 per day. However, average income of different size of operational holders has been found varying in district (see table 4).

Table 4: Average Annual income of victim families during 2011-12

Item	No. of Farmers	Average Income from main business (Rs.)	Average Income from secondary businesses (Rs)	Total Average Income (Rs)	Per hectare income
landless farmers	02	34000	-	34000	-
Marginal farmers	29	25090	14290	39380	14850
small farmers	41	37630	18500	56140	9704

Medium and Large farmers	17	105290	7290	112600	9323
All Farmers	89	46390	14570	60970	10321

Source: Field survey

Note : per hectare income is consists with only farm business.

The average annual income of land less suicide victim farmers was found lowest among the suicide victims. Similarly, table 4 represents that the size of land holding is positively correlate to the average income and negative correlation between per hectare yield and size of land holding. A per hectare income of marginal victim farmers was found higher than all other victim farmers. A per hectare

average income of marginal farmers was 53 percent higher than small farmers and 59 percent higher than medium and large farmers. However, income generated by marginal farmers is unable to fulfil subsistence expenditure. Consequently, farmers do not invest money in farm development rather most of the marginal farmers were taken loan for consumption purpose among selected victim.

Table 5

Classification of selected victim farm families according to per capita income

Income Group (Rs.)	No of Farmers
Less than 11660	53 (59.5)
11661-17500	23 (25.8)
17501-23330	05 (5.6)
More than 23330	08 (9.0)
Total Farmers	89(100)

Source: field survey

Note: figures in Parenthesis represents percentage to total number of victim families..

Table 5 represents per capita income of selected suicide victim families and classified by BPL criteria.⁷ Large number of farmers received income from crop cultivation is less than below poverty line (Dev 2009, Singh 2013). Almost 60 percent victim

families had income below poverty line, 26 percent up to 50 percent more than BPL and only 14 percent families had more than double of below poverty line. It is found that a declining size of operational holding, increasing dependency on marketable inputs, high

prices of inputs, higher wages, commercialisation of agriculture and dependency on market captured by middleman chain affected the income of farmers.

Indebtedness among suicide victim:

Burden of debt is universal and crucial problem among farmers in India. Indebtedness was found major cause of farmers' suicide in many regions of India (Satish 2006, Vikhe Patil 2008). Crop failure, dominant position of money lenders and high rate of interest charged by them, unproductive use of loan, subsistence expenditure over income, dependency on market based input are found basic causes of

increasing burden of debt (Satish et al, Reddy & Gulab 2006). According to NSSO report 46 percent cultivators and 29 percent non-cultivator households were indebted all over India and average outstanding debt of cultivator households was found to be Rs. 70580 and Rs. 25741 of non-cultivators as on 30th June 2012. Similarly, 56 percent cultivators and 22 percent non cultivators were indebted in Maharashtra. The average amount of debt and average outstanding loan per cultivators was Rs. 68532 and Rs.122818 respectively. It is also found that large number of suicide victim was indebted.

Table 6: Number of indebted victim families prior commits suicide

Item	Selected suicide victim (1)	No. of victim having institutional loan (2)	No. of victim having non institutional loan (3)	Total number of indebted victim (4)	Average outstanding amount (Rs.) (5)
Landless farmers	02	1 (50)	01 (50)	02 (100)	120000
Marginal	29	20 (69)	17 (59)	28 (96)	52285
Small farmers	41	33 (80)	23 (56)	40 (97)	126525
Medium and Large farmers	17	14 (82)	9 (53)	15 (88)	105333
All farmers	124	68 (76.5)	50 (56)	85 (95)	98176

Source: field survey

Note: figure in the parenthesis of column 4 represents percentage to column 1 and figures in parenthesis of column 2 and 3 represents percentage to column 4.

Of 89 selected farmers, 85 (95 percent) had outstanding loan. A frequency of institutional loan was 68 (76 percent) and 50 (56 percent) of non-institutional

loan. Thus average number of loan frequency with outstanding debt among victim was 1.3 in Marathwada. The number of victim farmers had loan of cooperative banks was 37 and 31 of commercial banks (see table 6).

Here researcher has divided suicide victim farmers by size of land holding and ascertain that there is a positive relationship between size of land holding and number of victim having institutional loan and amount of outstanding loan. Similarly, there is found negative relationship between size of land holding and number of

victim had non institutional loan and positive relationship between size of land holding and number of non-institutional victim debtor. A single landless victim, 69 percent marginal victim's, 80 percent small farmers and 82 percent medium and large farmers had institutional loan. It is important that most of the farmers had taken loan for farming and one for non-farm business. The average institutional outstanding debt was Rs. 70690 of selected victim.

Table 7: Source of institutional and non-institutional loan and indebtedness

Item	Institutional			Non Institutional				
	Cooperat ive Bank	Commer cial Bank	Avera ge debt Rs.	Frien ds	Relati ves	Saw ar/ Trade rs	Other includi ng SHG	Avera ge debt (Rs.)
Landle ss farmer s	01	00	40000	0	0	01 (50)	0	20000 0
Margi nal	13	07	32400	1	02	12 (70)	02	48000
Small farmer s	14	19	95880	0	05	17 (74)	01	82480
Mediu m and Large farmer	09	05	68210	02	02	05 (55)	00	69440

All farmers	37	31	70690	03 (6.0)	09 (18)	35 (70)	3 (6.0)	70760
-------------	----	----	-------	-------------	---------	------------	------------	-------

Source: field survey

Note: figure in the parenthesis represents percentage to total selected victims

The 50 (56 percent) suicide victims had non institutional loan. It is also found that 70 percent non institutional debtor had loan of sawkars or traders, followed 18 percent of relatives. However, rate of interest levied by sawkars and traders was comparatively too much higher. A rate of interest reported by 16 victims was 3 percent per month and 17 were 5 percent per month. This supports to sawkars and traders have a dominant place in rural economy and largest number of

victims was exploited by them (Mishra et al 2006).

The average outstanding loan of selected suicide victims had Rs. 98176. It is found that there is also positive relationship between size of land holding and amount of outstanding debt. Similarly, it is found average debt of victims has been higher than the average income of landless, marginal and small farmers in Marathwada region (see table 4 and 6).

Table 8: Purpose of non-institutional loan reported by victim families

Sr. No.	Purpose of loan	Number of victim (N=50)
1.	Capital expenses for farming	03
2.	Current expenses for farm business	18
3.	Nonfarm business	0
4.	Consumption	03
5.	Marriages & Ceremonies	21
6.	Education	02
7.	Health	02
8.	Loan Repayment	0
9.	Other	01

Source: field survey

Table 8 represents purpose of non-institutional loan of victim families. It is found that 46 percent victims had

taken private loan for productive purposes like current & capital expenses of farm business. However,

36 percent were taken loan for meeting the current expenses of farm business. It indicates large number of farmers had not been capacity to pay wages and miscellaneous expenses during crop season due to insufficient supply of loan by banks. Similarly, 40 percent victim had taken loans for meeting the expenses of marriages and ceremonies.

In short, lack of credit supply for current expenses of farm business and low level of income, heavy expenses on hospital leads farmers towards the informal loan. Consequently, large numbers of farmers are in distress in India particularly in Marathwada region.

Table 9: Causes of indebtedness

Sr. No.	Causes	No of victims (N=85)
1.	Poor financial position	53
2.	Higher dependency ratio	42
3.	Crop failure	36
4.	Illness	8
5.	High rate of Interest	20

Source: field survey

Table 9 depicted causes of indebtedness. It is found that two or more number of factors was responsible for heavy indebtedness among victim families of Marathwada region. An average 1.8 numbers was causes of indebtedness. Almost 17 cases reported three, 36 cases two causes and 32 single cause of indebtedness. However, poor financial position, high dependency ratio and crop failure were largely affected economic situation of farmers and less number by high interest rate and illness. It indicates farming sector in Marathwada region is unable to

generating sufficient income for better survival of farmers. It leads to poor financial position, increasing debt burden and finally commit suicide.

Factors responsible for economic distress among farmers of Marathwada region:

An increasing epidemic of suicide among farmers could not found due to single reason. It is the result of multiple factors. However, rainfed farming, unviable size of land holding, uncertain rainfall and crop failure, seasonal nature of farming, high production cost in cotton farming, absence of supplementary business,

lack of industrialisation, distortion of cotton spinning Mill, lack of railway transportation, low rate of migration, lack of employment opportunities etc. are the basic causes of economic distress among famers in Marathwada

region. Similarly, agriculture policy, exploitation of traders and commission agents are general causes of distress. Table 10 depicted the reported causes of suicide by victim family member.

Table 10:

Causes of suicide reported by victims family member during field visit

Sr.	Causes of suicide	Number of cases reported (N=89)
1.	Debt burden	85
2.	Poor financial position	53
3.	Higher dependency ratio	42
4.	Crop failure	36
5.	Unviable land holding	70
6.	Social stigma	04
7.	Pressure of recovery of loan by banks and money lenders	42
8.	Court cases	01
9.	Family Dispute	14
10.	Addicting of Alcohol	14
11.	Depression/ illness	08
12.	Non-cordial marital relation	02
13.	Property dispute	00

Source: field visit survey

It is found that multiple number of factors are affected the survival of farmers, indicating average 4.2 factors are responsible for suicide in Marathwada region. However, 95 percent victim families reported debt burden, unviable land holding 70 (78.6 percent), poor financial position 53

(59.5 percent), high dependency ratio 42 (47 percent) and pressure of bank officers and money lender 42 (47 percent) and remaining factors had low impact.

Conclusion and Suggestions:

Large number of farmers committed suicide in Marathwada. It accounts more than 13.6 percent farmers suicide of Maharashtra. Rainfed nature of agriculture and lack of employment opportunities during lean season of farming has adverse impact on income of farmers. Similarly, 78 percent farmers are marginal and small among selected victim. Therefore, the income generated through farming and agriculture labour was unable to meeting the needs of family in region. The per capita income of 59.5 percent selected suicide victim farmers was less than below poverty line and 31 percent had maximum double of below poverty line. Consequently, large

number of farmers had taken loan from the private money for crop cultivation and family expenditure purpose. These farmers don't have the capacity to repay loan. Almost 95 percent victim families were indebted and average frequency of loan was 1.26. Moreover, the outstanding amount of marginal, small victim was much more than annual income in Marathwada region. Government should try to increase the income of rural people in Marathwada through development of subsidiary business, industrialisation and irrigation expansion than employment generation through employment guarantee act and financial supports to victim families in rural areas.

NOTES:

¹Behare P. & Bhise M. (2009), Dhobale V. (2009), Epper V (2009), Talule D (2013), Mene T (2013), Kulkarni R. (2013) on farmers suicide in Maharashtra

²National farmers commission (2004) Fact findings team of Planning Commission (2006), TISS (2005), IGIDR (2006), Report of Narendra Jadhav (2008)

³The list contains name, address and date of suicide committed by suicide victim during 2001-2011.

⁴Durkheim has represented male suicide rate is always higher than female suicide in the world.

⁵Farmer's suicide rate is suicide of farmers per lakh main and marginal farmers.

⁶List is taken from Action plan to Address Agrarian Distress in India published by NABARD in 2008.

⁷Monthly per capita consumption expenditure of Rs. 972 in rural areas and Rs. 1407 in urban areas is treated as the poverty line at the all India level. This implies a monthly consumption expenditure of Rs. 4860 in rural areas or Rs. 7035 in urban areas for a family of five at 2011-12 prices declared by the “ **Expert Group to Review the Methodology for Measurement of Poverty**” appointed by planning commission under the Chairmanship of Dr. C. Rangrajan.

REFERENCES

- Assadi, Muzaffar (2006), 'Agrarian Crisis and Farmers' Suicide in India: Dimension, Nature and Response of the State in Karnataka', Indian Journal of Labour Economics, 49 (4): 791-811.
- Behare, P and M Bhise (2009), 'Farmers' suicide: Across culture', Indian Journal of Psychiatry, 51 (4): 242-43
- Bose, Ashish (2000), 'From Population to Pests in Punjab-American Boll Worn and Suicides in Cotton Belt', Economic and Political Weekly, 35(38) : 3375-78
- Grace Boyle, Jai Krishna R, Lauri Myllyvirta, Owen Pascoe (2012), 'Endangered Waters: Impact of Coal fired plants on water supply', report published by Green Peace Indian Society, Bengaluru.
- Dandekar, Ajay (2005), 'The Killing Field, Farmers Suicides in Maharashtra' Indian Journal of Social Work, 66: 345-353.
- Deshpande, R S (2003), 'Suicide by Farmers in Karnataka: Agrarian Distress and Possible Alleviatory Steps', Economic and Political Weekly, 37 (26): 2601-10.
- Dev, S, Mahendra (2009), 'Challenges for Revival of Indian Agriculture', Agricultural Economics Research Review, 22 : 21-45
- Dhobale V. (2009), 'Farmers suicide: Tragedy of Globalisation (Marathi book)', Pune, Sugawa Publication.
- Emile Durkheim (1951), 'Suicide: A study in Sociology', New York, Free Press.
- Epper V (2009), 'A critical study of Rural Indebtedness with special reference to Selected Districts from Vidarbha and Marathwada Region', Ph.D. thesis submitted to BAMU, Aurangabad.
- Government of India (2004), 'Report of National commission on farmers', Department of Agriculture, New Delhi: 04
- Government of India (2006), 'Report of the Fact Finding Team on Vidarbha', Planning commission of India, New Delhi.
- Hamermersh, D, S (1974), 'The Economics of Black Suicide', Southern Economic Journal, 41: 188-199.
- Jadhav, Narendra (2008), 'Report on Farmers Suicide and Issues before Agriculture Sector: Debt Relief and All Maharashtra Balanced Agriculture Development Action Plan', submitted to Government of Maharashtra, Mumbai.

-
- Kulkarni, R (2013), *'There is living drought: Insight reality found in long March (Marathi book)'*, Pune, SamkalinPrakashan.
- Mene, Tarun (2013), *'Underestimation of Suicide: A Study of the Idu Mishmi Tribe of Arunachal Pradesh'*, Economic & Political Weekly, 48 (52): 129-133
- Mishra Srijit & Others (2006), *'Suicides of Farmers in Maharashtra: A Background Paper'*, Indira Gandhi Institute of Development Research, Mumbai (MH), January 2006.
- Mishra, Sirjit (2006), *'Farmers suicide in Maharashtra'*, Economic and Political Weekly, XLI (16): 1538-45.
- Mishra, Srijit (2006), *'Rural credit and Suicides in Maharashtra: A case control study'*, March 2006, IGIDR, Mumbai.
- P, Satish (2006), *'Institutional Credit, Indebtedness and Suicides in Punjab'*, Economic & Political Weekly, XLI (38): 2754-61
- PatilVikhe, B (2008), *'Agricultural Indebtedness: Crisis and Revival'*, Economic & Political Weekly, XLIII (05): 47-52
- Reddy, V, Ratna and S, Gulab (2006), *'Agrarian Crisis: Looking beyond Debt Trap'*, Economic & Political Weekly, 41 (19): 1838-41
- Selvaraj, K and C, Ramasamy (2006), *'Drought, Agricultural Risk and Revenue Income'*, Economic and Political Weekly, XLI (26): 2739-46
- Singh, Ajit Kumar (2013), *'Income and livelihood Issues of Farmers: A field study in Uttarpradesh'*, Agricultural Economics Research Review, Vol. 26 (Conference Number): 89-96
- Talule, D (2013), *'Political Economy of Agricultural Distress and Farmers Suicides in Maharashtra'*, International Journal of Social Science & Interdisciplinary Research, 02 (2): 95-124
- TISS (2005), *'Causes of Farmer Suicides in Maharashtra: An Enquiry'*, Tata Institute of Social Sciences, Tuljapur (M.H), March 15, 2005
- Vyas, V (2011), *'Strengthening small farm sector'*, Yojana, 55: 11-21