

POLITICAL ECONOMY OF AGRICULTURAL DISTRESS AND FARMERS SUICIDES IN MAHARASHTRA

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ABSTRACT

The present paper attempts to evaluate the economic conditions of the farm households of Yavatmal district of Vidarbha region. The district has reported an increasing number of suicides during the period of Jan. to Dec. 2011. This is in a striking contrast with other districts of Vidarbha in which suicide rates have been declining. The main thrust of the study is on ascertaining whether these farm suicides have taken place mainly due to the rural and agricultural credit problems. The paper also attempts to assess the relative significance of the institutional and private farm credit in the agricultural indebtedness of the district and reasons for the same. For this purpose the paper attempts to find out the reasons for credit accumulation by farmers from the district. In all there have been seventy one farmers' suicide cases categorized as genuine farm suicides by the state government of Maharashtra for giving the compensation of rupees one lakh. All these households spread over 68 villages and 16 tehsils of the district were contacted in person and all information related to household economy was carefully elicited in personal interviews. Also, 25 farm households which have the similar characteristics like the suicide affected households but there have been no suicides in those families, spread over 08 tehsils and 25 villages of the district were selected as a control group and another set of 25 farm households from 21 villages and 5 tehsils affected of suicides but were categorized as ineligible for the state compensation were contacted to ascertain a comparable information for the purpose of the study. Hence the paper is based on primary field level information gathered by our study group.

KEYWORDS:

INTRODUCTION

On the lines of the national and like many other states in the country the agriculture of Vidarbha region has been passing through a difficult phase since 1997. Per acre productivity of major crops i.e. Cotton, Soya beans, Tur and Jowar which are cultivated by farmers in the region (particularly in Yavatmal district which is the area of the present study) has stagnated at 2.10, 2.56, 2.41 and 2.07 quintal respectively. Consistently the crop wise per acre net returns for cultivating these crops have been negative. Per acre crop wise average loss for cultivating these crops is observed to be Rs. 7542.45 for Cotton, Rs. 2702.86 for Soya beans, Rs. 5370.36 for Tur and Rs. 3074.03 for Jowar. Decline in productivity and negative returns from cultivation of these

crops pushed the farmers of Vidarbha region into a debt trap and thereby towards suicides. More than 95 per cent of the suicide affected farm households from Yavatmal district which were categorized as eligible suicide cases for state compensation of rupees one lakh were under debt. This was both from the private and institutional sources. The share of borrowing from the private sources (such as the Money lenders, Traders and Relatives) by the eligible suicide affected households is 40.79 as against 59.21 per cent of institutional borrowings. The same for non suicide households was observed to be 22.98 and 77.01 per cent and for non eligible suicides the borrowing from non institutional sources was 41.96 as against 58.04 per cent of institutional borrowings. The average rate of interest paid by these suicide affected farm households on private borrowings, particularly from the Money lenders was 67 per cent with the minimum of 50 and the maximum of 100 per cent per annum. The same by non suicide households was 41.87 per cent with the maximum of 100 and the minimum 25 per cent per annum respectively. This means the spiraling debt burden and the coercive methods of recovery used by private lenders caused psychological stress and social humiliation for the suicide affected farm households in Yavatmal district. Repeated crop failures due to an array of reasons faced by almost all studied households (Eligible, Non eligible and Non Suicide households) caused for them negative returns from cultivation and there by pushed farmers into a debt trap.

II. Approach to the Study

Entire analysis that makes up the present paper is predominantly based on the primary data on farmers' suicides committed in Yavatmal district of Vidarbha region. Mainly the data consist of three stage level information i.e. 1) the household level information obtained from the suicide households deemed eligible for state compensation, 2) the information on deemed non eligible suicides for state compensation and 3) the farm household level information which are not hit by suicides but they belong to the homogeneous socio economic characteristics like their suicide hit counterparts. In all, 71 suicide affected farm households which were identified as the genuine suicides by the state government of Maharashtra from 68 villages (16 tehsils), 25 farm households categorized as non eligible suicides from 21 villages (5 tehsils) and another set of 25 farm households which have not been hit by the farm suicides but have homogeneous socio-economic and land holding related profiles like their suicide hit counterparts from 25 villages (8 tehsils) of Yavatmal district were visited for obtaining the household level primary information. A questionnaire was specially structured for the purpose and was administered through personal interview method. Families of all aforementioned categories were approached personally and efforts were made to assess and compare the level of socio-economic and psychological distress of the concerned family. The information on economic aspects such as the level of debt overdue from institutional and non institutional sources owed by the affected family, level of income and assets owned and the distress sale of the same including land for debt repayment were carefully gathered. The information on social aspects of all the farm households such as the social discord, behavioral change, social isolation, disputes in the family and in society, suicidal tendency, addiction to drugs, etc, was sought to be obtained. Also the information on economic aspects of all the families was obtained for comparison. Then the information collected was verified through the informal group discussions with the elderly persons or sometimes elected village representatives for correctness and authentication. The village level information about socio-

economic characteristics and the developmental indices of all the 114 villages was gathered from the village *Panchayats* and the *Patwari* records.

III. Review of Literature

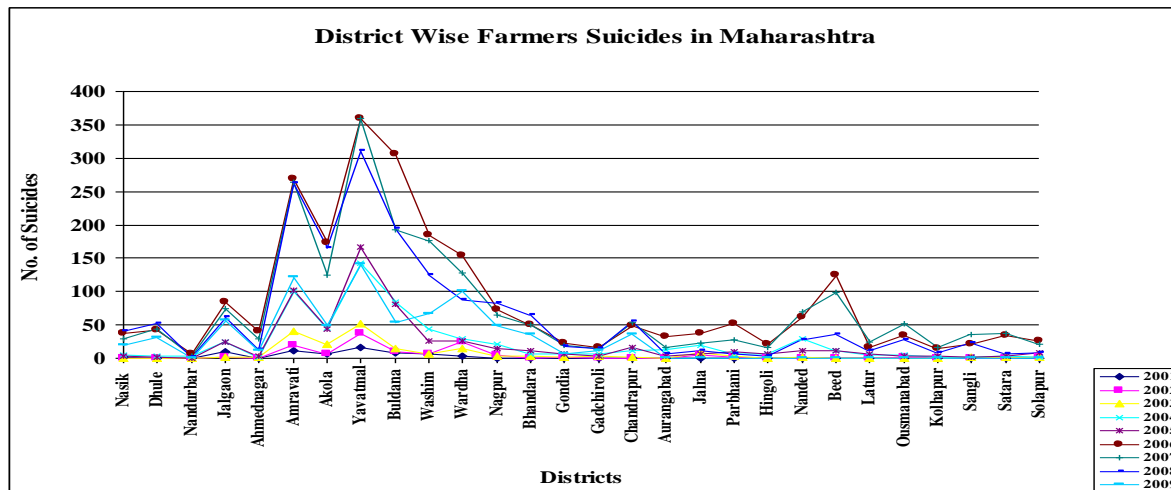
A plethora of writings has so far attempted to focus on the reasons for crisis of farmers' suicides and the suicidal behavior of farmers in India. Most of the suicide studies in India are state specific with their focus on Maharashtra, Punjab, Karnataka, Kerala and Andhra Pradesh, the states most affected by farmers' suicides in the country. In fact, the National Sample Survey Organization's (NSSO) situation assessment survey of farmers carried out during the year 2003, brought out a several startling findings on farm level crisis in the country. The survey revealed that more than half of the Indian farmers were in debt. Much of the debt was a consequence of the gap between agricultural expenses and returns from it (Suri, 2006, Talule, 2011). As a result, the practice of cultivation became unrewarding in a generally unfavorable price regime (GoI, 2000). Decadal changes in public policy and agrarian situation were responsible for suicides by farmers in Punjab. When there was a bumper crop of paddy with favorable natural conditions, the state government of Punjab was not willing to buy at the minimum support price and this led to a further distress at the farm household level (Surinder Jodhka, 2005). There was a general stagnation in the state agriculture sector over the 1990s which pushed farmers into a distress (Govt. of Punjab, 2004). Cash expenditure on cultivation of different crops rose steadily while the output prices shown a declining trend. The compounded annual growth rate of cash expenditure between 1974-75 and 1991-92 was nearly 9 per cent for wheat and more than 11 per cent for rice in Punjab (Shergil H.S, 1998). Hence negative returns from cultivation and thereby the indebtedness was a major cause for the crisis. Usually the borrowing from informal sources invited trouble for farmers. *Arhatiyas (the middlemen)* were the major source of credit for farmers in Punjab (Gill & Kaur, 2002). Farmers in Punjab continued to borrow both for the "productive" (41 per cent) and "unproductive" (59 per cent) purposes (Singh et. al. 2005). The earlier study on farmers' suicides in Maharashtra revealed that around 96.72 per cent of the suicide hit farm households strictly borrowed for productive and agricultural purposes (Talule, 2011). Agrarian scenario in Maharashtra has also changed fast. The crisis in the state agriculture has precipitated the spate of farmers' suicides in the state (Srijit Mishra, 2006). In Maharashtra the contribution of agriculture to GSDP declined from 40 per cent in 1960-61 to around 13 per cent in 2009-10 but the state's population dependent on agriculture is still about 55 per cent. In Karnataka the agrarian distress and debt of farmers were the major causes for suicides by farmers (Deshpande R.S, 2002) where as, in Andhra Pradesh, mainly it was debt that pushed farmers into a suicide trap (P. Narsimha Rao and K. C. Suri, 2006). High cost of cultivation, diminishing productivity and low returns from crop cultivation made farmers further difficult to withstand crop failures which pushed them into a distress. In Kerala, the agrarian crisis and farmers' distress were closely linked to the neo-liberal policy regime implemented in the country during the 1990s (S. Mohankumar and R. K. Sharma, 2006) where as, in Andhra Pradesh the individuals and communities were under pressure to cope with changes brought about by a churn in socio-economic conditions of the 1990s (V. Shridhar, 2004).

Some other studies which were reviewed during the course of the present study also strengthen the argument that suicides by farmers in different parts of the country were closely linked to the debt over dues and negative returns from cultivation are by- Deshpande and Prabhu (2005),

Gyanmudra (2005), Mohanty (2005), Govt. of Kerala (2004), Mohankumar and Binni (2005), Sainath P. (2007), Patnaik, Utsa (2002), Swaminathan M.S. (2006), Shridhar V. (2004), Assadi Muzaffar (1998), Choudhary (2002), Kumar Pramod and Sharma L S (1998), Bhalla G S (1998), Dandekar et. al. (2005), etc.

IV. Extent of the Problem of Farmers Suicides in Maharashtra

In Maharashtra, since 2001 the districts of Amravati, Akola, Yavatmal, Buldhana, Washim and Wardha are the hotspots for farmers' suicides. All these districts are located in Vidarbha region of the state, traditionally famous for cotton cultivation. Cotton, Tur and Soya beans are the most dominant crop rotations of the region. Level of ground water is deeper than hundred feet. Less penetration of rural electrification and the erratic supply of the same made it further difficult for farmers. Mere 4 per cent attainment of irrigation cover as against 65 per cent of the potential left farmers with the only option of household level private investment in wells, tube wells and pipeline as the main source of irrigation for the region. Marathwada and Vidarbha regions of the state are also characterized by low level of human development indicators with a long pending regional backlog. This was first identified by Dandekar Committee in 1984. Total 11,737 farmers in Maharashtra committed suicides between the period from 2001-10 (Talule, 2011). Data on district wise suicides by farmers for 2001 to 2010 reveal that at the earlier stage in Maharashtra the number of incidences of suicides was less but among them the districts from Vidarbha were at the top. Incidences of committing suicide had increased during the year 2006 and continued then after. During 2006, a total of 2,345 farmers of the state ended their life through committing suicides. All districts except from Konkan region of the state have reported considerably high number of farm suicides during this year. The most noticeable aspect of this is that there have been a less number of incidences of farm suicides from districts consisting tribal population. These districts were Dhule, Nandurbar, Chandrapur, Gadchiroli, Gondia and Bhandara. This means that the poor and the less dependent families on agriculture have no inclination of committing suicide. In Vidarbha, the western Vidarbha (Amravati, Yavatmal, Akola, Buldhana, Wardha and Washim district) reported highest number of suicides where as, the east Vidarbha mostly, the tribal belt shown relatively less number of cases of farm suicides. The year 2004 being a drought hit year it aggravated the setback for state agriculture and the number of farm suicides also increased during this year.

Figure 1: District wise farmers' Suicides in Maharashtra

Source: Talule D.C., Indian Economic Journal, Dec. 2011.

V. Yavatmal District: A Profile

The district being typically representing an Indian country side it has a peculiar type of rural setting which is also common in different parts of the third world. The village people actively expect themselves to be connected to urban centres for the change in lifestyle and to get off-farm employment opportunities. But the low level of industrialization and inadequacy of logistic facilities across entire Vidarbha region has kept these people confined to agriculture for their livelihood. Most of the villages of the district are still sufficiently far from urban centres and the basic life facilities. Tribal background of farmers in this district and the low level of education attainment have kept most of them economically 'backward' and socio-culturally 'traditional'. Yavatmal district is located at 19.26 to 20.42 degree North Latitude and 77.18 to 79.98 degree East Longitudes. The total geographical area of the district is 13, 584 sq. km. which is 4.4 per cent of the state. The weather conditions of the district are hot and dry with very high and low temperatures during the summer and winter season respectively. The average annual rainfall of the district is 900 to 1100 mm. Total population of the district is 24, 58, 271 in which 51.48 male and 48.52 per cent are female. 81.40 per cent and 18.60 per cent of the population lives in rural and urban areas respectively. The density of district population is 181. The sex ratio of the district is 942. This is quite higher than the state average of 922. 11, 18, 937 (44.45 per cent) is the total working population of the district of which 63.99 per cent are engaged in agriculture. The forest cover of the district is about 2956 sq. km. (21.76 per cent). The district is a largest producer of Teak followed by bamboo. Through forest royalty of Yavatmal district the state government annually earns revenue of about Rs. 1364 lakh. 74.75 per cent of the total geographical area of the district is under cultivation of which about 3, 37, 010 hectare (37.52 per cent) is under Food-grains, 44.74 per cent is under Cotton, followed by Jowar with 14.10 per cent, Wheat 2.49 per cent and Pulses 19.70 per cent respectively. 1.24 per cent of the cultivable area is under Sugarcane and 15.40 per cent is under Oil seeds. Per hectare yield of major crops of

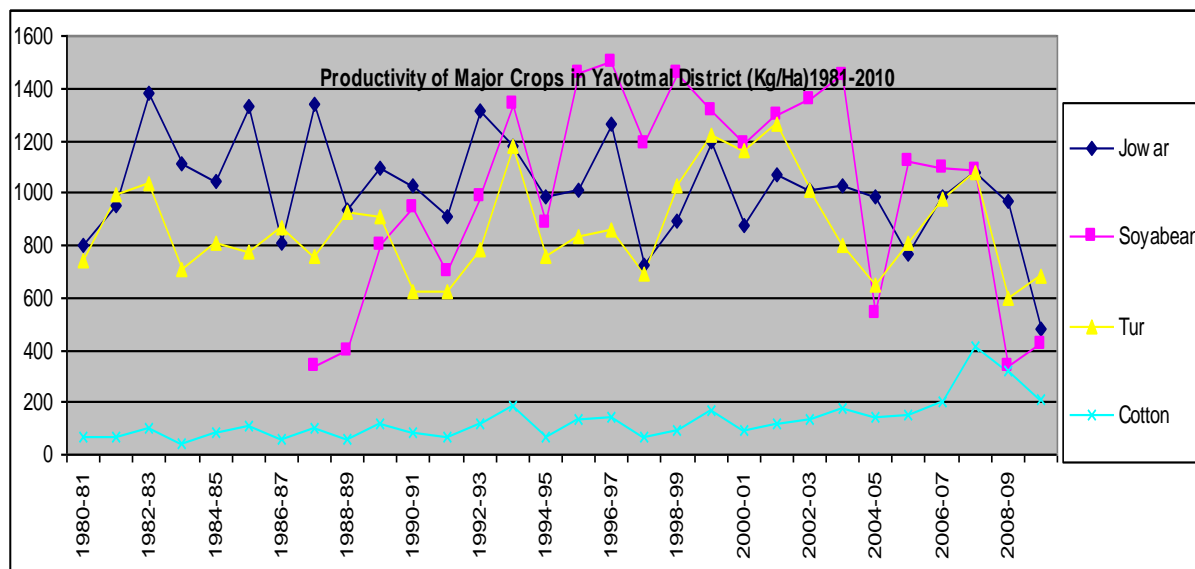
the district is as; Jowar-1082 Kg, Mung-577 Kg, Wheat-1803 Kg, Gram-848 Kg, Urad-399 Kg, and Cotton-412 Kg respectively. Gross irrigated area of the district is 60, 520 whereas the net irrigated area is 45, 958 hectares. This is about 5.12 per cent of the total cultivable area of the district. Crop wise irrigated area is as; Food crops-45.54 per cent, Cereals-15.80 per cent, Sugarcane-18.52 per cent, Fruits and Vegetables-5.68 per cent, Cotton-1.11 per cent and Oil seeds-6.69 per cent respectively. Out of the total irrigated area, 64.82 per cent is under wells where as, 35.18 per cent of the area has available the facility of canal irrigation cover.

In industrial development, grossly the district lags behind other parts of the state. For employment, people depend on traditional occupations, mainly the agriculture, quarrying and forest. The district has some agro processing industries such as; the ginning and pressing of Cotton, Oil seeds processing, etc. But they are very few. There are about 275 registered industrial units in the district of which only 232 are in actual working conditions which provide the employment to only about 2068 persons. Education attainment of the district is relatively low. In the district the facilities of education are provided at different level through 2562 primary, 620 secondary, 189 higher secondary schools and 24 colleges. For health services in the entire district there are 21 government hospitals, 20 dispensaries, 73 maternity homes and 63 primary health centers.

VI. The Background

There are many reasons for more number of farmers' suicides in Yavatmal district of Vidarbha region which consists of sixteen tehsils. Mainly it is a district with predominance of tribal communities in its population practicing cultivation and they have the mono cropping pattern dominated by Cotton. This has undergone various technological and institutional transformations which made cultivation un-remunerative of nature. Technological changes in Cotton seed research in favor of GM varieties (Bt. Cotton) promised higher output per hectare and profit of rupees ten thousand. But ultimately in case of the studied suicide affected households from the district, it resulted in per acre loss for rupees 7542.45 (Table - 13). Majority of the farmers of the district cultivate cash crops such as the Cotton, Soya beans and *Tur*. It reveals that the suicide affected farm families were caught in a negative income trap as the agriculture became un-remunerative for them. Important reasons for farming to become un-remunerative were the cultivation of commercial crops with dependence on monsoon, stagnation of productivity, absence of irrigation and the more dependence on well irrigation with water tables deeper than 100 feet and low attainment of rural electrification in this district. 83.41 per cent of the agriculture of 68 villages covering eligible suicide households is under rain fed conditions as against 16.59 per cent having irrigation cover which is also based on the household level private irrigation investment in wells. The irrigability of this infrastructure is determined by the deeper water aquifers and the erratic supply of electricity. Under such circumstances male member of the family who is often responsible for managing household economy falls under stress more than a female which has resulted in 90.14 per cent (64) of the eligible male suicides as against 9.58 per cent (7) suicides by the female farmers in Yavatmal district. In case of the non eligible suicides 96 per cent (24) were males as against 4 per cent (01) of female members who committed suicides.

Figure 2- Trends in Productivity of Major Crops Cultivated in Yavatmal District (1991-2009/Kg./Ha.)



Source: Based on the EPW Research Foundation & Season and Crop Report for years.

The crop mix of Yavatmal district is dominated by Cotton, *Tur*, Soya beans and *Jowar*. Mostly it is without the availability of public irrigation and regular supply of electricity to operate their pump sets and pipe line network. The productivity level of Cotton is one of the lowest where as; the same for other crops is also low and remained highly fluctuating during the period between 1980-81 and 2008-09 (Figure 2). However, the cost incurred on inputs as compared to the output price and revenue from cultivation in this district is very high. (Table 5). Higher expenditure than the returns from cultivation was beyond the financial capacity of small and marginal farmers. Therefore most of them borrowed money from private sources such as, the moneylenders which pushed them into a debt trap causing suicides by farmers.

VII. Data Analysis and Discussion

Table-1: Developmental Characteristics and Availability of the Basic Amenities at Selected Villages in Yavatmal District

Amenities	ESHHS		NESHS		NSHS	
	Yes	Per cent	Yes	Per cent	Yes	Per cent
Pucca Road	52	76.47	18	85.71	23	92
Bus Stand	32	47.06	9	42.86	12	48
Electricity	68	100	9	42.86	0	0
Telephone	31	45.59	10	47.62	15	60
Post Office	28	41.18	4	19.05	10	40
Bank	13	19.12	2	9.52	3	12
Police Station	5	7.35	1	4.76	3	12
Agri. Service center	15	22.06	6	28.57	6	24
SHG	35	51.47	11	52.38	20	80
NGO	14	20.59	5	23.81	7	28
Public Health	13	19.12	5	23.81	4	16
APMC	3	4.41	1	4.76	3	12
Youth Club	25	36.76	6	28.57	7	28
Farmers Group	23	33.82	9	42.86	9	36
Primary school	60	88.24	18	85.71	22	88
Middle School	31	45.59	7	33.33	0	0
College	3	4.41	1	4.76	0	0
Vet. Hospital	15	22.06	3	14.29	0	0
Farm Tank	37	54.41	12	57.14	15	60
Private Doctor	23	33.82	10	47.62	10	40
Percolation Tank	32	47.06	5	23.81	6	24
Nala Bunding	16	23.53	5	23.81	8	32
K.T. Ware	7	10.29	6	28.57	8	32
Big Dam	8	11.76	3	14.29	5	20
Canals	8	11.76	4	19.05	4	16
Co-operative Society	22	32.35	11	52.38	12	48
Co-op. Credit Society	5	7.35	0	0.00	1	4

Source: Village Records.

Notes: 1) SHG = Self Help Group, 2) NGO = Non Government Organization 3) K T Ware = Kolhapur Type of Water Tank, 4) ESHHS = Eligible Suicide Households, 5) NESHS = Non Eligible Suicide Households & 6) NSHS = Non Suicide Households

Most of the eligible as well as non-eligible suicide and non-suicide villages under the present survey have population less than two thousand. The proportion of such villages from where eligible suicide cases were reported was 67.65 per cent as against 62 and 66 per cent for non eligible suicide and non suicide villages respectively. Most of the suicide affected villages being remote villages do not have available the basic infrastructure such as the access to pucca road (23.53 per cent ESHHs & 14.29 per cent NESHHs). But 92 per cent of the villages from where no suicides have been reported have road connectivity. Where as, the proportion of suicide affected villages which do not have an access to the other facilities such as the telephone (54.4 per cent ESHHs & 52.38 per cent NESHHs), post office (58.82 per cent ESHHs & 80.59 per cent NESHHs), public health (80.88 per cent ESHHs & 76.19 per cent NESHHs), APMC (95.59 per cent ESHHs & 59.24 per cent NESHHs), middle level schooling (54.41 per cent ESHHs & 66.67 per cent NESHHs), higher education facility (95.59 per cent ESHHs & 95.24 per cent NESHHs) and cattle health services (77.94 per cent ESHHs & 85.81 per cent NESHHs) respectively. These villages also do not have an access to the private medical practitioner (66.18 per cent ESHHs & 52.38 per cent NESHHs), any watershed development infrastructure (89.71 per cent ESHHs & 71.53 per cent NESHHs), co-operative institution (67.65 per cent ESHHs & 47.62 per cent) and the co-operative credit society (92.65 per cent ESHHs & 100 per cent NESHHs). Most of these villages are remote villages and away from the tehsil and district headquarters. The average distance of the suicide affected villages from the tehsil headquarter, primary health center and the APMC is 68 where as, the same from the district headquarter is 62.67 kilometer. Ground water aquifers of more than 54 per cent (37) of the villages are dipper than 100 feet on the one hand and poor penetration of irrigation infrastructure such as the electricity and pump set energisation on the other. Where as, the level of the ground water table of 68 per cent of the villages that are not affected of farm suicides is up to 50 feet which indicates their better position of irrigability. 30.88 per cent of the suicide affected villages do not have any access to safe drinking water where as in majority of the 41 (60.29 per cent) villages, where the *panchayat* drinking water system is available has been observed to have been out of the order.

VIII. Affected Families: A Profile

Table-2: Caste-wise distribution of the Households

Sr.No.	Caste	ESHHS		NESHHS		NSHHS	
		No of HHs	%	No of HHs	%	No of HHs	%
1	<i>Andh</i>	2	2.82	1	4	0	0
2	<i>Banjara</i>	21	29.58	4	16	3	12
3	<i>Baudh</i>	4	5.63	1	4	4	16
4	<i>Beldar</i>	2	2.82	0	0	0	0
5	<i>Bhoi</i>	2	2.82	0	0	1	4
6	<i>Dhanvar</i>	0	0.00	0	0	1	4
7	<i>Gavari</i>	1	1.41	2	8	1	4
8	<i>Gavli</i>	1	1.41	0	0	0	0
9	<i>Gond</i>	7	9.86	6	24	4	16
10	<i>Hatkar</i>	0	0.00	0	0	2	8
11	<i>Jogi</i>	0	0.00	1	4	0	0
12	<i>Kalal</i>	1	1.41	0	0	0	0
13	<i>Kolam</i>	4	5.63	0	0	2	8
14	<i>Kunbi</i>	17	23.94	4	16	1	4
15	<i>Laman</i>	1	1.41	0	0	0	0
16	<i>Lodhi</i>	0	0.00	0	0	1	4
17	<i>Mahar</i>	0	0.00	1	4	0	0
18	<i>Mali</i>	3	4.23	1	4	1	4
19	<i>Maratha</i>	0	0.00	0	0	1	4
20	<i>Pardhi</i>	0	0.00	1	4	0	0
21	<i>Perki</i>	2	2.82	0	0	2	8
22	<i>Rajput Bhamta</i>	1	1.41	0	0	0	0
23	<i>Teli</i>	1	1.41	2	8	1	4
24	<i>Vadar</i>	1	1.41	1	4	0	0
	Total	71	100.00	25	100	25	100

In Yavatmal district the phenomenon of farmers' suicides is uniformly spread across all the 16 tehsils. As per the state list of eligible suicide cases for compensation between 2001 and 2011 a total of 699 farmers of the district have ended their life by suicide. Ineligible cases of farm suicides are also equally large in number (the present study has covered 25 such cases). Majority of the suicide cases in this district are reported from joint family structure (56). As observed in foregoing about the caste district's structure and dominance of tribal communities among the cultivators, the striking fact is that barring few cases i.e. 25 (35.21 per cent) from the *Kunbi*, *Mali* and *Baudh* families the remaining 46 (64.79 per cent) farm suicides in the district are reported

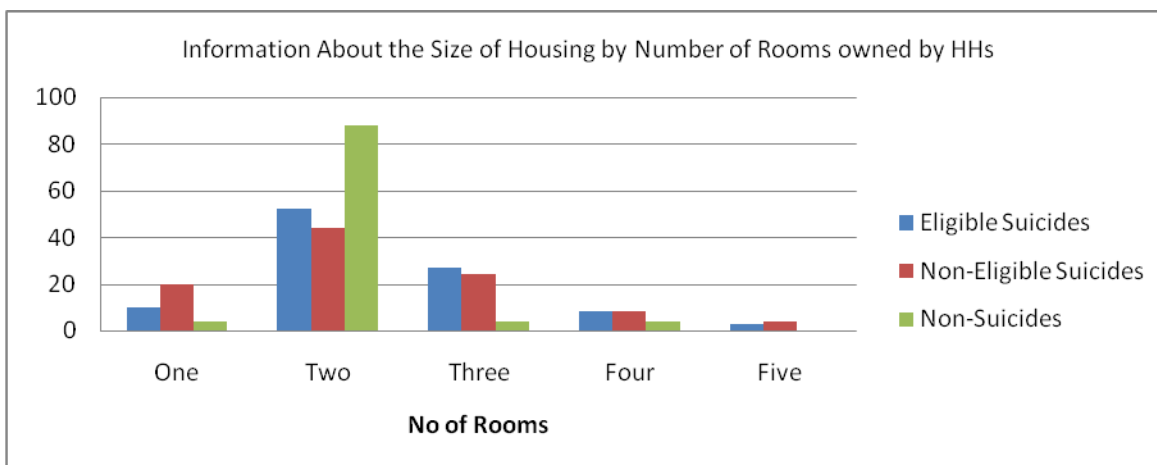
from tribal communities. Traditionally the tribal communities do not have an edge in the cultivation profession. Therefore during the persistent farm crisis it becomes more difficult for such families to sustain. Hence despite having a significant proportion of members in the working age group to the total family size, 66.05 per cent as against 33.94 per cent of depending population the tribal communities report a significantly large number of farm suicides. Attainment of education among these families is observed to be at the lower side, 84 (30.99 per cent) family members are illiterate where as, 47 persons (17.34 per cent) have just attended class one or two level education. Only 13 persons could join degree level education but due to the economic conditions most of them have left it halfway for temporary employment such as the quarry works. Out of 271 individual members belonging to the 71 eligible suicide affected families 163 (60.14 per cent) members of these households depended on temporary manual works such as the MGNREGS for supplementing their family income where as, rest of the 107 (39.48 per cent) persons do not have available any work to be undertaken as the secondary occupation.

1) Housing and Ownership of Implements

Table-4: Information about the Size of Housing by Number of Rooms owned by the Households

No of Rooms	ESHHS		NESHHS		NSHHS	
	No of HHs	Per cent	No of HHs	Per cent	No of HHs	Per cent
One	7	9.86	5	20	1	4.0
Two	37	52.1	11	44	22	88.0
Three	19	26.8	6	24	1	4.0
Four	6	8.45	2	8	1	4.0
Five	2	2.82	1	4	0	0.0
Total	71	100	25	100	25	100.0

Figure-3: Information about the Size of Housing by Number of Rooms Owned by the Households



All affected farm families from Yavatmal district have their own houses but most of the houses (71.83 per cent) are built with bricks + mud and cotton / tur manure + mud with Tin / Mangalorean tiles (97.19 per cent) or grass roofs. Where as, 68 per cent of the non suicide households have similar type of houses like their suicide hit counterparts as against 16 per cent of cement built houses.

Out of the total 71 eligible suicide households only 9 (12.68 per cent) households have toilets where as the remaining 62 (87.33 per cent) affected households do not have the toilet facilities. In case of non suicide households 24 per cent have the facility of toilets available which indicates better standard of living.

35 i.e. 49.3 per cent of the eligible suicide affected families do not have any access to safe drinking water where as those who have tap connections (50.70 per cent) find that they have become defunct where as 72 per cent of the non suicide farm families have an access to the safe drinking water through *panchayat* water pipelines.

Majority of the eligible suicide farm families cannot afford basic consumable durables like the smokeless hearth (40.85 per cent), gas connection (94.37 per cent), fan (74.65 per cent), radio (92.96 per cent), television (74.65 per cent), bicycle (91.55 per cent), motor cycle (88.73 per cent) or refrigerator (98.59 per cent). Almost similar kind of situation about the consumer durables is also observed among the non suicide farm families of which 72, 96, 68, 72, 96 and 88 per cent did not have smokeless hearth, LPG, fan, TV, motorcycle and cable connection respectively.

Table-5: Agricultural Implements Owned by the Households

Implements	ESHHS		NESHS		NSHS	
	Yes	Per cent	Yes	Per cent	Yes	Per cent
Bullock Cart	19	26.8	4	16	8	32
Plough	14	19.7	4	16	10	40
Pabhar (Cultivator)	25	35.2	1	4	8	32
Thresher	1	1.4	1	4	0	0
Spray Pump	18	25.4	2	8	8	32
Electric Pump Set	10	14.1	2	8	3	12
Submersible Pump	3	4.2	1	4	1	4
Simple Plough	3	4.2	1	4	4	16
Kulav (Wooden Thresher)	10	14.1	2	8	6	24
Tractor	0	0	1	4	0	0

The basic economic conditions of both the categories of households being homogeneous, (i.e. suicide and non suicide) as emerges from the above table no-15 it does not allow the farmers to avail basic agricultural implements such as the bullock cart (73.2 per cent SHHS & 68 per cent NSHS), plough (80.3 per cent SHHS & 60per cent NSHS), cultivator / *pabhar* (64.8 per cent SHHS & 68 per cent NSHS), thresher (98.6 per cent SHHS & 100per cent NSHS), spray pump (74.6 per cent SHHS & 68 per cent NSHS), pump set (85.9 per cent SHHS & 88 per cent

NSHHs), submersible pump (95.8 per cent SHHs & 94 per cent NSHHs), simple plough (95.8 per cent SHHs & 84 per cent NSHHs) and *kulav* (85.9 SHHs per cent & 76 per cent NSHHs). As the more suicide hit households being in possession of implements it is understood that the farmers those who have tried to become self sufficient and enterprising of nature are more hit by debt burden and cultivation risks and fallen in to a suicide trap.

Most suicide affected households do not have any subsidiary occupation so that they resort to distressfully selling of implements as and when they are in a financial crunch. More than 15 per cent of the affected families have sold their agricultural implements for their temporary requirements.

2) Inputs and Crop Failure

Both the eligible and non eligible suicide farm families either have to hire or depend on others for implements. This has accentuated the probability of crop failure particularly at the time of sowing of the crop and spraying of pesticides on vulnerable crops like the cotton. By the time the farmer obtains the spray pump the pest attack has already gone beyond control and the entire crop is lost.

The crop losses of all suicide hit farm families who cultivate cotton are accruing to the integrated pest management and this is mainly on account of the problem of hiring implements such as spray pumps. Hiring of implements leads to an increase in the cost of cultivation and finally results in negative returns from agriculture.

Both the suicide and non suicide affected Farm families of Yavatmal district incurred more expenses because they repeatedly faced crop failures mostly which was on account of spurious seeds and inadequacy of irrigation. Year wise crop failure faced by eligible and non eligible suicide households was 12.68 & 16 (2009), 28.35 & 16 (2010) and 23.94 & 40 (2011) per cent respectively.

Table-6: Land Holding Category wise Rate of Interest Paid on Credit Mode of Purchase by the Farmer House holds

ESHHs								
Size of Holding	Rate of Interest (Per cent)						Total	Per cent
	No Interest	Up to 10	10-25	25-40	40-60	>60		
Landless	4	1	1	0	0	0	6	8.45
0-2.5	1	0	4	0	1	0	6	8.45
2.5-5	18	0	11	1	5	1	36	50.70
5-7.5	5	1	1	1	3	0	11	15.49
7.5-10	2	0	0	1	3	0	6	8.45
>10	4	0	2	0	0	0	6	8.45
Total	34	2	19	3	12	1	71	100.00
Per cent	47.89	2.82	26.76	4.23	16.9	1.41	100	
NESHHs								
Landless	5	0	0	0	0	0	5	20.00
0-2.5	1	0	0	0	0	0	1	4.00
2.5-5	11	2	0	0	2	0	15	60.00
5-7.5	0	0	0	0	0	0	1	4.00
7.5-10	0	0	1	0	0	0	0	0.00
>10	2	0	0	0	1	0	3	12.00
Total	19	2	1	0	3	0	25	100.00
Per cent	76	8	4	0	12	0	100	
NSHHs								
Landless	0	0	0	0	0	0	0	0.00
0-2.5	1	0	1	0	1	0	3	12.00
2.5-5	9	0	5	0	0	0	14	56.00
5-7.5	1	0	1	1	0	1	4	16.00
7.5-10	3	0	0	0	0	0	3	12.00
>10	1	0	0	0	0	0	1	4.00
Total	15	0	7	1	1	1	25	100.00
Per cent	60	0	28	4	4	4	100	

33.80 per cent i.e. 24 out of 71 eligible suicide farm families have paid more than the market price for inputs and 38.02 per cent (i.e. 27) have obtained inputs on loan and paid high rates of interest on price to their suppliers. The rates of interest paid by farmers on credit mode of purchase of inputs have been of three categories; 1) 10 to 12 per cent, 2) 24 to 36 per cent and 3) 40 to 75 per cent per annum. 52.11 per cent (37) per cent of farmers paid between 10 to 12 per cent, 28.16 per cent (20) farmers paid 24 to 36 per cent and 19.71 per cent (14) of the affected households paid 40 to 75 per cent of the rate of interest on the credit mode of purchasing of inputs from the traders. The average of these categories of the interest rates comes to about 11,

33 and 57.5 per cent respectively (Table – 6). This is also observed in case of the non suicide farm households as 44 per cent of them paid higher prices on the credit mode of inputs and 40 per cent have paid interest on the price of inputs. But the rate of interest paid by this category has been far less than the eligible suicide households of which 28 per cent had paid an average rate of interest of 17.5 per cent where as, 60 per cent did not need to pay any interest on credit mode of purchase of inputs (Table-6).

Table -7: Reasons for Unsatisfactory Crop Production

Reasons	Eligible Suicides		Non-Eligible Suicides		Non-Suicide	
	No. of HHs	per cent	No. of HHs	per cent	No. of HHs	per cent
NA	16	22.54	13	52	15	60
Seeds not Germinated	14	19.72	7	28	7	28
Stunted Crop Growth	5	7.04	2	8	0	0
Low Quality Output	6	8.45	3	12	1	4
<i>Dubar</i> (Double Sowing)	1	1.41	0	0	2	8
Excess Rainfall	5	7.04	0	0	0	0
Insect Attack	1	1.41	0	0	0	0
Untimely Pesticides	1	1.41	0	0	0	0
Low Land Productivity	3	4.23	0	0	0	0
Low Rain fall	6	8.45	0	0	0	0
Inadequate Capital	5	7.04	0	0	0	0
Spurious Seeds	3	4.23	0	0	0	0
Wild Animal Attack	5	7.04	0	0	0	0
Total	71	100	25	100	25	100

The main reason for 23.95 per cent of the eligible suicide households for crop failure was spurious seeds followed by low quality of output (8.45 per cent) and stunted crop growth (7.04per cent) where as, for 28 per cent households from both the remaining categories i.e. non suicide and ineligible households have faced crop failures accruing to spurious seeds (Table-7).

54 eligible suicide affected marginal households owned few animals such as the Bullocks (29), Cows (16), Goats (6) and Buffaloes (3). But 18 of them had to sell these animals at a throw away price (distressfully). The money they got as a price of the sold animals were Rs. 7541.66 - Bullock, Rs. 2500 – Cow, Rs. 1200 – Goat and Rs. 4000 for a Buffalo. All these prices are far below the market prices which clearly indicate the distress sale by these farmers. But only one out of 25 non suicide household had sold a pair of bullocks at Rs. 45,000=00, the price it realised is a competitive market price that means it was not a distress sale by the family.

3) Social Background of the Affected Families

Yavatmal district of Maharashtra is also considered to be socially and culturally backward. The level of educational attainment is low. About 18 per cent of eligible suicide affected farmers were illiterate where as, 15.49 per cent just attended pre primary one year schooling and 33 farmers

(46.47 per cent) reached up to the level of primary enrolment but most of them could not complete the same. The eligible households predominantly belonged to the tribal communities with 59.15 per cent of the households owning a small size of holding where as 8.45 per cent (6) of the families were marginal holders and 6 (8.45per cent) families do not have any land where as 64 per cent of the farm households from non eligible suicide households belonged to the category of small holdings. Most of the non suicide farm households i.e. 68 per cent were small farmers meaning that all the three categories of households have homogeneous land holding related characteristics. Among the eligible households the tribal communities such as the *Banjaras, Gond, Kolam, Andha Adivasi* and *Kunbis* from non tribal segment are more in number and together they constituted 53.31 per cent of the total affected households.

1) Size of Holding and Crop Mix

Table-8: Crop Combinations Undertaken by the Households According to their Size of Holding

ESHHs								
Crop Combination	Size of Holding (Acre)						Total	Per cent
	Landle ss	0-2.5	2.5-5	5-7.5	7.5- 10	>10		
NA	1	0	4	1	1	2	9	12.68
Cotton	1	2	4	2	1	0	10	14.08
Soya beans	0	0	2	0	0	0	2	2.82
Cotton + Soya beans	2	0	5	3	0	1	11	15.49
Cotton + Tur	0	3	6	2	1	1	13	18.31
Cotton + Jowar	1	0	8	0	0	0	9	12.68
Soya beans + Tur	1	0	0	0	0	0	1	1.41
Soya beans + Jowar	0	0	0	1	0	0	1	1.41
Cotton + Soya beans + Tur	0	0	1	1	0	1	3	4.23
Cotton + Tur + Jowar	0	1	4	1	3	1	10	14.08
Soy beans + Tur + Jowar	0	0	2	0	0	0	2	2.82
Total	6	6	36	11	6	6	71	100.00
NESHHs								
Cotton	0	6	0	0	0	1	7	41.18
Soya beans	0	2	0	0	0	0	2	11.76
Cotton + Soya beans	0	1	0	0	1	1	3	17.65
Cotton + Jowar	0	2	0	0	0	0	2	11.76
Cotton + Soya beans + Tur	0	1	0	0	0	0	1	5.88
Cotton + Tur + Jowar	0	1	0	0	0	1	2	11.76
Total	0	13	0	0	1	3	17	100.00
NSHHs								
Cotton	0	1	6	1	0	1	9	36.00
Cotton + Jowar	0	0	3	1	1	0	5	20.00
Cotton + Soya beans + Tur	0	0	2	1	0	0	3	12.00
Cotton + Tur	0	1	1	1	0	0	3	12.00
Cotton + Tur + Jowar	0	0	1	0	0	0	1	4.00
NR	0	1	1	0	2	0	4	16.00
Total	0	3	14	4	3	1	25	100.00

Average size of land hold by the 68 out of 71 eligible farm suicide households is 5.33 where as the same by non eligible 24 (out of 25) families is 5.65 and by the non suicide households it is 4.86 acre.

Eligible Suicide households with small size of holding resort to leasing in land from others particularly from absentee landlords to supplement their incomes based on crop sharing or on the annual rent basis. In some cases (4) practicing cultivation was beyond their capacity hence they leased out their land. Leasing in and leasing out of land is mostly practiced by eligible suicide affected farmers from the holding group of 2.5 – 5 acres category.

The suicide of the main cultivator and the post suicide debt burden forces these families to lease out land in order to supplement their incomes also four families have sold their land due to the pending of debt over dues from private sources.

Apart from Tur and Soya beans the crop mix of about 70 per cent of the suicide affected households from Yavatmal district includes Cotton. This crop needs highest amount of costly inputs mainly the pesticides. As most of the eligible suicide farmers are small (30) and marginal / landless (landless = 6, cultivating leased in land) they buy it on credit. Where as 36 per cent of the non suicide farm households cultivate only cotton and 48 per cent of this category cultivates cotton along with other crops such as Jower, Soya beans and Tur. It means that around 84 per cent of the non suicide farmers cultivate cotton (Table-8).

4) Land, Debt, Repayment and Debt Outstanding Related Indicators

Table-9: Land, Debt, Repayment, Income Related Characteristics of the Farm Households

	ESHHS	NESHHS	NSHHs
Total Debt (Rs.)	7085500	1501500	1662000
Total Income (Rs.)	2039566	578300.00	872894
Total Land (Acre)	346.7	113	121.5
Debt outstanding	6771500	1428950.00	1527000
Repayment	314000	72550.00	135000
No of HHs	68	24	25
Key Indicators			
Debt Income Ratio	3.47	2.60	1.90
Land Income Ratio (per acre)	5882.80	5117.70	7184.31
Average Debt	104198.53	62562.50	66480.00
Average Landholding	5.33	5.65	4.86
Average Income (Per HH)	28726.28	23132.00	34915.76
Outstanding to Income Ratio	3.32	2.47	1.75
Average Outstanding Debt (Per HH)	99580.88	59539.58	61080.00
Average Repayment (Per HH)	4617.65	3022.92	5400.00
Debt Repayment Ratio	0.04	0.05	0.08
Debt Outstanding Ratio	0.96	0.95	0.92
Outstanding Land Ratio (Per Acre)	19531.30	12645.58	12567.90
Debt Land Ratio (Per Acre)	20436.98	13287.61	13679.01
Repayment land ratio	905.68	642.04	1111.11

Table-10: CAGR of Borrowing by all Categories of Farmer Households in Yavatmal District

Year	ESHHs	CAGR	NESHHs	CAGR	NSHHs	CAGR
2008	596000		NA		252000	
2009	2171500		272000		166000	
2010	1492000		759000		587000	
2011	2202000	54.6	368500	10.65	466000	22.74

The data in table number 9 & 10 clearly indicate that the size of total debt borrowed by both the categories of the suicides households and its pending are the main reasons for falling them in to a vicious circle of debt and thereby the farmers' suicides in Yavatmal district. As expected the average debt over dues (Rs. 99,795.77) of the per eligible farm suicide household had outstripped the average income (Rs. 28,726.28) by Rs. 71,069.49 where as the same for the non suicide households has been strikingly less which comes out to be Rs. 27,165 (Table-9). All such afore mentioned other aspects that have emerged from the above two tables indicate the fact that the debt burden and continuance of the same has been pushing farmers of the district in to a vicious circle suicidal trap.

The actual use of credit, its timing, its adequacy, and its price have wide range of repercussions on the lives of farmers.

The legacy of private money lending continues to flourish in Yavatmal district. The proportion of amount borrowed by the eligible suicide households from private sources was 40.79 per cent as against 59.21 per cent from the institutional sources in total of the entire sample of 71 households. 58.04 per cent of the ineligible suicide households borrowed from banks where as the same was 77.02 per cent by the non suicide households as against 22.98 per cent of them borrowing from the non institutional sources (Table-11).

Smaller the size of holding greater is the dependency on borrowing for cultivation and there by dependency on private sources of borrowing. Simultaneous multiple borrowing by both the categories of suicide (eligible and non eligible) particularly the marginal land holders from all the sources has incapacitated them from repayment ability which made them debt ridden farmers.

Table-11: Comparative Share of Institutional and Non-Institutional Credit in Total Borrowing by Victim's Households

ESHHS			
Type of loan	Amount of Loan(Rs)	Average per HH	Per cent
Institutional Loan	4195500	61698.53	59.21
Non-Institutional Loan	2890000	42500.00	40.79
Total Loan Amount	7085500	104198.53	100.00
NESHHS			
Type of loan	Amount of Loan (Rs)	Average per HH	Per cent
Institutional Loan	871500	36312.50	58.04
Non-Institutional Loan	630000	26250.00	41.96
Total Loan Amount	1501500	62562.50	100.00
NSHHs			
Type of loan	Amount of Loan (Rs)	Average per HH	Per cent
Institutional Loan	1280000	51200.00	77.02
Non-Institutional Loan	382000	15280.00	22.98
Total Loan Amount	1662000	66480.00	100

Total amount of loan that is borrowed by 68 out of 71 eligible households is more than rupees 70 lakh (Rs. 70, 85, 500 = 00) and in this the share of private debt is 40.79 per cent (Rs. 28, 90, 000 = 00) as against 59.21 per cent (Rs. 41, 95, 500 = 00) of the institutional debt. Where as, the total amount of loan borrowed by 25 non suicide households is Rs. 16,62,000=00 and the same is Rs.15,01,500=00 on the accounts of non eligible suicide households. The share of institutional credit in total borrowing by non-suicide households is 77.02 as against 22.98 per cent from the non institutional sources which are significantly different from the eligible suicide households (Table-11).

The average per family borrowing by 68 eligible households is Rs.1,04,198.53 where as the same by non suicide households comes to Rs. 66,480.00 and by non eligible suicide households the average family borrowing is Rs.62,562.50. The per acre average borrowing by 68 eligible suicide household is Rs. 20,436.98=00 as against Rs. 13,287.61=00 by non eligible and Rs. 13,679=01 by the non farm suicide households respectively.

Table-12: Source wise Total Amount of Loan Borrowed by Victim's Households

Source	ESHHS			NESHS			NSHS		
	Loan Amount (Rs)	Per HH	%	Loan Amount (Rs)	Per HH	%	Loan Amount (Rs)	Per HH	%
Banks	1958000	28794.12	27.63	643500	26812.50	43.44	510000	20400	11.64
Co-Op	2127500	31286.76	30.03	130000	5416.67	8.77	770000	30800	17.58
SHG	110000	1617.65	1.55	253000	10541.67	17.08	00	0.00	0.00
ML*	1569000	23073.53	22.14	50000	2083.33	3.37	3020000	120800	68.95
Private	200000	2941.18	2.82	322500	13437.50	21.77	00	0.00	0.00
Relative	1029000	15132.35	14.52	2500	104.17	0.17	80000	3200	1.83
Trader	92000	1352.94	1.30	80000	3333.33	5.40	00	0	0.00
Total	7085500	104198.53	100	1481500	61729.17	100.00	4380000	175200	100

* = Moneylender.

Table-32: Source wise Rates of Interest Paid by all Categories of Victim Farmers' Households (per cent)

Source	ESHHS			NESHS			NSHS		
	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.
Nationalized Banks	12	24	18	12	24	16.80	7	12	11.6
Co-operative	6	36	15.57	10	20	16.38	12	48	14.12
SHG	24	36	30	60	60	60.00	0	0	0
Money lender	50	100	67	50	50	50.00	25	100	41.87
Private	24	36	33	60	60	60.00	0	0	0
Relative	24	60	50	60	100	70.00	60	60	60
Trader	60	60	60	50	60	55.00	0	0	0
Total	6	100	39.31	10	60	30.84	7	100	21.92

The source wise borrowing by eligible suicide farm families in Yavatmal district is as; Commercial Banks 27.63 per cent (Rs.19,58,000=00), Co-operatives 30.03 per cent (Rs.21,27,500=00), SHGs 1.55 per cent (Rs.1,10,000 = 00), Money lender 22.14 per cent (Rs.15,69,000 = 00), Private finance 2.82 per cent (Rs.2,00,000 = 00), Relatives 14.52 per cent (Rs.10,29,000=00) and Traders 1.30 per cent (Rs.92,000=00) where as, the same by non suicide households is 30.69 per cent (3.06 per cent more than suicide families) (Rs.5,10,000=00), 46.33 per cent (16.03 per cent more than suicide families) (Rs.7,70,000=00), zero, 18.17 per cent (4.23 per cent less than suicide families) (Rs.3.02,000=00) and 4.81 per cent (Rs.80,000=00) from relatives respectively. A significant fact emerges from this picture that suicide farm households have borrowed more credit from non institutional sources where as, the non suicide household's

borrowing from institutional sources is in greater proportion than the suicide farm households (Table - 12).

Average amount borrowed by the eligible suicide farmers from moneylenders was Rs. 23,073.53 whereas the same was Rs. 31,286.76 and Rs. 28,794.12 from co-operatives and nationalized commercial banks and the average of the rate of interest charged by co-operatives was 15.57 per cent where as it was 8.02 and 67 per cent by banks and moneylenders respectively (the maximum rates charged were 36per cent by co-operatives, 12per cent by banks and 100per cent by moneylenders.

Respondents refrain to reveal about the moneylenders due to a strong hold that they retain on rural farm economy and society on account of their ancestral dominance and the contemporary political links.

Farmers continue to borrow from moneylenders because loans are available on demand (which they term as Demand Loan). Borrowers will also have to pay commissions of around 30 per cent of the borrowing / principal amount to agents at banks and co-operatives plus the time of processing is longer and the credit ability of them is low due to the over dues of earlier debt.

Credit by all categories of land holdings and both for productive and unproductive purposes was positively associated with farm suicides across all villages of Yavatmal district. 59.15 per cent of the borrowing households from the category of eligible suicide households of the district belonged to the category of small and marginal followed by 14.70 per cent of the farmers from large size of holding category where as 26.13 per cent of the households were from the medium category of holding. The striking fact about the indebtedness is that out of the total borrowing Rs. 12, 96,000 was borrowed by ten farmers belonging to the category of large holding of which the proportion in total borrowing is 18.29 per cent.

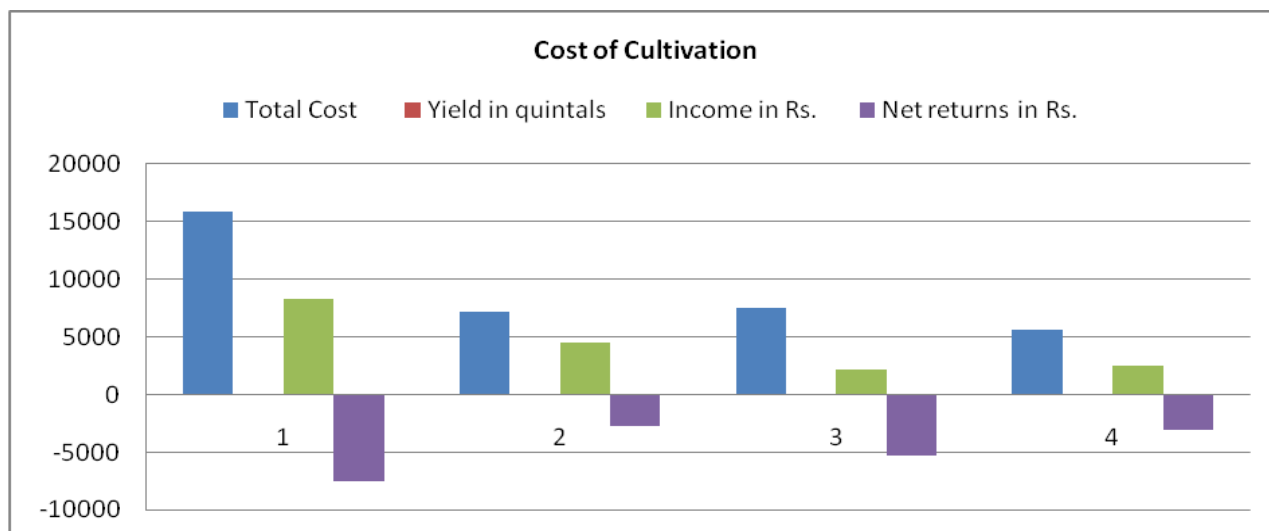
Most of the loans by eligible suicide households were borrowed and used for productive purposes as against 3.27 per cent of the loan used for non-agricultural purposes such as the health and marriage expenses. 96.72 per cent of the farm households in Yavatmal district from where suicides were reported had borrowed and strictly used credit amounts for agriculture and related productive purposes such as the buying of inputs like seeds, fertilizers, pesticides, etc.

Reasons for farmers to borrow from private sources are commission for bank loan which they have to pay to the agent, the delay of one or two months for the processing and approval of bank loan application and the pendency of over dues there by reducing the credit worthiness in organized sources, etc.

5) Cost of Cultivation and Net Returns from Agriculture

Table-13: Crop wise per acre Cost of Cultivation and Net Returns (At prices 2011 / Rs.)

Item & Cost (Per acre)	Crops			
	Cotton	Soya beans	Tur	Jowar
Ploughing	1000	500	500	500
Harrowing	1200	350	350	350
Seed	830	450	350	900
Sowing	500	300	300	300
Weeding & Intercultural	1000	400	300	300
Gap Filling	250	0	0	0
Fertilizers	1500	727	778	522
Pesticides	4000	872	872	0
Spraying	400	200	200	0
Harvesting	1000	600	1175	975
Threshing	400	200	200	125
Interest amount on Capital Cost	352.53	407.94	427.5	316.32
family labour	400	200	300	200
wage labour	500	1400	1200	800
Compost	2500	600	600	300
Total Cost	15832.53	7206.94	7552.5	5588.32
Yield in quintals	2.1	2.56	2.41	2.07
Revenue (Rs).	8290.08	4504.08	2182.14	2514.29
Net returns in Rs. (Revenue - Cost)	-7542.45	-2702.86	-5370.36	-3074.03

Graph-4: Crop wise Per Acre Cost of cultivation and Net Returns

Mainly the increase in borrowing by all holding categories for farm operations was due to the outstripping by input prices of the output prices causing net negative returns on cultivation and thereby pushed farmers into a debt trap.

The average per acre cost of cultivation incurred by farmers for Cotton is Rs. 15,832.53 where as, per acre average yield is limited to 2.10 quintals which brings an average per acre income of Rs. 8290.80 resulting in to a net per acre loss of Rs. 7542.45 where as, the net per acre net average incomes from Soya beans, Tur and Jowar also resulted in to the losses of Rs. 2702.86, Rs. 5370.36 and Rs. 3074.03 respectively (Table-13).

As these farmers have faced frequent crop failures and inadequate crop output in recent past more than 96 per cent of the eligible households under the present study were debt ridden which conforms indebtedness as the main cause for suicides and

6) About the Suicide Affected Farmers

Table-14: Gender, Age and Education Attainment wise Classification of the Eligible and Non-Eligible Suicide Farmers

ESHHs								
Gender	Age	Level of Education Attainment					Total	Per cent
		Illiterate	Pre-Primary	Primary	Secondary	High-Secondary		
Male	<25	1	0	5	0	0	6	8.45
	25-35	2	1	9	3	2	17	23.94
	35-45	2	2	7	2	0	13	18.31
	45-55	3	7	7	0	0	17	23.94
	>55	5	1	4	0	1	11	15.49
	Total		13	11	32	5	3	64
Female	<25	0	0	1	0	0	1	1.41
	25-35	0	0	0	1	0	1	1.41
	45-55	3	0	0	0	0	3	4.23
	>55	2	0	0	0	0	2	2.82
	Total		5	0	1	1	0	7
Total	<25	1	0	6	0	0	7	9.86
	25-35	2	1	9	4	2	18	25.35
	35-45	2	2	7	2	0	13	18.31
	45-55	6	7	7	0	0	20	28.17
	>55	7	1	4	0	1	13	18.31
	Total		18	11	33	6	3	71
NESHHs								
Male	<25	0	1	1	2	0	4	16.00
	25-35	1	2	6	0	1	10	40.00
	35-45	1	1	1	0	0	3	12.00
	45-55	0	1	4	1	0	6	24.00
	>55	0	0	0	1	0	1	4.00
	Total		2	5	12	4	1	24
Female	<25	0	0	0	0	0	0	0.00
	25-35	0	0	0	0	0	0	0.00
	35-45	0	0	0	0	0	0	0.00
	45-55	0	1	0	0	0	1	4.00
	>55	0	0	0	0	0	0	0.00
	Total		0	1	0	0	0	1
Total	<25	0	1	1	2	0	4	16.00
	25-35	1	2	6	0	1	10	40.00
	35-45	1	1	1	0	0	3	12.00
	45-55	0	2	4	1	0	7	28.00
	>55	0	0	0	1	0	1	4.00
	Total		2	6	12	4	1	25

From the total 71 farmers who committed suicides 23.35 per cent (i.e. 18) farmers were illiterate whereas, 15.49 per cent (11) of the deceased had attended just preprimary one year schooling. 33 farmers were reached up to the level of primary enrollment but most of them could not complete the same because they had left schooling within one or two years. There were very few farmers those who could reach up to the level of secondary (6) and higher secondary (3) level of education. 82.81 per cent of the male and 71.42 per cent female farmers committed suicides belonged to the age group between 25 to 55 years.

83.09 per cent (59) out of 71 farmers consumed pesticides and ended their lives where as 14.08 per cent (10) farmers got themselves hanged and remaining 2 jumped in to the well (50).

There is no correlation of significant order between the suicides and addiction or alcoholism but the field information revealed that instant consumption of liquor strengthens the desire of suicide by distressed farmer.

Many suicide affected households have pending owes to traders for provisions (29.58 per cent), fertilizers (25.35 per cent), seeds (26.76 per cent), pesticides (18.31 per cent), medicine (4.23 per cent) and the average of this type of over dues comes about 17.37 per cent.

7) State Compensation and Expectations

Government of Maharashtra has implemented a policy of compensation of rupees one lakh for the family of eligible farmer suicide. For this purpose land in the name of a victim is must. This is recognized through 7 / 12 abstract confirming the land ownership of the person who committed a suicide. But in many cases as victims belonged to a joint family structure with their land in the name of the elder didn't possess any 7 / 12 abstract and such suicide cases were automatically deemed non eligible farmers' suicides. Therefore such suicides despite been categorized as genuine farmers' suicides were deemed ineligible for the state compensation of rupees one lakh. Therefore very few victims' families in our study have received the state compensation as an ex-gretia payment. In some cases victims had the lands in their name, also possessed 7 / 12 abstracts, were also categorized as the genuine farmers' suicides but didn't have the money at their disposal to be paid in advance to the revenue officers as bribes and they received no compensation for reason not ever known to them. During our earlier study (Talule, 2010) on farmers' suicides in Maharashtra, one such widow from *Vidarbha* was asked to arrange for rupees ten thousand by a *patwari*, which she could not do hence she never got the compensation money.

In Yavatmal district only about 42.25 per (30) out of 71 eligible suicide families could get their state compensation money of rupees one lakh each, despite all these (71) suicides in government and police records have been recorded as eligible (genuine farm suicides) suicide cases to be deemed eligible for state compensation .

Barring two beneficiaries (2.81 per cent) from the eligible suicide households (71) no other family from Yavatmal district had in past received any help either under the Prime Minister's or state Chief Minister's rehabilitation package. In village *Yarad* in Yavatmal tehsil there have been six to eight suicide cases in last seven years but only two of them have been registered as farmers' suicides in the police records of which only one victim family got the full compensation

of rupees one lakh where as, the another family got only rupees ten thousand as an initial amount. Resorting to corruption by revenue officials even during such apathy deprived many victim families from their ex-greia payment as a temporary relief.

Apart from such compensation, many suicide victim farmers' families have expectations from the government such as the assistance in digging of wells (78.87 per cent), better price realization for their farm produce and marketing mechanism (64.69 per cent), timely loans (76.06 per cent), one time loan settlement / loan waiver (80.28 per cent), beneficiary level implementation of the government schemes (74.65 per cent), subsidy on implements and supply through *panchayats* (61.97 per cent), irrigation penetration (64.79 per cent) and education facilities and scholarships for their children (71.83 per cent).

X: Conclusion and Policy Implications

Suicide in general and by the farmer in particular is a complex phenomenon largely associated with economic, social, and psychological distress of the family as well as the victim. In recent past, many farmers from Yavatmal district of *Vidarbha* region have committed suicides, most of which are linked with indebtedness though there are many other reasons such as the repeated crop failure, negative returns from cultivation, etc. operating at farm level causing economic, social and psychological distress to the farmers. Due to the socio economic complexity of various factors working at the grass root level, it cannot be appropriate to conclude that all farmers' suicides have taken place only due to indebtedness unless we undertake an objective analysis and assessment about an array of causes for the farmers' suicides. Our study enumerates all the eligible farmers from *Yavatmal* district from *Vidarbha* who have committed suicides between Jan. 2011 and Dec. 2011 and it tries to document the reasons for suicides. The association of suicides with indebtedness was assessed examining the source wise size of debt, value of assets, distress sale of lands and animals, comparative share of private and institutional credit in total credit, source wise rates of interest etc. This clearly bring out that the total debt burden of the 68 suicide affected farm families together was for more than Rs. 70 lakh and in this 40.79 per cent of the money was borrowed from private as against 59.21 per cent from institutional sources. Majority of the farmers (96.72per cent) used credit amounts for productive purposes but due to the high rates of interests charged by money lenders, repeated crop failures and the simultaneous multiple borrowing by the affected farmers from all available sources has pushed them in to a debt trap. The level of educational attainment of victim farmers was poor and some of them resorted to drug addiction which boosted their desire of suicide. Average size of debt was higher and incomes lower caused them to become debt ridden. Post suicide effects in these families were catastrophic and rehabilitation measures were largely missing. Most of the families who have lost their breadwinners now are fighting poverty.

The average per acre productivity of major crops which are cultivated by suicide hin farm households such as the Cotton, Soya beans, Tur and Jowar in Yavatmal district is stagnated at 2.10, 2.56, 2.41 and 2.07 quintals and this has resulted in net per acre negative returns for cultivators by Rs. 7542.45, Rs. 2702.86, Rs. 5370.36 and Rs. 3034.03 respectively.

In the total credit, the share of borrowing from private sources by the eligible suicide affected households (such as the Money lenders, Traders and Relatives) is 40.79 as against 59.21 per cent of institutional borrowings where as the same for non suicide households (24) was observed to be 22.98 and 77.01 per cent and for all 25 non eligible suicides the borrowing from non institutional sources was 41.96 as against 58.04 per cent of institutional borrowings.

Both the eligible and non eligible suicide affected villages do not have available the facilities such as the telephone (54.4 per cent ESHHs & 52.38 per cent NESHHs), post office (58.82 per cent ESHHs & 80.59 per cent NESHHs), public health (80.88 per cent ESHHs & 76.19 per cent NESHHs), APMC (95.59 per cent ESHHs & 59.24 per cent NESHHs), middle level schooling (54.41 per cent ESHHs & 66.67 per cent NESHHs), higher education facility (95.59 per cent ESHHs & 95.24 per cent NESHHs) and cattle health services (77.94 per cent ESHHs & 85.81 per cent NESHHs) respectively. These villages also do not have an access to the private medical practitioner (66.18 per cent ESHHs & 52.38 per cent NESHHs), any watershed development infrastructure (89.71 per cent ESHHs & 71.53 per cent NESHHs), co-operative institution (67.65 per cent ESHHs & 47.62 per cent) and the co-operative credit society (92.65 per cent ESHHs & 100 per cent NESHHs).

Rates of interest paid by farmers on credit mode of purchase of inputs have been classified in three categories; 1) 10 to 12 per cent, 2) 24 to 36 per cent and 3) 40 to 75 per cent per annum. 52.11 per cent (37) per cent of the farmers paid between 10 to 12 per cent, 28.16 per cent (20) per cent farmers paid 24 to 36 per cent and 19.71 per cent (14) of the affected households paid 40 to 75 per cent of the rate of interest on the credit mode of purchasing of inputs from traders. The average of these categories of the rates of interest comes about 11, 33 and 57.5 per cent respectively.

The average of the rate of interest charged by co-operatives was 15.57 per cent where as, it was 8.02 and 67 per cent by banks and moneylenders respectively (the maximum rates charged were 36 per cent by co-operatives, 12 per cent by banks and 100 per cent by moneylenders).

Total amount of loan that is borrowed by the 68 out of 71 eligible suicide affected households is more than rupees 70 lakh (Rs. 70, 85, 500 = 00) and in this the share of private debt is 40.79 per cent (Rs. 28, 90, 000 = 00) as against 59.21 per cent (Rs. 41, 95, 500 = 00) of the institutional debt. Where as, the total amount of loan borrowed by 25 non suicide households is Rs. 16,62,000=00 and the same is Rs.15,01,500=00 on the accounts of non eligible suicide households. The short point about the credit that can be offered by way of conclusion is that suicide affected farmers have incurred a per capita debt of Rs. 1,05,000/- of which 40.79 per cent was from private sources. Non-suicide affected households have incurred per capita debt of Rs. 66,000/- of which 20 per cent was from private sources. In a period in which farmers in Yavatmal district earned negative returns on crops grown by them it is clear that those with lower debt sustenance capacity, i.e. the former group, have cracked under the pressures and driven to committing suicides.

It is shocking to note that the Government of Maharashtra has announced a relief of Rs 1 lakh for the eligible suicide affected families, but 30 out of 71 eligible suicide affected farm families didn't get any amount under such relief package. Therefore the problem of suicides of farming community needs to be tackled in a holistic way. Irrigation network in Vidarbha will have to be strengthened with an adequate rural electrification. For the cash crops like Cotton, Tur and Soya beans, the crop insurance has to be strengthened. As demanded by the affected families, the innovative loan settlement mechanism in the case of crop failures needs to be developed so that the farmers can cope with falling incomes and tide over financial crisis. Non institutional lending mechanism especially, the moneylenders and traders may be brought under regulated regime of interest along with the adequate penetration of bank lending so that private lenders will be prevented from charging an usurious rates of interest and the farmers can be prevented from falling in to a debt trap. As most of the farmers faced crop failures and economic squeeze due to

the fake seeds it invites that the seeds industry needs to be regulated and the stringent action against the traders supplying spurious seeds is inevitable. The education attainment among the suicide affected farm families is weak which is very important for human resource capability. The government therefore needs to penetrate the educational, transportation and all other type of basic infrastructure in Vidarbha to improve the level of educational attainment and strengthen the quality of rural life so as to equip them for better life and to cope with the uncertainties arising out of cultivation.

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