SOCIAL ROOTS OF FARMERS' SUICIDES IN MAHARASHTRA

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The study looks into the causes of suicides of farmers in Maharashtra with reference to the districts of Amravati and Yavatmal. The finding clearly accord with the Durkheim's hypothesis that self-destruction is rooted in social conditions. The lower and medium caste farmers who were mostly the small farmers, given the deprivation perpetuated by British colonialism, had aspired for a better socio-economic position through agriculture in the planning era in the wake of land reforms and other allied measures. When they failed to realise it owing to crop loss they found their life not worth living. Their suicidal tendency was strengthened by the egoistic factors. On the contrary, the suicides of the large and medium farmers who mostly belong to higher castes can be attributed mainly to the anomic forces generated by failure in business, trade and politics. The socio-cultural factors such as old age, illness, family tension, etc., further added their urge to take their own lives. Thus, the suicides of farmers are neither purely anomic nor egoistic rather they are ego-anomic in nature.

Introduction

The spate of farmers' suicides in some Indian states has pointed to many problems afflicting the economy and society in the countryside. While the respective state governments attribute them mostly to crop failure due to bad weather the media highlights the rising cost of cultivation, mounting indebtedness and bottlenecks in agricultural marketing, etc. Studies undertaken in Andhra Pradesh, Karnataka and Punjab emphasise broadly on crop loss and indebtedness owing to adverse climatic conditions, market imperfections, trade liberalization, etc. (*Shiva and Jafri*, 1998, *Parthasarathy and Sameem*, 1998; *Kamath*, 1999; *Prasad*, 1999; *Vasavi*, 1999; *Bose*, 2000; *Deshpande*, 2002; *Grover et al.* 2003; *Nirmala*, 2003; *Sarma*, 2004)[1]. However, some of them have given hints on social issues involved in suicide deaths. Stated precisely, the available literature on suicides of farmers in India broadly subscribe to the hypothesis that suicides are attributable to economic hardships caused by crop loss and indebtedness.

This hypothesis runs counter to the Durkheim's hypothesis that self-destruction is rooted in social conditions. To quote him, ... economic distress does not have the aggravating influence often attributed to it, is that it tends rather to produce the opposite effect. There is very little suicide in Ireland, where the peasantry leads to wretched life. Poverty-stricken Calabria has almost no suicides; Spain has a tenth as many as France. Poverty may even considered a protection" (1952: 245). According to Durkheim suicide is an individual phenomenon the causes of which are essentially social in nature. As he puts it, "the victim's act which at first seems to express only his personal temperament are really the supplement and prolongation of a social condition which they express externally" (1952: 299). The overpowering impact of Durkheim's hypothesis on subsequent studies has been noted by a number of scholars (*Miley*, 1972)

Hence, the present study intends to test the relevance of both "economic determinist" and "social root" hypotheses in the context of Maharashtra. The study

focuses on two districts of the state, Amravati and Yavatmal, where suicides are largely concentrated[2].

II

Theoretical Framework

Though sociological paradigm of suicides developed by Durkheim (1952) has served as a model for understanding suicides, the acceptance of this model is not to say that one can not benefit from its periodic reassessment (Miley, 1972:657). He identifies four broad types of suicides distinguished by the factors which cause them, viz. egoistic, altruistic, anomic and fatalistic. However, for the last type he states "for completeness sake we should set up a fourth suicidal type. But it has little contemporary importance and examples are so hard to find aside....It seems useless to dwell upon it"(1952:276). Durkheim's type of "altruistic suicide " is also rarely found (*Giddens*, 1966:304). It is argued that the two types of suicides, altruistic and fatalistic have not been legitimately studied by Durkheim (*Johnson,* 1965:879). Altruistic suicide occurs when the 'weight of society is brought to bear on the individuals themselves' (in other words due to excess integration of the individuals with the society). On the other hand, fatalistic suicide is caused by excessive regulation ("oppressive discipline"). While the former is found in some primitive and military societies, the latter is seen among the slaves. "Altruism and fatalism should be excluded from Durkheim's theory because with the single exception of the army all cases he cites either lack evidence or are not explained in purely social terms" (Ibid., p.881).

To Durkheim, egoistic suicide occurs when the ties binding the individual to others are slackened and there is absence of adequate social integration[3]. He states "social man necessarily pre-supposes a society which he expresses and serves". The greater is the social isolation, the lesser the individual participates as a social being. As a result, his life lacks purpose and meaning. He experiences a loss of direction, sense of apathy and finally absence of attachment to life itself. Egoism refers to institutionalized structural conditions, which "loosen" or "dilute" social ties binding the members of a group to one another. It produces structural pressures tending towards the isolation of individuals from closely defined ties with others. The conditions of egoism are found in the existence of social values promoting individualism, personal initiative and responsibility in various spheres of social activity (*Giddens*, 1966:278). Durkheim further stresses that the degree of development of egoism is relative to the features of domestic environment (family structure). The larger is the family size the greater is the degree of protection against suicide because it represents higher degree of social cohesion due to greater sentiments and historical memories (*Morrison*, 1995:174). The duties and obligations and the demands and expectations in the family generate attachment to life. The immunity to suicide is, therefore, less among the unmarried persons and persons belonging to small family and particularly when they face widowhood, separation and childlessness (*Durkheim,* 1952: 180-216).

Anomic suicide results when social regulation[4] is too weak or disrupted. The individual's needs and satisfaction are regulated by "common beliefs and practices" or what Durkheim calls "collective conscience". When this regulation is upset, the individual's horizon is broadened beyond what he can induce or contracted unduly and in this situation the condition for suicide tends towards a

maximum. The individual is provided with ill-defined objectives or with goals which make the possibility of "failure" high (*Giddens,* 1966:301). Durkheim believes that each stratum of society sets normative boundaries for the upper and lower limits of aspiration of its members and anomic situation arises when these boundaries are thrown awry (*Marks,* 1975: 333). He argues that social wants such as the appetite for wealth, prestige and power are essentially unlimited and the society sets limits on these wants through moral restraints by linking them to available means (*Morrison,* 1995:182). When the regulatory power of the society fails, social wants exceed the possible means for attaining them and the individual remains in a perpetual danger of suffering from the disproportion between his aspirations and achievements. If the ends of action are contradictory, inaccessible or insignificant, a condition of anomie arises (*Powell,* 1958). This situation generates disappointment and feelings of failure which lead to the growth of "suicidogenic impulse". Durkheim views anomie as the chronic state of modern socio-economic system and so he considers anomic suicides as the characteristic feature of modern or industrial society. However, anomie is not a condition of social structure which is confined to industrial societies, it is rather frequently consequential upon a situation where potentialities for "failure" in certain sectors of social activity are built into the social structure (*Giddens,* 1966:279). Durkheim also discussed about the crisis of widowhood and divorce and their debilitating effects on the individual. He mentions that anomic suicide rises due to domestic reasons such as widowhood and divorce (1952:259).

Besides, Durkheim (1952:287) also noted that these types of suicides are not always found in actual experience in a state of purity and isolation. They are often combined with one another giving rise to what he calls "mixed types". He observed that different social causes of suicide may simultaneously affect the same individual and impose their combined effects upon him. In this context, he mentions that egoism and anomie have peculiar affinity for one another (Ibid. 288).

Though the social conditions of suicides outlined by Durkheim are widely accepted, the historical process of development of these conditions was adequately analysed neither by Durkheim nor by the subsequent writers. However, this is very important in the context of Indian rural society that has undergone a complex process of historical development. The British colonialism through new land tenures, commercialisation of agriculture and expansion of politico-legal system transformed the agrarian economy with the aim of increasing agricultural production that could be used as raw material for Britain's industrialisation on the one hand and polarising Indian rural society into various antagonistic social groups for pursuing the 'divide and rule' policy on the other. The changes in the post-independence period are significantly different in nature. In such a society, therefore, social realities have antecedents and their roots generally lie in the past. Therefore, any attempt to understand the suicidal behaviour of farmers must take into account the social effects of both colonialism and planning.

The central thesis of the sociological approach to the study of suicide is that the nature of suicide varies with social position (*Powell,* 1958: 131). Each individual prepares himself for a social position through the process of socialization that varies from one group to the other (*Kardiner et al.,* 1945). Hence, social position that an individual holds and the position for which he is being prepared

and the goals of his actions provide clues to explain suicides. Traditionally, the Indian rural society was hierarchical structured in terms of caste relations. Each caste was an occupational group. As per the caste-based occupational distribution the members of lower castes were neither the landowners nor the cultivators. They depended upon their limited sources of income, mostly the labour services. The ascribed socio-economic duties and obligations made them confine their hopes and aspirations to the prescribed boundary. But they witnessed the prosperity and domination of the upper caste landholders through agriculture which was the major source of income and employment. The social movements that began to challenge the upper caste dominance and the subsequent protective and ameliorative measures introduced in the post-independence phase provoked this deprived class to aspire for a better socio-economic position. The acquisition of land through reform measures and market mechanism appeared to them as a means to fulfill their long cherished desires. The promises of the modernization of agriculture especially the high yielding varieties allured them further. On the contrary, the new social order challenged the spectral dominance of the higher castes. They lost some portion of their land to the lower castes due to reform measures and were also restricted to increase their holdings beyond the prescribed ceiling. To retain their hierarchical position they began to look beyond agriculture to trade, finance and politics (*Baviskar*, 1980; *Dhanagare*, 1994; *Rutten*, 1995; *Punalekar*, 1998; *Mohanty*, 1999, 2001a).

III

Social History of Amravati and Yavatmal in Perspective

Amravati and Yavatmal form a part of Vidarbha region of Maharashtra. They constituted a part of the Maratha kingdom till 1803. Subsequently, they (and the adjoining territories collectively called Berar) were transferred to the Nizam of Hydrabad and in 1853 they came under the direct control of the British.

On the basis of available records, it can be inferred that the rural society was organised within a rigid caste structure. The Kunbis, Malis and Baris were the major cultivators. The Kunbis cultivated dry crops, the Malis garden crops (including flowers, vegetables and fruits) and the Baris betel vines[5]. Each group was considered expert in its own branch of cultivation. The agriculture related services were mostly carried on through *balutedari* system. Agriculture was mostly specific to local needs and the area under cultivation was adjusted to increases or decreases in population. The crops were grown according to the suitability of climatic conditions and agricultural operations were carried on with commonly practised simple technology. The major source of hardship of the cultivators was the land revenue demand. The economic disparity among the rural communities was minimal because land had scarcely any value and cultivators had no right on it. The government also discouraged the people from possessing ornaments and other forms of wealth[6].

The agrarian social structure of the two districts witnessed substantial changes during British raj days. Soon after the Assignment, the British reduced the land revenue temporarily. Subsequently, it was enhanced heavily through periodic settlements. An elaborate bureaucratic network was created for the timely collection of revenue. The traditional caste structure was used while allocating the official positions. A large part of administrative arrangement was left to the upper

castes[7]. The new land tenure in the lines of the *ryotwari* system of Bombay enabled the cultivators to occupy the land permanently, dispose it of in any way and to improve the quality and method of cultivation without any addition in revenue. The stability of tenure, increase in the price of produce and the social status attached to land ownership increased the fondness for land investment. The privileged and the affluent classes started acquiring more land. Though the Brahmins, Rajputs and other high castes occupied large quantity of land, the majority of agricultural holdings were in the possession of the Kunbis who were known for their cat-like affection for land[8]. The Marathi proverb says "Wherever it thunders there the Kunbi is a landholder and tens of millions are dependent on the Kunbi but the Kunbi depends on no man"(*Russell,* 1916:49). The other cultivators were the Marathas, Gaolis, Rajputs, etc. The farmers of the lower cultivating castes were mostly the tenants having minuscule holdings. The 'impure castes' such as Mahar, Chamar, Mang, etc. who together constituted around 20 per cent of Amravati's population and 15 per cent of Yavatmal's were largely the landless labourers[9]. Though some of them had *waten* lands which were usually of inferior type (*Brahme and Upadhyaya,* 1979) they cultivated it through the farmers of lower castes.

Under the British, the area under cultivation increased. From the very beginning they favoured extensive cultivation of commercial crops especially cotton. As the long-stapled American cotton was preferred to the short-stapled Indian cotton in Britain (*Benjamin,* 1973; *Borpujari,* 1973; *Desai et al.*, 1978), attempts were made to introduce the former. However, the cotton grown in Berar region particularly the *jari* variety, was in demand in Bombay market for export to England and the demand increased further when the American cotton was priced higher (*Borpujari,* 1973:71). Besides, it was exported to Germany and other countries of continental Europe and Japan. The area under cotton increased rapidly during the American Civil War (1860-65) as the American export ceased and Lancashire faced a cotton famine when there was a sudden rise in the British demand for Indian raw cotton (*Guha,* 1972; *Benjamin,* 1973; *Borpujari,* 1973). This acted as a boom for the cotton growers but the severity of its impact caused a large number of weavers to give up their traditional occupation, as they could not afford to buy cotton at an unusual high price. Even after the War was over, the area under cotton went on increasing due to higher demand in both foreign and Indian markets. The opening of Nagpur branch of the Great Indian Peninsula Railway in 1866 facilitated transportation of cotton from these isolated segments. This induced the farmers to expand the tillage. While describing the then agrarian situation of Berar, Alfred Lyall (1870) writes, "The land revenue increased and multiplied with marvelous rapidity under the combined stimuli of good Government, railways and the Manchester cotton famine. Cultivation spread over the land like a flood tide"[10]. The area under cotton which was only 38.23 per cent in Amravati and 29.07 per cent in Yavatmal in 1891-92 increased gradually to 56.96 and 44.82 per cent respectively in 1925-26[11].

Compared with most other crops, the net profit from the cultivation of cotton was much more [12]. The large landholders who mostly belonged to the higher castes prospered because of their extensive cultivation of cotton. The small and marginal holders who largely belonged to the lower castes having a small resource

base could not afford to cultivate cotton. The increasing price of food grains and the caste defined specialization on selected crops were the constraints. Even those farmers who managed to grow cotton did not get enough profit because they sold their produce to local traders, being unable to carry their small output to the market or ginning factory. As a result of extensive cultivation of cotton, the area under foodgrains particularly jowar and wheat came down[13]. With the growing cultivation of cotton, the prices of foodgrains rose up by almost three times in twenty years and the trend continued in the subsequent years[14]. This coupled with the growing population led to famines[15]. Besides, the rise in the wages of the agricultural labourers did not keep in pace with the increased cost of foodgrains.

Moreover, as agriculture was almost entirely dependent upon monsoon, crop failure was a fairly regular feature. Both districts experienced near total failure of almost all crops in 1896-97 and 1899-1900 largely due to low rainfall. Amravati witnessed major crop failures consistently for four years (1922-23 to 1925-26). Agricultural labourers and marginal farmers (who were mostly from the lower castes) were affected severely because of sharp increases in the prices of foodgrains and decrease in wages. The greater was the intensity of crop failure, the higher was the price of foodgrains and lower the wage rates[16]. The main sufferers of this were the poor farmers and landless labourers who mostly belong to the lower castes. On the other hand, the situation provided the higher castes a congenial base for their prosperity as they sold their surplus foodgrains at a higher price and cultivated their lands by employing the cheap labour force.

To encourage the cultivation of cotton and other cash crops, the Government advanced loans to the cultivators under the Land Improvement Act and the Agriculturists Loans Act (applied to Berar in 1871 and 1891 respectively). More advances were made under them in the famine or bad agricultural years[17]. However, such credit facilities were not available to the landless labourers. Besides, even the small and marginal farmers belonging to lower castes were reluctant to avail themselves of such facilities due to the exaction of irregular payments by the government servants[18] who were mostly the Brahmins, Rajputs, Marathas and Kunbis[19]. It seems that the higher caste cultivators because of their greater access to the government credit agencies benefited more from such loans. The poor farmers and landless labourers were largely indebted to the private moneylenders who were the landholders as well as grain or cotton dealers of the Marwari, Komti, Brahmin and Kunbi communities. The rate of interest was exorbitant particularly in the bad agricultural years. As a result, many low caste peasants and labourers migrated to Bombay, Nagpur and other cities to work in cotton mills, docks, railways, etc[20].

Taken together, the cumulative impact of these changes widened the disparity among the caste groups during the British period. Though some members of lower castes improved their economic position by migrating to Bombay and Nagpur, their social status remained low. Those who tried to elevate themselves in the social scale became unsuccessful as a majority of lower castes and public looked upon it with disfavour[21]. As a way out, many of them converted to Christianity. The Christian population in Amravati increased by more than three times and in Yavatmal by more than eight times from 1891 to 1931[22].

The members of lower castes also joined the Satysodhak movement organized by Jyotiba Phule. The movement gradually became prominent in many parts of Amravati and Yavatmal (*Omvedt,* 1976). The Satysodhak Samaj, which was a social organisation, extended its coverage to the inequality in the distribution of land and money-lending activities of the upper castes. The emergence of Ambedkar and his dalit panthar activities enlightened them further. In quest for social equality, a large number of them became Buddhists[23]. These movements encouraged the lower castes to challenge hegemony of upper castes in social as well as economic fronts.

After independence, the agrarian social structure of Amravati and Yavatmal entered a new phase under the impact of land reforms, new production technology and accompanying infrastructral arrangements. In pursuance of policies laid down in the country's Five-Year Plans, a package of land reform measures was launched by the Government. However, some measures were also adopted earlier by the colonial government. The important legislations were the Central Provinces and Berar Act, 1939, Berar Alienated Villages Tenancy Law, 1921 and Berar Forest Law, 1886. As these Acts were formally introduced to suppress the agrarian tension, they did not show any perceptible change owing to provisions favourable to the rich landowners of the upper castes who were the main agents of the British. But the reform measures launched in the post-independence period were more elaborate and comprehensive. The Madhya Pradesh Abolition of Proprietary Rights Act, 1950 abolished all the proprietary rights in estates, *mahals*, alienated villages or alienated lands including the old tenures, such as *izara, jagir, palampat* and *inam.* The Bombay Tenancy and Agricultural Lands Vidarbha Region and Kutch Area Act, 1958 provided for the transfer of ownership of land to the tenant. It also made provisions for tenancy rights by succession and regulated the sale of agricultural land exceeding two-thirds of the ceiling area. The Maharashtra Agricultural Lands (Ceiling on Holdings) Act, 1961 prescribed the ceiling on land holdings for both irrigated and unirrigated areas from 26th January 1962, which was lowered further from 2nd October 1975. Other measures taken related to land tenure system, tenancy, land ceiling, consolidation of holdings and distribution of land to scheduled castes and tribes. Despite loopholes, these Acts had positive impact on the redistribution of land (*Nanekar,* 1968; *Rao,* 1972; *Rajasekaran,* 1998; *Deshpande,* 1998, *Mohanty,* 2001b). In Maharashtra, Vidarbha region reported a higher achievement in land reforms measures and within the region the districts of Amaravati and Yavatmal registered a better performance (*Rajasekaran,* 1998). Up to 1995, ceiling surplus land amounting to10751 holdings consisting of 15963 hectares in Amaravati and 4635 holdings of 8178 hectares in Yavatmal were distributed to landless families of various categories. While 4018 holdings comprising an area of 5727.5 hectares were distributed to scheduled castes in Amaravati, 1302 holdings with an area of 2337.3 hectares were distributed to them in Yavatmal. Besides, many lower caste people who migrated to Nagpur and Bombay could buy land with their new sources of income (*Omvedt,* 1994). As a consequence, the number and area of operational holdings of scheduled castes increased noticeably in both the districts. While in Amravati the number and area of land holdings of scheduled castes increased from 9.04 to 11.86 percent and 6.74 to 8.81 per cent respectively between 1985-86 to 1990-91, Yavatmal reported an

increase from 7.97 to 8.80 per cent in number of holdings and from 6.52 to 7.26 per cent in area terms (*Mohanty,* 2001c).

As a result, the number of cultivators particularly among the scheduled castes increased. It is revealed from the Census Reports that the percentage of scheduled caste cultivators to main workers in rural Amaravati which was 11.31 in 1971 rose to 14.11 in 1981. But, in 1991 Census their number is reported as 12.20 per cent which gives an impression of a decreasing trend. In fact, such a decline is attributed to the inclusion of some more caste groups like Nav-Buddhists in the Scheduled Caste group[24] which increased the number of main workers more than that of cultivators. Similarly, in the Yavatmal district the size of scheduled caste cultivators increased from 8.44 per cent in 1971 to 13.66 per cent in 1981 and then to16.83 in 1991. Though the size of the general cultivators of the two districts increased initially (from 24.44 per cent to 28.70 in Amravati and from 29.04 per cent to 32.55 in Yavatmal between 1971 and 1981 Census) subsequently in 1991 it decreased to 26.20 percent in Amravati and to 29.64 per cent in Yavatmal. The decrease in the number of cultivators in both the districts is partly due to the decrease in leased area[25] and partly due to the movement of a sizable number of workers towards trade, commerce and other services[26]. Possibly, the rich farmers who mostly belong to higher castes being unable to increase their holdings further due to land ceiling laws went in for trade, business, etc.

Apart from these, the agricultural practices of the two districts have undergone changes. Though cotton continues to be the dominant crop, the area under oilseeds and sugarcane shows a rising trend (Table1). However, it is observed that though the area under cotton in Yavatmal does not project any remarkable trend, in Amravati it shows a declining trend. It is largely due to the increase of area under oil seeds. Consequent upon the recommendation of Government for the adoption of High Yielding Varieties, the area under these seeds has become widespread[27]. The extensive adoption of these varieties has made the application of higher doses of chemical fertilizers, pesticides and other inputs an integral part of cultivation process. As a result, the cost of cultivation has increased over the years. To go by the Reports of the Commission for Agricultural Costs and Prices of the Government of India, the per hectare cost of cotton cultivation in Maharashtra increased from Rs. 2143.74 in 1981-82 to Rs. 6341.18 in 1995-96 in real terms. Similarly, the cost of cultivation of jowar rose to Rs.2118.87 in 1995-96 as against Rs.716.32 in 1981-82. To meet the demands for more working funds and to check usurious money-lending practices, the credit network has been expanded largely through the establishment of agricultural co-operative credit societies. The growth in the number of such co-operatives in both the districts has been phenomenal, as has been the rise in membership and the average outstanding loan amount[28]. Added to this, there are also licensed moneylenders who advance loans under the provision of the Bombay Moneylenders Act, 1946, which came into force in Berar from 1st of February 1960. Though the number of these moneylenders has decreased noticeably owing to the expansion of formal credit network, the amount of loans advanced by them to the non-traders (including the farmers) has increased over the years (*Mohanty,* 2001a).

There has also been a rise in farm (harvest) prices of many crops[29]. Previously the price of cotton was uncertain due to unpredictable foreign market

demand and the monopoly purchases of local middlemen. The Monopoly Procurement Scheme for Cotton was introduced in the state on 1st of August 1972 to ensure remunerative prices to the cultivators. The price of cotton shows a gradual increase since then.

Besides, the collective impact of agricultural modernizing measures has also gradually enhanced the average yield of the major crops[30]. However, as the area under irrigation is negligible[31] agricultural production is almost entirely dependent upon the monsoon. Due to variations in rainfall, crop failure is the frequent visitor in this region. The adverse climatic conditions have caused crop loss of a considerable magnitude many times[32]. However, the macro level data do not clearly support the alleged view that crop loss causes suicides. In rural areas, suicides are regular phenomena and their rate continues to increase over the years (Table 2). The analysis of the relationship between suicide rates and the agricultural situation across the years does not appear to be positive (Table 3). Moreover, looking at the distribution of suicides by causes of recent years, it is found that suicides in these districts were mostly due to a variety of social factors (Table 4). The economic causes, which include bankruptcy or sudden change in economic status, poverty, etc., have a negligible effect. However, the suicides due to unknown causes were also significant.

A closer look of the suicides at the micro level will substantiate the issues in concrete detail.

III

A Micro View

The study has covered 66 farmers' suicide cases[33] reported in 1998 in the districts of Amravati and Yavatmal. The fieldwork was carried out in phases in 1999. To examine the differential impact of agricultural hardships, the deceased farmers have been categorised into three groups, viz., Small Farmers, Medium Farmers and Large Farmers, on the basis of land ownership position[34]. It was found that majority of suicides were committed by the small farmers (64 per cent) and the medium and large farmers were much behind them (23 and 14 per cent respectively). While agriculture and labour services was the major source of income for large number of small farmers (86 per cent), the large and medium farmers derived a substantial amount of income from business, trade, and allied activities. Over 60 per cent of the medium 78 per cent of large farmers get regular income from these non-agricultural sources.

The deceased farmers were mostly the cotton growers. Around 60 per cent of their cropped area was covered by cotton and it was even higher among the small farmers (Table 5). The area under jowar and tur was also significant. As the irrigated area of the large and medium farmers was relatively more, they cultivated sugarcane, wheat, vegetables and other profitable crops. The agriculture of the deceased farmers was heavily dependent upon HYV and the major crops such as cotton and jowar were largely under the coverage of these varieties. The extensive adoption of the HYV seeds necessitated them to invest more in agriculture in terms of fertilizers, pesticides and other inputs without which only a meager amount would be harvested. It is reported that the farmers sprayed high doses of pesticides during harvesting season for a number of times because of the heavy pest attacks due to prolonged unseasonal rains and cloudy conditions from October to

December. In addition, repeated hailstorms ravaged the cotton and some other crops. As a consequence, the farmers experienced crop loss. The impact was felt less by the medium and large farmers due to their lesser area under cotton cultivation. Moreover, the farmers who had a long experience in cotton cultivation and had encountered such climatic conditions earlier managed to arrest the adverse situation with their skill and knowledge and earned some margin of profit.

The estimate of crop loss (Table 5) shows that while most of the small farmers (93 percent) were unable to recover their cost of cultivation, a majority of the medium and large farmers managed to earn some profit. Though crop failure implies loss of resources invested in cultivation for a given crop, in a capital intensive cash crop growing area the farmers' interest is not confined to the simple recovery of the cost of cultivation with a marginal net income. They usually expect a higher margin of profit based on which they plan their expenditure for the given year. However, the level of expectation of individual farmers varies because it is largely influenced by the quality of land, amount of investment, market conditions, etc. It is estimated that the per acre loss of expected income was Rs.5690.03 for small farmers, Rs.4172.64 for the medium farmers and Rs.3948.27 for the large farmers respectively (Table 5). The average loss of the medium and large farmers was higher due to large land ownership because each additional acre added to the loss.

It is observed that none of the deceased farmers received agricultural income as per his expectation. However, viewed differently, in the villages of semi-arid tropics where agricultural production rarely matches the level of expectation of the farmers, shortfall in the expected income upto a certain level may not cause a serious concern . The estimates reveal that while majority of the deceased farmers of medium and large holding groups had received income more than 50 per cent of their expectation, none of small farmers receive income up to that extent. Thus, though the loss of agricultural income owing to crop failure caused an economic crisis for all the farmers, given their resource base and additional sources of income, it had lesser impact on the large and medium farmers.

Looking at the indebtedness, it is found that while 68 per cent of the deceased farmers had taken loans from the banks and the co-operatives, 77 per cent were indebted to private moneylenders (Table 6). The number of farmers taken loan from formal agencies was more among the large farmers mainly due to their better access to these institutions. However, the per acre loan of the small farmers was more which can be attributed to their perpetual scarcity of working funds and greater cultivation of cotton crop. Loans from these agencies are not considered by the farmers as a serious burden due to a low rate of interest and repayment in instalments. Many large farmers, though not requiring credit from the formal agencies, utilize their low cost credit capital for other income-generating purposes. Four farmers (two each from medium and large categories) who took loan from formal agencies were the moneylenders themselves. Co-operative officials allege that many rich farmers avoid repayment and remain as defaulters. This has been reported not only in Maharashtra but also other parts of India (*Dhanagare,* 1975; *Sarap,* 1991; *Mohanty,* 1999 , 2000).

As regards the informal sources (Table 6), the number of indebted farmers was more among the small farmers (83 per cent). A majority of medium and large

farmers (more than 66 per cent) were also in debt with a relatively higher amount of average loan. However, around 50 per cent of these farmers had taken loans either interest-free or at a nominal rate from their friends and relatives. Moreover, of the 24 medium and large farmers, 21 (88 per cent) had borrowed money from informal sources without any collateral. On the contrary, most small farmers (76 per cent) had to keep their land, jewelry, etc. in mortgage. In short, accumulation of interest, loss of collateral owing to non-repayment of loans and the loss of faith of the moneylenders pushed the small farmers to the edge. Further, while the deceased farmers of all the categories had borrowed from the formal agencies almost entirely for agricultural purposes, indebtedness to informal agencies is caused by a number of non-agricultural purposes. A major part of borrowings of the medium and large farmers was due to non-agricultural reasons such as social functions (marriages, etc.), investment in business, etc. The small farmers were indebted mostly due to agricultural and family expenses. In the case of the medium and large farmers, the percentage of their total borrowings from both the formal and informal agencies to the value of their major assets was not high (22.42 and 11.31 per cent respectively) while it was so for the small farmers (68.94 per cent). Hence, they would have found it difficult to dispose of their assets to discharge their liabilities.

While 74 per cent of the small farmers sold their assets such as livestock, agricultural implements, land and household items amounting to Rs. 20457.50 on an average, 40 per cent of medium and 44 per cent of large farmers did that for Rs. 47,750.00 and Rs. 36,342.50 respectively. The value of assets sold by the small farmers formed 30.75 per cent of their total assets but it was considerably less for the medium and large farmers (19.41 and 7.49 per cent respectively). As regards the purposes[35], while small farmers sold them mostly to repay the loans and meet the agricultural and family expenses, the medium and large farmers were largely motivated by their desire to make profitable investments.

The major crops such as cotton, jowar and tur were adversely affected owing to bad weather and consequent pests' attacks. The harvesting of these crops usually begins in October and continues till February. Therefore, suicides entirely caused by crop failure were likely to have occurred in this period. True, the hardship caused by the loss of agricultural income affects the farmers throughout the year but its effect is felt more at the time of harvesting. Barring a large number of small farmers (93 per cent) who committed suicides during the harvesting period, the suicides of farmers of other categories occurred mostly between March and June during which the operations like preparatory tillage, harrowing and sowing are done.

One way of assessing the effect of agricultural hardship on suicides of farmers is to analyse the extent of crop loss, indebtedness, etc., of the deceased farmers in juxtaposition to those of a control group of farmers. Recently such an exercise has been carried out by Mohanty and Shroff (2003)[36] in the districts Amravati, Yavataml and Wardha. Their estimate on crop loss, indebtedness, etc., does not reveal any substantial variation among farmers of the two categories. They argued that loss of agricultural income due to croploss, indebtedness and market imperfections being common to control as well as deceased farmers, the economic hardship may not have led the farmers to the extreme step of committing suicide.

However, they noted the severity of the impact of crop loss and consequent indebtedness on the small deceased farmers.

The information provided by the family members of the suicide victims also indicate that crop failure is the single most important reason (along with indebtedness) that induced the small farmers to take their own lives. But their effect on the large and the medium farmers appears to be negligible. Instead, their suicides are mainly attributable to old age, illness, family problems, failure in trade and business and other socio-economic matters, etc. (Table 7). However, the meanings imputed to suicide by individuals not involved in a concrete, real-world situation of suicidal actions are very different from the meaning imputed to suicide by individuals who are involved in a concrete situation of suicidal action (*Douglas,* 1966:268).

This raises two questions. First, why are the small farmers more prone to crop failure? Second, why did crop failure and indebtedness weigh so heavily on their minds? Caste group-wise[37] distribution shows that most victims of small holding group were farmers of medium and lower castes. The large and medium farmers are mainly from the higher castes. As many as 80 per cent of the medium and 89 per cent of large farmers belonged to the higher castes as against 2 per cent of the small farmers. A large number of suicides by the lower caste farmers, who mostly are the small and marginal holders, has also been reported in the neighbouring state of Andhra Pradesh (*Nirmala*, 2003)[38].

The small farmers mostly belong to lower castes such as Mahar, Nav-Bouddh, Matang, Chamar, Dhangar, etc., the medium caste farmers to the Teli, Beldar and Banjari, and higher caste farmers were mainly the Maratha Kunbis and Rajputs. The members of lower castes were not cultivators. Though the persons belonging to many of these castes were engaged in agricultural activities, they were specialized. The lower caste workers were experts in their respective fields[39]. Stated precisely, the farmers belonging to these groups are not having the skill and knowledge required for cultivation. The modern methods of cultivation particularly, intensive cultivation of high yielding cash crops, the quantity, quality and timings of application of agricultural inputs, etc. are almost unknown to them.

Of the deceased farmers of lower castes, more than 36 per cent were tenants and tenants-cum-owner cultivators and most of them cultivated the leased land on fixed rent basis. Around 30 per cent of them had received land through various schemes like distribution of ceiling surplus lands and government wastelands. Some of them also purchased land in the recent years. Over 85 per cent of them had less than ten years of experience in cultivation (Table 8). The cultivation of cotton which requires experience, skill, and knowledge regarding the seeds, agricultural operations, plant diseases, etc. was almost new to these farmers. More than 58 per cent of them had experience of cotton farming for less than 5 years. The suicides of lower caste farmers in Maharashtra as a result of crop loss caused by their lack of appropriate skill, and knowledge has also been reported elsewhere (*Omvedt*, 1999)[40]. The remark made by a Mahar farmer of Khirala village in Amravati district is worth noting.

"They (Maratha-Kunbi large farmers) are the real agriculturists, we are so by name only. They know well which type of soil suits which crop, the appropriate seed varieties, the timing of application of manure, fertilizers, pesticides and their quality and quantity. Even in the same land

and same crop they produce more than us. In the adverse climatic conditions also they manage to get some margin of profit".

The government supported extension services have almost failed in educating the farmers particularly of lower castes who are mostly illiterate. Though some of them learned about better seeds, they are still not familiar with the recommended doses of agricultural inputs and appropriate methods of cultivation. Only the rich and progressive farmers, who are essentially from the upper castes are relatively well-informed. The lower caste farmers who are mostly small holders or tenants depending upon the local shopkeepers remain ill informed. The dissemination of information through mass media also does not reach them as they neither own television and radio sets nor subscribes to newspapers and magazines. Their illiteracy, ignorance and low level of educational attainment handicap them further. The higher caste farmers who had earlier kept the lower caste farmers under their domination do not like to disseminate their knowledge, which would help the underprivileged to improve their economic position. Moreover, the social reform movements led by Phule and Ambedkar and the resultant upliftment made the higher caste farmers more aggressive and hostile towards the lower castes. A village Brahmin (landlord) in Amravati commented,

"Ambedkar only spoiled them (Mahars). Earlier they were all like our brothers. They were taking all kinds of help from us. There are several instances where we have rescued them. For example, my father had leased out three acres of land to a Mahar before which he was not getting food for survival. When he was at the verge of death, I took him to hospital. My elder brother also waived the borrowed amount of Rs. 300/- keeping his bad economic condition in mind. In another event, my father intervened and resolved the crisis while they were fighting with one another relating to a family dispute. But finally he claimed our land under tenancy reform laws. Now who would help these betrayers? They also betrayed their own Hindu religion and became Buddhists".

Thus, lower caste farmers have to depend upon the local dealers and private agencies for agricultural information. About 80 per cent of the deceased farmers of lower and medium castes followed the doses, quality and timings for pesticides as prescribed by the local shopkeepers. Similarly, they sought the advice of the private agents regarding the application of chemical fertilizers and use of seeds. Private agencies and local dealers prescribed higher doses of agricultural inputs in their own interest. Since the purchases were made on credit, the prices of the inputs are high and quality poor. Large farmers, who mostly belong to higher castes, consider the government agencies as their basic source of information. When the government officials go to the villages, they often visited the large farmers because of their progressive farming, and the small and marginal farmers of lower castes were rarely contacted. The *talathis* or *gram sewaks* because of their close nexus with the rich higher caste farmers lead the government officers to their farms based on which the village situation is generalized.

Many lower caste farmers were ambitious of enhancing their socio-economic position through cotton cultivation. The following case provides a glaring example:

N, 32, was a Mahar small farmer. After graduation, he tried for a government job but failed. N came back to the village and helped his father and younger brother in agricultural activities. From 1995 he took over the entire responsibilities and managed the expenses

independently. He extended the area under cotton and invested a higher amount borrowing from co-operatives and money lenders. But he could not repay the loans. Gradually his indebtedness increased to Rs.22000/. In 1996 and 1997 he could not recover the amount he invested. His family faced severe economic crisis. N blamed himself for this failure in all the fields and committed suicide.

Mohanty and Shroff (2003) have also reported such kind of cases. The following is one of such cases:

D, a Mahar, worked as an agricultural labourer. Though many of his friends left for Nagpur, for better sources of income he preferred to stay in the village. Improvement of the socio-economic condition of his family through cotton cultivation was his long cherished desires. In 1999, he acquired 4 acres of land from the government, which had come under ceiling. As the acquired land was of low quality and without irrigation, D applied for a loan to the cooperative credit society to dig a well. The co-operative sanctioned a loan of Rs 48,000.... when his crop was lost owing to bad weather D lost all hopes and committed suicide.

Believing that high doses of fertilizers, pesticides, seeds and other inputs lead to higher productivity and hence greater profit lower caste farmers increased their applications with the credit assistance of both private and formal agencies. As a result, the cost of cultivation and also the extent of indebtedness increased. Given the higher investment, they expected higher return and in anticipation thereof, raised their household and social expenses. But when the outturn of crops was less than expected, they were disappointed. The caste group-wise distribution of attributes of dissatisfaction of deceased farmers shows that except food, the expenditure on clothing, social functions, repayment of loans and miscellaneous items was far below than their expectations (Table 8). As a consequence, their dissatisfaction grew. Unable to fulfil their aspirations from the existing income, many of them resorted to gambling. Many lower caste farmers (28 per cent) were engaged in gambling and lost in it. This further worsened their increased despair. As Durkheim puts it, "No living being can be happy or even exist unless his needs are sufficiently proportioned to his means". He adds, "When majority of social wants can not be attained, it leads to disappointment then eventually to chronic morbidity and finally to death"(1952: 246).

Besides, the lower and the medium caste farmers mostly belong to small families. Given their nature of involvement in agriculture, the unexpected crop failure prompted them to consider themselves as morally responsible for the loss. The deceased farmers of these categories were so deeply involved in the management of the agriculture that other family members were mostly ignorant of the amounts and sources of their borrowings. This promoted individualism and detachment from the family. The father of a deceased small farmer of lower caste pointed out,

" He was rarely interested in the matters other than agriculture. He did not tell us the amount he spent for buying fertilizers and pesticides and the sources of the borrowings. After his death only we came to know that he had borrowed Rs. 25,000/- from a moneylender of the neighbouring village. Had he informed us, we would have sold our land to repay the loan".

In addition, the conversion to Buddhism resulted in socio-psychological problems of farmers starting from division of the family to many forms of criticisms. The case given below provides firm evidence in this regard:

K, was a small farmer. He was originally a Mahar and became a Nav-Buddhist. His father and elder brother opposed his conversion. His brother stayed separately. Since then his wife and children witnessed criticisms. Many people started addressing K as Lord Buddha. The Brahmin landlord who had leased out his 9 acres of land to K leased it to his elder brother. K's father died suddenly following chest pain. K's elder brother and others in the village criticised K for adopting Buddhism and thereby taking the life of his father. Next year his younger son also died . As a result, K's financial condition became gradually critical. Then his wife also fell sick. His financial condition worsened when he faced crop loss for two years consecutively in 1996 and 1997. At last K committed suicide.

This restricted their interaction within the rural society adversely affecting the assistance in agricultural and social activities. The lower caste farmers mostly cultivate their land through exchange of labour services and also consult one another regarding the farm-related decisions such as the application of inputs, strategies to arrest adverse climatic conditions, etc. The social isolation compelled them to depend on hired labour and also to take decisions independently. They were alienated further from the family when they could not meet the socio-economic requirements of the members due to crop loss. All this obviously contributed to the incidence of suicides because the Nav-Buddhists formed 36 per cent of the deceased small farmers.

However, the causes of vexation of the large and medium farmers are different from those of the small farmers. These farmers had faced abrupt failure in business, trade, politics, etc. The two cases given below reaffirm the point:

i) Q, a Rajput large farmer had 22 acres of land. He was cultivating mostly by hired labour. Q got major portion of his income through cotton trading. He was collecting cotton from the local farmers through credit and supplying it to Andhra Pradesh along with other co-traders. His business was flourishing well. He had advanced more than two lakhs of rupees to the cotton growers. Many of the indebted farmers committed suicide due to crop loss. Q lost all hopes of getting back his invested amount and committed suicide.

ii) Z was a Kunbi large farmer who owned 22 acres of land along with a tractor. In the locality he was considered as one of the rich persons. Z was the Sarpanch of the Gram Panchayat for a term. In the next term he contested and was defeated marginally. Subsequently he contested for the third time and was very hopeful of winning. He invested around one lakh of rupees in campaigning. He lost the election and committed suicide.

Besides, some of them encountered other negative social experiences like divorce and separation. Such incidents developed a sense of loneliness among them. Many deceased farmers of large and medium groups were old having illness and some of them were widowers. Traditionally, the old persons in these communities were accorded high social status. At the time of adverse agricultural conditions they were consulted. The adoption of new technology and the application of associated inputs made their skill, knowledge and experience obsolete. They became a burden on their families and their plight worsened when they became widowers and sick. The following case exemplifies the situation:

B, 78, was a Kunbi widower who belongs to a large holding group . When he was active he supervised the agricultural activities. He fell sick and upto Rs. 300/ were spent for his treatment every month. Gradually B's condition deteriorated. His son became indifferent and daughter-in-law ill-treated him. They also did not allow their children to get along with him. B killed himself.

The opinion of an old farmer of Yavatmal is worth quoting here:

"We are the living dead. We are considered as obsolete. Now-a-days there is no concern for the elders. See L's case, What has he not done for his son? But when he suffered from illness, his son did not take him to the hospital. As long as one is physically well at this age it is alright but the moment he falls sick it is better to end life."

The farmers of these groups had relatively higher educational qualifications. They generally kept themselves aloof from other farmers due to their knowledge, outlook, and advanced methods of farming, etc. But their failure in agriculture, business, etc., made them vulnerable to criticism both in and outside the family. Conflicts over marital issues, property, etc. also led to suicides. Examples of such cases are given below:

i) V, a Kunbi medium farmer, was a drunkard. He developed an affair with the woman who operated liquor shop. V gave her money and other valuables secretly. When his wife learnt this, she went to her father's house with her children and matter was made public. V felt insulted and ended his life.

ii) G, 62, a Kunbi large farmer had two sons. His elder son worked in farm and looked after agriculture and household related expenses. His younger son B, a graduate, did like to work in the field. He spent his time with friends and play cards. This caused conflict in the family. B asked his father for Rs. 50000/ to start business. G was reluctant. When B demanded to sell his share of land, to avoid the division of family G agreed to provide Rs. 30000/. His elder son also demanded the same amount. The unpleasant situation led to G's suicide.

Conclusions

The findings of the study clearly accord with the Durkheim's hypothesis that roots of suicides lie in the social conditions. The lower and the medium caste farmers who were mostly the small farmers, given the deprivation perpetuated by British colonialism, had aspired for a better socio-economic position through agriculture in the planning era in the wake of land reforms and other allied measures. When they failed to realise it owing to crop loss they found their life not worth living. Their suicidal tendency was strengthened by the egoistic factors. On the contrary, the suicides of the large and medium farmers who mostly belong to higher castes can be attributed mainly to the anomic forces generated by failure in business, trade and politics. The socio-cultural factors such as old age, illness, family tension, etc., further added their urge to take their own lives. Thus, the suicides of farmers are neither purely anomic nor egoistic rather they are ego-anomic in nature. This supports the Durkheim's conception of mixed varieties of suicides.

Notes

[1]Two surveys carried out in Maharashtra (one jointly by the Rambhau Mhalgi Prabodhini, Mumbai and Indian Agro- Economic Research Centre, New Delhi and the other by the Vaikunth Mehta National Institute of Co-operative Management, Pune) also highlight croploss and indebtedness as the main reasons of farmers' suicides.

[2] The suicides of farmers in these two districts often hit the headline of media reports. In the year 1999 these districts account for over 50 per cent of total suicides of farmers in the state. In 2002 also 57 per cent of suicides of farmers in the state were reported from these districts. For details see *Mohanty,* 2001a; *Mohanty and Shroff,* 2003.

[3] At no point in Durkheim's monograph is there an explicit connotative definition of social integration ((*Gibbs and Martin,* 1958:140). However, it is implied from Durkheim's theory that a society, group is said to integrated to the degree that its members possess a 'collective conscience" which refers to the beliefs and sentiments common to the average members. "Integration has to do... with the strength of individuals to society (*Gibbs and Martin,* 1964:16)". To put precisely, it indicates the strength of ties of individuals to the group to which he belongs.

[4] Social regulation refers to the restraints imposed by society on individual needs and aspirations. See Morrison (1995:167).

[5] For more details , see Central Provinces Districts Gazetteers, Amraoati District, 1911, pp. 180-81.

[6] Central provinces and Berar Gazetteers, Akola District, 1910, p. 192.

[7] An account of occupational distribution of selected castes is given in Census of India, 1931, Vol. XII, Central Provinces and Berar Part I Report, pp. 265-69.

[8] Nagpur Settlement Record, as cited in Central Provinces District Gazetteers Amaraoti , op. cit. p. 131.

[9] Caste-wise distribution of population (%) as per 1911 Census is given below:

Sr. No.	Castes	Amravati	Yavatmal
1	Higher castes (twice born)	7.1	4.8
2	Higher cultivating castes	36.0	27.6
3	Higher artisan or trading castes	2.0	2.4
4	Serving castes	2.5	1.3
5	Lower cultivating, artisan, trading and miscellaneous castes	9.1	16. 5
6	Impure castes	19.0	15.0
7	Others	24.3	32. 4
8	All castes	100.0	100.0

[10] As quoted in Central Provinces District Gazetteers, Amraoti District, op.cit. p. 301.

[11] For more details on area under crops in these districts from 1891-92 to 1925-26, see Mohanty (2001a)

[12] The net profit form cotton was many times more than that of all other crops. For details on cost of cultivation and net profit of the major crops, See Central Provinces District Gazetteers, Amaraoti District, op. cit. pp.191-224

[13] The area under jowar and wheat which was 34 per cent and 12 per cent respectively in Amravati in 1891-92 came down to 27 per cent and 4 per cent respectively in 1925-26. Almost similar a trend was observed in the case of Yavatmal also. See Mohanty (2001a).

[14] See Maharashtra State Gazetteers, Amravati District,1968, p. 480.

[15] There were a series of famines during British period. Among them, the famines of 1896-97, 1899-1900 were most widespread.

[16] The retail prices of jowar, wheat ,rice cotton and gram for the period of 1891-92 to1925-26 indicate a rising trend with some variations. The prices were unusually higher in the famine and bad agricultural years. The monthly wages of agricultural labourers were almost constant from 1891-92to1902-03. They were further lower during famine years. For more details see Central Provinces District Gazetteers Amraoti District B.Volume, Stastistical Tables 1891-92 and Central Provinces District Gazetteers Yeotmal District B.Volume, Stastistical Tables 1891-92.

[17] It is evident from the total outstanding loan and amount of advances under Land Improvement Agricultural Loans during 1891-92 to 1925-26 that the amount of advances increased with the rise of cotton cultivation. Though there were some variations the loan was more in the famine and bad agricultural years. See Central Provinces District Gazetteers Amraoti District, B.Volume, op. cit., Central Provinces District Gazetteers Yeotmal District, B.Volume , op. cit.

[18] See Central Provinces District Gazetteers Yeotmal District,1908, p.119.

[19] As per the occupational distribution in the region, clerks, cashiers managers, rent collectors were mostly the Brahmins, Rajputs, Marathas and Kunbis. See Central Provinces and Berar Census Report 1931, op. cit. pp. 266-69.

[20] Though detail statistics on migration are not available the description cited in the old Gazetteers provide ample evidence of large migration of labourers to Bombay, Nagpur and other cities. For example see Central Provinces District Gazetteers, Amaraoti District, op.cit. p.109. Also see Omvedt (1994: 80).

[21] The note given by Mr. Greenfield, the then Deputy Commissioner of Saugar and Mr. Stent, the then deputy commissioner of Amraoti, provides an interesting and glaring example of the lower castes (Mahar, Navi, Dhimar, Teli and others) attempt for social climbing and the counter reactions in the society. For details see Central Provinces and Berar Census Report 1931, p. 329, 355.

[22] Central Provinces and Berar Census Report, op.cit.p.341

[23] The detail account on Ambedkar's decision to embrace Buddhism given by Benjamin and Mohanty (2001) echoes the feelings of the members of lower castes to achieve social equality.

[24] Upto 1981, Schedule Castes could belong to Hindu or Sikh religions but from 1991 Census Scheduled Castes may belong to Buddhist and Nav-Buddhist also. In Maharashtra 59 castes have been declared to be recognised as Scheduled Castes which were included in 1991 Census.

[25] The leased area in Amravati decreased from 8 per cent (of the operated area) in 1970-71 to 4.15 in 1980 and 0.75 in 1991. Similarly in Yavatmal it decreased from 11.08 per cent in 1970-71 to 4.65 in 1980-81 and 0.74 in 1991. See Report on Agricultural Census, Maharashtra State, Various Issues.

[26] While number of main workers engaged in trade and commerce increased from 1.45 per cent in 1971 to 2.18 in 1991 in rural Amravati it increased form 1.45per cent in 1971 to 2.35 in Yavatmal, See Census of India, Series 12, Part-III A and B(i) General Economics Tables, Maharashtra, Table B1-B6 for the respective years.

[27] Data on the adoption of HYV from 1980-81to1997-98 show that in both the districts the area under HYV has increased over the years. More than 90 per cent of area of crops like wheat, bajra, jowar and cotton is under these varieties. See District-wise Agricultural Statistical Information of Maharashtra for the relevant years.

[28] The progress of agricultural co-operative societies is presented below:

Sr. No	Particulars	Amravati			Yavatmal		
		1980-81	1990-91	1993-94	1980-81	1990-91	1993-94
1	No. of societies	667	682	682	538	597	597
2	Membership in '000'	215	241	278	215	257	300
3	Outstanding average loan (Rs.)	726. 98	851.87	932.73	955. 35	1258.37	1151.33

Source: Statistical Abstract of Maharashtra State, Various Issues

[29] The analysis of the farm (harvest) prices of the major crops in the two districts from 1970-71 to 193-94 reveals that the prices of rice, wheat, jowar, bajra, tur, sugarcane and groundnut (per quintal) have increased sharply over the years However, since the introduction of Average Monopoly Purchase Price, the price of cotton shows a relatively continuous rising trend. See Season and Crops Report Maharashtra State for the relevant years.

[30] The analysis of information available in Season and Crop Report, Maharashtra State, from 1970-71 to 2000-2001, reveals that the average yield of crops like jowar, tur and cotton has increased noticeably in both the districts. But the productions as well as the yield of these crops have also fallen off remarkably many times largely due to high variations in rainfall and climatic conditions. Also see Mohanty and Shroff (2003).

[31] To go by the Season and Crop Report 2000-2001, while in Amravati the per cent of net irrigated area to net sown area is 8 per cent, in Yavatmal it is 6 per cent. Crop-wise area under irrigation (per cent to cropped area) from 1970-71 to 2000-2001 shows that the major crops such as cotton, jowar, bajra and tur are almost without irrigation.

[32] The successive issues of the Socio-Economic Review and District Statistical Abstracts of the two districts reveal that between 1967-68 and 1997-98 these districts have experienced crop loss for 19 times. Though estimate of loss is not available for all the years it seems the extent of loss for the year 1997-98 was substantial. In this year while amount of loss in Amravati was Rs. 3245 lakhs in the case of Yavatmal it was Rs. 165 lakhs.

[33] A list containing 72 farmers' suicide cases was obtained from the commissionerate of Agriculture, Government of Maharashtra, Pune. A scrutiny at the village level revealed that four of them were landless labouers without any association with farming. The households of two more cases could not be located due to improper address given in the list.

[34] The suicide victims were categorized into three groups on the basis of capacity of holdings for the reproduction of an average household such as Small Farmers (below 10 acres), Medium Farmers (10 to 20 acres) and Large Farmers (above 20 acres). It is revealed from group interview with some senior cultivators of suicide reported villages and from the agriculture related officials of the two districts that on an average a household of five to six members with three to four adults and two to three children belonging to below 10 acres of holding size (small farmers) needs additional source of income for survival in normal harvesting years. In bad harvesting years, under no condition they survive without an adequate assistance from other sources of income. The same household which comes under the landholding size of 10 to 20 acres (Medium farmers) maintain smoothly without any additional income. In case of partial crop loss they can also manage without much difficulty. In contrast, the household of same type but coming under the holding size of above 20 acres (Large farmers) usually generate surplus and is also able to exercise in expanded

reproduction. They can easily overcome any type of crop failure and can also meet all sorts of exigencies.

[35] The farmers showing the immediate reason may not be the prime mover of assets. The roots of such sales may be many. At times, a farmer is seen selling off his assets for an apparently trivial reason combined with other far more compelling latent reasons.

[36] The study is based on selected 30 suicide cases 10 from each district. Equal number of control cases with almost similar characteristics in terms of landholding, cropping pattern, were selected from the same villages to which suicide victims belonged. The deceased and control farmers have been categorised into three groups (small, medium and large) on the basis of their landholding size.

[37] The castes of the deceased farmers were classified into three major groups on the basis of their position in the local hierarchy: Higher castes, Medium castes and Lower castes. While Brahmin, Maratha-Kunbi and Rajput who have historically been the most dominant and continued to be prominent in upper echelons of the rural society belong the higher caste category, the Mahar, Matang, etc. form the lower castes. The intermediary groups such a Teli, Beldar, Banjari, etc. come under the medium castes group.

[38] About 70 per cent of the total suicides of farmers belong to the scheduled castes and backward castes. For details see Nirmala (2003).

[39] The Mahars were traditionally the village watchmen and were also skilled in determining the borders of the villages and of farmers' land. They were also specialized in cutting wood and fencing land. The Matangs were making ropes required for agricultural purposes. The Chamars were a leather working caste. They repair the shoes of cultivators and leather bags for drawing well-water. The Dhangars were the hereditary herdsmen. Similarly, the other lower castes have their own occupation. For details see Russell (1916).

[40] Suicides by farmers due to lack of experience and knowledge in farming has also been observed in the neighbouring state of Andhra Pradesh. Though caste background of these farmers are not known, in all likelihood they are the members of lower castes, given the greater proportion of suicides by the scheduled and backward caste farmers in the state. See Nirmala (2003)

Table 1: Area under Principal Crops (per cent to gross cropped area)

	Amravati				Yavatmal			
Years	Foodgrains	Oilseeds	Cotton	Sugarcane	Foodgrains	Oilseeds	Cotton	Sugarcane
1970-71	38.96	7.34	51.33	0.03	48.85	6.27	43.54	0.06
1975-76	45.01	6.27	46.19	0.03	50.95	6.21	41.49	0.12
1980-81	44.00	6.04	46.88	0.03	50.53	4.83	43.31	0.17
1985-86	46.40	5.00	44.53	0.05	43.35	3.80	51.47	0.32
1990-91	45.86	7.94	40.36	0.18	47.42	5.10	46.60	0.88
1995-96	39.48	13.40	41.03	0.15	43.32	5.26	48.56	1.02
2000-01	38.80	19.85	30.04	0.34	4.93	9.43	45.85	0.76

Source: Season and Crop Report, Maharashtra State, Various Issues.

Table 2: Suicides in Rural Areas (Per one lakh of estimated population)

Year	Amravati	Yavatmal
1981	1.77	1.60
1982	2.77	4.00
1983	2.14	3.87
1984	NA	NA
1985	3.43	3.19
1986	3.07	4.44
1987	3.86	4.06
1988	4.67	2.88
1989	NA	NA
1990	6.27	4.41
1991	6.53	4.82
1992	6.87	3.44
1993	5.73	5.22
1994	6.07	4.72
1995	7.06	6.56
1996	5.63	5.00
1997	5.50	7.16
1998	7.06	7.05
1999	6.31	7.63

Source: Annual Vital Statistics Report of Maharashtra State, Various Issues

Table 3: Agricultural Situation and Suicides

Year	Amravati		Yavatmal	
	Agricultural situation	Suicide rate	Agricultural situation	Suicide rate
1980-81	Bad	Lower	Normal	Lower
1981-82	Normal	Lower	Normal	Lower
1982-83	Normal	Lower	Good	Higher
1983-84	Bad	Lower	Bad	Higher
1984-85	Normal	N.A.	Normal	N.A.
1985-86	Normal	Moderate	Good	Moderate
1986-87	Bad	Moderate	Bad	Higher
1987-88	Normal	Moderate	Normal	Higher
1988-89	Normal	Higher	Bad	Moderate
1989-90	Good	Higher	Good	Higher
1990-91	Good	Higher	Normal	Higher
1991-92	Normal	Higher	Normal	Higher
1992-93	Good	Higher	Good	Moderate
1993-94	Good	Higher	Good	Higher
1994-95	Good	Higher	Normal	Higher
1995-96	Good	Higher	Good	Higher
1996-97	Good	Higher	Good	Higher
1997-98	Bad	Higher	Bad	Higher

N.A: Not available

Note: The year-wise agricultural position of the two districts has been assessed taking into account the per acre average yield of cotton and jowar. Though there are a variety of other crops the area under cotton and jowar is comparatively more. Therefore, the yield of cotton and jowar largely reflects the agricultural situation. Apart from this, it is also observed that failure of cotton and jowar matches the failure of other rainfed crops. While the years representing yield of both the crops closer to the normal yield (either side) are considered as normal year, the years showing higher than the normal yield are the good years. The bad years are those where the yield of either of the crop or both the crops is lower than the normal yield. The normal yield of these crops has been estimated taking the average yield of normal rainfall years. The years showing minimum value of co-efficient of variation of rainfall across the months (June to December) and variation in terms of per cent of actual to average rainfall have been treated as normal rainfall years. Similarly, the suicide rate is treated as moderates when it is closer to average on either side. While lower rates refers to below the average higher rates indicate more than the average. As the data on suicides are available only for the administrative years (i.e. from January to December) and the agricultural year is from April to March, the suicides of each year have been related to the preceding agricultural years (for example suicides of 1970 relate to the agricultural year of 1970-71). In this case, suicides occurred for three months (January to March) is not accurately reported for each agricultural year. However, in a predominantly kharif growing area major part of agricultural activities is largely completed between April to December in each year and suicides occurred mostly due to agricultural factors are likely to occur during these months. Therefore the suicides of these three months will not vitiate the analysis significantly.

Sources: (i) Season and Crop Report, Maharashtra State, Various Issues, (ii) Annual Vital Statistics Report of Maharashtra State, Various Issues

Table 4: Distribution of Suicides by Causes (%)

Sr. No.	Causes	Amravati			Yavatmal		
		1998	1999	2000	1998	1999	2000
1	Bankruptcy or sudden change in economic status	5.51	2.09	0.41	3.15	2.97	3.37
2	Poverty	2.13	3.85	1.50	3.63	6.41	3.51
3	Property dispute	0.00	0.32	0.14	0.00	0.47	0.14
4	Unemployment	0.36	0.80	2.04	0.63	0.78	0.98
5	All Economic Causes	7.99	7.06	4.09	7.41	10.63	7.99
6	Suspected/Illicit relation	1.78	0.96	0.27	0.00	0.94	0.56
7	Cancellation/non-settlement of marriage	0.36	0.00	0.95	1.10	0.31	0.56
8	Not having children (barrenness/impotency)	1042	0.00	0.27	0.32	0.94	1.12
9	Illness	32.86	18.46	21.25	39.75	28.75	44.60
10	Death of dear person	0.36	0.16	0.14	0.47	0.47	1.12
11	Dowry dispute	0.18	1.77	1.63	2.21	0.94	3.93
12	Divorce	2.84	0.00	0.00	0.00	0.16	0.00
13	Drug abuse /addiction	4.97	0.64	3.54	1.89	1.72	2.81
14	Failure in examination	1.42	2.89	2.45	1.10	1.72	1.26
15	Fall in social reputation	0.00	0.16	0.27	1.89	0.63	1.68
16	Family problems	33.21	23.76	27.25	22.08	14.84	8.13
17	Ideological causes / hero worshiping	0.00	0.00	0.00	0.00	0.00	0.00
18	Illegitimate pregnancy	0.00	0.00	0.00	0.16	0.31	0.14
19	Love affairs	1.60	3.37	3.27	1.74	2.66	1.54
20	Physical abuse (rape, incest, etc.)	4.09	4.17	0.27	0.47	0.47	0.84
21	All Social Causes	85.97	56.50	63.49	75.39	55.94	69.42
22	Cause not known	5.51	8.19	28.61	5.21	10.31	12.20
23	Other causes	0.53	28.25	3.81	11.99	23.13	10.38
24	**Total**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Note: District-wise breakup data prior to 1998 are not available.
Source: Mohanty and Shroff (2003).

Table 5: Size Class-wise Details of Agriculture of Deceased Farmers

Sr. No.	Particulars	Small N=42	Medium N=15	Large N=9	All N=66
1	Cropping Intensity	119.68	108.71	103.14	107.91
2	Percent of area under cotton	65.37	57.09	59.15	60.63
3	Percent of area under jowar	20.74	20.69	20.21	20.54
4	Percent of area under tur	9.66	9.81	11.86	10.47
5	Percent of area under HYV	70.20	81.56	62.87	71.20
6	Per acre use of fertilisers(Kg)	83.52	81.12	71.01	78.44
7	Per acre use of pesticides (liters).	1.11	1.35	1.09	1.18
8	Per acre use of labour days	65.99	58.01	51.01	58.31
9	Percent of family labour to total labour days	72.68	53.44	35.31	55.39
10	Per acre cost of cultivation (Rs)	3282.14	3348.79	3244.56	3289.90
11	Per cent of the farmers unable to recover cost of cultivation	92.86	40.00	44.44	74. 24
12	Per acre loss of the farmers who lost cost of cultivation(Rs.)	1332. 56	2409.22	2568.92	1885. 90
13	Average loss of the farmers who lost cost of cultivation(Rs.)	5911.43	28910.60	54589.50	12701.38
14	Per cent of the farmers recovered cost of cultivation	7.14	60.00	55.56	25.76
15	Average gain of the farmers who recovered cost of cultivation(Rs.)	1939.78	3854.29	5461.00	3989.03
16	Per acre gain of the farmers who recovered cost of cultivation(Rs.)	469.35	359.84	265.10	320.18
17	Per cent of farmers failed to realise their expected income	100.00	100.00	100.00	100.00
18	Per acre loss of expected income(Rs.)	5680.03	4172.64	3948.27	4609.98
19	Average loss of expected income(Rs.)	25074.64	47067.33	82475.00	37900.30
20	Per cent of farmers realised more than 50 per cent of their expected agricultural income	0.00	53.33	55.56	21.21

Source: Field Survey

Table 6: Size Class-wise Indebtedness and Assets Sold

Sr. No.	Particulars	Small N=42	Medium N=15	Large N=9	All N=66
1	Per cent of farmers taken loan from formal agencies	57.14	86.67	88.89	68.18
2	Average loan of the indebted farmers to formal agencies(Rs.)	12939.58	30500.00	25304.63	20210.82
3	Per acre loan of the indebted farmers to formal agencies(Rs.)	2856. 95	2848.42	1289.41	2246.20
4	Per cent of farmers taken loan from informal sources	83. 33	66.67	66.67	77.27
5	Average loan of the indebted farmers to informal sources(Rs.)	14279.23	27350.00	26000.00	18221.04
6	Per acre loan of the indebted farmers to informal sources(Rs.)	3232.68	2345.63	1392.86	2425.03
7	Per cent of loan of the indebted farmers taken from the formal agencies for agricultural purposes	97.26	100.00	100.00	99.99
8	Per cent of loan of the indebted farmers taken from the informal agencies for agricultural purposes	55.43	6.36	12.31	33.24
9	Per cent of loan form (from informal and foral agencies) of the indebted farmers to the value of their assests	68.94	22.42	11.31	21.17
10	Per cent of farmers sold assets	73.81	40.00	44.44	62.12
11	Average value of assets sold (Rs).	20457.42	47750.00	36342.50	26001.22
12	Per cent of value of assets sold by the farmers to the value of their total major assets	30.75	19.41	7.49	19.46

Source: Field Survey

Table 7: Distribution of Suicides by Reasons (%)

Sr. No.	Reasons	Size Classes			
		Small	Medium	Large	All
1	Crop loss/ Indebtedness	88.09	40.00	11.11	66.66
2	Family problems	2.38	33.33	22.22	12.12
3	Oldage and illness	0.00	6.67	33.33	6.06
4	Loss in business and Allied economic activities	0.00	13.33	33.33	7.58
5	Miscellaneous	9.52	6.67	0.00	7.58
6	All	100.00	100.00	100.00	100.00

Note: As there are multiple causes in many cases, the major cause of suicide identified by the family members of the victims have been taken into account.

Source: Field Survey

Table 8: Caste Group-wise Attributes of Dissatisfaction of Deceased Farmers

Sr. No.	Particulars	Higher N=21	Medium N=4	Lower N=41	All N=66
1	Average landholding in acres	17. 53	6.91	5.72	9.56
2	Per cent of area under irrigation	22. 59	4.50	8.82	16. 99
3	Cropping intensity	103.90	103.74	114.81	107.91
4	Per cent of area under cash crops	61. 06	63. 08	64. 54	62. 51
5	Per cent of area under HYV	59.44	72. 89	70.94	64. 52
6	Per acre cost of cultivation(Rs)	3080. 30	3695.44	3548.22	3289.90
7	Per cent of family labour to total labour days	33. 93	73.13	65.09	49.13
8	Per acre loan outstanding to formal agencies(Rs.)	1725.43	1436.79	1631.43	1676. 32
9	Per acre loan from informal sources (Rs.)	885.58	2695.44	2545.49	1613.08
10	Per acre gross income from agriculture (Rs.)	3254. 53	843.82	998.59	2267.89
11	Per acre net loss/gain (Rs.)	174.23	-2851.63	-2550.47	-1022.01
12	Per acre loss of expected agricultural income(Rs)	3044. 50	6100. 22	5752.30	4235.65
13	Per cent of farmers entirely dependent upon agriculture and labour services	38.10	100.00	78.05	66.67
14	Average income received from non-agricultural sources (Rs.)	6838.10	1225. 00	1701. 22	3306.82
15	Average income expected from non-agricultural sources (Rs.)	26595.24	1475.00	1543. 90	9510.61
16	Per cent of farmers with above ten years of experience in cultivation	85.71	50. 00	17.07	40. 91
17	Per cent of farmers take farm related decisions independently in the family	19. 05	75. 00	82. 93	62.12
18	Per cent of expected amount spent on food	101.05	102.27	99. 92	101.37
19	Per cent of expected amount spent on clothing	93.69	26.79	36. 57	52.63
20	Per cent of expected amount spent on social functions	79.48	10.79	13. 25	37.71
21	Per cent of loan repaid to formal agencies	8.14	10.78	11.00	9.76
22	Per cent of loan repaid to informal agencies	39.78	27. 86	18.82	27. 32
23	Per cent of expected amount spent on miscellaneous items	79.72	17. 53	14.18	37.18

Source: Field Survey

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