Agricultural Scenario in Punjab and Farmers Suicides

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⪡⪡◄ *Abstract*

Suicide by farmers in Punjab has been an ongoing reality for years. A typical Punjabi is often considered as an extrovert, a social fellow who likes to eat well, dress well and even if he is in a tight spot, he would remain in "chardi kala." Punjab is an agricultural predominant state of the country and credit is an important factor in the adoption of technological innovations. In the Present paper attempt has been made to examine the phenomenon of suicide among farmers in Punjab state in relation to growing economic distress in the rural areas.

1.   INTRODUCTION

The Punjab state is known to be the granary of India by contributing maximum in the national food grains procurement and considered the most developed state. In the light of the background, with only 1.5% of the geographical area of the country and about 2% population, it produces about 20% of wheat, 11% of rice and 13% of cotton in the country during 2007-08. Punjab state produces 2% of rice, 3% of wheat and 2% of cotton of the world. Most of the farmers do not earn even the average level of income of the state. The low level of income of the farmers, along with spendthrift habits of farmers of Punjab has pushed them into severe indebtedness. many efforts have been made by the government to provide institutional credit to the farmers of Punjab at cheap rate of interest but even then most of the farmers are dependent on non institutional sources of credit, due to easy availability of it but these non institutional sources of supply of credit mainly the commission agents and the traders charge a very heavy rate of interest. This debt trap and the continuous failure of crops forced many of farmers to commit suicide. The farmer as a consumer gets TVs, Fridge, Scooter, and Car on easy credit, but when there is a crop failure compounded by the procuring agencies lack of interest, all exits become inaccessible to him rendering him incapable of getting out of debt. The rising debt builds up a vicious circle finally forcing him to tighten the noose around his neck. And this phenomenon is caused by multidimensional crises of the rural economy in the post green revolution era. The rising social status attached to certain castes forces people to spend more than their income. There are many unsolved problems faced by the rural credit system and some more will emerge in the coming years with the expansion and growth of these non institutional agencies It is a matter of serious concern and very important to make an attempt to identify the reasons for the suicide deaths in Punjab. In Punjab the process in the downward phase slipped much faster leading to a crisis in the agrarian economy.

2.   RESEARCH METHODOLOGY

The study is based primarily on the field survey of data collected from 250 farm households selected from the different agro-climatic regions in Punjab. Some data is also taken from statistical abstract of Punjab. The survey was conducted for the period April 2009 to march 2010. M.S.Excel has been used for the quantitative analysis of the collected data. Statistical tools of mean, percentages have been used for drawing meaningful conclusion from the data.

3.   WHY THE FARMERS
COMMIT SUICIDE?

According to survey of PAU 2009, 2890 farmers and agricultural labourers have committed suicides in Bathinda and Sangrur districts during 2000-08. Out of these, 66%of victims have committed suicide due to heavy burden of indebtedness. The suicide in Punjab are the result of mental stress and this mental stress is most often caused by poverty especially indebtedness and when the bad feelings are created in their mind that they are incapable of taking care of their loved ones and themselves. Also the natural imbalance has resulted in an increase in pest, water logging, salinity, shortage of water, poisonings of waterways, and it has decline soil fertility, affect biodiversity and animal life. On the other hand non institutional creditors extend loans to farmers with a view to indirectly own his precious land. Unable to pay off his debt, he starts giving in to the conditions of mortgage finally abducting his ancestral right to land. On the other hand negative return on crops without the support of the government is one of the major causes of the tension among farmers. And the farmers are left with no other option than to take loans and credit for this purpose.

The cost of input has increased faster than the output prices .The hike in prices of wheat is nothing but like offering a farmer in little bits and in piece meals. In earlier times, the whole family worked on the farm to carry out operations manually which increased the efficiency of work and reduced the cost of production. Presently, 60 to 70%of the farming operations are carried out by the hired labour and the marginal efficiency of the hired labour are always lower as compared with marginal efficiency of the family members employed on the farm. This has added to the cost of production and lowering the farm income.

According to statistical abstract of Punjab, Punjab agriculture has become much more capital intensive; in 2008 number of tractors in Punjab were 486,000 tube wells 1246000, combines 14170 and the number of thrashers were350000.

Dr Karam Singh defines that the common indicator for capital intensive Punjab agriculture is often reported is that of number of tractors, which increased from about 25000 in 1970 to more than 4 lakh since 2000. it is considered that there are too many tractors in Punjab .technically 400+ thousand tractors for 4000+thousand ha cultivated area means a tractor for every 10 ha, which is about the farm size that a tractor would handle technically efficiently. However it is a matter of great concern for the society who owns the tractor and how he has purchased it and how far he is able to repay the loan (or gets under debt burden and entrapped in the debt cycle). One concern is that how the farmers face the price parity of a tractor or the parity index for capital formation. In 1970 a tractor was costing about RS.22000 which could be sourced by selling less than 30 tonnes of wheat. In 2005, a tractor cost RS. 340,000 which needed more than 60 tonnes of wheat. Thus the parity of capital investment in agriculture has worsened to half in three decades. Looking through the barometer, in 1995 a car (maruti Zen) cost was RS. 338000 and that of a tractor was RS 216,600 that means one could buy three tractors in price of two cars. In 2005 price of tractor is same as that of car. Thus the parity in relation to the industrial good has come down to 64% in one decade.

Dr T.S Chahal defines that when the use of tractor in Punjab was compared with other states, it was found that Punjab led other states by using tractor in 96%cases as compared to other states of Haryana, Uttar Pardesh, Kerela, Tamil Nadu and West Bengal at 89,81,72,68 and 53% which were also above the national average of 47%. The use of tractors in advance states like Maharashtra and Karnataka where farmers suicide is also very common was at 21 and 14 %respectively which is far lower than national average. The level of tractor use was in Assam and Jharkhand at 3 and 2% only.

He further states that there are a number of tractor markets in Punjab, where new tractors are sold at old tractor rates and old tractors are sold in 'junk'

rates at Barnala, Patiala, Rampura Phul (bathinda), Talwandi Sabo, Kot Kapoora etc in malwa belt of the state. these farmers comes to these markets in distress situations and sell their tractors and other machinery like trollies, thrashers etc. at cheapest rates loosing lakhs of rupees to fulfill their domestic needs such as marriage of the daughter, clear loan from the arthias, moneylenders etc. about 500 to 1000 tractors are brought to each market for sale out of which only about 10% get customers for their machinery. the customers for this machinery come from far away places like Haryana, Rajasthan, Madhaypradesh, Uttar Pradesh etc. the normal loss of selling these machineries varies from rs 50,000 to rs 1,00,000 but in the exceptional cases , the loss goes to lakhs of rupees under dire need circumstances. The farmers get trapped in the vicious circle of mounting debt and selling valuable machines at throw away prices, which leads them to the path of suicides.

4. ANALYSIS AND INTERPRETATION OF DATA

Percentage of borrowing farmers is given in table_1. Among farmers, percentage of borrowers is 77.84%. In case of marginal farmers, percentage of total borrowers is 60%, where as it is 94.87% in case of large farmers. So with the increase in the size of holding, there is an increase the percentage of borrowing farmers. On an average, percentage of farmers borrowing from institutional sources of credit is 61.60%, where as 41.49% of farmers borrow from non institutional sources of credit. The percentage of farmers borrowing from both institutional and non-institutional sources is 25.26%. The percentage of farmer's borrowers from institutional

sources also increases with the increase in the size of holding. Where as percentage of farmers borrowers from non institutional sources first increases with the increase in the size of holding, then it decreases in case of medium farmers, and then again increases in case of large farmers. Maximum farmers' borrowers from non-institutional sources of credit are in case of semi medium farmers' i. e. 47.24%

Table-2 shows the short term amount borrowed and outstanding. It is clear from the table that as the size of holding increases, amount borrowed per borrowing farmer also increases. Marginal farmer borrows Rs .14690 on an average, whereas large farmer borrows Rs 86100. However, there is an inverse relation between holding size and amount borrowed per acre of operational holding. As the size of holding increases, amount borrowed per acre declines. The borrowed amount per acre is highest (Rs.12663.50) in case of marginal farmers and is lowest (Rs 2625) in case of large farmers. In most of the cases the short term loans taken by the farmers are repaid back after the harvesting and sale of crops but many a times, farmers fail to repay the amount and some amount remains outstanding. It is clear from the table that the amount outstanding per farmer varies directly with the holding size .on an average, per farmer outstanding amount in case of marginal farmers is Rs 10414 and it is Rs 50500 in case of large farmers. Whereas the outstanding amount per operated acre of the farmer is highest in case of marginal farmers (Rs 8977.41) and it is lowest in case of large farmers (Rs 1539.63). So it is clear from the table that small farmers are much more dependent on the short term borrowings.

Table-3 shows the long term productive and unproductive borrowed and outstanding loans per acre

Table -1
Percentage of Borrowing Farmers

Land	Total Borrowers	Farmers Borrowing From Institutional Sourses	Farmers Borrowing From Non Institutional Sources	Farmers Borrowing From Both Institutional And Non Institutional Sources
0-2.5	60.00	29.09	36.36	5.45
2.5-5	69.88	44.58	43.37	18.07
5-10	82.68	68.50	47.24	33.07
10-20	86.25	78.75	36.25	28.75
20-Ab	94.87	92.31	41.03	38.46
All	77.84	61.60	41.49	25.26

Table--2
Short Term Amount Borrowed and Outstanding

Land	Amount Borrowed (Rupees/Year)		Amount Outstanding (Rupees/Year)	
	Per Farmer	Per Acre	Per Farmer	Per Acre
0-2.5	14689.66	12,663.50	10413.79	8977.41
2.5-5	30493.98	8,864.53	20409.64	5933.03
5-10	47094.49	7,290.17	31464.57	4870.68
10-20	68765.43	5,233.29	41283.95	3141.85
20 & Ab	86100	2,625.00	50500	1539.63
All	47244.22	4,983.57	29969.15	3161.3

of operational holdings. It is clear from the table that the long term productive borrowing is highest in case of medium farmers (Rs 2057.61), followed by Rs 1974.60 in case of semi medium farmers. As regards the long term unproductive borrowing is concerned, there is inverse relation between the borrowing amount and the size of holding. The maximum amount borrowed for unproductive purposes is by the marginal farmers (Rs 3195.60).

As regards the outstanding amount per acre of operational holding is concerned, there is no uniform pattern. The amount of outstanding long term productive loans per acre is maximum in case of medium farmers (Rs 1183.36) followed by semi medium farmers (Rs1003.63) and it is lowest in case of small farmers (Rs 535.86). As regards the amount outstanding as a percentage of borrowed amount for productive purposes is concerned, it is maximum (67%) in case of large farmers and minimum (51%) in case of semi medium farmers.

Share of credit agencies in the short term outstanding loans is given in Table-4 . It is clear from the table that the share of commission agents in the outstanding loans is maximum(35.79%), where as the share of land development banks and friends and relatives is almost similar. it is also clear from the table that the share of

marginal farmers in the outstanding loans of commission agents is 50%,where as share of large farmers in the outstanding loans of commission agents is 34.38%. As regards the commercial banks are concerned, their share in outstanding loans is 24.42%,of which, outstanding amount due towards small farmers is maximum (31.19%). Share of LDBs in the outstanding loans is 5.36%of which 8. 98% is due towards medium farmers. In case of cooperatives maximum amount is due towards the large farmers (37.62%). As regards the friends and relatives are concerned, share of marginal farmers in its outstanding loans is maximum (16.29%), where as large farmers do not have any outstanding amount due towards friends and relatives.

Table-5 shows the short term productive and unproductive amount borrowed and outstanding. It is given in the table that amount of short term borrowing for productive purposes is highest among small farmers (Rs 6605.49), followed by marginal farmers (Rs 5261.59). In case of largest category of farmers, it is much smaller (Rs 1992.38). Semi medium farmers have maximum amount outstanding (71.22%) taken for productive purposes. As regards the sort term (unproductive) borrowing is concerned it is highest in case of marginal farmers (Rs 7401.90) and lowest in

Table-3
Long Term Productive and Unproductive Amount Borrowed and Outstanding (Rupees)

Land	Productive Loan				Unproductiveloan	
	Amount Borrowed Per Operated Acre	Amount Out-standing Per Operated Acre	Outstanding Loan As % of Amount Borrowed	Amount Borrowed Per Operated Acre	Amount Outstanding Per Operated Acre	Outstanding Loan As % of Amount Borrowed
0-2.5	1,560.64	966.11	61.90	3,195.60	1,917.36	60.00
2.5-5	945.64	535.86	56.67	1,278.37	830.06	64.93
5-10	1,974.60	1,003.63	50.83	1,218.89	693.55	56.90
10-20	2,057.61	1,183.36	57.51	479.17	370.18	77.25
20 & above	1,067.07	714.18	66.93	160.06	125.00	78.10
ALL	1,514.49	878.02	57.97	623.69	404.86	64.91

Table--4
Share of Credit Agencies in the Short Term Outstanding Loans (%)

Land	Commercial Bank	Land Development Bank	Co-operative	Commission Agents	Friends & Relative	All
0-2.5	14.41	0	19.3	50	16.29	100
2.5-5	31.19	0	21.31	36.08	11.42	100
5-10	26.78	6.11	20.61	39.66	6.85	100
10-20	20.42	8.98	36.86	30.12	3.62	100
20 & Ab	24.8	3.2	37.62	34.38	0	100
ALL	24.42	5.36	28.83	35.79	5.6	100

case of large farmers (Rs 632.62) and short term outstanding amount (unproductive)is also maximum in case of marginal farmers (71.29%) followed by small farmers (62.42). it is minimum in case of large farmers (54.82%).

Table-6 shows the credit agency wise short term borrowed and outstanding amount. It is clear from the table that the amount borrowed per acre is maximum from commission agents (Rs2728.52), followed by cooperatives (Rs1841.52) and commercial banks (Rs 1784.57). As regards the commercial banks are concerned amount borrowed per acre increases up to third category, thereafter it declines .whereas first two categories of farmers do not borrow from Land Development Banks. As regards the short term loans taken from primary agricultural cooperative credit societies is concerned, no systematic pattern is noted. Marginal farmers have the maximum share in the amount borrowed from the commission agents. The amount borrowed per acre declines as the size of holding increases in case of loans taken from the commission agents. Similar is the pattern followed by the amount borrowed from the friends and relatives, only difference

is that large farmers do not borrow at all from friends and relatives. As regards the amount outstanding per acre is concerned, it is also maximum in case of commission agents (Rs 1590.68), and it is minimum in case of Land Development Bank (Rs 238.09).

On an average per acre amount borrowed from commercial banks is Rs 16917.74 (table-7). As the size of holding increases, amount borrowed per acre from commercial banks also increases. Also given that first two categories of farmers do not borrow from Land Development Banks. Per acre borrowing from LDBs is maximum in case of medium farmers (Rs. 9074.07) and minimum in case of large farmers (Rs 3125). As regards the cooperatives are concerned, amount borrowed per acre is maximum in case of large farmers (Rs 41600) and minimum in case of marginal farmers (Rs 4224.14). As regards amount outstanding per acre is concerned, on an average it is Rs 10289.20 due towards commercial banks , Rs 2257.07 due towards LDBs and Rs 12144.99 due towards cooperatives. In case of commercial banks and cooperatives, maximum amount outstanding is in case of large farmers but in case of LDBs, maximum amount outstanding is in case of medium farmers.

Table--5
Short Term Borrowing, Per acre (Rupees)

Land	Productive			Unproductive		
	Borrowed	Outstanding	Amount Outstanding As %Age of Borrowed	Borrowed	Outstanding	Amount Out-standing As % Age of Borrowed
00-2.5	5,261.59	3,700.95	70.34	7,401.90	5,276.46	71.29
2.2.5-5	6,605.49	4,521.57	68.45	2,259.04	1,411.46	62.48
55-10	4,684.19	3,336.10	71.22	2,605.98	1,534.58	58.89
110-20	3,757.26	2,256.80	60.07	1,476.03	885.06	59.96
220 & Ab	1,992.38	1,192.84	59.87	632.62	346.80	54.82
Aall	3,442.78	2,235.53	64.93	1,540.79	925.78	60.08

Table--6
Short Term Borrowing - Amount Borrowed and Outstanding by Holding Size and Credit Agency Wise, Per Acre (Rs.)

Land	Commission Agent		Friends & Relative		Commercial Bank		Land Development Bank		Co-Operative Bank	
	Amount Borrowed	Amount Outstanding	Amount Borrowed	Amount Outstanding	Amount Borrowed	Amount Outstanding	Amount Borrowed	Amount Outstanding	Amount Borrowed	Amount Outstanding
0-2.5	2080.86	1709.27	0.00	0.00	3641.50	2288.94	8873.37	5930.44	2824.02	1932.22
2.5-5	3029.56	2276.55	0.00	0.00	2150.46	1555.06	4577.61	2633.79	1330.91	833.57
5-10	3030.16	1758.86	743.52	401.01	1918.53	1353.45	4166.16	2604.76	625.29	449.77
10-20	1606.63	958.81	690.57	421.86	2531.15	1730.65	2682.41	1414.02	259.32	170.06
20 & Ab	1051.83	589.94	95.27	76.22	1268.29	894.82	1436.74	817.84	0.00	0.00
All	1784.57	1085.36	398.62	238.09	1841.52	1281.12	2728.52	1590.68	368.52	248.93

Table-8 shows the per acre amount borrowed and outstanding from non institutional credit agencies. It is clear from the table that per acre amount borrowed from commission agents is Rs 25866.32. As the size of holding increases, amount borrowed from commission agents also increase and average amount borrowed from friends and relatives is Rs 3493.57. Average outstanding amount due towards commission agents is Rs 15079.69, and outstanding amount due to friends and relatives is Rs 2359.90. As regards the outstanding amount of commission agents as a percentage of borrowed amounts are concerned, it is maximum in case of marginal farmers (66.83%) and minimum in case of medium farmers (52.71%) and in case of friends and relatives it is maximum in case of semi medium farmers (71.93%).

The net income per capita in case of marginal farmers was rs 8492 in 2005-06 and it was rs 11647n for small farmers .if we compare it with the state figure it is much lower. so it is very difficult for small and marginal farmers to sustain their life on small size of holdings due to their small income.

4. CONCLUSION AND POLICY RECOMMENDATIONS

The findings of the study revealed that, per farmer outstanding amount in Punjab is much more than per acre outstanding amount. As regards per farmer amount is concerned, big farmers have maximum amount outstanding. As the size of holding increases, per farmer borrowed amount also increases. Indebtedness is the main reason for the suicides among farmers. we can draw a lesson from these suicides as these acts are showing us that agricultural system that had been introduced as part of a development project has failed for the weaker part of a development project, has failed for the weaker part of the society i.e agricultural laborers, marginal and small farmers The unproductive use of loan, social evils like dowry, and the extravagant expenditure on social ceremonies continue to turmoil the problem. Some other problems being faced by the small and marginal farmers in Punjab comprised of small size of holding ,low income ,small marketable surplus, poor accessibility to the credit, costly farm machinery etc.The drag on natural resources , especially groundwater , has further dragged the farm

Table--7
Institutional Loan . Amount Borrowed and Outstanding Per Acre (Rs.)

Land	Commercial Bank			Land Development Bank			Co-Operative Bank		
	Amount Borrowed	Amount Outstanding	Amount Outstanding as % of Borrowed Amount	Amount Borrowed	Amount Outstanding	Amount Outstanding as % of Borrowed Amount	Amount Borrowed	Amount Outstanding	Amount Outstanding as % of Borrowed Amount
0-2.5	2413.79	1982.76	82.14	0.00	0.00	0.00	4224.14	2655.17	62.86
2.5-5	10421.69	7831.33	75.14	0.00	0.00	0.00	7397.59	5349.40	72.31
5-10	19574.80	11362.20	58.05	4803.15	2590.55	53.93	12393.70	8743.31	70.55
10-20	21111.11	12598.77	59.68	9074.07	5543.21	61.09	33259.26	22740.74	68.37
20 & Ab	34500.00	19350.00	56.09	3125.00	2500.00	80.00	41600.00	29350.00	70.55
All	16917.74	10289.20	60.82	3778.92	2257.07	59.73	17457.58	12144.99	69.57

Table--8
Non Institutional: Amount Borrowed And Outstanding Per Acre (Rupees)

Land	Commission Agent			Friends & Relative		
	Amount Borrowed	Amount Outstanding	Outstanding Amount as % of Borrowed Amount	Amount Borrowed	Amount Outstanding	Outstanding Amount as % of Borrowed Amount
0-2.5	10293.10	6879.31	66.83	3275.86	2241.38	68.42
2.5-5	15746.99	9060.24	57.54	4578.31	2867.47	62.63
5-10	26913.39	16826.77	62.52	4039.37	2905.51	71.93
10-20	35246.91	18580.25	52.71	3407.41	2234.57	65.58
20 & Ab	47125.00	26825.00	56.92	0.00	0.00	0.00
All	25866.32	15079.69	58.30	3493.57	2359.90	67.55

Table--9

Net Annual Income of Farmers in Punjab (Rs Per Capita)

Year	Marginal	Small	State
2005-06	8492	11647	36277
2006-07	7965	16885	39860

incomes towards digging deeper for submersible pumps installation

So it is concluded that there is a dire need to save farmers from the clutches of moneylenders and commission agents and to persuade the farmers to shift towards non farm activities.

- More credit should be provided to the farmers by the institutional credit agencies at a reasonable rate of interest. Role of cooperative societies should be enhanced.
- To increase the income of the borrowers, banks should keep an eye on the use of credit by the farmers, so that the loans taken by the farmers for the productive purposes should not be used for the unproductive purposes.
- Agriculture needs diversification towards allied activities of dairy, poultry, fishery, bee-keeping etc
- The policies of the government should focus on farmers rather than seed and fertilizers.
- Government should make such type of policies that would support the farmers and the land of the debt ridden farmers is not snatched by moneylenders.

- The solution lies only in increasing the cropping intensity by choosing the cropping system which enhance the cropping intensity of the farm. Crops like vegetables, oilseeds, and fodder crops etc should be produced to enhance the farm income.
- Government must start some safety net programmes for farmers such as health insurance.
- The tractor and the machinery suitable to small farming conditions and requirements should be developed, encouraged and subsidized for small farmers.
- Ultimately it is for the civil society and the government to respond positively and take preventive and curative measures.

NOTES

1. In this analysis farmers are divided into five categories, marginal categories of farmers cultivating less than 2.5 acres of land, small categories of farmers cultivating 2.5 to 5 acres, semi medium farmers cultivating 5 to 10 acres, medium farmers cultivating 10 to 20 acres and large category of farmers cultivating above 20 acres of land.
2. Short term loans are generally taken for a period of six months to one year, whereas long term loans are taken for a maximum of 20 years.
3. Sources of all tables are primary data collection. but 9th table is from statistical abstract of punjab
4. Outstanding loans refer to that portion of a debt which remains unpaid.
5. LDBs means land development banks.

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