



Cotton Crop Failure and Farmer Suicides in the Malwa Region of Punjab: What Does It Reveal?

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1 Introduction

After liberalization, the role of agriculture sector has rapidly changed due to its integration with the global market. The shifting of staple crops to cash crops is one of the major change, which increases competition of more production among the farmers. This has also increased the demand of expensive seeds, pesticides, fertilizers, and oil and agriculture tools. This has severely affected the majority of farmers especially marginal and small in India. In India, marginal and small land holdings farmers are around 80% (Kaur, 2015). On the other side, these farmers are the debt of banks, Arthiyaas, and big landlords since long time. This debt burden is growing every day. The problem becomes more severe when crops are destroyed by natural disaster, excessive rain and drought. This has happened due to cotton crop failure in Punjab in 2015-16. The report of farmer's suicides from various districts in Punjab, particularly Bathinda, Mansa and Sangrur has become a serious issue. The current spate of farmers' suicide is caused due to economic suffering rather than social and psychological reasons.

Punjab's agriculture follows from a mono-crop culture of mainly wheat and paddy (Kaur, 2015). This has led to poor accessibility of water in some districts of the region (Pavneet and Kaur, 2015). With this cropping pattern, farming itself is becoming an unviable occupation, due to rising fixed and variable input costs, and stagnation in production leading to falling profit margins. The farmers who take land on lease for cultivation have to bear the extra cost of rent of land. There is declining of crops production. The use of pesticide has increased the economic burden as well health and environmental issues (Kaur and Kaur, 2016). The whitefly attack on cotton in 2015-16 is worsening the conditions of farmers. Now day's agriculture is becoming increasingly difficult and farmers have not any other alternative without agriculture. These conditions push them to take extreme steps. Keeping in view of the situation, the present paper is divided into four sections including present one. Second section deals with

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data base and methodology used in the study. third section explains the results and discussion. Fourth section summarizes the results with suggestions.

2. Data Base and Methodology

In the month of June 2016, the survey was conducted from the 14 villages of Bathinda district. The primary data was collected through personal interview method with the help of information about farmer suicides from newspaper and from Ughraha Kissan Union. Primary data was collected from the 24 families of suicide victims. To find out the accurate number of suicides, village panchayat and elders of the community were contacted on the basis of which a list of suicide victims for each village was prepared and then families of each suicide victim was visited to identify the causes of committing suicide. Each victim's family was approached personally and then an effort was made to assess the level of economic, social and psychological distress of the victim and his/her family at the time of the suicide.

Classification of Farmers

The farmers are divided into following five groups as per NABARD, 2014 classification:

Table 1 :Classification of Farmers According to Their Size of Land Holdings

Category of Farmers	Size of Landholdings
Marginal Farmers	Below 1 hectare
Small Farmers	1 to 2 hectares
Semi-medium	2 to 4 hectares
Medium Farmers	4 to 10 hectares
Large Farmers	10 hectares and above

Source: NABARD (2014)

3.Results and Discussion

3.1 Demographic Features of the Suicide Victims

The survey finds 23 male suicide victims and 1 female suicide victims. The age of suicide victims is shown in table 2. The table depicts that 4.17percent of suicide victims lie in the age group up to 20 years. The second group of 33.33 percent lies between the age group 21-30 years, and 29.17 percent victims lie in 31to 40 years. 33.33 percent victims were above 40 years. The average age of the all victims is 35.95 years depicting that most of the victims belong to most productive age. The economic loss to the family can therefore, be will- imagined.

Table 2: Age Wise Distribution of Suicide Victims

Age of Farmers	No. of Suicides	%	Mean Age
0-20	1	4.17	18
21-30	8	33.33	25.87
31-40	7	29.17	36.57
Above 40	8	33.33	47.75
Total	24	100	35.95

Source: Field Survey

3.2 Educational Status of the Victims

The level of literacy of the suicide victims is low. It was observed that 50 percent victims did not have any formal education and another 20.83 percent had primary education. 16.67 percent victims had up to the middle education, 8.33 percent up to matriculation and 4.17 percent had higher secondary education.

Table 3: Education Level of the Suicide Victims

Educational Attainment	Number of Persons	%
No Education	12	50
Primary	5	20.83
Middle	4	16.67
Matric	2	8.33
Higher Secondary	1	4.17
Total	24	100

Source: Field Survey

3.3 Farm Size- Wise Distribution of Suicide Victims

Table 4 shows distribution of farmer's suicide by class of farmers. 50 percent of the suicide victims belonged to the marginal farmer category, their average size of holdings was only 0.42 hectares which highlights the economic position of such families with respect to their capacity to cope with economic distress due to crop failure, low income and growing social expenditure. 12.5 percent suicide victims came from small farm size, whose average size of holdings was 1.21 hectares. Both semi medium and land less farm class had same number of suicide victims (16.67 %). However, a small proportion of suicide victims (4.8 %) came from medium size farm households, holds 4.8 hectares of land per household and no suicide case from large size farm households, it is representing that the suicides had a very strong negative linkage with the income-generating capacity of the farm households.

Table: 4. Farmer's Suicide by Class of Farmers

Class of Farmers	Farmer's suicide (%)	Average size of holdings (ha.)
Marginal Farmers	12(50)	0.42
Small Farmers	3(12.5)	1.21
Semi medium Farmers	4(16.67)	2.63
Medium Farmers	1(4.8)	4.8
Large Farmers	--	--
Landless Farmers	4(16.67)	--
Total	24(100)	1.00

Source: Field Survey

3.4 Suicide Methods used by Victims

Suicides were committed by various methods, but the most common methods were by consuming pesticides, which are freely available in every farm household in Punjab. 62.5 percent of the farmers committed suicides through this method, followed by hanging (29.17 %) and jumping before the train (8.33 %).

Table: 5. Methods of Suicides

Methods of suicide	No. of Victims	Percent
Hanging	7	29.17
Jumping before the train	2	8.33
Consume pesticides	15	62.5
Total	24	100

Source: Field Survey

3.5 Drug Addiction

The Survey found that drug addiction rate was also high in the victims, 41.67 percent victims were drug addicts and 58.33 percent were non drug addicts.

Table: 6. Drug Addiction

Drug addicts	10(41.67)
Non Drug addicts	14(58.33)
Total	24(100)

Figures in the brackets shows percentage of victims

Source: Field Survey

3.6 Productivity of Cotton Crop in 2015

Wheat - rice and wheat- cotton are the major cropping pattern in Bathinda. In the large parts of the Bathinda district the water is salty and ground water and surface water is the main sources of irrigation. However, groundwater is not suitable for irrigation for

the crop of rice thus wheat – cotton crop rotation is followed in large areas. The cotton crop in the region had been destroyed by whitefly pest attack. As a result, the returns from this crop were unsatisfactory. Table 7 indicates the returns of the cotton crop of victim's family. The cotton yield was found 4.27 quintal per hectare which is much less than last year yield (26.77 quintals). Not only the productivity of cotton has declined, but the cost of inputs has increased considerably. Because of whitefly pest attack, farmers sprayed pesticides several times to control them leading to higher cost of production. Per hectare average cost of production was found to be Rs. 35516.54/-. However, farmers claimed that they did not get adequate price for cotton. The market price of cotton remained the same as in the previous year, i.e. Rs. 4300/- per quintal. The Minimum Support Price (MSP) of cotton in the financial year 2014-15 was Rs. 3750 per quintal to Rs. 4050 per quintal and for the financial year 2015-16, it was Rs.3800 per quintal to Rs.4100 per quintal (Ministry of Agriculture and Farmers Welfare, 2015). Thus, no significant increase in the MSP of cotton occurred in 2015-16 over 2014-15. Due to very low productivity and higher cost of production, the net returns of the cotton crops were found negative.

Table: 7. Returns of Cotton Crop (Rs.)

Yield/ per/h a	Price/q u.	Ha.	Gross Returns	Cost/ha.	Total Cost	Net Returns
4.27	4300	29.07	536857.49	35516.54	1032465.82	-495608.33

Source: Field Survey

3.7 Land Leasing and Burden of Rent

Landless people who found it difficult to get employment too leased in land. Out of the 24 victim's families, 13 have 'leased in' land to supplement their operational holdings. It is found that six marginal farmers have taken land on lease 8.5 hectares, two small farmers (2.83 ha.) and one semi medium farmer (2.02 ha.). Moreover four landless farmers leased in 2.83 hectares of land. The farmers who 'leased in' land are severely affected due to failure of cotton crop. They were paying rent of about Rs.45000/- per acre for one year. Farmers take loan advance from landlords and from commission agents for the payment of rent in advance to the landowners. Landlords and commission agents charged high rate of interest on borrowers and borrowed sum is repaid after harvest. However, the net return was negative in case of cotton crop, so farmers were unable to pay back the borrowed sum with interest, as a result they got trapped into debt due to the burden of cost of production and rent. Despite additional income from 'leased in' activities, farmer's indebtedness considerably increased due to the failure of the cotton crop. Because of the crop failure farmer would never again be able to recoup the loss unless they sells off his landed property.

Table: 8. Land Leasing Activities

Lease Activities	'Leased in'		
Category of Farmers	No. of Farmers	Ha.	Avg.
Marginal Farmers	6	8.5	1.42
Small Farmers	2	2.83	1.41
Semi Medium Farmers	1	2.02	2.02
Medium Farmers	--	--	--
Large Farmers	--	--	--
Landless Farmers	4	2.83	0.71
Total	13	16.18	1.24

Source: Field Survey

3.8 Impact after Suicides

Suicides poses serious difficulties for the surviving members of the victim's families. Survey found that in 16.67 percent victim's families, the children had dropped from schools and started working on their own farms or on the farms of other people as well as the wives of the 45.83 percent suicide victims departed took up minor jobs to get their living. The access to health services also dwindled owing to economic suffering and family members suffered depression in 12.5% of the victim families. Social tension also arises between the widow and other family members over property and other social issues in 33.33 percent victim's families. The 20.83 percent victims' families sold their land after suicide for repay the debt (Table 9).

Table 9. Responses of Victim Families

Impact Suicides	No. of Victim families
No earning member	11(45.83)
Schooling of the children stopped	4(16.67)
Tension in the family	8(33.33)
Land sold	5(20.83)
Family member gone under depression	3(12.5)

Source: Field Survey

Figures in the brackets shows percentage.

3.9 Financial or Social Support

Financial or social support for the victim's families were found to be missing. Families were suffering with poverty, education facilities and access to health and looking for livelihood and financial support from the state. Only a few social organizations were making efforts in their rehabilitation, but the effort was insufficient in opposition to a large number of suicides and no state support. Families were found to be struggling for survival and demanded various services and facilities for their cure. Most measures

varied from direct one time financial help to long-term provision for livelihood with capacity building of surviving members to secure living in future. About 70% of the families wanted one time financial support to reduce the burden of economic adversity, while 58.33% wanted long-term financial help in the form of pension for the surviving members. The 20.83 percent of the families sought a job for one of the surviving members to earn a living. Free education for the children and free access to health services were also sought in case of 54.17 % and 50 % of the victim families, respectively (Table 10). Since debt was the primary reason for committing suicides, the relief from institutional and non-institutional debt was also demanded by a large number of families. Though the loan for small and marginal farmers were waived off by the Government of India in the year 2008, but it was the default only which was waived-off and the benefit of this waiver to the Punjab farmers was very small due to better recovery and a large proportion of loans by small holders taken from non-institutional sources. Although the Government of Punjab also announced monetary support of Rs 2 lakh to the families of suicide victims in April 2009, the money has not been disbursed as yet (Sidhu et al. 2015).

Table 10. Financial Support

Details	No. of victim families
Direct financial support	17(70.83)
Job for family member	5(20.83)
Free health services	12(50)
Free education for children	13(54.17)
Pension	14(58.33)
Solution for non- institutional loans	18(75)
Relinquish- off institutional loans	20(83.33)

Source: Field Survey

Figures in the brackets shows percentage

3.10 Burden of Debt

The average amount of debt per farm household was the highest in Punjab amongst all the states of the country (Singh et al. 2014). The average debt per household was Rs. 366041.7/- It was lowest for semi medium farm size (Rs. 3,12,500/-) followed by marginal farmers (Rs. 3,17,916/-), landless farmers (Rs. 4,25,000/-), small farmers (Rs. 4,40,000/-) and the highest per household debt with medium farmers (Rs. 7,00000/-). The relationship between the amount of debt per hectare and size of the farm is inverse as the marginal, semi medium and small farmers have higher debt amount as compared to the large farmers. This indicates that the marginal, and small farmers are in more critical position. Also, the landless farmer, who does not own land, bears more burdens in real terms.

Table 11: Percentage of Indebted Households

Category	Indebted Household	Amount of Debt/Household (Rs.)	The Amount of Debt/ha. (Rs.)
Marginal Farmers	12	317916.67	758449.3
Small Farmers	3	440000	362637.36
Semi Medium Farmers	4	312500	118708.45
Medium Farmers	1	700000	144032.92
Large Farmers	-	--	--
Landless Farmers *	4	425000	--
Average (24)	24	366041.7	

Note: * Per hectare debt amount of landless farmers is excluded from the overall average per hectare debt amount.

3.11 Role of Kissan Unions

Kissan Union is a group of voluntary farmers that works for the welfare of the farmers and labourers. From the last two decades, cost of production increasing continuously and income of the farmer is remained stagnant. Farmers of Punjab are taking credit from many agencies and unable to pay the loans due to low income from the agriculture. Thus these agencies started to acquire that land of the farmer which was used as the security purpose for credit. Therefore, there was a contradiction between the farmers and these credit agencies that lead to an organization of some farmer's groups to stop acquire the land of the farmer from these credit agencies given the birth to the Kissan Union in Punjab. Kissan Union in Punjab came in mid of 1990s when the farmers of Punjab come under a group for to lift up their voice against the anti-farmer's activities of the government and started to raise their voice to solve the problems of the farmers. Name of the some Kissan Union in Punjab are Bhartia Kissan Union Ektta (Ugaraha), Bhartiya Kissan Union (Dakunda), Bhartia Kissan Union (Lakhowal). To fulfil the expenditure on the movements and other type of necessary thing of farmer unions they collect the funds from farmers in those areas where these farmer unions are activated. Kissan Union highlights every aspect of the farmers and labourers in front of government and media. They raise their voice for welfare of the farmers and to lift up the voice of farmers to increase the minimum support prices of crops and facilitate the marketing and distribution of farm products.

In present case, these unions in Punjab help the farmers to attain the compensation to families of suicides victims and to the farmers whose cotton crop was damaged. On 5 september 2016 various farmer unions staged a protest in Chandigarh over their demands. Unions organised several meetings at the village level to motivate farmers for the agitation. Kissan Union demands the waiver of the debt of farmers and agricultural labourers who are unable to pay their loans. Moreover they demands compensation of Rs. 5 lakh each to the families of suicide victims, permanent job and unemployment allowance to unemployed farmers. These unions also demands Rs. 40,000 per acre as

compensation to the farmers whose cotton crop was damaged due to the whitefly attack and the clearance of debt and amendment in the indebtedness bill in favour of the farmers. The state government has not fixed any rate of interest to be charged by money lenders or arhtiyas in the present indebtedness bill. Kissan Union also demands the implementation of Swaminathan report, survey of suicides from 1990 onwards, release of motor connections on government expenses and to solution to the stray cattle troublemaker. They also demand government should making laws in favour of farmers instead of corporate houses or arhtiya (The Tribune, 2016).

3.12 Reports Covered by the Various Newspapers on Farmer Suicide in Bathinda District

Media play vital role in reporting farmer's suicide cases. Various newspaper and news channel reports on farmer's suicide. Reports from leading newspapers in the region such as 'The Tribune', 'The Times of India', 'Hindustan Times', 'Ajit' focused on this issue and made public aware of organizations attempted to mobilize the peasantry on this issue and linked it to the problem of indebtedness and especially to debt trap among the farmers.

The Tribune, Bathinda covered the report on farmer's suicide under the headline, "Day after uprooting cotton crop, farmer hangs himself." The newspaper stated that on 5 October 2015, Sukhminder Singh (42), a farmer of village Behman Diwana, who owned 2.5 acres of land, had three acres of leased land at rent of 40,000 per acre for cultivation of cotton. However due to failure of cotton crop he lost all hopes of repaying debt of Rs. 3 lakhs and he had to pay Rs. 120,000 contract price of land which he had taken on lease to grow cotton. He committed suicide by first consumed some pesticide at his home and then walked up to his fields and hung himself. He was declared brought dead in local civil hospital (The Tribune, 2015).

On 16 October 2005, Harmit Singh, 45 year old, hanged himself to death in Singo village in Bathinda district after his cotton crop fetched him too low a price. He was under heavy debt and had recently sold eight acres of his land to pay part of his loans to banks and commission agents. His family members told that he still owed Rs 6 lakh as debt. His body was handed over to his family members after a post-mortem. This report was covered by *DNA e-paper*, 18 October 2005, under the title "Another Punjab Farm Suicide" (DNA, 2005).

Gurwinder Singh, 47 year old from Rampura in Bathinda district died himself by consuming pesticides due to economic distress. Gurwinder went to his fields and consume a poisonous substance. He was declared brought dead after being rushed to a hospital in Rampura Phul. This report was covered by the *Times of India*, 7 June 2014, entitled, "Another Bathinda farmer commits suicide" (Times of India, 2014).

Charanjeet Singh, 33 year old from Burj Mehma (Bathinda) village consumed the pesticides. He was under debt of around Rs. 5 lakh and whose cotton crop on seven acres was under the whitefly pest attack. Victim's family member rushed him to a

nearby hospital where he was declared brought dead and his body was handed over to his family after the post-mortem. Harbans singh leader of the Kissan Union submit an application to the DC office to seek compensation for the family. On August 22, 2015, farmer Gurjant Singh of Natheya village committed suicide after three days farmer Rajinder Singh of Daulatpura, Bathinda district had committed suicide. Both had consumed pesticides in their fields. Their cotton crop too was under whitefly attack. This report was covered by *The Indian Express*, 10 September 2015, under the title, “Another debt-ridden farmer commits suicide, third in 20 days” (The Indian Express, 2015).

On 13 May, 2016, Surjit Singh, a 50 year old farmer from Sandoha village Bathinda district committed suicide by consuming pesticide due to debt burden. He had 3 acres land and owed Rs. 4 lakhs to private lenders and Government Banks. He stopped the education of his children because of rising debt. The victim went to irrigate his fields but he consumed pesticides in his fields. He was taken in to the hospital at Talwandi Sabo but as he had consumed a lot of poison he could not be saved and died in the hospital. This report was covered by *The Tribune*, 16 May 2016, entitled “Debt-ridden farmer kills self” (The Tribune, 2016).

On 31 December 2003, Farmer Magger Singh committed suicide from Pitho village of Bathinda. His wife Tej Kaur has been participating in to the agitations launched time and again by farmer union. After her husband’s death she had to sell of her entire agricultural land to clear the debt. Her husband was under debt burden of Rs. 8 lakh despite they sold out about three acres of land to clear the earlier debt. Like Tej kaur there are more than twelve cases of Rampura block of Bathinda district that are still waiting for compensation although they recognized as genuine suicide cases both by the officials and survey report. Similar in case of farmer Mukhtiyar Singh, 45 year old hanged himself to death in 2003 from Poohla village, but family still wait for compensation. He was under debt and owns 1.5 acres land and 10 acres lease in land from other farmer. However, there is no profit from lease in land. Gurjit Singh (35) and Parmjit Kaur (30) of village Kalyan in Bathinda district committed suicide due to debt burden in 2007. Still now there is no compensation amount given to victim’s family. This report was also covered by *The Tribune*, 1 June, 2016, under the title, “Suicide victim families demand relief at Dharna; Agitation on continues” (The tribune, 2016).

Jagdev Singh, a farmer of village Bhagwanpura, who owned five acres land, had leased in another five acres at high rent for cultivation of cotton. But due to cotton crop failure by ‘whitefly’ pest attack, he lost all hopes of repaying debt of Rs. 3 lakhs which he had taken from money lenders and other institutions for the purpose of meeting education, marriage and health expenditures. Because of pest attack on cotton crop, production of cotton declined up to 1 quintal per acre. But expenditure increased up to Rs. 14,500 per acre. He committed suicide by hanging himself on October 9, 2015. This report was covered by *Hindustan Times*, 11 October 2015, entitled, “Another farmer commits suicide in Bathinda village” (Hindustan Times, 2015).

Gurjant Singh, 62-year-old farmer of village Natheha, committed suicide on August 24, 2015, by consuming poison due to cotton crop loss. He had 8 acres land and all land was under cotton cultivation. Production of cotton crop decreased to one quintal per acre, but expenditure increased to Rs. 13,500 per acre due to more frequent use of pesticides. He had 45 years of farming experience, but never faced such type of cotton crop failure in his life. His grandson told that this cotton crop failure affected him psychologically because he was emotionally attached with farming. His family members also had not received any compensation by the date of survey. This report was covered by *The Times of India*, 5 October 2015, under title, “Another whitefly hit farmer ends life” (The Times of India, 2015).

4. Conclusion and Suggestions

Increasing number of farmer suicides in Punjab shows the rising distress in agriculture of the state. This is due to no. of reasons which include the decline in the farm income, crop failures and crop loss, high cost of production, monoculture of wheat - paddy cultivation, rising unemployment in the rural areas etc.

The study reveals that 50 percent of the suicide victims belonged to the marginal farmer category, their average size of holdings was only 0.42 hectares which highlights the economic position of such families with respect to their capacity to cope with economic distress due to crop failure and low income. More than 60 percent of the farmers committed suicides by consuming pesticides which are freely available in every farm household in Punjab. The cotton crop in the region had been destroyed by whitefly pest attack. Due to very low productivity and higher cost of production, the net returns of the cotton crops were found negative. Despite additional income from ‘leased in’ activities, farmer’s indebtedness considerably increased due to the failure of the cotton crop. Because of the crop failure farmer would never again be able to recoup the loss unless they sell off his landed property. The average debt per household was Rs. 366041.7/-. The marginal, and small farmers are in more critical position. Also, the landless farmer, who does not own land, bears more burdens in real terms. The children had dropped out from schools, land and other assets sold for living, family members suffered depression in a large number of cases. These families wished one time financial support in the form of money or long time support in the form of pension or employment for the member of the victim’s family and free access to educational and health facilities. The Government of Punjab announced a relief of Rs 2 lakh for such families,

To tackle the problem of farmer suicide, crop insurance programme needs to be strengthened, particularly in cash crops like cotton. Regulation of non-institutional lenders is also necessary so that farmers can be saved from high rates of interest charged by them. The public investment on agriculture is required to be increased in sufficient proportions. The public investment on agriculture recorded a reduction of 50 per cent in 53 years (Singh, 2003).

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