RESEARCH STUDY NO. 2017/01

FARMER SUICIDES IN HARYANA

Agricultural Economics Research Centre

University of Delhi

Delhi-110007

January, 2017

Research Team

Professor Surender Kumar

Dr. Paramjit

Ms. Papiya Ghosh

Dr. Subhash Chandra

Dr. Vishnu Shanker Meena

Mr. Vishal Dagar

Mr. Narinder Singh

Ms. Nandi Negi

ACKNOWLEDGEMENT

We are grateful to Dr. Usha Tuteja, former Acting Director of the institute, for her major contribution in this report and Prof. Pami Dua, Chairperson GB, for her constant encouragement to complete this study. We express our thanks to the Ministry of Agriculture & Farmers Welfare, Government of India for providing support during the course of study. Thanks are due to the coordinator of the study, Dr. A.V.Manjunatha and Dr. K.B.Ramappa, ADRTC, Institute for Social and Economic Change, Karnataka for providing guidelines and design of the study. We are thankful to the State Crime Records Bureau, Haryana for sharing important data for this study. The authors gratefully acknowlegde the contribution of the staff members in the AERC, Delhi.

Executive Summary

Background

Although agriculture is one of the primary sources of employment in India, it fails to provide security to those who are involved in farming activities. As a result, ever increasing incidence of suicides among farmers are reported, so much so that it has now become a major socio-economic concern. In fact, NCRB data shows that about 238658 famer suicides has happened between 2000 and 2014 with 11 states including Maharashtra, Karnataka, Madhya Pradesh, Chhattisgarh and Haryana witnessing more than 6000 famer suicides during that period, which is roughly equivalent to one farmer committing suicide every day for the last fifteen years. This provides a background for a study on farmers' suicides in the state of Haryana where 14 farmer suicide cases have been reported in 2014 and 24 in 2015.

Over the last few decades the cropping pattern in Haryana has shifted towards production of wheat, paddy and cash crops like cotton and sugarcane which would give higher net returns per unit of land. In spite of superior farming techniques used in the state and promising growth in agricultural sector many farmers, primarily small and medium, are often caught in a debt trap. This is because the increased use of technology in cultivation and introduction of high-yielding variety of seeds have raised the cost of inputs. High rent of leased-in land, fertilizer prices and high cost of irrigation further add to the cost of cultivation thereby destroying the expectations of self-sufficiency of these famers. To add to the woes of the farmers, natural factors like uneven rains, hailstorms and droughts adversely affect the crop yield which often goes to the extent of leading to crop failure. In fact, to meet the high cost of cultivation these farmers often have to depend on various credit sources with the small and marginal famers depending entirely on the moneylenders charging interest rate as high as 25 per cent.

The heavy financial stress that this debt burden create for the families of small and marginal farmers together with the sense of crop loss, geographical remoteness and social isolation that these farmers are faced with might force them to take their lives. Though the Haryana government provides subsidized technological advancements for production purposes they may not be sufficient. Moreover the vulnerability of the farmers from Sirsa and Hisar region, growing primarily cotton, to global competition from cotton growers of countries like United States and United Kingdom might have led to increase in suicides of the farmers in the state.

Objectives

The present study of 'Farmers Suicide in Haryana' sponsored by the Ministry of Agriculture, Government of India aims at analyzing the issues and problems related to farmers' suicides in Haryana, an agriculturally developed state of India. The specific objectives of the study are as under.

- To analyse the incidence and spread of farmer suicides in Haryana and to map the hot-spots of suicide;
- To study the socio-economic profile, cropping pattern and profitability of victim farm households.
- To study the causes leading to farmers' suicides.
- To recommend suitable policies to alleviate the incidence of farmers' suicides.

Methodology

Primary as well as secondary sourcesof data on farmer suicide in the state were used to accomplish the specific targets of the study. The secondary data has been collected from The National Crime Record Bureau (NCRB) and State Crime Record Bureau (SCRB), Haryana. The NCRB data about the number of suicides by farmers in 2014 and 2015 show that there has been 14 farmer suicides in the state during 2014. The district-wise details of the suicides in 2014 show that these suicide cases were reported in three districts of Haryana, namely Kaithal, Sirsa and Sonipat,with the highest number of suicide cases being reported in Sirsa followed by Kaithal, and Sonipat. Accordingly, these three districts were selected and primary data were collected through a field survey of families of the victim farmers in these districts of Haryana. The farm level data thus collected is analyzed using a simple tabular analysis.

Major Findings

The results of this study reveal the following facts.

- Although the incidence of suicides in Haryana has increased from 14 in 2014 to 24 during 2015, the highest incidence in any district is unchanged at 7 in both years.
- Most of the suicides in the year 2015 reportedly took place during the harvesting seasons of rabi and kharif crops.
- The suicide victims were mostly married and belonged to the age group 31-60 years.
- 13 out of 14 victim households were dependent primarily on agriculture.

- None of the victim households was found to hold marginal landholdings; in fact a large proportion of them were large farmers holding farms of size more than 10.1 acres.
- Large farms occupied more than five sixth of the total operational area and less than two per cent area was occupied by small farms. Further, almost the entire cultivated area was covered under irrigation.
- Percentage of expenditure to income was only about 33 per cent which indicate that the sample households were generating adequate surplus.
- There was not much diversity in the kind of crops grown by the surveyed households.
- Paddy and cotton among the kharif crops and wheat among the rabi crops generated reasonably good returns from farming.
- About 36 percent of the victim households have not taken any loan during the period under study but among the remaining 64 per cent co-operative banks and moneylenders remain attractive sources of credit.
- Repayment of loans was generally not made as per schedule.
- Most victim families perceived that the primary cause of suicide was poverty which was followed by drug abuse/alcohol addiction and extra-marital affairs/ love failure. Among the farming related causes expectation of higher output or lower price turned out to be a major factor second only to crop failure. Indebtedness due to crop loan is also believed to be another important driver of farmer suicides.
- The impact of the suicides on victim households are manifold ranging from stopping of agricultural activities, lack of earning member, depression to selling of house and other assets.

Policy suggestions

The following implications from the findings of the present study are drawn for policy interventions.

- Bringing contract farmers under the purview of institutional credit delivery system and simplification of the loaning procedures might help the farmers, many of whom are illiterate, to not fall in the trap of the moneylenders. Further, awareness has to be created among the farmers about the availability and advantages of institutional borrowing.
- Secondly, although in case of crop loss compensations are often granted to the farmers they are not adequate most of the times. Moreover, not only are compensations necessary when the farmers experience crop loss they often become a requirement for the farmers

in times of low productivity. This aspect needs to be factored in while formulating a prudent farm policy.

- Thirdly, as has been indicated by the victims' families, alcoholism and drug abuse are to a large extent responsible for such suicides. To arrest this problem steps have to be taken in the form of public awareness campaigns and for that purpose various popular media like internet, television and more importantly radio can be made use of.
- Fourthly, at the national level farmers have to be given protection against loss of competitiveness due to opening up of our economy. Since they are at a disadvantage because of the high subsidy that the other countries give to their agricultural sector, they should be put at least at par with them through various support schemes.
- Fifthly, government must ensure that the benefits from various welfare schemes, whenever announced by them, in the form of monetary transfer actually reach the farmers. Here identifying key persons in a village neighbourhood might help. Such persons would in the first place be useful in bridging the information gap, which often is found to be the reason why farmers fail to reap the benefits from various incentive schemes, and secondly they might help the less educated farmers in completing the formalities associated with such schemes.
- Sixthly, government should take measures to increase employment opportunity of the younger generation so that they do not feel themselves to be confined to agricultural activities.
- Lastly, since farmers have mostly switched to high-yielding variety seeds, their cost of production has increased substantially. As suggested by victims' households, good quality seeds should be provided to them at a subsidized price so as to contain the cost of inputs in production.

Contents

Chapter No.	Title	Page No.
Chapter-1	**Introduction**	1-10
	1.1 Background	1-2
	1.2 Review of literature	2-8
	1.3 Main objectives and scope of the study	8
	1.4 Data and methodology	8-9
	1.4.1 Limitations of the data	9
	1.5 Structure of the report	10
Chapter-2	**Farmers' suicide scenario in the state**	11-14
	2.1 Introduction	11
	2.2 Intensity of farmers' suicides in the state	11-13
	2.5 Summary of the chapter	14
Chapter-3	**Analysis of primary data**	15-30
	3.1 Introduction	15
	3.2 Socio-economic profile of the victim	15-17
	3.3 Socio-economic profile of victims' family	18-19
	3.4 Characteristics of operational holdings	19-20
	3.5 Sources of irrigation	20-21
	3.6 Leasing of land	21-22
	3.7 Source of income and items of expenditure	22-23
	3.8 Cropping pattern and returns from cultivation	23-26
	3.9 Credit availed	27-29
	3.10 Summary of chapter	29-30
Chapter-4	**Causes and after effect of suicide - based on primary survey**	31-39
	4.1 Introduction	31
	4.2 Symptoms observed and causes of suicide	31-36
	4.3 Impact of suicide on family members	36-37
	4.4 Suggestions from families to avert suicides in future	37-38
	4.5 Summary of chapter	38-39
Chapter-5	**Conclusions and Policy suggestions**	40-43
	Bibliography	44-46

List of Tables

Table No	Title	Page No.
Table-1.1	Sample size of Primary data	9
Table-2.1	District-wise details of farmers' suicide in the state (2015-16)	12
Table-2.2	Month-wise farmers' suicide in the state (2015-16)	13
Table-3.1	Socio-economic profile of the victim	15-16
Table-3.2	Socio-economic profile of victims' family	18-19
Table-3.3	Characteristics of operational holding	20
Table-3.4	Source-wise distribution of irrigated area	21
Table-3.5	Details of leased-in and leased-out land	21
Table-3.6	Details of income and consumption expenditure of sample households	22
Table-3.7	Season-wise cropping pattern	26
Table-3.8	Details of credit availed	28
Table-4.1	Symptoms observed by family members before suicide	31-32
Table-4.2	Social causes of suicide	32
Table-4.3	Farming related causes of suicide	33
Table-4.4	Indebtedness related causes of suicide	34
Table-4.5	Ranking of the causes	35
Table-4.6	Impact of suicide on family members	36
Table-4.7	Suggestions by the respondent	37

CHAPTER 1

Introduction

1.1 Background

Although agriculture is one of the primary sources of employment in India, it fails to provide security to those who are involved in farming activities. As a result, ever increasing incidence of suicides among farmers is reported, so much so that it has now become a major socio-economic concern. In fact, NCRB data shows that about 5650 famer suicides has happened inIndia in 2014 with 7 states including Maharashtra, Karnataka, Madhya Pradesh, Chhattisgarh, Andhra Pradesh, Telengana and Haryana witnessing about 5230 of them during that period, which is roughly equivalent to 14 farmers committing suicide every day in these states in 2014.This provides a background for a study on farmers' suicides in the state of Haryana where 14 farmer suicide cases have been reported in 2014and 24 in 2015.

Over the last few decades the cropping pattern in Haryana has shifted towards production of wheat, paddy and cash crops like cotton and sugarcane which would give higher net returns per unit of land. In spite of superior farming techniques used in the state and promising growth in agricultural sector many farmers, primarily small and medium, are often caught in a debt trap.This is because the increased use of technology in cultivation and introduction of high-yielding variety of seeds have raised the cost of inputs rendering farming unprofitable. High rent of leased-in land, fertilizer prices and cost of irrigation further add to the cost of cultivation thereby destroying the expectations of self-sufficiency of these famers.In fact, to meet the high cost of cultivation these farmers often have to depend on various credit sources with the small and marginal famers depending entirely on the moneylenders charging interest rate as high as 25 per cent. To add to the woes of the farmers, natural factors like uneven rains, hailstorms and droughts adversely affect the crop yield which often goes to the extent of leading to crop failure.

The heavy financial stress that this debt burden create for the families of small and marginal farmers together with the sense of crop loss, geographical remoteness and social isolation that these farmers are faced with oftenforce them to take their lives. Though the Haryana government provides subsidized technological advancements for production purposes they may not be

sufficient. Moreover the vulnerability of the farmers from Sirsa and Hisar region, growing primarily cotton, to global competition from cotton growers of countries like United States and United Kingdom might have led to increase in suicides of the farmers in the state.

Against this backdrop a field survey in the state of Haryana has been undertaken with an attempt to develop an in-depth understanding of the issues faced by the famers and make some policy suggestions to prevent such incidences in future.

1.2 Review of literature

To put this study in perspective it would be useful to present a brief review of existing literatureon farmers' suicides in India.

As pointed out by Assadi (2006) farmer suicide has always been a serious problem in India but it came to the forefront of the discourse only in the decade of 1980s when a farmers' group called Market Oriented Autonomous Farmers decided to declare it as a deep rooted agrarian crisis. However, the problem of suicide per se has been a contentious research issue for the sociologists for more than a century now. For example, as early as in the nineteenth century Emile Durkheim (1896) posits that suicide rates are dependent upon the degree to which individuals are integrated into society and the degree to which society regulates individual behaviour. According to him, in a modern society two broad reasons of suicides are visible- one, increasing detachment from others resulting to egoistical suicide and two, dissatisfaction in relation to expectations resulting in anomic suicide.It is believed by many that farmers' suicides largely take place because of the second reason.Along that line Deshpande and Arora(2010)point out that when price of crops touch very low, poverty-stricken farmers, in dismay, are more prone to commit suicides.However, as has been argued by Sarma (2004), attributing rural crisis entirely to poverty and drought would be anoversimplification of the situation. In fact, there are **se**veral ways in whichvillage economy is under stress today. In that direction Mohanty (2013) opines that since modern agricultural practice does not require any interaction amongst the farmers, they are more detached these days and hence it is the first reason of Durkheim which plays a vital role in farmers' suicides. According to him, it is essentially a combination of ecological, economic and social crisis which leads to farmer suicides.He further substantiates his claim in Mohanty (2014)through a study conducted in Amravati and Yavatmal districts of Maharashtra. It emerged from the study that although crop loss and egoistic factors led to suicidal tendency among small farmers, the suicides of large and medium farmers who belong to higher castes were 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. He therefore concluded that the suicides of farmers are neither properly anomic nor egoistic rather they are ego-anomic in nature.

Deshpande (2002), on the other hand, in an attempt to identify the factors triggering famers to take this drastic step points out that analysing the causes of suicides requires understanding the culmination of four factors namely, Events, Stressors, Actors and Triggers. This categorization stems from the mental set up of victims. The events such as crop loss, bore-well failure, price crash, family problems, property disputes and daughter's marriage act as stress creators, more so, when two or more events cluster together. Usually illness of the individual or any family member, heavy borrowing, continued disputes in the family or land related problems act as stressors. These become lethal in combination with any of theabove events, but further ignition comes through the actors and triggers incidence. Given this complex nature of the phenomena, it is certainly difficult to pinpoint one particular reason for the suicides. Suri (2006) adds that the reasons for agrarian distress in India lie in the conjunction of the changing natureof agriculture and democratic politics. With cultivation becoming an unrewardingoccupation, growing disparities of wealth between the rural and urban areas, inability of farmers to unite and bring pressure on the governments and a disjuncturebetween the interests of the farmers and those of the political representatives, have all led tothe neglect of agriculture and deterioration in the condition of farmers. In short, social basis of the apparent problems like indebtedness, price crash, crop loss etc. is what needs to be looked at.

To that end, several empirical studies have been conducted over the past few decades to understand the complexities of the problem. A study by Mohanty and Shroff (2004) based on three districts of Maharashtra, reveals that although crop losses, indebtedness and market imperfections cause economic hardship to farmers, social factors are also at work which lead, in some cases, to their suicides. Parthasarathy and Shameem (1998) examine the immediate and long-term reasons for suicides of cotton farmers in Andhra Pradesh. Focusing their study on 174 farmers who committed suicides in various districts of AP, the data show that suicides in Telangana region accounted for nearly 89 per cent of the total suicides. In Telangana as many as 45 per cent of the suicide cases were found to be reported in Warangal district and around 13 percent each in Medak and Karimnagar districts. These three districts accounted for 71 per cent of the suicides in Telangana region. The larger picture that came out from their study is that not only is indebtedness to the moneylenders cum traders responsible for such suicides, the alienation of the farmers from family and the society is also to be blamed for it. Kanthi (2014) in

his study on economics of agriculture and farmers' suicides in Warangal District in Andhra Pradesh reported that the contributory factors for farmers suicides in Andhra Pradesh as farmers indebtedness, crop loss and failure and risk factor, input (seed, fertilisers, pesticides, irrigation, credit) related problems, inadequate institutional finance, failure of agricultural extension system lack of storage and marketing facilities, lack of remunerative prices and absence of agricultural insurance. According to Rao and Suri (2006) it can be observed that indebtedness is highly responsible for farmer suicides in rural Andhra Pradesh. However, changed nature of agriculture involving high costs and low or negative returns are the major underlying causes. The changed nature of politics has largely removed the farmers from the policy arena and led to their increasing immiserisation. Other states like Kerala, Karnataka, Punjab and Maharashtra have also got some attention of the researchers on account of large number of farmers' suicides cases being reported in these states. For example, George and Krishnaprasad (2006) find that in Wayanad district of Kerala alone, with a population of only about 8 lakh (Census, 2011), 130 farmers and agricultural workers had committed suicide in the year 2004. Using the data on the first census survey conducted about suicides by farmers in two most affected districts of Punjab, namely Sangrur and Bhatinda,Sidhu et al. (2011) present a grim picture of Punjab as well. In fact, recent findings ofthe National Sample Survey Organisation's 59th Round are revelatory of the plight of our farmers. Over 48 per cent of them areindebted and nearly two-thirds of the farmers are frustrated withtheir profession.

Sridhar (2006)in his paper observes that individuals and communities are under pressure to cope with the changes brought aboutby a change in socio-economic conditions. The policies associated with the process of economic liberalisation have imposed a stress on the peasantry leading to suicides. A similar observation has been made by Mishra (2006) who highlights that agrarian crisis has precipitated a spate of suicides in Maharashtra with the suicide mortalityrate for farmers in the state increasing from 15 in 1995 to 57 in 2004. The rain-dependentcotton growing farmers of Vidarbha faced declining profitability because of dumpingin the global market by the US, low import tariffs, failure of the Monopoly CottonProcurement Scheme and withdrawal of the state (resulting in declining public investment inagriculture, poor government agriculture extension services and diminishing role of formalcredit institutions). The average farmer now depends on input dealer for advice leading tosupplier-induced demand, and on informal sources of credit which result in a greater interestburden. In brief, farmer is faced with yield, price, credit, income and weather uncertainties. Mishra's opinion has been resonated by Mohanakumar and Sharma (2006) and Jeromi (2007) with respect to the state of Kerala when they argue that agrarian crisis and farmers' distress in Kerala are closely linked to the

neoliberalpolicy regime implemented in the country in the recent past. They found that the association between thetwo is more in the regions of the state that are heavily dependent on export-oriented cropssuch as coffee and pepper. The worst affected are small farmers, as they are morevulnerable to crop losses and price decline. A study on the cotton farmers by Mitra and Shroff (2007) also points at the loss in competitiveness of the Indian cotton farmer after opening up of India's agricultural economy in the mid-1990s as a major reason for increase in farmers' suicides. They say that lack of dynamism in cotton yield per hectare in a dynamic world and a huge increase in cost of cultivation of cotton have made cotton farming unremunerative and led to suicides. They further concluded that the recent suicide epidemic witnessed in the whole of the country can be attributed to low yield and exposure to lower international prices after liberalization. Finally, Venkatesh and Venkataramanappa (2014) summarises the entire issue of farmer suicide by saying that there has been a complete neglect of farming community over the years especially when economic reforms were aggressively pursued in early 1990s, which in turn has resulted in de-legitimization of agriculture on the one hand and de-peasantization of agriculture on the other.

Rao and Gopalappa (2004),on the other hand, highlight the fact that apart from liberalization the distressof the farmers can be largely attributed to policy regimes unfriendly to farmers. This paper presents clues from Karnataka indicating that farmer distress is not an outcome of slow agricultural growth but, paradoxically, of the enterprising qualities of farmers who pursue growth and even achieve it in good measure. Findings show that farmers in Karnataka respond quite well to changing markets and are receptive to new technologies. But, drought-prone environment combined with a non-caring policy regimeforce these producers to take their lives. Lack of political will comes to the forefront again in a study by Verma (2011) who describes farmers' suicides in Bundelkhand as a result of several years of neglect of the agricultural sector and industrial backwardness. According to him, amidst fight for separate states neither the Uttar Pradesh government nor the Madhya Pradesh government made efforts to address the basic issues of ecological degradation, agricultural modernisation and rural indebtedness.

Moreover, as pointed out by Deshpande and Prabhu (2005), not only are the policies not well crafted,in many cases the benefits of several policyinitiatives framed by central and state governments do not reallyreach their intended beneficiaries - the farmers. Venkatesh and Venkataramanappa (2014) also reiterate that most of the scattered initiatives by the government like the minimum employment guarantee after harvest, government sponsored self-employment schemes and packages declared both by the centre and state governments have proved to be

ineffective. Unfortunately, poverty alleviation programmes that were initiated suffer from high-level corruption, domination, weak linkage and overlapping.

A study by Sadanandan (2014) adds a new dimension to the problem of farmers' suicide by correlating it with the financial reforms undertaken in India. It states that case studies of various states at macro and micro levels attribute these suicide deaths to credit crunches in agrarian sector and increased debt burden among farmers. Most of the farmer suicides have, however, taken place in five of India's 28 states, suggesting that adverse financial circumstances affected farmers only in some states which naturally raise the question why mounting debt and credit crunches affect farmers in some states and not in others. In an attempt to answer this question this paper relates farmer suicides to the financial reforms the country undertook since the 1990s. Using an instrumental variables approach, it shows that one plausible reasoncould be that increased competition in the banking sector diverted lending away from agriculture thereby creating dire economic conditions that facilitated farmer suicides in some Indian states.

However, although broadly similar conclusions about the incidence of suicides are arrived at in most states, a study by Satish (2006)presents a very different picture about Punjab. He states that since the nationalisation of banks and the green revolution, institutional credit foragriculture has grown in Punjab. But growth has not been uniform and in line with thedemand for such credit which led to indebtedness of the farmers. As Singh et al. (2014) would reveal the level of education, non-farm income, farm size and non-institutional credit were the main factors which affect the level of farmers' indebtedness. Howeveralthough indebtedness has increased in the stateas has been observed in Satish (2006), a large partof the debt has been for non-productive purposes. This shows that while many studies would reveal that indebtedness isindeed one of the major causes of suicides, there seems to be no direct causal relationship between institutional credit, indebtednessand suicides in rural Punjab. Thus it can very well be seen that the problems of indebtedness as well as suicides do not meritnarrow interpretation or solution, as these are only symptoms of a larger malaise. They haveto be contextualized in the light of stagnation of agriculture, rising levels of ruralunemployment and dissipation of economic and social infrastructure a hint of which can be found in the studies by Behere and Behere (2008) and Meeta and Rajivlochan (2006). Behere and Behere (2008) reported that various factors like chronic indebtedness and the accumulation of inability to pay interest over years and economic decline, grain drain and the rising costs of agricultural inputs and falling prices of agricultural produce lead to complications and family disputes, depression and alcoholism etc, and eventually are responsible for suicides among the farmers. They also opined that the causes are

multi- factoral, cumulative, repetitive and progressive, leading an individual to a state of helplessness, worthlessness and hopelessness, obviously influenced by his social strengths and weaknesses along with his mental health status. On the other hand, according to Meeta and Rajivlochan (2006) some of the problems common among the victims of suicide were (a) hopelessness in being unable to resolve the dilemmas of personal life and an inability to find funds for various activities or repay loans; (b) the absence of any person, group, or institution to whom to turn to in order to seek reliable advice - whether for agricultural operations or for seeking funds or for handling private and personal issues; (c) little knowledge about institutional mechanisms like the Minimum Support Price (MSP) that would affect marketing, technical knowledge and no reliable sources from where such knowledge and advice could be accessed; and (d) chronic alcoholism and drug abuse among the rural population.

Though the above discussion of the literature is far from exhaustive it at least tells us that quite a few empirical studies have been conducted towards understanding the reasons behind farmers' suicides.Butnot much has been done to understand the impact of these suicides on the family members of the victims. A study by Bastian (2012), focusing on human rights of Indian farmers and surviving family members who have been affected by the farmer suicide however touches upon this issue very briefly. According to him very oftenfarmers with small landholdings are trapped in a cycle of debtwhich has resulted in severe spate of suicides over the past several decades. However, behind each and every death lies anintensely individual tragedy the effects of whichhaunt families of these farmers. He points out that some of the inescapable impacts of such deaths include families inheriting debt, children dropping out of school to become farmhands and family members falling in sheer depression.

Thus this review clearly brings out the magnitude, probable causes, possible impacts and remedial policy measures taken to control farmers' suicides in India. Many of the papers discussed above have come up with suggestions to curb such incidences as well. For instance, Suri (2006) suggests that paying compensation to the family member of the suicide victims is of course necessary but not sufficient. More importantly what is needed is a change in the strategies of economic development which have hitherto downgraded agriculture and stunted non-farm employment. He adds that the growth of corruption, illegal amassment of wealth by the political class need to be curbed and the disjuncture between the interests of the people and people's representatives has to be ended. Mohankumar and Sharma (2006) adds that the plight of the farmers can be improved by changing macro-policies regulating taxes, prices and imports and by increasing availabilityof institutional credit;only by providing some alleviatory sops to

the victims of suicide families condition ofthe farmers cannot be improved on a sustainable basis. Sidhu et al. (2011) prescribes that awareness among farmers will have to be created to avoid unproductive expenditure and make efficient use of investment in irrigation by adopting water use efficiency measures. Crop insurance programme needs to be strengthened, especially in cash crops like cotton, where yield and price variability are relatively high. Innovative loan settlement mechanisms need to be developed in the case of crop failure so that farmers can cope with falling incomes and tide over financial crises.

To sum up, most researchers working on this problem agree that a holistic approach and not hastily announced reliefpackages,is the need of the hour to solve the problem of farm distress. A reworking on agrarian policy to make it more inclusive by addressing the larger issues of farmers would contain the spate of suicides. Such a policy should help farmers build production capabilities (Deshpande (2002) and enhance their capacities for collective action (Vasavi (2012).

1.3 Main objectives and scope of study

The present study is an attempt to understand the issues and problems related to farmers' suicides in Haryana, an agriculturally developed state of India. The specific objectives of the study are as under.

- To analyse the incidence and spread of farmer suicides in Haryana and to map the hot-spots of suicide
- To study the socio-economic profile, cropping pattern and profitability of victim farm households.
- To study the causes leading to farmers' suicides.
- To recommend suitable policies to alleviate the incidence of farmers' suicides.

1.4 Data and Methodology

This project envisages collecting data in the form of responses from the farmers' suicides affected families in Haryana by canvassing a questionnaire. The study is based on primary as well as secondary data. The secondary data has been collected from The National Crime Record Bureau (NCRB) and State Crime Record Bureau (SCRB), Haryana. The NCRB data about the number of suicides by farmers in 2014 and 2015 show that there has been 14 farmers suicides in the state during 2014 which has increased to 24 in the following year. The district-wise details of the suicides in 2014 show that the suicides took place in only three districts of the state, namely Kaithal, Sirsa and Sonipat with the highest number of suicide cases being reported in Sirsa

followed by Kaithal and Sonipat. Accordingly, these three districts have been selected and all the victims' families have been interviewed. Table 1.1 gives details of the data collected through primary survey. It can be seen from the table that the number of victim families interviewed in

Table 1.1 Sample size of primary data

Sl.No.	Names of selected district	Name of selected Taluka/Block	Name of Village	No. of Victims' families interviewed
1	Kaithal	Kaithal	DeodhKheri	1
2	Kaithal	Kaithal	Keodak	1
3	Kaithal	Kaithal	Peoda	1
4	Kaithal	Pundri	Theontha	1
5	Sirsa	Badaguda	Fatehpuria	1
6	Sirsa	Badaguda	Sahuwala	1
7	Sirsa	Badaguda	Badaguda	1
8	Sirsa	Sirsa	Lakdawali	1
9	Sirsa	Dabwali	Ganga	2
10	Sirsa	Sirsa	Molleca	1
11	Sonipat	Gohana	Rewara	1
12	Sonipat	Ganaur	Teori	2
Total	3	7	12	14

Sirsa district is 7, in Kaithal district it is 4 and in Sonipat it is 3 which add up to a total of 14 victim families interviewed.

1.4.1 Limitations of the data

To make a complete analysis of the incidence and spread of farmer suicides in Haryana it is important to have information about the details of compensation paid by the state government to the victim' families, for instance, the amount paid, the criteria applied to determine the amount and the procedure adopted for disbursement of the compensation. However, due to unavailability of these data any information about compensation could not be included in this study and to that extent the scope of this study is limited. Moreover, since at the time of primary survey detailed data on farmers' suicides were not available for the year 2015most of our analysis isbased on 2014data. For the same reason month-wise details of the suicides are available only for the period Januaryto December, 2015.

1.5 Structure of the report

This report is divided into five chapters. Chapter 1 that is the current chapter provides a background of the study, a brief literature review, the objectives and scope of the study and a detailed description of the methodology followed in selection and analysis of the sample data. It further highlights the limitations of the study. Chapter 2 discusses the intensity of farmers' suicides in the state, both district-wise as well as month-wise (provisional). Analysis of the primary data is done in chapter 3 which focuses on the socio-economic conditions of the victims and their households, characteristics of their operational landholdings, details of cropping pattern followed by the victim households and the sources of income and expenditure of the families. Chapter 4 indicates the causes and after effect of the suicides based on the primary survey and puts forward the suggestions of the victim households to prevent future suicides. Conclusions and policy suggestions are made in Chapter 5.

CHAPTER 2

Farmers' suicide scenario in Haryana

2.1 Introduction

To understand the issues related to farmers' suicides in the state of Haryana it is necessary to first have a clear picture of the farmers' suicide scenario in the state, in particular map the hot spots of suicide within the state and assess whether any pattern exists in the incidence of suicides reported in the state. With that objective in mind in this chapter the latest district-wise details of farmers' suicide in the state is examined and also a detailed look into the month-wise statistics has been given as well.

2.2 Intensity of farmers' suicides in Haryana

Table 2.1 shows district-wise details of suicides for the year 2015 which tells us that the largest number of cases (7) was reported in Fatehabad district followed by 4 in Bhiwani district and the least number of suicides (2) was reported in Sirsa and Ambala district. When compared with last year's figures (shown in Table 1.1), it can be strikingly observed that the same Sirsa district which records the lowest number of suicides in 2015 had recorded highest number of such incidents (7) in 2014. In terms of percentage to total cases in the state, Fatehabad, which is the topmost district in the state to encounter farmers' suicide problem, has recorded 29.17 per cent of the cases followed by 16.67 per cent in Bhiwani, 12.5 per cent each in Karnal, Kaithal and Sonipat and 8.33 per cent each in Ambala and Sirsa.

From the statistical abstract of Haryana it can be seen that the net sown area, gross cropped area and the number of operational holdings for Fatehabad district are 222,000 hectares, 427,000 hectares and 90143 respectively. Accordingly, the figures for Fatehabad district show that the number of farmer's suicide per lakh hectare of Net Sown Area (NSA) was 3.153, the number of farmer's suicide per lakh hectare of Gross Cropped Area (GCA) was 1.639 and the number of farmer's suicide per lakh farming families was 7.742.

The situation was somewhat better in Ambala and Sirsa districts in the year 2015 during which the number of cases of farmers' suicide was 2 in both the districts. The net sown area and the gross cropped area however were reportedly highest in Sirsa at 390, 000 hectares and 719,000 hectares respectively.

Table 2.1: District-wise details of farmers' suicide in Haryana, 2015

Sl. No.	Name of the district	No. of farmers' suicide	% to state total	No. of farmers' suicide per lakh hectare of Net Sown Area = (no. of farmers' suicides x 100,000) / net sown area in ha)	No. of farmers' suicide per lakh hectare of Gross cropped area = (no. of farmers' suicides x 100,000) / gross cropped area in ha)	No. of farmers' suicide per lakh farming families = (no. of farmers' suicides x 100,000) / no.of farming families)
1	Ambala	2	8.33	1.852	1.005	3.370
2	Bhiwani	4	16.67	1.003	0.541	2.876
3	Fatehabad	7	29.17	3.153	1.639	7.742
4	Karnal	3	12.50	1.563	0.789	3.553
5	Kaithal	3	12.50	1.523	0.789	4.197
6	Sonipat	3	12.50	1.987	1.034	2.475
7	Sirsa	2	8.33	0.513	0.278	1.463
	Total	24	100.00	0.686	0.371	1.484

Note: Figures for district-wise as well as overall NSA and GCA are provisional for the year 2013-14 and the per district farming families (number of operational holdingsper district)are provisional figures for the year 2010-11. These figures are taken from Statistical Abstract of Haryana, 2014-15.

While each of these districts accounted for only 8.33 per cent of total cases of suicide, number of farmers' suicide per lakh hectare of NSA were recorded at1.852 and 0.513 respectively, the number of farmers' suicide per lakh hectare of GCA were 1.005 and 0.278 respectively and the corresponding number of farmers' suicide per lakh farming families were 3.370 and 1.463. According to the data shown in table 2.1 the total number of cases of farmer suicides was 24 in Haryana state and from the statistical abstract of Haryana we find that the total GCA of the state was 64.71 lakh ha., total NSA was 34.97 lakh ha. and the number of operational Holdings was 16.17311 lakh ha.. Therefore the number of farmer suicides turns out to be 0.686 per lakh hectare of Net Sown Area, 0.371 per lakh hectare of Gross Cropped Area and 1.484 per lakh farming families in the year 2015-2016.

The following table 2.2 presents information on farmers' suicides individually for each month of the calendar year 2015. The information contained in the table was collected from NCRB and SCRB, Haryana.

Table 2.2: Month-wise farmers' suicide in Haryana (January to December, 2015)

Sl.No.	Months	2015-16	Percent to total no. of farmers' suicides
1	January	1	4.2
2	February	0	0
3	March	2	8.3
4	April	3	12.5
5	May	4	16.7
6	June	3	12.5
7	July	0	0
8	August	2	8.3
9	September	2	8.3
10	October	3	12.5
11	November	1	4.2
12	December	3	12.5
	Total	24	100.00

The SCRB Haryana provided district wise list of farmer's suicides in different districts of the state with the details of the Investigating Officers of the said cases for the years 2014 and 2015. Upon inquiring the Investigating Officers it was found that in the year 2015 maximum number of farmer suicides was recorded in the month of May (4), followed by April, June, October and December (3 each). Two suicides each were recorded in each of the months of March, August and September and one each in January and November.

The month-wise data on farmers' suicides, as represented in table 2.2, reveal no remarkable seasonal pattern in the incidence of suicides in the state although the number of suicides is marginally higher during the harvesting seasons of both Kharif and Rabi crops indicating that the suicides may have happened due to low returns from cultivation. Further, while in the month of May there were only two suicides reported in 2014 (not shown in the table) it has increased to 4 in the subsequent year. However, on the basis of this limited datait is difficult to infer anything about the possible reason for the rise in suicide cases for a particular month.

2.3 Summary of chapter

A detailed examination of the suicide statistics in Haryana reveals that

- The suicide cases were concentrated in seven districts of the state with Fatehabad topping the list in 2015.
- Sirsa district, which topped the list in 2014with 7 suicides, has moved down to be the last entry in the list for 2015 with 2 suicides.
- The month-wise statistics do not show any clear seasonality in the incidence of farmers' suicides although marginally higher incidencesare reported during the harvesting seasons of both Rabi (April- June) and Kharif crops (October- December).

CHAPTER 3

Analysis of primary data

3.1 Introduction

The present chapter is devoted to analyze the data collected during the primary survey undertaken by the Centre. To meet the objectives of the study detailed data on socio-economic profile of the victims and their families have been collected. Moreover, details on the characteristics of the operational landholdings of the victim households and the availability of irrigation facilities in their cultivable area and the sources thereof have also been mapped. Lastly, the cropping pattern followed by these farmers and their propensity to take loans are some of the other variables which have been analyzed in the present chapter on the basis of the primary data collected during the survey. The empirical findings based on the information collected during the survey are reported in the form of tables.

3.2 Socio- economic profile of the victim

The comprehensive and widespread survey conducted by the Centre in the state of Haryana highlights some interesting features about the socio-economic background of the victims. Before discussing their socio-economic profile it must be pointed out that in the 14 victim households covered in the survey, the respondents were the family members of the suicide victim, who may be wives, sons, daughters, brothers, sisters or others. As table 3.1 points out,

Table 3.1:Socio-economic profile of victim

Particulars		
Total number of victim households surveyed: (Numbers)		14
Type of respondents (% to total sample)	1.Wives / Sons / Daughters	42.9
	2.Brothers / Sisters / others	57.1
Gender (% to total sample)	1.Male	100
	2.Female	0
Social status (% to total sample)	1.SC	0
	2.ST	7.14
	3.OBC	21.43
	4.General	71.43

Religion (% to total sample)	1.Hindu	78.6
	2.Muslim	0.0
	3.Christian	0.0
	4.Sikh	21.4
Age group (% to total sample)	1.Upto 30 years	21.4
	2.Between 31 to 60 years	78.6
	3.Above 30 years	78.6
Years of schooling (% to total sample)	1.Illiterate	28.67
	2.Primary (4 years)	21.43
	3.Middle (7 years)	14.39
	4.Matriculation/secondary (10 years)	21.43
	5.Higher secondary (12 years)	7.14
	6.Degree/Diploma (15 years)	7.14
	7.Above Degree (Above 15 years)	0.0
Marital status (% to total sample)	1.Married	78.6
	2.Un Married	21.4
Type of marriage (% to total sample)	3.Arranged	78.6
	4.Love	21.4
Married to whom (% to total sample)	5.Within relatives	28.6
	6.Outside relatives	71.4
Heirs of the victim (Average No. to total sample)	1.Sons	0.8
	2.Daughters	0.8
Victims who had parents and had brothers and sisters (% to total sample)	1.Only Mother	7.1
	2Only Father	14.3
	3.Both mother and father	14.3
	4.Brothers and sisters	21.4
Method of suicide (% to total Sample)	1.Poison consumption	42.9
	2.Hanging	57.1
	3.Jumping into river / well	0.0
	4. Currrent shock	0.0
	5. Self immolation	0.0
	6. Railway Track	0.0
	7. Others	0.0
Place of suicide (% to total sample)	1.House	28.6
	2.Farm	71.4
	3. Lodge / Hotel	0.0
	4. Others	0.0

wife/ son/ daughter of the victims constitutes 42.9 % of our sample whereas brother/sister/others constitute the remaining 57.1 %.

Given the demographic profile and the cultural milieuof the state, not surprisingly all the victims (100 per cent) were found to be males. While no victim was found to belong to the scheduled caste, 71.4 per cent belonged to general category followed by 21.4 per cent in the OBC category and 7.1 per cent in the ST category. As far as religion of the victims is concerned, they are either Hindus or Sikhs. In particular, 78.6 per cent of the victims were Hindus and the rest were Sikhs.

The age profile of the victims, as shown in Table 3.1, reveal that only 21.4 per cent of the victims belonged to the age group of up to 30, whereas a majority of them, that is 78.6 per cent, were of above 30 years of age. As regards the educational background of the victims, while about 28.6 per cent of them were illiterate, 21.4 percent of them have completed primary education followed by 14.3 per cent completing middle school, 21.4 per cent completing matriculation, 7.1 per cent each completing higher secondary education and degree/ diploma. No one was found to have qualifications beyond degree.

When classified on the basis of marital status of the victims, the data shows that 78.6 per cent of the victims were married and the remaining 21.4 per cent of them were unmarried and all the marriages were found to be arranged. Although 71.4 per cent of the victims were married to someone outside relative, there are a small percentage of victims, of about 28 per cent, who were married within relatives.Average numbers of daughters and sons left behind by the victims are found to be same at 0.8. Other than wife and children 7.1 percent of the victims had only mother, 14.3 per cent had only father, 14.3 per cent had both parents and 21.4 per cent had brothers and sisters as well.

As regards the method of suicide adopted by the victims, Table 3.1 shows that 42.9 per cent of the victims had consumed poison and the remaining 57.1 per cent had hung themselves. The victims chose either house or farm to commit suicide with 71.4 per cent of them committing suicide in farms and only 28.6 per cent of them committing suicide in house.

3.3 Socio-economic profile of victims' family

Having delineated socio-economic characteristics of the victims, in this section the socio-economic profile of the families of suicide victims will be discussed.

As the table 3.2 shows, on an average the household size of the victims in the three districts of Haryana covered under the study is roughly 3and the age distribution of the family members as a percentage of total sample is as follows: 28.9 per cent were adult males above 15 years of age, 42.2 per cent were adult females above 15 years and 28.9 per cent were children below 15 years. From the information collected about the years of schooling of the victims' family members it can be seen that only 2.2 per cent of the family members have studied beyond fifteen years whereas the rest have completed at most higher secondary level of education. More precisely, 13.3 per cent have completed higher secondary, 8.9 per cent have done matriculation, 20 per cent have completed just middle school, and 26.7 per cent have studied only till primary level whereas the remaining 28.9 percent are illiterate.

It can be further observed from the data that most of the victims were residing in a joint family.As the table 3.2 shows, 85.7 per cent of the total sample household areof joint family type while only 14.3 per cent are nuclear families. Further, 13 out of these14 households were dependent on farming as the main occupation. However, for only 14.3 per cent of the households their house was located in their own farm whereas the houses of the remaining 85.7 per cent of the victims' families were situated within their respective villages.

Table 3.2: Socio-Economic Profile of victims' family member

Particulars		
Existing household size: (Average numbers)		3.2
Households depending on farming as a main occupation (% to total sample)		92.9
Family type (% to total sample)	1.Joint	85.7
	2.Nuclear	14.3
Location of the households (% to total sample)	1.Within the village	85.7
	2.In their own farm	14.3
Age group of family members (% to total sample)	1.Adult Males (>15 yrs)	28.9
	2.Adult Females (>15 yrs)	42.2
	3.Children (<15 yrs)	28.9
Years of schooling of family members (% to total sample)	1.Illiterate	28.9
	2.Primary (4 years)	26.7
	3.Middle (7 years)	20.0

		4.Matriculation/secondary (10 years)	8.9
		5.Higher secondary (12 years)	13.3
		6.Degree/Diploma (15 years)	0.0
		7.Above Degree (Above 15 years)	2.2
Farm Size	% of area to holdings of sample	1.Marginal (0.1 to 2.5 ac)	0.0
		2.Small (2.51 to 5 ac)	1.48
		3.Medium (5.1 to 10 ac)	13.16
		4.Large (10.1 and above)	85.36
	% of holdings to total sample	1.Marginal (0.1 to 2.5 ac)	0.0
		2.Small (2.51 to 5 ac)	14.3
		3.Medium (5.1 to 10 ac)	28.6
		4.Large (10.1 and above)	57.1
		Average operational holding size (acres Per HH)	17.91

On categorizing the households according to the size of their operational holdings, it can be observed that none of the households could be termed as that of marginal farmers'. However, 14.3 per cent of the households would be small farming households (2.51 to 5 acre), 28.6 per cent would be medium farming households (5.1 to 10 acre) and 57.1 per cent would be large farming households (10.1 acre and above). The percentage of area to holdings of sample was found to be1.48 per cent for the small farms, 13.16 per cent for the medium farms and 85.36 per cent for the large farms.It can be explained by noting that on the one hand the size of large holdings is quite big and on the other hand, asthe sub-rows under farm size in Table 3.2 show, the number of large farmers holding these lands is much higher than the farmers in other categories in our sample as a result of which an overwhelming 85.36 per cent of the total area of the sampled farmers is that of large farms. The table further tells that the average operational holding size of the victims' farms stands at 17.91 acre per household.

3.4 Characteristics of operational holdings

To understand whether the victims were compelled to commit suicide due to reasons related to farming, it is important to look at various aspects related to the farming activities they were involved in. In the following table 3.3 some of the characteristics of the operational holdings of the victims' families are being looked at.

The table shows that out of the total owned land and the leased in land of 18.12 acres per household the average net operated area or net sown area (NSA) was 17.91 acres per

household.Here NSA is calculated by deducting un- cultivated land (0.00 acre) and leased out land (0.11 acre) from total owned land (6.59 acre) and leased in land (11.43 acre).

Table 3.3: Characteristics of operational holdings (Acre/HH)

Sl. No.	Land details	Irrigated	Un-irrigated	Total
1	Total owned land	6.59	0.093	6.69
2	Un-cultivated land	0.00	0.093	0.09
3	Cultivated (Own)	6.59	0.000	6.59
4	Leased-in land	11.43	0.000	11.43
5	Leased-out land	0.11	0.000	0.11
6	Net Operated Area(1-2+4-5)	17.91	0.000	17.91
7	Gross Cropped Area	27.84	0.000	27.84
8	Gross Irrigated Area	27.84	0.000	27.84
9	Net Irrigated Area	17.91	NA	17.91
10	Cropping Intensity (%)	155	NA	155
11	Irrigation Intensity (%)	155	NA	155

The average gross cropped area (GCA) was calculated at 27.84 acre per victim household indicating that the same area is being cropped more than once in a year. In fact, the cropping intensity defined as (GCA/NSA)*100 was found to be 155 per cent. Since 100 per cent of the cultivated land was covered under irrigation the figure for GCA corresponds to the gross irrigated area as well and the figure for irrigation intensity is same as that for cropping intensity.

Here it must be mentioned that the tables 3.2 and 3.3 does not seem to present information about the victims which matches the profile of a typical farmer under agrarian distress. In particular, the literature would lead us to believe that such distressed farmers typically operate on marginal land holdings and rely more on leased-in land for cultivation than self owned land, none of which seem to be the case here.

3.5 Sources of irrigation

From Table 3.3 it has been observed that the entire sown area of the victims' families was irrigated. In this section the main sources of irrigation adopted by these households are being examined. The source wise distribution of irrigated area shows that the only source of irrigation adopted by these households is that of tube well which is used for the entire net

Table 3.4:Source-wise distribution of irrigated area

Sl.No.	Land details:	Total Area in acres (Per HH)	Percent to total sample area
A.	Irrigated area		
	Irrigated	17.91	100
	Un-irrigated	0.00	0
	Total Area	17.91	100
B	Sources of irrigation		
	Open well	0.00	0
	Tube well	17.91	100
	Tank	0.00	0
	Canal	0.00	0
	Others	0.00	0
	Total Irrigated Area	17.91	100

operated area of about 251 acre[1]. Open wells, tanks, canals and other sources of irrigation were never used by any of these farm households.

3.6 Leasing of land

Since farmers are known to lease in or lease out land often, in the following table an attempt has been made to assess whether leasing of land at all adds to the net revenue of the victims' families. Our field study reveals that the rental value per acre of leased-in land stood at

Table 3.5: Rental value of leased-in and leased-out land

Sl.No.	Particulars		Irrigated	Unirrigated
A	Leased - in	Area in acres per HH	11.43	0
		Rental value paid per acre in Rs.	37969	NA
B	Leased-out	Area in acres per HH	0.114	0
		Rental value received per acre in Rs.	36250	NA

Rs. 37969 on an average during the year 2015 whereas the average rental value for the leased-out land was only Rs. 36250 per acre. This, when looked in conjunction with the fact that the average leased-in area per household was 11.43 acres vis-a-vis 0.114 acres of leased-out land

[1] Net operated area has been calculated according to the formula: Net operated area per household* number of household.

per household, clearly hints at a significant contribution of leasing land to the cost incurred by the victims' families.

3.7 Source of income and items of expenditure

As part of the studynet income and expenditure of the victims' families were also calculated for the year 2015. Table 3.6 shows both income received from various sources like agriculture (wage and non-wage), dairy, poultry, fishery, service, self business among others as well as expenditure (food and non-food) incurred by those households in the same year. It can be seen

Table 3.6:Net income and expenditure during 2015

Sl. No.	Source	Amt in Rs. Per HH	% to total	% of HH to total sample who mentioned that the income has reduced / expenditure increased over the last 5 years (% to each respective sources)
A	INCOME			
1	Agriculture	397643	79	86
2	Agriculture wage income	6214	1	100
3	Dairy and animal husbandry	7286	1	25
4	Poultry	0	0	-
5	Fishery	0	0	-
6	Service (salary and pension)	4286	1	100
7	Self business	87143	17	50
	Total income (A)	502571	100	73
B	CONSUMPTION EXPENDITURE			
1	Food	90500	54	100
2	Non-food	75571	46	100
	Total expenditure (B)	166071	100	100
C	Surplus / Deficit (+ / -) A- B	336500		
D	Percent of expenditure to income	33.04		

Note: Percentages in the last column were calculated with respect to the total number of households who derived income from respective sources.

from Table 3.6 that the average income from agriculture per victim household in 2015was Rs. 397643 which contributed to 79% of the income received by these families and the second largest source of income for the victims' families was self business from which an average income of Rs. 87143 was generated per household. Other sources of income were agricultural wage income, dairy and animal husbandry and salaries and pensions from services with each of

these constituting merely about 1 per cent of the total income. Further, none of the victim families received any income from poultry and fisheries.

In fact, it is surprising to note that on an average close to 20 per cent of the household income was derived from sources outside agriculture. This would indicate that the households under survey are among the relatively better-off households in these districts a part of whose income is not prone to seasonality and is used for consumption smoothing. The literature would however lead us to presume that such income sources are either non-existent or would give miniscule returns to the victim households. Therefore on having a closer look into the disaggregated data of each individual household it could be seen that there were only 2 households which derived income from self- business, two households received agricultural wage, one household had obtained salary or pension and 4 households earned income from dairy and animal husbandry. More importantly, 6out of these 14 households were not deriving any income from sources other than agriculture.

On the consumption front, out of the average consumption expenditure of Rs. 166071 per household food expenditure constitutes about 54 per cent whereas non-food expenditure constitutes the remaining 46 per cent. It is clear from the above table that on an average any particular household is left with a savings of Rs. 336500 which is roughly 67 per cent of the total income earned by the household.

However, across households everybody (100 per cent) agreed that their expenditure has increased over the last five years and 73 per cent of the respondents complained that their income has reduced during the same period. However there is a difference in opinion with respect to the income from different heads. In particular, while 100 per cent of the respondents drawing agricultural wage and income from services believed that income from the respective source has reduced over the last five year period, only 86 per cent of the respondents said that the income has reduced from agriculture, followed by 50 per cent of the relevant respondents who said self business are no longer as rewarding as they used to be and 25 percent of those deriving income from dairy and animal husbandry saying that income from this source has decreased too.

3.8 Cropping pattern and returns from cultivation

Since cropping pattern followed by the victims' households and the returns they get from cultivation may have an implication on the victims' economic conditions, during our survey data

on the season-wise cropping pattern practiced by the victims' families was also collected according to the standard classification of Kharif, Rabi, Summer and Annual/ Perennial.

In thetable 3.7 the crops in kharif season have been classified into three crop groups: cereals, pulses and cash crops. Out of these three groups, Group A(cereals) includes paddy and jowar, Group B(pulses) includes only gawar and Group C(cash crops) includes only cotton.It was observed that out of the 14 victim households surveyed, all 14 cultivated at least paddy from Group A and one of them grew both paddy and jowar. Gawar is cultivated by only two households whereas cotton is grown by 7 households. In terms of the area under each crop group, Group C crop claims the highest percentage of the cultivated area (49.69) followed by group A (46.95) and lastly by Group B (3.36). Further, of the group A crops paddyoccupies45.99 per centof the total area whereas jowar occupies only 0.96 per cent of the area.

The study further shows that the highest production of 259 quintals per household was recorded for Group C crop, cotton followed by cereals and then by 3.36 quintals per household of gawar. Among the cereals 189 quintals of paddy was being produced per householdwhereas an average of only 20 quintals of jowar was produced by each household. It can be observed from the table that although there is a correspondence between the area under a particular crop and its production, the difference in the production of gawar and jowar (21 and 20 quintals per household respectively) is insignificant as compared to the difference in area under them (3.36 per cent and 0.96 per cent respectively of the total cropped area). Therefore the yield of jowar was found to be higher at 10 quintals per acre compared to 6 quintals per acre of gawar during the same period. However, as Table 3.7 presents, paddy has shown highest yield of 27.61 quintals per acre among all the kharif crops although production of cotton is much higher.

On examining the costs and returns from these crops it could be seen that although the average price and gross returns received from cotton was highest across groups, the cost of cultivation of cotton per acre was also the highest of all. However, gross returns outweigh the costs and hence as can be seen from table 3.7, net returns per household of cotton arestill the highest. The average price received per quintal of gawar is second only to cotton. However on account of low yield the gross returns from gawar become lower than that from paddy but still is higher than that from jowar. Further, since the cost of cultivation of gawar per acre is much higher than that of paddy, in terms of net returns also paddydoes much better than gawar. As can be seen from the table, jowar from Group A generates lowest net return of all the kharif crops. The same order is maintained in terms of net returns per household with cotton having highest net returns of Rs.

739472 per household, paddy giving next highest return of Rs. 324725 per household followed by Rs. 32550 worth of returns from gawar and Rs. 18000 returns per household of jowar.

Now turning towards Rabi crops, our sampled farmers grew only two groups of these crops, namely, cereals and oilseeds. Wheat and barley are grown among the cereals whereas only mustard is grown in the oilseeds category. While all the households produced wheat, only one of these households also produces barley and mustard along with it and two others produced only mustard along with wheat. In this category of crops majority of the area under crop (87.66 per cent) have been devoted to wheat and very little land has been used to cultivate barley (2.44 per cent) or mustard (9.9 per cent). Although wheat production is much higher than barley, the yield of both the crops is roughly the same.

Further on account of lower production of mustard the yield is much low at 15.85 quintals per acre. Although the average price received per quintal of mustard is nearly three times that of wheat, gross returns per acre from mustard turns out to be lower than that from wheat. Further, the cost of cultivation ofmustard per acre is higher than that of wheat as a result of which netreturns per acre of mustard is lower than of wheat. Barley, with a return of Rs. 31000 per acre, occupies second position in terms of the net returns. Overall, among the rabi crops wheat generates highest net returns per household followed by mustard and then by barley. However, no summer crop seems to be cultivated by the victim households and only sugarcaneis cultivated among the annual/ perennial crops by only one household which devotes 10 acres of land for its production yielding net returns of Rs. 36000.

Here it must be added that contrary to what the literature seems to suggest, table 3.7 indicates that the commercialization of crops is not so much associated with suicides, first because only about 50 per cent of the farmers grew cotton and second, the net return from the crop is quite reasonable.

Table 3.7:Season-wise cropping pattern

Sl. No.	Name of the crop	No. of HH Who have cultivated	cultivated area in acres (PER HH)	% of cultivated Area to Total cropped area	Total production in Qtls PER HH	Yield per acre in qtls = Total production/ Total cultivated area	Average price received per qtl. (Rs.) = Sum of price received per qtl of those who cultivated / No. of sample farmers who cultivated	Gross returns per acre (Rs.) = ((Average price recived per qts X Total production)/ Total cultivated area)	Total cost of cultivation (Rs.)	Cost of cultivation per acre (Rs.) = Total cost of cultivation / cultivated area	Net returns per acre (Rs.) = Gross returns per acre minus cost of cultivation per acre	Net returns per HH (Rs.) = (((Average price received per qtl. X Total Production) - (total cost of cultivation)) / No. of HH cultivated)
KHARIF												
A	**Cereals**											
1	Paddy	14	6.84	45.99	189	27.61	2290	63226	1510900	15771	47455	324725
2	Jowar	1	2.00	0.96	20	10.00	1600	16000	14000	7000	9000	18000
B	**Pulses**											
1	Gawar	2	3.50	3.36	21	6.00	3550	21300	84000	12000	9300	32550
C	**Cash crops**											
1	Cotton	7	14.79	49.69	259	17.54	4129	72400	2544900	24588	47811	706922
	Total	14	14.88				3839	65922	2628900	12621	53301	739472
RABI												
A	**Cereals**											
1	Wheat	14	12.81	87.66	449	35.08	1563	54805	1912500	10666	44139	565290.2
2	Barley	1	5.00	2.44	175	35.00	1400	49000	90000	18000	31000	155000
B	**Oilseeds**											
1	Mustard	3	6.75	9.90	107	15.85	3167	50198	282000	13926	36272	244833
	Total	14	14.61				2043	54207	2284500	11168	43039	965123
SUMMER (no crop)												
ANNUAL/PERENNIAL												
A	**Cash crops**											
	Sugarcane	1	10	100	400	40	240	9600	60000	6000	3600	36000

Note: Figures for "cultivated area"used in column 11 have been calculated by multiplying cultivated area in acres (per household) (column 3) by the number of households (column 4).

3.9 Credit availed

As discussed earlier, farmers are prone to taking loans from various sources, both institutional and non-institutional, to meet their ends. Moreover, non-payment of loans has often come up as one of the important reasons for farmers' suicide. To check if the same was true of our sampled farmers in the course of our survey data on the credit behavior of the victims and their families were also collected. The next table presents a clear picture of the purpose and source of credit availed by the victims' households.

Table 3.8 reveals that out of the total of 14 victim households only 64.3 per cent households have taken loans of some kind. In particular, 35.7 per cent households have availed of loan facilities from institutional sources with 28.6 per cent of the total households borrowing from co-operative society or bank and 7.1 per cent taking loan from commercial banks including RRBs and the rest have taken loans from non-institutional sources. Of the non-institutional sources, moneylenders turn out to be an important source of credit with 28.6 per cent of total households borrowing money from them. Traders and commission agents and friends and relatives are two other prominent sources of credit, second only to moneylenders with 14.3 per cent households each taking loans from them while landlords appear to be the least preferred among non-institutional sources with only 7.1 per cent of sample households taking credit from them.

The table further shows that loans, if at all, were taken only for farming purposes and the loan amount ranges between Rs. 325000 and Rs. 3500000 per household with the highest amount being borrowed from commercial banks and the least amount borrowed from moneylenders. It is not very surprising given that the moneylenders charge very high interest rate of 25 per cent against a loan. However quite surprisingly, of the institutional sources in spite of co-operative banks charging lower interest rate of 4 percent vis-à-vis 7 percent being charged by the commercial banks, the average amount borrowed per household among the borrowing households is higher in case of commercial banks.

Table 3.8: Details on credit of sample households

Sl.no.	Source of credit	No. of borrowing HH as a % to total sample	Purpose of borrowing				Outstanding amount: Rs/hh of borrowing HH	Average interest rate	% of borrowing HH who paid the installments as per schedule
			Farming purposes		Non-farming purposes				
			No. of HH as a % to borrowing HHs	Amount borrowed per HH of borrowing HHs	No. of HH as a % to borrowing HHs	Amount borrowed per HH of borrowing HHs			
1	Institutional								
a	Co-op. Society/bank	28.6	44	350000	-	-	350000	4	0
b	Commercial bank incl. RRBs	7.1	11	3500000	-	-	2500000	7	0
c	Others (specify)	-	-	-	-	-	-	-	-
2	Non-institutional								
a	Landlord	7.1	11	600000	-	-	600000	26	0
b	Moneylender	28.6	44	325000	-	-	325000	25	0
c	Traders and commission agents	14.3	22	500000	-	-	500000	24	0
d	Relatives and friends	14.3	22	300000	-	-	100000	24	50
e	Others(specify)	-	-	-	-	-	-	-	-
	Grand Total*	64.3	100	419444	-	-	397222		11

* 5 out of 14 HH have not taken any loan. Few HHs have taken loan from more than one agency.

At the time of interview, on an average outstanding loans could be seen from each of the credit sources and it was revealed by the households that installments are generally not paid as per schedule. This again is a surprising finding given what table 3.6 reveals. For an average household whose savings rate is as high as 67 per cent, it is hard to believe that it is defaulting on loan repayment. Here again on a closer look into individual households reveal no association between the households deriving income only from agriculture and the loan default because four of the households who said they did not pay installments on time had derived income from sources other than agriculture as well.

3.10 Summary of chapter

A detailed analysis of the primary data reveals some insightful information about the victims and their families. The following are some of the useful insights from the analysis.

- Victims are all male members of the family, mostly (78.6 %) belonging to the age group of 31- 60 years.

  None of the victims have invested more than 15 years for education.
- Most of them (78.6 %) were married with heir. At least 7.1 % victims had either of the parents living and 21.4 % had siblings.
- 13 out of these 14 victim households were primarily dependent on agriculture.
- Very low percentage of family members of the victims has studied beyond degree.
- No marginal farmer was found among the victims. In fact, a majority of them were large farmers with 57.1 % of them holding farms of size more than 10.1 acres.
- Large farms occupy 85.4 % of the total operational area whereas small farms occupy only 1.48% of the area. The remaining area is that of medium farms.
- 100 % of the cultivated land was irrigated.
- Net irrigated area of the victim households for the year 2015 was 17.91 %.
- Cropping intensity was 155%.
- The only source of irrigation was tube well.
- On an average 11.43 acres of land was leased in by victim households while only 0.114 acres of land was leased out.

- Rental value received per acre of land leased out was Rs. 36250 whereas that paid per acre of leased in land was Rs. 37969.

  On an average a victim household spent 33.04 % of the income on food and non-food items during 2015 and was left with a surplus of Rs. 336500.
- Cotton among the kharif crops and wheat among the rabi crops generated highest net returns per household in 2015.
- About 64 % victim households have taken loans during 2015 and all such loans were taken for farming purpose.
- The most popular sources of borrowing were co-operative banks and moneylenders with about 44 % each of the borrowing households taking loan from these sources.
- Rate of interest charged by the moneylenders was about 7 times the interest rate charged by a co-operative bank.
- Repayment of loans was generally not made as per schedule.

CHAPTER 4

Causes and after effect of suicide - based on primary survey

4.1 Introduction

It is often suggested that prior to committing suicides some typical symptoms can be observed among the victims which indicate their suicidal tendencies. They are most commonly visible to the family members and hence in our survey an attempt was made to find through enquiry whether some such symptoms were observed among the 14 victims who are covered under the study. The study then delved deeper to find out the causes of suicide for each of the victim and tried to understand whether they are because of some social factors or they are related to farming or indebtedness of the victims. Moreover, since such suicides are bound to affect the family members adversely it was tried to list out the ways in which the victims' families were affected. Finally, suggestions have been sought from the victims' families so as to figure out how such farmer suicides can be prevented in future.

4.2 Symptoms observed and causes of suicide

According to psychologists, it is common for a person contemplating suicide to become a recluse and not mingle with her family, friends or larger community, to not sleep adequately and to not eat properly. In a bid to understand whether the victims were living normal life, during our survey the family members of the victims were asked about noticing any of the above symptoms.

Quite surprisingly, as reported in the table 4.1, such symptoms were missing for most of the victims. In particular, only 7.1 per cent of the families told that they noticed some abnormality in behavior of the victims with respect to their eating or sleeping pattern or in terms of interaction with their own community.

Table4.1: Symptoms observed by family members before suicide

Sl.No	Symptoms enquired	Percent of HH who answered Yes to total sample
1	Was victim mingling with his/her own family member?	100.0
2	Was victim mingling with his/her own community?	92.9

3	Was victim mingling with his/her neighboring households/friends?	100.0
4	Was victim consuming food regularly?	92.9

The next question that naturally arises is what could be the causes of these suicides- social factors or something else? The following three tables enumerate the probable causes of suicides and indicate what percentage of victim households or their neighbors/ relatives or friends believe that these indeed were the causes for the victim to whom they were related.

Table 4.2: Social causes of suicide

Sl.No	Causes	Percent of HH to total sample who answered Yes	
		Asper respondent	As per Neighbors / relatives / friends
1	Poverty		
a	APL	0.0	0.0
b	BPL	35.7	21.4
2	Property dispute		
a	Partition of land	7.1	7.1
3	Marriage related issues		
b	Extra marital affairs	21.4	14.3
d	Love failure	14.3	14.3
e	Others (specify)…….	7.1	7.1
4	Family problems/Commitments		
a	Social functions,	0.0	7.1
d	Frequent quarrel among the family members	7.1	7.1
5	Illness	7.1	7.1
6	Drug abuse/Alcoholic addiction	35.7	35.7
8	Fall in social reputation	14.3	14.3

Table 4.2 indicates that 35.7 per cent respondents feel drug abuse or the poverty of the victims may have driven them to take this drastic step. While only 21.4 per cent neighbors/ relatives/ friends feel that poverty level may be one of the causes, 35.7 per cent of them believe drug abuse/ alcoholic addiction has led to such a situation. Extra marital affairs come out as another highly probable cause with 21.4 per cent family members believing that it is so and with 14.3

per cent friends/ neighbors/ relatives agreeing to it. Some of the other causes that,according to the respondents, may be responsible for the suicides are fall in social reputation (14.3 per cent), love failure (14.3 per cent), frequent quarrel among family members (7.1 per cent) and partition of land (7.1 per cent). The neighbors/ friends/ relatives also feel the same way about these factors.

Table 4.3 highlights the farming related causes that, according to the respondents, might have forced the victim to commit suicide.

Table 4.3: Farming related causes of suicides

Sl.No	Causes	Percent of HH to total sample who answered Yes	
		2014-15	2015-16
1	Failure of crop/s		
a.	Pests & diseases	50.0	42.9
b.	lack of access to irrigation water	50.0	42.9
c.	others specify	7.1	7.1
2	Due to natural calamities		
b.	Failure of rainfall/drought	50.0	42.9
c.	Accidental fire	7.1	7.1
d.	others specify	14.3	0.0
5	Quarrel between the victim & others	14.3	14.3
6	Expectations of:		
a.	Higher output	42.9	28.6
b.	Higher prices	42.9	28.6
c.	Loan waiving	21.4	21.4
d.	Institutional credit	28.6	28.6
e.	Non-institutional credit	21.4	7.1
7	Lack of extension services	7.1	7.1
8	Delayed payment/ payment in installments for the sold output	7.1	7.1
9	Insurance for the cultivated crop	7.1	7.1

50 percent respondents feel that pests & diseases or lack of access to irrigation water or failure of rainfall or drought could be major factors in 2014whereas only 42.9 per cent felt the same

Table 4.4: Indebtedness related causes of suicides

Sl.No	Causes	Percent of HH to total sample who answered Yes	
		2014-15	2015-16
1	Indebtedness – Institutional & Non-Institutional		
a.	Due to crop loan	57.1	42.9
b.	Due to farm equipment's' loan	28.6	28.6
c.	Due to non-agricultural loan	7.1	7.1
d.	Due to non-institutional loan	28.6	14.3
2	Due to pressure from institutional sources	21.4	14.3
3	Due to pressure from non-institutional sources (mainly money lenders)	14.3	0.0

could be the causes in 2015.Expectations of higher output or higher prices could also be contributing factors in both years;while 42.9 per cent feel that they are indeed so for the year 2014-15 only 28.6 per cent respondents feelthe same forthe year 2015. Other relevant factors include expectations about loan waiving (21.4 per cent), institutional (28.6 per cent) andnon-institutional credit (21.4 per cent). Finally, accidental fire, lack of extension services, delayed payment/ payment in installments for the sold output, insurance for the cultivated crop were found to be some of the less significant factors with only 7.1 per cent respondents feeling that they might also have contributed to the situation.

As table 4.4 shows many would feel that the suicides have happened due to indebtedness related problems. Crop loan was found to be the most significant cause in this category with very high percentage of the respondents (57.1 for 2014 and 42.9 for 2015) holding it responsible followed by loan due to farm equipments and loans from non-institutional sources (28.6 per cent) with non-agricultural loan(7.1 per cent) being touted as the least important factor. Further, 21.4 per cent of the respondents feel that in 2014 pressure from institutional sources and 14.3 per cent feel that pressure from non-institutional sources (mainly money lenders) may also have a significant impact although fewer people (14.3 per cent of them) feel that pressure from institutional sources are as important in 2015.Quite surprisingly, no one said that pressure from money lenders could have contributed to suicides in 2015.

Finally, in the following table 4.5 ranking of various causes of suicides on the basis of the information contained in tables 4.2- 4.4 is provided.The method used to calculate the ranks (medal tally ranking system) is as follows: Within a particular category, the factors which are ranked one by the highest number of respondents receive the first rank overall. The next highest rank is assigned to thoseof the remaining factors which are ranked at number one by maximum number of respondents and so on. Each item's ranking number is 1 plus the number of items ranked above it. Therefore in case of a tie for any position the next ranking number assigned is not the next highest integer,for example, if two of the factors are ranked at number one, the next rank to be assigned to any factor is 3 and not 2. It can be seen that of the social causes, poverty

Table4.5: Ranking of the social, farming and indebted causes of suicides

Causes	Sl.No	Causes	Ranking as per answer
Social causes	1	Poverty	1
	2	Property dispute	5
	3	Marriage related issues	1
	4	Family problems/Commitments	4
	5	Illness	6
	6	Drug abuse/Alcoholic addiction	3
	7	Gambling/betting /chit fund	7
	8	Fall in social reputation	7
Farming related causes	1	Failure of crop/s	1
	2	Due to natural calamities	3
	3	Quarrel between the victim & others	4
	4	Expectations of :	2
	5	Lack of extension services	5
	6	Delayed payment/ payment in installments for the sold output	5
	7	Insurance for the cultivated crop	5
Indebtedness related causes	1	Indebtedness – Institutional & Non-Institutional	1
	2	Due to pressure from institutional sources	2
	3	Due to pressure from non-institutional sources (mainly money lenders)	3

Note: Ranks are awarded using method of Medal Tally. First assign ranks to the causes ranked 1 then to the causes ranked 2 and so on.

and marriage related issues turn out be the most important ones whereas the least important

ones are gambling and fall in social reputation.Among the farming related causes, failure of crops occupy the first position followed by the expectations of the victims, natural calamities, quarrel between the victim and others and lastly by the lack of extension services, delayed payment and insurance for the cultivated crop.Among the indebtedness related causes, institutional and non-institutional indebtedness top the list followed by pressure from institutional sources and lastly by pressure from non-institutional sources.

Although the literature suggests that these suicides are driven primarily by agrarian distress, this table shows that social causes related to marriage like love failure and drug abuse or alcoholism are two very important reasonsbehind such suicides.

4.3Impact of suicide on family members

From the socio-economic profile of the victims it could be seen that most victims belong to the age group 31-60 which tells us that it is very likely that they were the earning members of the family. Hence their suicides are bound to have an impact on the family both in terms of income and also otherwise. Table 4.6 enlists some of the ways in which the victim households are affected by the suicides. 57 per cent of the households told that agricultural activities have stopped and 42.9 per cent told that no earning member was left in the family after the victim

Table 4.6: Impact on HH household after committing suicide

Sl.No	After effect	Percent of HH to total sample who answered Yes
1	Agricultural activities stopped	57.1
2	No earning member	42.9
3	Schooling of the children stopped	0.0
4	Land sold	0.0
5	House sold	7.1
6	Other assets sold (specify) Car	14.3
7	Postponement of son/daughter’s marriage	0.0
8	Family member/s fell seriously ill	7.1
9	Family member/s under depression	35.7
10	Insecurity in the family	21.4
11	Others	7.1

has committed suicide.Further, 35.7 per cent households reported that the family members were under depression because of the suicide and 21.4 per cent told that there was insecurity in the family.Moreover, 2 of the households had to sell their cars and 1 household had to sell its house after the incident.

4.4 Suggestions from families to avert suicides in future

Finally in the following table, table 4.7, some of the suggestions of the victim households are enumerated to prevent such incidents in future.

Table 4.7: Suggestions to prevent the suicides in future

Sl.No	Suggestion	Percent of HH to total sample who suggested
1	Drinking habit should be taken care of	14.3
2	Mental tension should be taken care of	7.1
3	Provide better employment opportunity to the young generation	21.4
4	Adequate compensation should be provided in case of crop loss	7.1
5	A period of relaxation should be provided from the institution in case of crop loss	7.1
6	Lower the rate of interest or increase the period of re-payment of loan. Govt. should provide subsidy/ financial support, wave off interest/loan in case low productivity or in case of crop loss/failure.	100.0
7	Raise the MSP.	14.3
8	Credit facilities for contract farmers should be easily available.	7.1
9	Proper quantity of good quality of seeds should be provided	7.1
10	Strong action should be taken in harassment case against moneylender	7.1
11	Providing awareness about the importance of life and for tackling bad circumstances	21.4
12	Take proper action on complaint against Commission agent.	7.1

Everybody in unison agreed that lowering the interest rate on loans or increasing the term of the loans may have a positive effect in reducing the incidence of suicides in future. All the households further think that providing financial support or waiving off loans in case of crop failure or for that matter even in case of low productivity might be helpful. 21.4 per cent of the

households suggest that providing better employment opportunity to the young generation and providing awareness about the importance of life and for tackling bad circumstances would be welcome, 14.3 percent think that raising MSP would work, another 14.3 per cent feel that drinking habit should be taken care of and lastly, 1 respondenteach think easy availability of credit facility even for contract farmers, provision of good quality seeds, strong action against moneylenders and commission agents, provision of adequate compensation and a period of relaxation in case of crop loss, and taking care of mental tension of the famers are some other steps which can turn out to be effective in preventing more suicides in future.

4.5 Summary of chapter

The perception that the victims' families have about the cause of these suicides and the effect that these suicides have on the families of the victims can be summarized as follows:

- Most families (35.7 %) feel that these suicides took place because of poverty. Drug abuse/ alcohol addiction is thought to be another important cause for famers' suicide by many (35.7 %). Extra marital affairs turn out to be the third important cause followed by failure in love and fall in social reputation, partition of land, illness and quarrel among family members.
- Of the farming related causes, crop failure and rainfall/ drought are perceived to be the primary causes.
- Expectations of higher output/ lower prices fare as the next important cause for these suicides followed by credit issues, insurance of crops and others.
- Overwhelmingly high percentage (57.1) of sample households feels that indebtedness due to crop loan is an important cause behind these suicides.
- After the suicide, agricultural activities stopped in 57.1 % of the households, 42.1 % of the families were left with no earning member, 35.7 % family members went into depression, 21.4 % households felt insecure, 14.3 % sold assets like cars, 7.1 % sold their house and another 7.1% fell ill.
- 100 % respondents suggested that government should lower interest rate on loans, increase period of repayment, provide subsidy or financial support, waive off interest on loans in case of crop failure.
- Providing awareness about the importance of life and for tackling bad circumstances, raising MSP, taking care of drinking habits and providing better employment opportunity

to the younger generation are some of the other suggestions which came from victim households.

CHAPTER 5

Conclusions and policy suggestions

This chapter aims to present main findings of the study and draw policy suggestions in order to mitigate farmers' suicide in future. Most of the earlier studies are based on secondary data and present only partial picture of the farmer suicide scenario in various states. Since the incidence of farmers' suicides is very low in Haryana, to the best of our knowledge no study on farmers' suicides has focused on Haryana per se and hence the problems specific to Haryana, if any, go unnoticed. The present study plans to bridge this gap and is expected to benefit the policy makers in formulating a well-balanced agricultural policy which effectively tackles the grave problem of farmers' suicide that India is currently plagued with.

It has been observed that between 2014 and 2015 number of suicide cases has increased in Haryana. However the brighter part of the situation is that Sirsa district, which recorded highest number of suicides in 2014, has recorded substantially less suicide cases in the subsequent year. Though no clear seasonality could be observed in the reported cases of suicides, the number of such cases was found to be marginally higher during the harvesting seasons of Rabi and Kharif crops. Also, while in the month of May there were only two suicides reported in 2014, it has increased to 4 in the subsequent year. However, it is difficult to draw any meaningful inference on the basis of this limited data.

The socio-economic profile of the victims and their households suggest that all the victims were male members of their families and most (78.6 %) of them belonged to the age group of 31-60 years. 78.6 % victims were married with heir, 21.4 % of them had siblings, 7.1 % had only mother, 14.3 % each had either both parents or only father living. The maximum educational qualification of the victims was degree, though about 28.6 % of them were illiterate. About 92.9 % of the victim households were dependent on agriculture and 85.7 % of the victimslived in a joint family. With about 28.9 % family members being illiterate and very few (2.2 %) attaining education beyond degree these households were mostly dependent on the victims.Therefore in 57.1 % of the households agricultural activity stopped after the incident, 42.1 % households were left with no earning member, 35.7 % members went into depression and 14.3 % and 7.1 %

households sold their cars and houses respectively. Another 7.1 % fell ill and 21.4 % households felt insecure after the suicide.

With respect to the economic conditions of the victims and their households, none of the victims could be called marginal since their farm sizes were more than 2.5 acres. In fact, 57.1 % of the victims were large farmers with farm size more than 10.1 acres. Moreover, large farms occupy 85.4 % of the total operational area whereas small farms occupy only 1.48% of the area with the remaining area covered by medium farms.

Further, the entire cultivated land was irrigated using tube well and had a cropping intensity of 155 %. On an average 11.43 acres of land was leased in on a rental of Rs. 36250 whereas only 0.114 acres was leased out against a rent of Rs. 37969. An average victim household would spend about 33 % of income thereby leaving out a surplus of about Rs. 336500. The net return per household was highest from cotton followed by paddy among the kharif crops and from wheat followed by mustard among rabi crops. Sugarcane was the only crop in the annual/ perennial category that was grown by any victim household and that too only one household was involved in its cultivation. Since most households grew at least one of these high yielding crops their net return from cultivation looked reasonably good. In fact, about 36 % of the household did not even need to take loan. The remaining 64 % would take loan only for farming purposes. However, quite surprisingly, 44 % of these borrowing households found moneylenders, charging close to 25 % interest rate, more attractive than commercial banks which charged only 7.1 % rate of interest. One reason for this could be that they did not qualify for loan from institutional sources.

As far as perceptions of the victims' family members about the causes of suicides are concerned, they can be broadly classified as social, farming related and indebtedness related. About 35.7 % families feel that poverty is one of the primary social causes behind such suicides. Another 35.7 % families feel drug abuse/ alcohol addiction is a contributing factor. Extra marital affairs, failure in love, fall in social reputation, partition of land, illness and quarrel among family members were also thought to be among the reasons behind these cases. Of the farming related causes, each of crop failure and rainfall/ drought was perceived to be among the major causes by 50 % households. Expectations of higher output/ lower prices fare as the next important cause for these suicides followed by credit issues, insurance of crops and others. 57.1 % of the sample

households believe that indebtedness due to crop loan is another predominant cause behind these suicides followed by pressure from institutional and non-institutional sources.

The analysis of the data from our survey does not so much allow us to reinforce the existing argument of agrarian distress driving the farmer suicides in India. On the contrary, the socio-economic profile of the victims and their households as well as the characteristics of their operational holdings and their credit behavior seem to suggest that most of these farmers belonged to the relatively less poor households and had neither to lease-in much land from others, which could be one of the major causes behind such suicides, nor take huge loans to meet their ends. Further, the net returns from cultivation were also reasonably good and the average savings rate of these households was a good 67 per cent. Our data shows that alcoholism and drug abuse and marriage related issues like love failure are two very important reasons which could have led to these suicides.

When suggestions were invited from the victims' families to avert more such incidents in future, 100 % of the families readily said that interest rate cut and more relaxed terms of loans, waiving off interest on crop loans in case of crop failure, providing financial support are all necessary to mitigate suicide incidences. Some more suggestions like raising MSP, availability of credit facility to contract farmers, provision of good quality seeds from the government and counseling of the farmers to give up drinking or to make them realize the worth of life came our way during the survey.

Having delineated the causes and after-effect of the suicides, some policy suggestions are now being put forward in order to prevent such incidents in future. In our view, not only should the farm related policy be more inclusive, pragmatic and scientific in design, its implementation needs to be done carefully and systematically. The following suggestions are drawn on the basis of the findings of the study.

- It is unfortunate that farmers still have to take recourse to the moneylenders for credit. One reason may be that the contract farmers are not eligible for loans or that they are not confident in dealing with the procedural hassle involved in taking credit from institutional sources or that many of them being illiterate are not aware of availability of such facilities. In that respect, bringing contract farmers under the purview of institutional credit delivery system and simplification of the loaning procedures might help the farmers, many of whom are illiterate, to not fall in the trap of the moneylenders.

Further, awareness has to be created among the farmers about the availability and advantages of institutional borrowing.

- Secondly, although in case of crop loss compensations are often granted to the farmers they are not adequate most of the times. Moreover, not only are compensations necessary when the farmers experience crop loss theyoften become a requirement for the farmers in times of low productivity. This aspect needs to be factored in while formulating a prudent farm policy.
- Thirdly, as has been indicated by the victims' families, alcoholism and drug abuse are to a large extent responsible for such suicides. To arrest this problem steps have to be taken in the form of public awareness campaignsand for that purpose various popular media like internet, television and more importantly radio can be made use of.
- Fourthly, at the national level farmers have to be given protection against loss of competitiveness due to opening up of our economy. Since they are at a disadvantage because of the high subsidy that the other countries give to their agricultural sector, they should be put at least at par with them through various support schemes.
- Fifthly, government must ensure that the benefits from various welfare schemes, whenever announced by them, in the form of monetary transfer actually reach the farmers. Here identifying key persons in a village neighbourhood might help. Such persons would in the first place be useful in bridging the information gap, which often is found to be the reason why farmers fail to reap the benefits from various incentive schemes, and secondly they might help the less educated farmers in completing the formalities associated with such schemes.
- Sixthly, though not explicitly suggested by the farmers, they often have to face difficulties with marketing their produce due to lack of proper storage facility and also due to presence of middlemen at various levels. An inclusive policy should take this into account as well.
- Seventhly, government should take measures to increase employment opportunity of the younger generation so that they do not feel themselves to be confined to agricultural activities.
- Lastly, since farmers have mostly switched to high-yielding variety seeds, their cost of production has increased substantially. As suggested by victims' households, good quality seeds should be provided to them at a subsidized price so as to contain the cost of inputs in production.

Bibliography

1. Assadi, M. (2006). Agrarian Crisis and Farmers' Suicide in India: Dimension, Nature and Response of the State in Karnataka. *The Indian Journal or Labour Economics, 49*(4), 791-811.
2. Bastian, J. (2012). India's Agrarian Crisis and Farmer Suicides: A Human Rights Approach. *Asia Pacific Journal of Management & Entrepreneurship Research*, 1(1), 32-40.
3. Behere, P. B. &Behere, A. P. (2008). Farmers' suicides in Vidharbha Region of Maharashtra State: A myth or reality? *Indian Journal of Psychiatry*. 50:124-127.
4. Deshpande, R. S. (2002). Suicide by farmers in Karnataka: agrarian distress and possible alleviatory steps. *Economic and Political Weekly*, 37(26), 2601-2610.
5. Deshpande, R. S., &Prabhu, N. (2005). Farmers' Distress: Proof beyond Question. *Economic and political weekly*, 40(44/45), 4663-4665.
6. George, J., &Krishnaprasad, P. (2006). Agrarian Distress and Farmers' Suicides in the Tribal District of Wayanad. *Social scientist*, *34*(7/8), 70-85.
7. Jeromi, P. D. (2007). Farmers' Indebtedness and Suicides: Impact of Agricultural Trade Liberalisation in Kerala. *Economic and Political Weekly*, 42(31), 3241-3247.
8. Meeta&Rajivlochan. (2006). Farmers Suicide: Facts and Possible Policy Interventions. YashwantraoChavan Academy of Development Administration. Maharashtra. Retrieved from http://agrariancrisis.in/wp-content/uploads/2013/01/2006-Farmers-Suicide-in-IndiaYASHADA.pdf. Last accessed on 18, January, 2017.
9. Mishra, S. (2006). Farmers' suicides in Maharashtra. *Economic and Political Weekly,* 41(16), 1538-1545.
10. Mishra, S. (2006). Suicide mortality rates across states of India, 1975-2001: A statistical note. *Economic and Political Weekly,* 41(16), 1566-1569.
11. Mitra, S., & Shroff, S. (2007). Farmers' suicides in Maharashtra. *Economic and Political Weekly*, 42(49), 73-77.
12. Mohanakumar, S., & Sharma, R. K. (2006). Analysis of farmer suicides in Kerala. *Economic and Political Weekly,* 41(16), 1553-1558.

13. Mohanty, B. B. (2013). Farmer suicides in India. *Economic and Political Weekly*, *48*(21), 2145-54.
14. Mohanty, B. B., & Shroff, S. (2004). Farmers' suicides in Maharashtra.*Economic and Political Weekly*, 39(52), 5599-5606.
15. Mohanty, B. B. (2014). Social Root of farmers' suicides in Maharashtra. Gokhale Institute of Politcs and Economics, Pune. Retrieved from http://www.unipune.ac.in/snc/cssh/egp/6%20Unpublished%20materials%20on%20EGS/14.pdf. Last accessed on 18. 01. 2017.
16. Parthasarathy, G., &Shameem. (1998). Suicides of cotton farmers in Andhra Pradesh: an exploratory study. *Economic and Political Weekly*,*33*(13), 720-726.
17. Rao, P. N., &Suri, K. C. (2006). Dimensions of agrarian distress in Andhra Pradesh. *Economic and Political Weekly*, 41(16), 1546-1552.
18. Rao, V. M., &Gopalappa, D. V. (2004). Agricultural Growth and Farmer Distress: Tentative Perspectives from Karnataka. *Economic and Political Weekly*, 39(52), 5591+5593-5598.
19. Sadanandan, A. (2014). Political economy of suicide: financial reforms, credit crunches and farmer suicides in India. *The Journal of Developing Areas*, *48*(4), 287-307.
20. Sarma, E. A. S. (2004). Is rural economy breaking down? Farmers' suicides in Andhra Pradesh. *Economic and Political Weekly*, 39(28), 3087-3089.
21. Satish, P. (2006). Institutional credit, indebtedness and suicides in Punjab.*Economic and Political Weekly*, 41(26), 2754-2761.
22. Sidhu, R. S., Singh, S., &Bhullar, A. S. (2011). Farmers' suicides in Punjab: a census survey of the two most affected districts. *Economic and Political Weekly*, 46 (26/27), Supplement: Review of Agriculture, 131-137.
23. Singh, S. K., Deshpande, R. S., & Arora, S. (2012). Agrarian crisis and farmer suicides (Land reforms in India—Volume 12)61(1) (January-April 2012), pp. 183-186.
24. Singh, S., Bhogal, S. & Singh, R. (2014). Magnitude and Determinants of Indebtedness Among farmers in Punjab. *Indian Journal of Agricultural Economics*. *68*(2); 243-256.
25. Sridhar, V. (2006). Why do farmers commit suicide? The case of Andhra Pradesh. *Economic and Political Weekly*, 41(16), 1559-1565.
26. Suri, K. C. (2006). Political economy of agrarian distress. *Economic and Political Weekly*, 41(16), 1523-1529.

27. Venkatesh, T. B. (2014). Agrarian Distress,Agricultural Indebtedness and Farmers Suicides in Karnataka. *International Journal of Retailing & Rural Business Perspectives, 3*(1), 720.
28. Verma, A. K. (2011). Farmers' suicides and statehood demand in Bundelkhand. *Economic and Political Weekly*, 46(28), 10-11.

Action taken on commentson the report “Farmer Suicides in Haryana”

We are thankful to Dr. A.V Manjunatha, Assistant Professor, ADRT Centre, ISEC for useful comments on a draft of the report.

- Title of the report -It should be titled as "Farmer suicides in Haryana" and not "Indebtedness and Farmer' Suicides in Haryana”

----------Title has been changed.

- **Chapter 1:**

In Table-1.1 make it as 2 in sl.no 13 and column "No. of victim families interviewed". remove sl. No. 14.This would avoid the repletion of village names in the table. Also, remove the note given below the table.

---------Changes incorporated.

- **Chapter 2:**

(I) For calculating number of farmer suicides per lakh ha of NSA, GCA and farming families the state totals are taken uniformly for all the districts. But it should be based on the NSA, GCA and farming families for each of the respective districts. So please rework the table and modify the write-up corresponding to it.

----------Table has been reworked and write-up modified.

(II) Rework Table-2.2 for the period from July,2015 to June 2016. Delete columns 2014-15 and 2015-16. There will be only 4 columns in the table. They are: Sl.No., Months, Total No. farmer suicides from July,2015 to June, 2016. So please rework the table and modify the write-up corresponding to it.

----------Table and write-up have been modified.

❖ **Chapter 3:**

- Recheck the entire Table-3.1 and 3.2 as the total does not add up to 100. For example, the total of age group in Table-3.1 exceed 100 i.e. add up to 178.60. In Table-3.2 in % of area to holdings of sample the number for Small farmer is given as 3.2 whereas it should be 2.

  -------The reason total does not add up to 100 is that two of the rows under "age group" in table 3.1 are "between 31-60 years" and "above 30 years" as per the table format sent to us and hence there is an overlap between the two rows.

  ------- In table 3.2 the number for small farmer given as 3.2 was a typo carried forward from the original table format sent to us. It has been rectified.

- In Table-3.7, the groups should have a name like cereals, pulses etc. Paddy is in Crop group-1 and also in Crop Group-2 ? So also, cotton is in Group-3 and in Group-4. Classify the crops into seasons and within season name the crop group heads meaningfully.

  ---------The crop groups have been redefined and calculations modified accordingly. Now the crop groups are cereals, pulses, cash crops and oilseeds.

- The cost of cultivation per acre worked out in Table-3.7 has errors. For example, the cost of cultivation of paddy in A. of Crop Group- 1 work out to Rs.99031 i.e. 930900 divided by 9.4 Please check the entire Table-3.7. The table is not continuing as some write-up comes in between the table.

  ---------Checked and the calculations done by us were found correct because 930900 divided by 9.4 would give us the cost of cultivation per acre per household whereas the heading of the column says cost of cultivation per acre to arrive at which we have to multiply the figure Rs.99031 with the corresponding number of households.

❖ **Chapter 4:**

Table 4.2 better remove the causes which have 0 percent.

------Causes with 0 percent responses removed.

❖ **Chapter 5:**

Better to have suggestions in bulleted point

------Suggestions have been written as bullet points

❖ Adhering to the general comments, the report has been revised thoroughly.