ABSTRACT

The study examined the cause and effect of suicide on family members in Surajpur, Chhattisgarh, India. Suicide victims in this district in 2014 were highest among all districts of the state. Cases were examined based on production and market risk, sociological, psychological and other family related factors. Primary data were collected through survey and interview schedule while secondary data were gathered from the office of the Additional Director General of Police. Descriptive statistics was used to analyze data. Out of 194 suicide cases, 50 were purposively selected as sample size. Results revealed that, prior to suicide, victims mingled with their own family members (64%) and neighbors/households friends (68%). It was also found out that major causes of suicide were family problems and commitments, followed by marriage related issues.
Effect of farmers' suicides showed that households had lost their major provider (38%), and had felt insecurity in the family (42%). The major causes of suicides prevailing were found to be social and farming related causes. Among these social related causes were found to be more prominent as compared to farming related causes. The prominent causes of farmers’ suicide in Chhattisgarh as recognised by the majority of the respondents were found to be family problems, illness drug abuse/alcoholic addiction, fall in social reputation, extra martial affairs and quarrel between victims and others. None of farmers was found to commit suicides due to poverty.

Keywords: Suicides; indebtedness; causes of suicides; Chhattisgarh.

1. INTRODUCTION

Surajpur district of Chhattisgarh state in central India was declared a district on 15 August 2011. Chhattisgarh which is very famous by the name of “Dhaan Ka Katora” has a Tribal majority Division in its Northern Side “Surguja”. Surguja was divided into two more Districts. Out of them was Surajpur, which became the 26th District of the State with its Administrative Headquarters situated at Surajpur which has geographical location at 23.22°N latitude and 82.85°E longitude. It covers a total area of 2786.76 sq km which accommodates 789043 peoples. Surajpur earlier was known as “Daandbulla” which was later termed as “Suryapur” and now appears as “Surajpur” in its latest form. The archaeology, art and architecture of Surajpur is very famous for its religious importance. Surajpur District shares its boundaries with Balrampur District in the East, Surguja District in South-East, Korba district in South and Koriya District in the West. It also touches the boundary of Singrauli District in Madhya Pradesh in the North side. The Climate of Surajpur district is classified as warm and temperate. Winter Season generally ranges from the month of November to February. Surajpur is among one of the coldest district in the state. The Population density of the District is noted as 283 persons/sq.km. as per the census. The literacy rate as per the census is 60.95%, however the sex ratio corresponds to 980 females per 1000 males. Agriculture and horticulture have always been an integral part of peoples life dwelling in this district. The practice goes on for the whole year. Main dependency for irrigation remains on Monsoon but that does not provide any constraints as canals and pumps fulfill the requirements of water. Major crops grown in Kharif season: Rice, Maize, Sugarcane, Groundnut, Lentils, Ramtil and Rabi season: Wheat, Gram, Pea, Mustard, Masoor, Laakh (Tiwda).

Agriculture has seen tremendous changes in the past century, with agricultural research investments paving the way for productivity gains leading to reduction in production costs and capacity to cater larger population. The contribution of agriculture to the GDP is on the decline and so does profitability. Farmer suicides were not a common phenomenon in India before 1990, but more than two lakh farmers committed suicides between 1990 and 2010. The underlying causes for failure in agriculture could be many including climate change, reduction in profitability and fragmentation of land [1]. Farmers committing suicides were uncommon before the early 1990s, but has become a widespread phenomenon today in many States of India [2]. Suicide mortality rates (SMRs) of farmers are even higher than the national suicide rate, and still these numbers are considered to underestimate the real burden [3]. This already severe situation is aggravated by the fact that agriculture still constitutes the only source of livelihood for about two thirds of India's population, offering employment options to more than half of its work force [4]. Yet not all states of India are equally affected. There are certain states which account for the largest number of suicides in the country: These are Andhra Pradesh, Chhattisgarh, Karnataka, Kerala, Madhya Pradesh and Maharashtra [5,6]. clarifies that mostly farmers are unaware of being insured. Moreover, Mishra (2007) demands a risk management which addresses credit, prices, and income, weather as well as yield risks and found alternative strategies by farmers such as non-farm income, crop diversification and intercropping. Over two lakh farmers committed suicides in India between 1990-91 and 2009-10 and the proportion was alarmingly high in states notably Maharashtra, Andhra Pradesh and Karnataka [7]. It has been reported that over 2000 farmers quit agriculture every day [8]. The prominent causes recognized for farmers' suicides were bankruptcy or indebtedness (20.6 per cent), 'family problems' (20.1 per cent), failure of crops (16.8 per cent), illness (13.2 per cent) and drug abuse/alcoholic addiction (4.9 per
cent) [9]. The Situation Assessment Surveys of the National Sample Survey Organization (NSSO) has reconfirmed the worsening situation of farm households which indicated that about 51.9 per cent of the farm households in India are indebted. Interestingly, indebted farmers have taken higher credit from institutional sources (60%) as compared to the non-institutional sources (40%) [10]. The NSSO in its 59th round survey has revealed that given the choice, 40 per cent farmers would quit farming because it is not profitable, risky and it lacks social status [11]. The report also stated that the main reason for incidences like these was due to both natural and manmade factors: "While natural factors like uneven rains, hailstorms, droughts and floods adversely affect crop yield, manmade factors such as pricing policies and inadequate marketing facilities result in post-yield losses [12].

The following five states together accounted for 89.5 per cent of the total farmer suicides (5,650) reported in the country, while the state only 7.8 per cent of the total farmer suicides (443) was reported in the year 2014 (National Crime Records Bureau, 2015). Looking to the situation, the study has been undertaken with the objectives to study the causes leading to farmers' suicides including production and market risk, sociological, psychological and other family related factors responsible for farmer suicides.

2. METHODOLOGY

The study confined to Surajpur, Chhattisgarh State of India. Both primary and secondary data have been collected for the investigation. Surajpur district purposively selected for the study as number of victims were found to be maximum in the State in the year 2014. A village/police station wise list of all the victims (194) was collected from the Superintendent of Police, District Surajpur for the year 2014 and 50 victims (25.8%) have been selected for the study from various villages of the district (Table 2).

The primary data were collected from the relatives/neighbours/friends of the victims by survey through interview schedule which was tested in the selected district environment. The detailed information was elicited from victim households with the aid of a structured and pre-tested questionnaire covering two sections. The first section was designed to collect information about the family size, education level of the victim household, social group, cropping pattern, size of the land holdings, sources of irrigation, cost and returns from crop cultivation and so on.

Table 1. Suicides and indebtedness in five suicide prone States of India

| State            | Number of Suicides in 2014 | % of Suicides compared to India in general(2014) | % of indebted farm HH to total farm HH |
|------------------|----------------------------|-----------------------------------------------|--------------------------------------|
| Maharashtra      | 2,568                      | 45.5                                          | 57.3                                 |
| Telangana        | 898                        | 15.9                                          | 89.1                                 |
| Madhya Pradesh   | 826                        | 14.6                                          | 45.7                                 |
| Chhattisgarh     | 443                        | 7.8                                           | 37.2                                 |
| Karnataka        | 321                        | 5.7                                           | 77.3                                 |
| **Total**        | **5056**                   | **89.5**                                      | **51.9**                             |

Source: National Crime Records Bureau, 2015

Table 2. Sample size of the study

| District | Talukas/Blocks | Villages | No. of Victims |
|----------|----------------|----------|----------------|
| Surajpur | Bhaiyathan    | Kevara   | 1              |
|          | Jainagar      | Kedrai   | 1              |
|          | Ramajunagar   | Tivaragudi, Kaushalpur, Pandari, Krishanpur, Krishanpur, Madneshwerpur, Vaknapadaripani, Chhidiya | 14 |
| Surajpur | Saptata,Dwarikinagar,Kasalgiri,Judwani, Kasela,Latory,Phoolwar,Sunvahi,Garhatpur | 34 |
| **Total** | **4**          | **19**   | **50**         |

Source: Field Survey 2017
In the second section, information regarding causes of farmers' suicides with special focus on the institutional and non-institutional credit, extent of indebtedness, coping strategies after the suicide incident and suggestions for preventing farmers' suicides were collected. An intensive survey of these respondents was carried out in the year 2015-16. The Secondary data on district wise suicide cases in Chhattisgarh for the period of 2001-02 to 2015-16 were collected from the office of the Additional Director General of Police, Chhattisgarh, Raipur.

Hot spot of the farmer suicides in CG, symptoms observed by family members before suicide of victims, causes of suicide and impact on Household (HH) after committing suicide has been analyzed for the study. Descriptive statistics was used to analyze the data.

3. RESULTS AND DISCUSSION

The result obtain are presented in sub head symptoms observed by the family members, indebtedness related causes, impact on Household (HH) after committing suicide by the victims, suggestions to prevent the suicide in future and presented below.

3.1 Prior Experiences Observed by the Family Members

Symptoms observed by family member before suicide of victims were examined and found that the victim was mingling with his/her own family members (64%), community (64%) and neighbours households/friends (68%). He was also consuming food regularly (68%) and sleeping adequately during night (74%) as reported by the majority of HHs, which indicate that in spite of normal behaviour the victims committed suicide and family member were helpless to stop it (Fig. 2).

3.2 Causes of Suicide

The various causes of suicide i.e. social, farming and indebtedness were examined for the study.
3.3 Social Causes

The social causes of suicide includes poverty, property dispute, marriage related issues, family problems/commitments, illness, drug abuse/alcoholic addiction, gambling/betting/chit-fund and falling social reputation were examined with respective respondents as well as neighbours/relatives/friends of victims and presented in Table 3.

All the HHs reported that Below Poverty Line & (BPL, AYY) is not a cause of suicide, while only 10 (AYY) and 4 (BPL) per cent of neighbours/relatives/friends of victims reported that poverty was also a cause of suicide. Although, the percentage of HH. under Above Poverty Line(APL), BPL and AAY was found to be 22, 60 and 18, respectively. Property dispute i.e. partition of land and house was found a cause of suicide as reported by only 4 and 2 per cent of respondents and only 4, 2 and 2 per cent of neighbours/relatives/friends of victims respectively.

Thus property dispute of land, house and jewellery may also not considered as major cause of suicide in the area under study. In case of marriage related issues, extra marital affairs were found to be major cause of suicide as reported by 28 per cent of respondents. It was also confirmed by 32 per cent of neighbours/relatives/friends of victims respectively.

Family problems/commitments were also taken into consideration, while examining the social causes of suicide. Drug abuse/alcoholic addiction (58%) the similar findings also reported by Deshmukh, Gohad and Werulkar [13]. Followed by Illness (44%), frequent quarrel among the family members (36%), fall in social reputation (24%) gambling/betting/chit-fund (18%),and social function (4%) were found to be major causes of suicide as reported by the majority of respondents in the area under study. The findings of Chouhan et al. (2019) also matched with the results [14].

These causes of suicide were also confirmed by the neighbours/relatives/friends of victims in same frequency and proportion with minor variation. Thus, among the social causes of suicides, family problems and commitments followed by marriage related issues were found to be major causes of suicide. In case of family problems/commitment, drug abuse and illness, frequent quarrel among the family members, fall in social reputation were found to be major causes of suicide, while extra marital affairs were found to be major causes under marriage related issues. These were also confirmed by the neighbours/relatives/friends of victims. Poverty and the society was found to be least affected by poverty and property dispute in the area under study. According to Mohanty and Shroff (2004) reported suicide mainly attributable to social issues(e.g. family problem, illness, drinking and gambling) [15].
Table 3. Social causes of suicide

| Sr. No. | Causes | % of HH to total sample who answered Yes | As per respondent | As per neighbors/Relatives/friends |
|---------|--------|-----------------------------------------|------------------|-----------------------------------|
| 1. Poverty |        |                                         |                  |                                   |
| a       | Above poverty line (22) | 0.00 | 000 |                                   |
| b       | BPL (60) | 0.00 | 4.00 |                                   |
| c       | AAY (18) | 0.00 | 10.00 |                                  |
| 2. Property dispute | | | | |
| a       | Partition of land | 4.00 | 4.00 |                                  |
| b       | Partition of house 2.00 | 2.00 | 2.00 |                                  |
| c       | Partition of jewelr 0.00 | 0.00 | 2.00 |                                  |
| 3. Marriage related issues | | | | |
| a       | Extra marital affairs | 28.00 | 32.00 |                                  |
| 4. Family problems/Commitments | | | | |
| a       | Social functions, 4.00 | 4.00 | 4.00 |                                  |
| b       | Frequent quarrel among the family members 36.00 | 36.00 | 36.00 |                                  |
| 5       | Illness | 44.00 | 48.00 |                                  |
| 6       | Drug abuse/Alcoholic addiction | 58.00 | 62.00 |                                  |
| 7       | Gambling/betting/chit fund | 18.00 | 10.00 |                                  |
| 8       | Fall in social reputation | 24.00 | 26.00 |                                  |

Figures in the parenthesis shows the percentage of HH under APL, BPL & AAY Categories.
Source: Field Survey 2017

3.4 Farming Related Causes

Failure of crops, natural calamities and expectation from others were examined for the year 2014-15 and 2015-16 from the respondents (Fig. 3). It is observed from the data that failure of crop due to infestation of insect pest and diseases was found to be a cause of suicide in both the year 2014-15 and 2015-16 as reported by 6 per cent of respondents.

![Fig. 3. Farming related causes of suicides (%)](image-url)
Quarrel between the victim and others was found to be a major cause of suicide as reported by 16 (2014-15) and 12 (2015-16) per cent of respondents. Natural calamities viz. failure of rainfall and occurrence of drought, accidental fire and inability to sell output were also found to be other minor causes of suicides as reported by only 14 and 4 per cent of respondents respectively. Expectation of higher output (10 & 16%) and higher prices of output (4 & 0%) were found to be causes of farming related suicides for the years 2014-15 and 2015-16.

### 3.5 Indebtedness Related Causes

Indebtedness related causes of suicides were not found as major causes of suicide for the year 2014-15 and 2015-16 in the study area (Table 4). However, few respondents reported that suicide would have been committed due to farm equipment loan (0 & 2%), non-agriculture loan (2 & 0%), non-institutional loan (2 & 2%) and pressure created from institutional (2 & 2%) and non-institutional (2 & 2%) agencies in recovery of loan for the year 2014-15 and 2015-16.

Drug abuse/Alcoholic addiction followed by illness, frequent quarrel among family members, partition of house, extra marital affairs, fall in social reputation, gambling/betting /chit fund, social function and partition of land were found to be social cause prevalent in the study area (Table 5). In case of farming related causes failure of rainfall/drought followed by expectations of higher output, quarrel between the victim & others, inability to sell output and failure of crops were found to be major causes of suicides. The indebtedness, crop failure due to environmental problem, lack of support, family or health problem were reported to be important reasons for farmers suicides by Kakde [16].

#### Table 4. Indebted related causes of suicides

| Sr. No. | Causes                                      | % of HH to Total sample who answered Yes |
|---------|---------------------------------------------|-----------------------------------------|
| 1       | Indebtedness – Institutional & Non-Institutional |                                        |
| A       | Due to farm equipment’s loan                | 0                                       |
| B       | Due to non-agricultural loan                | 2                                       |
| C       | Due to non-institutional loan               | 2                                       |
| 2       | Due to pressure from institutional sources  | 2                                       |
| 3       | Due to pressure from non-institutional sources | 2                                       |

*Source: Field Survey 2017*

#### Table 5. Ranking of the social, farming and indebted causes of suicides

| Particulars         | Causes                                | Ranking |
|---------------------|---------------------------------------|---------|
| Social causes       | Extra marital affairs                  | IV      |
|                     | Fall in social reputation              | V       |
|                     | Illness                               | II      |
|                     | Drug abuse/Alcoholic addiction         | I       |
|                     | Gambling/betting /chit fund            | VI      |
|                     | Frequent quarrel among family members | III     |
|                     | Social function                       | VII     |
|                     | Partition of land                     | VIII    |
|                     | Partition of house                    | IX      |
| Farming related causes | Failure of rainfall/drought       | I       |
|                     | Inability to sell output              | IV      |
|                     | Quarrel between the victim & others   | III     |
|                     | Expectations of higher output         | II      |
|                     | Failure of crops                      | V       |

*Source: Field Survey 2017*
3.6 Impact on HH after Committing Suicide by the Victims

As far as the effect on HHs family after committing suicide by the victims is concern it is found that they have lost their earning member of the family (38%), insecurity in the family (42%) family member/s under depression (18%), and mortgage their property/jewellery etc (12%) were found to be major effect on HH family as reported by the majority of respondents (Fig. 4). Schooling of children stopped (8%) and agricultural activities stopped (2%) were found as minor after effect on the HHs after committing suicide by the victims.

![Fig. 4. Impact on HH household after committing suicide]

### Table 6. Suggestions to prevent the suicides in future (% of HH to Total sample who suggested)

| S. No. | Suggestions                                                                 | (n=50) % |
|--------|------------------------------------------------------------------------------|----------|
| 1      | Establishment of rehabilitation centre for drug/alcoholic addiction          | 41 (82)  |
| 2      | A Psychologist should be appointed at least at district hospital for mental patient | 46 (92)  |
| 3      | Skill up-gradation / capacity building centre must be established at block level. | 29 (58)  |
| 4      | Creation of non/off-farm level employment opportunities by village levels.  | 36 (72)  |
| 5      | Public awareness should be created for difference developmental programmes of the Govt. | 24 (48)  |
| 6      | Increase/declaration of MSP for all crops                                   | 39 (78)  |
| 7      | Crop insurance scheme should be reached at individual level                  | 44 (88)  |
| 8      | Compensation for crop damage/losses should at least meet input costs        | 33 (66)  |
| 9      | Crop/varietal diversification                                                | 9 (18)   |
| 10     | Supply of better quality inputs                                              | 22 (44)  |
| 11     | Health insurance should be made mandatory with Govt. support for the farming community | 11 (22)  |
| 12     | Increased role of social institutions                                         | 15 (30)  |

*Source: Field Survey 2017, Figure in parenthesis show percentage to total respondent*
3.7 Suggestions to Prevent the Suicide in Future

The suggestions given by the respondents to prevent suicide in future were also examined and listed in Table 6. The most important suggestions given by the respondents are: a Psychologist should be appointed at least at district hospital for mental patient (92%), crop insurance scheme should be reached at individual level (88%), establishment of rehabilitation centre for drug/alcoholic addiction (82%), increase/declaration of MSP for all crops (78%), creation of non/off-farm level employment opportunities by village levels (72%), compensation for crop damage/losses should at least meet input costs (66%) and skill upgradation/capacity building centre must be established at block level (58%) as reported by the majority of respondents.

The respondents also suggested that suicides can be checked if public awareness should be created for different developmental programmes of the Govt. (48%), supply of better quality inputs (44%), increased role of social institutions (30%), health insurance should be made mandatory with Govt. support for the farming community (22%) and crop/varietal diversification (18%). Chouhan et al. [14] reported that the most important suggestions as reported by the majority of the respondents are; a psychologist should be appointed at least at district hospital for mental patient, establishment of rehabilitation centre for drug/alcoholic addiction, skill upgradation/capacity building centre must be established at least block level and compensation for crop damage/losses should at least meet input costs.

4. CONCLUSION

It is concluded from the above results that major causes of suicides prevailing in the area under study were found to be social and farming related causes. Among these social related causes were found to be more prominent as compared to farming related causes. The prominent causes of farmers’ suicide in Chhattisgarh as recognised by the majority of the respondents were found to be family problems, illness drug abuse/alcoholic addiction, fall in social reputation, extra marital affairs and quarrel between victims and others. None of farmers was found to commit suicides due to poverty.

The main problems were found to be lack of access to mental health services in rural areas and shame attached to treatment, lack of rehabilitation centres for drug and alcoholic addiction and lack of off/non farm income. Although, none of the farmer in the area under study was found to commit suicide due to indebtedness but on the basis of reviews indebtedness was found to be a major cause of farmers’ suicide. It is also observed during the course of investigation that the farmers who committed suicide were found to have poor repaying capacity and risk bearing ability. Therefore utmost care should be taken before sanctioning of loan to the farmers.

The government should also remove the bottlenecks and increase access programme/services in remote areas. In addition to these a psychologist must be appointed in Govt. Hospitals and rehabilitation centre for drug abuse and alcoholic addiction should be established at least at block level particularly in identified hot spot of farmers’ suicides districts of the state. Efforts should also be made so that Crop insurance scheme should reach at individual level and health insurance should be made mandatory with Govt. support for the farming community. A campaign should also be launch for crop/varietal diversification in various agro climatic regions of Chhattisgarh for this role of various social institutions must be increased in future.

CONSENT

As per international standard or university standard, respondents’ written consent has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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