Study No.: 118

FARMER SUICIDES IN MADHYA PRADESH

Study Sponsored by
Ministry of Agriculture and Farmers Welfare

Agro Economic Research Centre
Jawaharlal Nehru Krishi Vishwa Vidyalaya
Jabalpur (M.P.) 482 004

FEBRUARY, 2017

AERC, Jabalpur-Research Study No.-118

FARMER SUICIDES IN MADHYA PRADESH

Study Sponsored by Ministry of Agriculture and Farmers Welfare

AGRO- ECONOMIC RESEARCH CENTRE FORMADHYA PRADESH AND CHHATTISGARH
Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur (M.P.)

FEBRUARY, 2017

Citation : Sharma H.O. & Rathi D. Farmer Suicides in Madhya Pradesh Final Study Report No. 118, Agro-Economics Research Centre for Madhya Pradesh & Chhattisgarh, J.N.K.V.V., Jabalpur, 40p.

PROJECT TEAM

Data Collection

Mr. C.K. Mishra
Mr. S.K. Upadhye
Mr. S.C. Meena
Mr. S.S. Thakur
Mr. H.K. Niranjan
Mr. Rajendra Singh Bareliya
Mr. Ravi Singh Chouhan

Tabulation & Compilation of Data

Mr. H.K. Niranjan
Mr. Ravi Singh Chouhan

Interpretation and Report Writing

Dr. Hari Om Sharma
Dr. Deepak Rathi

Coordinator

Agricultural Development and Rural Transformation Centre
Institute for Social and Economic Change, Bangalore

PREFACE

The present study entitled "Farmer Suicides in Madhya Pradesh" has been assigned by the Directorate of Economics and Statistics Ministry of Agriculture Government of India to this centre under the close coordination of Agricultural Development and Rural Transformation Centre (ADRTC), Institute for Social and Economic Change (ISEC), Bangalore.

The study comprises 50 Households related to victims' family of Rewa district of Madhya Pradesh. The study revealed that due to the effective implementation of the various agricultural and rural development programmes of the Central and State Government, farmers' suicide in Madhya Pradesh were found to be reduced from 1445 (2003) to 826 (2014) with the magnitude of –44.34 person per year. The present intensity of farmers' suicide (2014-15) was found to be only 5.36 suicides per lakh ha of net sown area & 3.43 suicides per lakh ha of gross cropped area, and only 8.39 farmer suicides over per lakh farming family.

The present study was conducted by Dr. H.O. Sharma and Dr. Deepak Rathi of this Centre. They have done field investigation, tabulation, analysis, interpretation and drafting of the report. I wish to express my deep sense of gratitude team members namely; Mr. S.K. Upadhye, Mr. C.K. Mishra, Mr. S.C. Meena, Mr. H. K. Niranjan, Mr. S.S. Thakur, Mr. R. S. Bareliya and Mr. Ravi Singh Chouhan for their untiring efforts in bringing this innovative study to its perfect shape.

I extend heartfelt thanks to the Coordinator of this study Dr. A.V. Manjunatha, Assistant Professor, Agricultural Development and Rural Transformation Centre (ADRTC), Institute for Social and Economic Change (ISEC), Bangalore for providing valuable guidelines and time to time suggestions for conducting the study successfully.

On behalf of the Centre, I express deep sense of gratitude to Dr. V.S. Tomar, Hon'ble Vice-Chancellor and Chairman Advisory Body of AERC, Jabalpur, Shri. P.C. Bodh, Adviser, AER Division, Ministry of Agriculture, Govt. of India, New Delhi. Dr. S.K. Rao, Director Research Services, Dr. P.K. Mishra, Dean, Faculty of Agriculture, and Dr. D. Khare, Director Instructions, Dr. P.K. Bisen, Director Extension, Dr. N.K. Raghuwanshi, Prof.& Head (Dept. of Agril. Econ. & F.M.), Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur for providing all valuable guidance and facilities during various stages in successful completion of this study of high importance.

I express sincere thanks to Shri R. K. Tandon, Additional Director General of Police, Bhopal, State Crime Record Beauro, Bhopal, Shri Sanjay Kumar, Superintendent of Police and Shri R.S. Gaharwar, OM branch, district Rewa and their field staff for providing not only secondary data but also extending great assistance in collection of field data from the selected respondents.

I hope the findings and suggestions made in the study would be useful to policy makers of the State and Govt. of India.

Date : 13.02.2017
Place: Jabalpur

(Hari Om Sharma)
Prof. & Director

CONTENTS

LISTS OF TABLES

LISTS OF FIGURES

CHAPTER-I

INTRODUCTION

Farmer suicides have turned out to be a major socio-economic concern in India that has resulted in profound implications on the quality of life of farmers. According to the United Nations Commission on Sustainable Development (UNCSD), one farmer committed suicide every 32 minutes between 1997 and 2005 in India. 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) (National Crime Records Bureau, 2015).

Farmers feel a repeated sense of hopelessness due to the loss of crops, income, land and even the loss of a way of life. Another factor that increases suicides is the potential for social isolation due to reasons like the loss of communities as well as geographical remoteness. The lack of access to mental health services in rural areas and the stigma attached to treatment is also a contributing factor. Depression arising from exposure to agricultural chemicals/pesticides may increase the risk for mood disorders and ultimately suicide.

The Situation Assessment Surveys of the National Sample Survey Organization (NSSO, 2013) has reconfirmed the worsening situation of farm households which indicated that about 51.9 per cent of the farm households in India are indebted. Indebtedness is highest in AP (93%), followed by Telangana (89%), Tamil Nadu (82%), Karnataka (77%) and Rajasthan (62%) (Table 1). It is to note that NSSO in its 59th round survey has revealed that given the choice, 40 per cent farmers will quit farming because it is not profitable, risky and it lacks social status (NSSO, 2005). Interestingly, indebted farmers have taken higher credit from institutional sources (60%) as compared to the non-institutional sources (40%) (NSSO, 2013).

The Intelligence Bureau in its report to the Modi government had said that there is an upward trend in the number of farmers resorting to the extreme measure of suicide in States like Maharashtra, Telangana, Karnataka and Punjab. 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."(GoI, 2014)

The following five States together accounted for 89.5 per cent of the total farmer suicides (5,056 out of 5,650) reported in the country in the year 2014(National Crime Records Bureau,2015).

Table 1.1: Number of suicides and indebtedness in major suicide prone States of India

State	Number of Suicides in 2014	% of farmer Suicides to all India total in 2014	% of indebted farm HH to total farm HH 2012-13
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**

In addition, according to the report, the land holding status of the farmers who committed suicide revealed that 44.5 per cent and 27.9 per cent of victims were small and marginal farmers, respectively and together accounted for 72.4 per cent (4,095 out of 5,650) of total farmer suicides. The report further reveals that 53.1 and 14.5 per cent of small farmers who committed suicides were reported in Maharashtra (1,135 out of 2,516) and Telangana (366 out of 2,516) respectively during 2014. Among marginal farmers, 39.7 per cent and 25.5 per cent of farmer suicides were reported in Maharashtra (627 out of 1,579) and Madhya Pradesh (403 out of 1,579) respectively as per National Crime Records Bureau, 2015.

Constant financial stress and pressure related to ongoing drought and flood conditions and the loss of independence add to the farmer's economic problems; as many of the issues such as disease, weather, government policy, etc. are not within the farmer's control. The debts, however, are personal and need to be repaid. While the prices of crops have been pushed down (often even below the cost of production), the prices of inputs such as seed, fertilizers and pesticides have gone up. With limited resources, farmers depend on borrowed money to purchase seeds and other inputs and to cultivate their land and a reduction in their income could promptly lead to farmers owing more than they own.

Years of economic reforms have given farmers access to expensive and promising technological options; but these reforms have not led to crop insurance, land irrigation, or enough bank loans. These reforms have rendered Indian farmers open to global competition and in order to compete, they were forced to turn to high-cost seeds, fertilizers and pesticides; believing in easier returns. Modified seeds cost nearly twice as much as ordinary ones, necessitating larger loans. Unfortunately for farmers in India, foreign subsidies (such as the United States and the United Kingdom who receive over $18 billion a year in subsidies) have driven down the price of crops (such as cotton) in the global market. In addition, there has been minimal financial support from the government for marginal and small farmers. Many of these farmers don't qualify for bank credit, forcing them to turn to moneylenders who charge up to 20 to 36 per cent interest on them. Consequently, farmers often sign away the title to their land as collateral.

Concerned with the agrarian crisis and farmer suicides in suicide prone States of India, the Prime Minister on July 1, 2006, announced a rehabilitation package with the goal of mitigating the distress driven condition of farmers. The rehabilitation package aimed at establishing a sustainable and viable farming and livelihood support system through debt relief measures to farmers such as complete institutional credit coverage, crop centric approach to agriculture, assured irrigation facilities, effective watershed management, better extension and farming support services and subsidiary income opportunities through horticulture, livestock, dairying, fisheries and other subsidiary activities. In order to alleviate the hardships faced by the debt driven families of farmers, ex-gratia assistance from Prime Minister's National Relief Fund (PMNRF) 50 lakh per district was also provided. Some other programs to increase the flow of agricultural credit includes Kisan Credit Cards (KCC), revival package for short term cooperative credit structure, concessional interest schemes, interest subvention schemes, interest subvention against negotiable warehouse receipt and so on. All these attempts have helped to reduce farmer suicides insignificantly overtime in several States. However, farmer suicides still remain major challenge in India. With this background, the study addresses following specific objectives:

1.1 Specific Objectives

1. To analyse the incidence and spread of farmer suicides in selected States and to map the hot-spots of suicide;

2. To study the socio-economic profile, cropping pattern and profitability of victim farm households.
3. To study the causes leading to farmer suicides including production and market risks, sociological, psychological and other family related factors responsible for farmer suicides.
4. To recommend suitable policies to alleviate the incidence of farmer suicides.

1.2 Review of Literature

The collected review have been classified into theoretical and empirical

1.2.1 Theoretical

Most studies on suicides fail to look at the phenomena from an interdisciplinary perspective. Emile Durkheim (1896) a sociologist highlighted that suicide rates are dependent upon the degree to which individuals were integrated into society and the degree to which society regulates individual behaviour. He mentioned that in the modern society there are 2 major types of suicides: (i) Increasing detachment from others resulting to egoistical suicide. For eg. The unmarried and childless are less integrated and hence susceptible to a higher suicide rate and (ii) Dissatisfaction in relation to expectations resulting in anomic suicide. For eg. In times of price crash of crops, there is more probability of suicides if the farmers' price expectations are not met. (Lester, 1994 cited in Deshpande and Saroj Arora, 2010). Taking into account Durkheim's types, Mohanty in his article views farmer suicides as having resulted from a combination of ecological, economic and social crisis. He goes to say that it points to the modern agricultural practice, which has become an independent, household or family enterprise, without requiring any link and interaction among the cultivators themselves (Mohanty, 2013).

Another way of 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 (Deshpande, 2002).The events such as crop loss, bore-well failure, price crash, family problems, property disputes and daughter's marriage act as stress creators, when two or more events cluster together. Usually illness of the individual or any family members, heavy borrowing, continued disputes in the family or land related problems act as stressors'. These become lethal in combination with the 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 suicide (Deshpande, 2002).

The paper by Gupta aptly observes that Indian agriculture has always lurched from crisis to crisis. If the monsoons are good then there are floods, if they are bad there are droughts, if the production of mangoes is excellent then there is a glut and prices fall, if the onion crops fail then that too brings tears. The artisanal nature of agriculture has always kept farmers on tenterhooks, not knowing quite how to manage their economy, except to play it by years thus shedding a light on the plight of the Indian farmer (Gupta, 2005). The study on farmers' suicide is a problem of the type that is theoretical and interpretative in nature. Although there is an availability of empirical data, due to a lack of sufficient understanding of the trends and complex patterns, there exists a deficiency in establishing interrelationships (Kaviraj, 1984).

In her book, Shadow Spaces, Vasavi States that bewilderment, loss of meaning and uncertainty among farmers due to the unrelenting failures of policies and responses are doubtful to change unless there is a paradigm shift in the general outlook that starts with trusting agriculturists' knowledge and working towards those elements that enhance their capacities for collective action (Vasavi, 2012).

In summary, while all current reports ascertain that widespread and soaring indebtedness among farmers is considered by

most of the families to be the key reason for the suffering experienced by the victims leading to their suicide, the social bases of such indebtedness and its implications have not yet been recognised.

1.2.2 Empirical

Anneshi and Gowda (2015) concluded that both small and large farmers borrowed relatively higher proportion from the non-institutional sources compare to institutional sources and accessibility to institutional borrowing is relatively more for large farmers. Similarly, both small and large farmers owed more outstanding debt to non-institutional sources, as compared to institutional sources in SC/ST category.

Macharia (2015) investigated that majority of small and marginal peasants depend on non-institutional credit facilities (i.e. moneylenders, micro financers and traders). He also reported that farmer's suicides take place among the scheduled castes and tribe families who cultivate commercial crops. Low yields, extremely reduced profits and mounting debts make their agricultural life extremely difficult.

Chikkara and Kodan (2014) opined that the informal mechanism of credit delivery played an important role for marginal and small farmers in meeting their credit requirements in the State of Haryana. In addition, maximum indebtedness was found to be on the 615-775 MPCE class farm households in the State and Scheduled Caste and Backward Class farm households.

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 are 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.

Mohanty (2014) in a study conducted in Amravati and Yavatmal district argued that crop loss and egoistic factors led to suicidal tendency among small farmers. On the contrary, 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. They concluded that the suicides of farmers are neither properly anomic nor egoistic rather they are ego-anomic in nature.

Singh et al., (2014) based on the research in Punjab studied that the level of education, non-farm income, farm size and non-institutional credit were the main factors which affect the level of farmers' indebtedness. They also found that the farmers face a large number of problems in availing institutional credit which drives them to fall into the debt trap of the crafty and exploitative non-institutional sources of credit.

Kumar et al., (2010) examined the performance of agricultural credit flow and has identified the determinants of increased use of institutional credit at the farm household level in India. The result indicated that the quantum of institutional credit availed by the farming households is affected by a number of socio-demographic factors which include education, farm size, family size, caste, gender, occupation of household, etc.

Another study by 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. It was also seen that compensation following suicide helped the family

to repay debt. They also opined that the causes are multifactorial, 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.

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.

Mohanty and Shroff (2004) in their research revealed that though 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.

The paper by Sarah Hebous and Stefan Klonner empirically analyzes the various sources of extreme economic distress in rural India by using district-level data on farmers' suicides to estimate the effects of transitory economic shocks and structural change in agriculture on the incidence of suicides in farm households. Rainfall conditions are used as an instrumental variable and it was found that transitory spikes in poverty caused by a lack of rainfall increase suicides among male and decrease suicides among female members of farm households. However, the paper concludes that the combined causal effect of a poverty shock on suicides in farm households is positive. Also, a shift from subsistence crops to cash crops, especially cotton, was found to be associated with a decrease in male suicides (Hebous&Klonner, 2014).

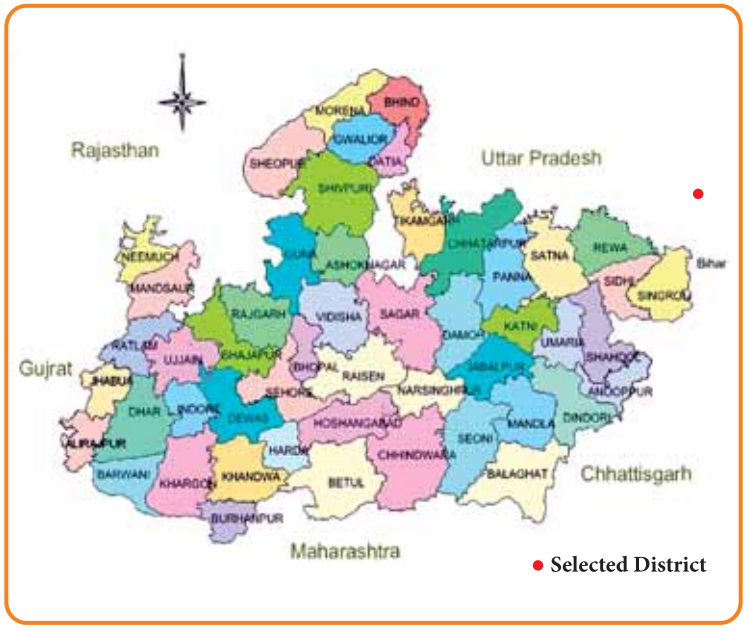


Fig.1.1: Selected District in Madhya Pradesh

1.3. Research Methodology

The study confined to Madhya Pradesh State. Both primary and secondary data have been collected for the investigation. Rewa district purposively selected for the study as number of victims were found to be maximum in the State in the year 2014-15 (Table 1.2)

Table 1.2 : Farmer suicides in different districts of Madhya Pradesh (2015)

S. No.	Name of the district	No. of farmer suicides	% to State total
1	Rewa	150	18.16
2	Jhabua	104	12.59
3	Dindori	71	8.6
4	Shivpuri	43	5.21
5	Jabalpur	40	4.84
6	Satna	39	4.72
7	Alirajpur	37	4.48
8	Umaria	31	3.75
9	Panna	28	3.39
10	Singroli	28	3.39
11	Sehore	26	3.15
12	Sagar	23	2.78
13	Khargone	22	2.66
14	Balaghat	20	2.42
15	Mandala	18	2.18
16	Ashoknagar	16	1.94
17	Katni	16	1.94
18	Barwani	14	1.69
19	Mandsour	12	1.45
20	Sidhi	12	1.45
21	Anuppur	11	1.33
22	Vidisha	11	1.33
23	Ujjain	10	1.21
24	Tikamgarh	9	1.09
25	Narsinghpur	8	0.97
26	Dewas	6	0.73
27	Ratlam	6	0.73
28	Khandawa	3	0.36
29	Shajapur	3	0.36
30	Datia	2	0.24
31	Harda	2	0.24
32	Betul	2	0.24
33	Neemanch	1	0.12
34	Damoh	1	0.12
35	Chhatarpur	1	0.12
36	Others*	0	0
	TOTAL	**826**	**100**

*Gwalior, Guna, Morena, Sheopur, Bhind, Indore, Dhar, Burhanpur, Chindwara, Shivni, Shadol, Hoshangabad, Raisen, Bhopal, Rajgarh, Agar (16)

Table 1.3 Number of respondents in different villages in Madhya Pradesh (2015)

S. No	Name of Selected District	Name of Selected Taluka/ Block	Name of Village	No. of Victims families interviewed
1	Rewa	Rewa	Bara, Navaganv,Vihara,Karahiya,Amva	5
2		Chorehta	Pekhara	1
3		Govindgarh	Tamara, Sagara	2
4		Gud	Badipati	1
5		Hanumana	Pahadi,Madhota	2
6		Hujur	Bagdara,Bansi,Sahijana,Madawa, Govindgarh	5
7		Mangawa	Maryadapur,Dhavaiya,Piparwar, Paipkhar, Tiwarigaun, Navagaun, Uiaikala, Salaiya, Chhewala, Sansarpur,Tikura	12
8		Mauganj	Devtal, Khaira, Dhangana, Hadiya	4
9		Naigadi	Naigadi,Kaichua,Paharkha,Kharra	4
10		Nauganj	Simariya	1
11		Semariya	Chitti, Baghiar, Majhiyar Nai basti,Barou	4
12		Sirmor	Tilkhara,Guhiya,Dehli,Jamoo,Majhiyar, Jhiriya,Vilva sursuri,Umari,Padhri	9
Total	**1**	**12**	**49**	**50**

A village/police station wise list of all the victims (150) was collected from the Superintendent of Police, District Rewa for the year 2014-15 and 33.33 per cent (50) victims have been selected for the study from various villages of the district (Table 1.3).

The primary data were collected from the relatives/neighbours/friends of the victims by survey through interview schedule provided by the co-ordinator, ADRT, Bangalore and translated the same in *Hindi* language and 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. In the second section, information regarding causes of farmer suicides with special focus on the institutional and non-institutional credit, extent of indebtedness, coping strategies after the suicide incident and suggestions for preventing farmer suicides were collected. The primary data related to the study collected in the year 2015-16.

The Secondary data on district wise suicide cases in Madhya Pradesh for the period of 2003-04 to 2014-15 were collected from the office of the Additional Director General of Police, Madhya Pradesh, Bhopal.

Suitable statistical tools i.e. mean, percentage, growth rates were used for the study. The cost of cultivation of the respondents was worked out on per acre basis. The following concepts were used for analysis of primary/secondary data.

I. **No. of farmers' suicide per lakh hectare of Net Sown Area** = (no. of farmer suicides x 100,000) / net sown area in ha)

II. **No. of farmers' suicide per lakh hectare of Gross cropped area** = (no. of farmer suicides x 100,000) / gross cropped area in ha)

III. **No. of farmers' suicide per lakh farming families** = (no. of farmer suicides x 100,000) /no.of farming families)

IV. **Net operated area**= Total owned land-uncultivated land+lease in land-lease out land

V. **Cropping intensity** = (Gross cropped area/net operated area)X100

VI. **Irrigation intensity** = (Gross irrigated area/net irrigated area)X100

VII. **Gross Return** = (Yield of Main Product in q per acre X Rate in Rs/q)

VIII. **Net Return** = Gross Return- Total Cost of Cultivation

IX. **Net Return per HH** = Net return received from the production of crop/No. of HH Cultivated

X. **Benefit Cost Ratio**= Gross Return/Total Cost of Cultivation

1.4 Limitation of the Study

The study does not claim its completeness in all aspects and certainly had some limitation. The data relating to the objectives of the study were collected from the selected respondents. The information provided by them is based on the face to face interview and they do not keep any record of their farming practices. Therefore, the information provided by them is entirely based on their memory thus, there is possibility of certain biasness may enter in the present study. The month wise data of suicide was not made available.

1.5 Organization of the Report

The study is organised into 5 chapters. Chapter 1 covers the introductive part of the study followed by farmer suicides scenario in the State (Chapter II). Socio economic characterises of the sample household covered under chapter III. The causes and after effect of suicide were dealt in chapter IV, while summary, conclusions and policy suggestions are covered in chapter V.

✶✶✶✶✶

CHAPTER-II

FARMER SUICIDES SCENERIO IN MADHYA PRADESH

This chapter deals with the intensity of the farmer suicides in different districts of the State along with general information of Madhya Pradesh i.e. location, population and different agriculture and rural development programmes.

Madhya Pradesh, in its present form, came into existence on November 1, 2000 following its bifurcation to create a new State of Chhattisgarh. The undivided Madhya Pradesh was founded on November 1, 1956. Madhya Pradesh, because of its central location in India has remained a crucible of historical currents from North, South, East and West.

Madhya Pradesh is situated in the heart of India between latitudes 21^0 53' to 22^0 53' North and longitude 77^0 47' to 78^0 44' East. It is the second largest state after Rajasthan of Indian Union with a total geographical area of 307.56 thousand square Kilometers. In terms of population (72,597,565) it occupies 7^{th} position in India (2011). It has 10 commissionaire divisions (Chambal, Gwalior, Bhopal, Ujjain, Indore, Sagar, Rewa, Jabalpur, Hosangabad and Shahdol) divided into 51 districts, 342 Tehsil, 313 blocks & 376 towns and 54,903 villages. (Table 2.1)

It is abundantly rich in minerals and bio resources with 27 per cent of land area under forests; it supports a wide variety of animal and plant life. The state has a rich history, culture and crafts.

Table 2.1: Location of Madhya Pradesh

S. No .	Particulars	Number
1	Number of Divisions	10
2	Number of Tehsils	342
3	Number of Blocks	313
4	Number of Villages	54,903
5	Latitude	21°53' to22° 59' N
6	Longitude	76°47' to 78°44' E
7	Height from see means level (m)	50 - 1200
8	No of districts	51
9	No. of Gram Panchayat	23,012
10	No. of electrified Villages	35910
11	Percentage of electrified villages to total Villages	65.41

The physiography of the State exhibits a great deal of diversity with areas ranging from less than 50 meter above Mean Sea Level (MSL) to more than 1200 meter. The state falls under the catchments of Yamuna, Ganga, Narmada, Mahanadi and Godavari rivers. On the basis of broad land features and different soil and rain fall pattern, the state classified in 5 physiographic regions and 11 agro-climatic zones (Table 2.2)

1. Northern low lying plains comprising Gwalior, Bhind and Morena districts and extend to Bundelkhand up to the West of Panna range and excludes certain parts of Rewa district between Panna and Kaymore hills of Baghelkhand.

2. The Malwa and Vindhyan Plateau comprises of Vidisha, Shivpuri, Datia, Guna, Ujjain and Mandsour districts and parts of Sehore, Raisen and Dewas districts. It consists of large undulating plains of black cotton soil dotted with flat-topped hills. It has also hilly Vindhyan Plateau situated in the north of Narmada Valley and to the south of the low-lying regions of Bundelkhand and Baghelkhand. It spared from east of Malwa plateau to Maikal and Dorea hills of Satpura range.

Table-2.2: Districts /Tehsils covered under various Agro-climatic regions of Madhya Pradesh.

S. No.	Agro - Climatic Regions	Districts /Tehsils	Geographical Area	Percent to Geographical Area
1	Malwa Plateau	Indore, Dhar, (Dhar, Badnawar, Sardarpur tehsils) Shajapur, Mandsour, Neemuch, Ratlam, Ujjain, Dewas Rajgarh districts and Petlawad tehsil of Jhabua district	51.47	16.74
2	Vindhyan Plateau	Bhopal, Vidisha, Sehore (Sehore, Ashta, Ichhawar, Narsullaganj tehsils) Raisen (Raisen, Gairatganj, Begamganj, Silwani, Goharganj, Udaipura tehsils), Damoh, Guna (Chachora & Raghogarh tehsils) & Sagar districts	42.59	13.85
3	Central Narmada Valley	Hoshangabad (Seoni -Malwa, Hoshangabad, Sohagpur tehsils), Harda, Nasinghpur districts, Budhani and Barelli tehsil of Sehore and Raisen districts respectively	17.45	5.67
4	Satpura Plateau	Betul, Chhindwara districts	21.93	7.13
5	Jhabua Hills	Jhabua, Jobat, Alirajpur tehsils of Jhabua district & kukshi tehsil of Dhar district	6.88	2.24
6	Gird Region	Gwalior, Bhind, Morena, Shivpur-Kalan, Guna (Mungawali and Ashoknagar tehsils), Shivpuri (Shivpuri, Kalaras, Pohari tehsils)	31.85	10.36
7	Kymore Plateau	Jabalpur, Katni, Rewa, Panna, Satana, Sidhi, Seoni and Gopadbanas & Deosar tehsils of Sidhi district.	49.97	16.25
8	Bundel Khand Region	Tikamgarh, Chhatarpur, Datia districts, Karela, Pachore tehsil of Shivpuri and Guna tehsil of Guna district	22.82	7.42
9	Nimar Valley	Khandwa, Khargone, Barwani district, Manawar tehsil of Dhar district and Harda district	25.17	8.18
10	Northern Hills of Chhattisgarh	Shahdol, Umariya Mandla, Dindori district & Singrauli tehsil of Sidhi district	28.17	9.16
11	Chhattisgarh plain	Balaghat district	9.25	3.00
		Madhya Pradesh	**307.56**	**100.00**

Fig. 2.1: Agro-Climatic Zones of Madhya Pradesh

3. The Narmada Valley stretching from Jabalpur in the east up to Barwani district in the West. It is nearly 560 Km long and 48 Km wide and is walled on the north by the Vindhya Range and on the south by Satpura range. It covers the districts of Jabalpur, Narsinghpur, Hosangabad, Khandwa, Khargone, Barwani, Dhar, and some parts of Raisen, Sehore, and Dewas districts.

4. The Satpura range runs from West to East for about 640 Km through Khandwa, Betul, Chhindwara, Seoni, Mandla, Bilaspur and Sarguja districts. Its northern spurs go into Hosangabad and Narsinghpur districts and in the south an extensive spur of 160 Km covers entire Balaghat district.

5. Madhya Pradesh also covers Balaghat and Shahdol districts of Chhattisgarh Plains and Northern Hills of Chhattisgarh zone respectively. The state is bordered on the West by Gujarat, on the North-West by Rajasthan, on the North-East by Uttar Pradesh, on the East by Chhattisgarh, and on the South by Maharashtra.

The main soil types found in Madhya Pradesh are alluvial, deep black, medium black, shallow black, mixed red and black, mixed red and yellow and skeletal soils (Table 2.3).

Table 2.3: Soil types and districts covered in Madhya Pradesh.

Types of Soil	Districts covered
Alluvial Soil	Bhind, Morena and Gwalior
Deep Black Soil	Hosangabad and Narsinghpur
Medium Black Soil	Jabalpur, Sagar, Vidisha, Sehore, Damoh, Guna, Bhopal, Raisen, Rajgarh, Indore, Dewas, Ujjain, Mandsour, Shajapur, Ratlam, Dhar, Khargone and Khandwa
Shallow Black Soil	Betul, Chh indwara and Seoni
Red & Black Soil	Shivpuri, Rewa, Satna, Panna, Sidhi, Chattarpur, Tikamgarh, Datia and some parts of Guna district.
Red & Yellow Soil	Balaghat.
Gravelly Soil	Mandla.

The climate of Madhya Pradesh by virtue of its location is predominately moist sub humid to dry sub humid, semi arid to dry sub-humid and semi arid in East, West and Central plateau and Hills respectively, according to agro-climatic regions of India. The seasons in Madhya Pradesh are as given below (Table 2.4).

Table 2.4: Seasons and their periods in Madhya Pradesh

Seasons	Period	
	From	To
Rainy	June	September
Post Monsoon	October	November
Winter	December	February
Summer	March	May

The annual rainfall received in the State varies from 800 mm. in the Northern and Western regions to 1600 mm in the Eastern districts. In some years rainfall goes much below to the normal. The most of rainfall is received in the *Monsoon* season from June to September and about 10 per cent of the rainfall is received in the remaining months of the year. The maximum temperature during extreme summer reaches as high as 47^{0}C and the minimum during winter dips up to 2^{0}C. The maximum normal temperature varies between 25^0 to 35^{0}C and minimum normal between 10^0 to 20^{0}C. The relative humidity ranges from 40 to 70 per cent throughout the year.

2.1 Ongoing Agriculture and Rural Development Programmes

The Govt. of Madhya Pradesh launched various developmental programmes for agriculture and rural development in all the districts of Madhya Pradesh. (Table2.5)

Table 2.5: Ongoing agriculture and rural development programme in M. P.

	Agriculture
	Central Government Sponsored Programme
1	National Food Security Mission (NFSM)
2	National Mission on Sustainable Agriculture (NMSA)
3	National Oilseed and Oil-palm Mission (NMOOP)
4	National Mission on Agriculture Extension and Technology (NMAET)
5	Rastiya Krishi Vikash Yojna (RKVY)
6	Pradhan Mantri Krishi Sinchai Yojna (PMKSY)
7	Paramparagat Krishi Vikash Yojna (PKVY)
8	National e-Governance Plan (NeGPA)
9	Soil Health Card Yojna (Central)
	State Government Programme
1	Annapurna and Surajdhara Yojna
2	Balram Tal Yojna
3	National Bio-Gass Yojna
4	Rastriya Krishi Bima Yojna
5	Nalkup-khanan and State Micro-Irrigation Mission
6	Woman Participation Plan (MAPWA) and Profit Scheme
7	ATMA
8	Soil Testing and Soil Health Card Yojna
9	Agriculture Extension through Information and Communication Technology
10	Chief Minister Farm Visit Yojna
11	Quality Control and Testing Laboratories
12	Pilot project for Agro-climatic region
13	Farmers Friend Training Scheme
14	0 % crop loan

Source: mpkrishi.mp.gov.in/

	Rural Development
1	Rajiv Gandhi Mission for Watershed Management
2	National Rural Employment Guarantee Scheme
3	Madhya Pradesh Rural Road
4	Madhya Pradesh Rural Livelihoods Project
5	Madhya Pradesh District Poverty Initiatives Project
6	Total Sanitation Programme
7	Bio Fuel Mission
8	Jal Abhishek Abhiyan
9	Mid Day Meal Programme
10	Backward Regional Grant Fund
11	Water and Land Management Institute
12	SGSY SHG's Database

Source: http://www.mprural.mp.gov.in/mprural.html

2.2 Trend of Farmer Suicides in Madhya Pradesh

Trend of farmer suicides in Madhya Pradesh was observed for the period of 2003 to 2014 and presented in Fig. 2.2. It is observed from the figure that farmer suicides were found to be reduced from 1445 (2003) to 826 (2014) with the magnitude of –44.34 person per year in Madhya Pradesh.

2.3 Intensity of Farmer Suicides

The total numbers of 826 farmer suicides were registered in the year 2014-15 in the state. The intensity of farmer suicides was found to be only 5.36 suicides per lakh ha. of net sown area and 3.43 suicide per lakh ha. of gross cropped area in Madhya Pradesh. In the state only 8.39 farmer suicides were recorded over per lakh farming family.

The maximum number of case were found to be registered in Rewa district 150 (18.16%) followed by Jhabua 104 (12.59%), Dindori 71 (8.60%), Shivpuri 43 (5.21%), Jabalpur 40 (4.84%), Satna 39 (4.72%), Alirajpur 37 (4.48%) and Umaria 31 (3.75%), in 27 districts, number of suicide were recorded to be less than 30 or 3.50 per cent and no suicide cases were recorded in the remaining districts (16) of the State.

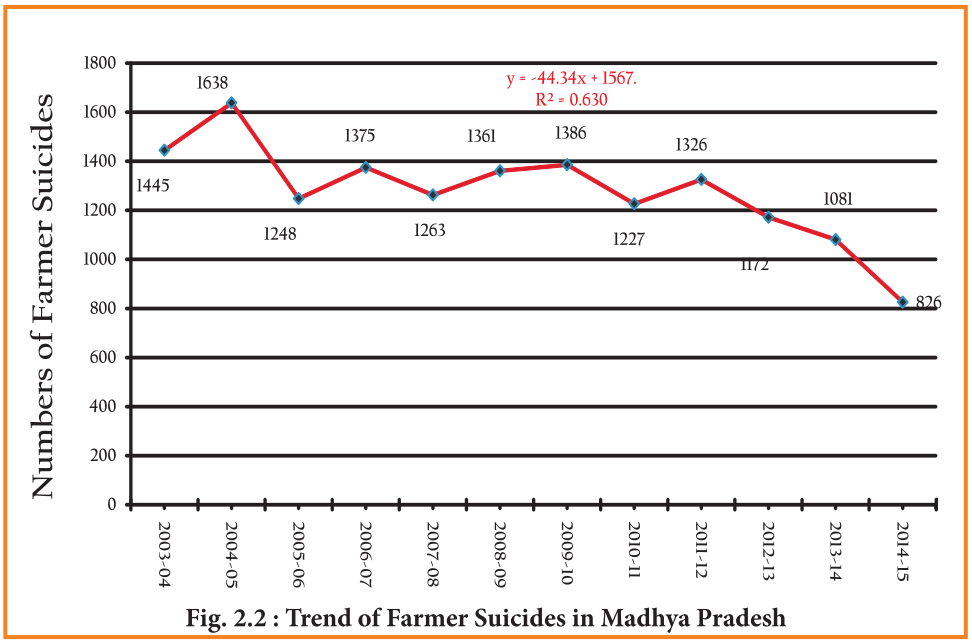


Fig. 2.2 : Trend of Farmer Suicides in Madhya Pradesh

Table 2.6: District-wise details of farmer suicides in the State (2014-15)

S. No.	Name of the district	No. of farmer suicides	% to state total	No. of farmer suicides		Per lakh farming families
				Per lakh hectare of Net sown area	Per lakh hectare of Gross cropped area	
1	Rewa	150	18.16	41.3	29	60.93
2	Jhabua	104	12.59	54.8	40.7	55.89
3	Dindori	71	8.6	35	24.5	63.07
4	Shivpuri	43	5.21	9.4	6	23.5
5	Jabalpur	40	4.84	14.4	9.4	21.93
6	Satna	39	4.72	11.1	7.6	16.24
7	Alirajpur †	37	4.48	21.7	17.5	0
8	Umaria	31	3.75	29.6	21.4	38.74
9	Panna	28	3.39	10.3	6.7	17.83
10	Singroli †	28	3.39	16.8	12.3	0
11	Sehore	26	3.15	6.5	3.4	19.49
12	Sagar	23	2.78	4.2	2.6	9.02
13	Khargone	22	2.66	7.2	4.9	13.64
14	Balaghat	20	2.42	7.2	5.8	7.86
15	Mandala	18	2.18	7.9	5.5	11.07
16	Ashoknagar †	16	1.94	5.1	3.2	0
17	Katni	16	1.94	7.4	5.2	8.94
18	Barwani	14	1.69	6.1	4.8	15.48
19	Mandsour	12	1.45	3.4	1.9	7.43
20	Sidhi	12	1.45	7.1	5.1	5.19
21	Anuppur †	11	1.33	6.7	5.3	0
22	Vidisha	11	1.33	2.1	1.2	7.84
23	Ujjain	10	1.21	2	1.1	6.24
24	Tikamgarh	9	1.09	3.2	1.9	5.2
25	Narsinghpur	8	0.97	2.6	1.7	5.95
26	Dewas	6	0.73	1.5	0.8	4.12
27	Ratlam	6	0.73	1.8	1	3.92
28	Khandawa	3	0.36	0.7	0.5	1.78
29	Shajapur	3	0.36	1.1	0.6	1.6
30	Datia	2	0.24	0.9	0.7	1.95
31	Harda	2	0.24	1.1	0.6	5.66
32	Betul	2	0.24	0.5	0.3	1.12
33	Neemanch	1	0.12	0.5	0.3	1.06
34	Damoh	1	0.12	0.3	0.2	0.63
35	Chhatarpur	1	0.12	0.2	0.2	0.43
36	Others*	0	0	0	0	0
	TOTAL	**826**	**100**	**5.36**	**3.43**	**8.39**

*Gwalior, Guna, Morena, Sheopur, Bhind, Indore, Dhar, Burhanpur, Chindwara, Shivni, Shadol, Hoshangabad, Raisen, Bhopal, Rajgarh, Agar (16),
† Newly born districts in Madhya Pradesh

The number of farmer suicides per lakh hectares of net sown and gross cropped area was found to be maximum in Jhabua district (54.8 & 40.7) followed by Rewa (41.3 & 29.0), Dindori (35.0 & 24.5), Umaria (29.6 & 21.4), Alirajpur (21.7 & 17.5), Singroli (16.8 & 12.3), Jabalpur (14.4 & 9.4), Satna (11.1 & 7.6) and Panna (10.3 & 6.7), while in remaining districts these ratios were found to be less than 10. (Table2.6).

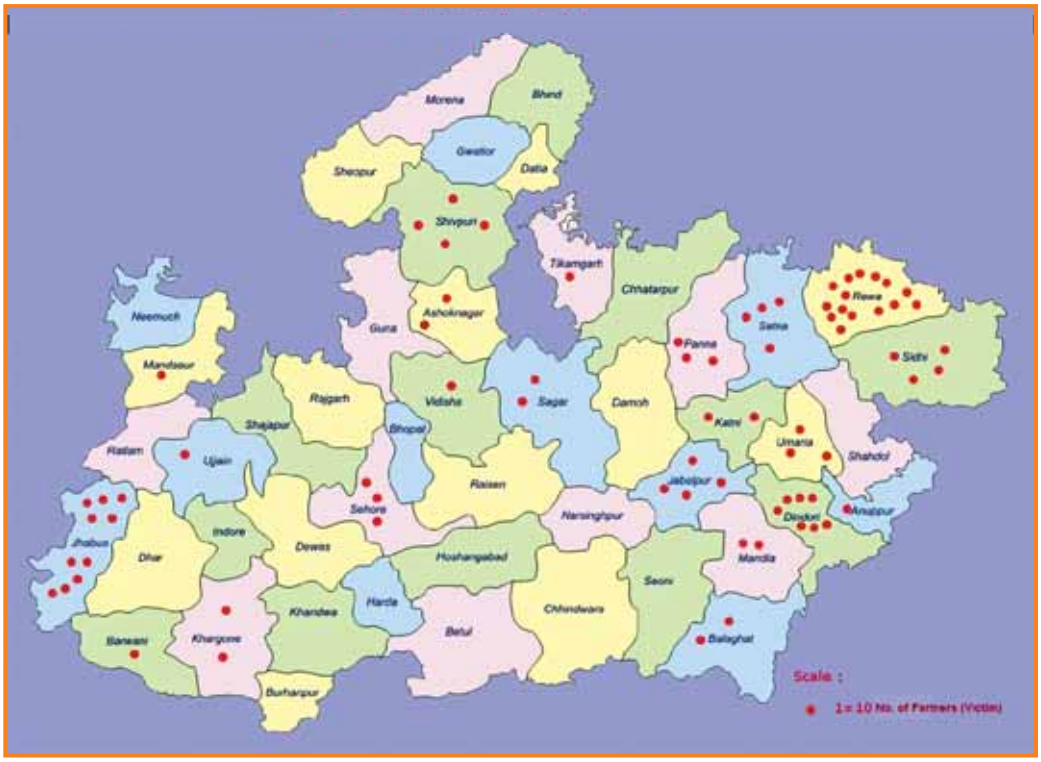


Fig. 2.3: Intensity of Farmer Suicides in different districts in Madhya Pradesh

The number of farmer suicides per lakh farming families was found to be maximum in Dindori (63.07) followed by Rewa(60.93), Jhabua (55.89), Umaria (38.74), Shivpuri (23.50), Jabalpur (21.93), Sehore (19.49), Panna (17.83), Satna (16.24), Badwani (15.48), Khargone (13.64), Mandla (11.07) districts, while in remaining districts it was found to be less than 10.

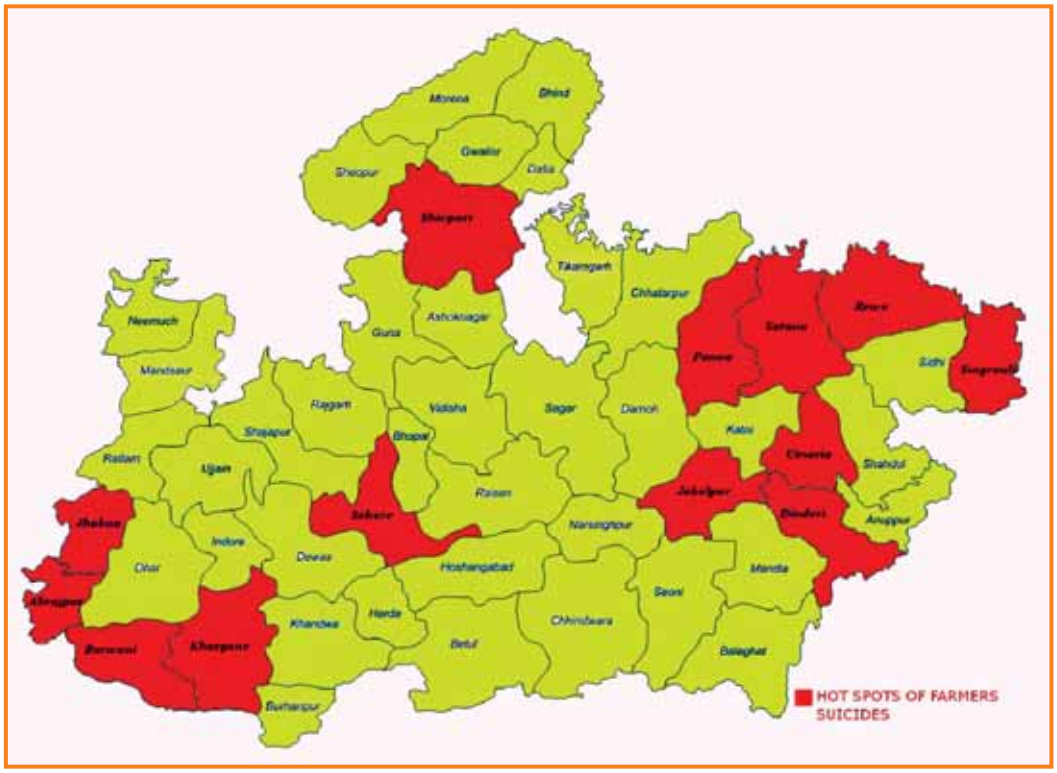


Fig. 2.4: Hot Spot of Farmer Suicides in Madhya Pradesh

Thus, On the basis of maximum numbers of farmer suicides, intensity of farmer suicides per lakh hectare of net & gross cropped area and per lakh of population Rewa, Jhabua, Dindori, Umaria, Shivpuri, Badwani, Alirajpur, Satna, Panna, Khargoan, Bhopal and Jabalpur districts of Madhya Pradesh may be considered as hot spot of farmer suicides in Madhya Pradesh.

2.4 Summary of the Chapter

The incidence and spread of farmer suicides in different districts of Madhya Pradesh were examined through analysis of secondary data. The study revealed that due to the various agricultural and rural development programme of the central and state government farmer suicides in Madhya Pradesh were found to be reduced from 1445 (2003) to 826 (2014) with the magnitude of –44.34 person per year. The present intensity of farmer suicides (2014-15) was found to be only 5.36 suicides per lakh ha of net sown area & 3.43 suicides per lakh ha of gross cropped area, and only 8.39 farmer suicides were recorded over per lakh farming family. It is also observed that the maximum number of case were found to be registered in Rewa district 150 (18.16%) followed by Jhabua 104 (12.59%), Dindori 71 (8.60%), Shivpuri 43 (5.21%), Jabalpur 40 (4.84%), Satna 39 (4.72%), Alirajpur 37 (4.48%) and Umaria 31 (3.75%). Out of 51 districts in 27 districts, number of suicide were recorded to be less than 30 or 3.50 per cent and no suicide cases were recorded in the remaining 16 districts of the state.

The number of farmer suicides per lakh hectares of net sown and gross cropped area was found to be maximum in Jhabua district (54.8 & 40.7) followed by Rewa (41.3 & 29.0), Dindori (35.0 & 24.5), Umaria (29.6 & 21.4), Alirajpur (21.7 & 17.5), Singroli (16.8 & 12.3), Jabalpur (14.4 & 9.4), Satna (11.1 & 7.6) and Panna (10.3 & 6.7), while in remaining districts these ratios were found to be less than 10. The number of farmer suicides per lakh farming families was found to be maximum in Dindori (63.07) followed by Rewa(60.93), Jhabua (55.89), Umaria (38.74), Shivpuri (23.50), Jabalpur (21.93), Bhopal (19.49), Panna (17.83), Satna (16.24), Badwani (15.48), Khargone (13.64), Mandla (11.07) districts, while in remaining districts it was found to be less than 10.

Thus, On the basis of maximum numbers of farmer suicides, intensity of farmer suicides per lakh hectare of net & gross cropped area and per lakh of population Rewa, Jhabua, Dindori, Umaria, Shivpuri, Badwani, Alirajpur, Satna, Panna, Khargoan, Bhopal and Jabalpur districts of Madhya Pradesh may be considered as hot spot of farmer suicides in Madhya Pradesh.

*****

CHAPTER-III

SOCIO-ECONOMIC CHARACTERISTICS OF VICTIMS AND VICTIMS' FAMILY

This chapter deals with socio-economic characteristics of victims and victims' family their operational holdings, sources of irrigation, net income and expenditure, and details on credit in the year 2015 as reported by the family members/neighbours in Rewa district of Madhya Pradesh.

3.1 Socio–economic Profile of Victim

The socio-economic profile of the selected victims is presented in table 3.1. It is observed from the data that the majority of the victims were found to be male (64%) related to general categories (52%) followed by other back ward classes (38%). They were found hindu in religion (100%) and aged between 31 to 60 years(60%). The majority of them found literate from primary to matriculation (50%) and married (96%). They all were preformed arranged marriage with in relatives. On an average they had 1 son and 1 daughter. The majority of them had both mother and father (48%). The majority of them committed suicide by hanging (44%) followed by poison consumption (40%) and through self immolation (16%). The majority of them found to be committed suicide at their home (80%) followed by farm (18%) and at lodge/hotel (2%).

3.2 Socio–economic Profile of Victims' Family

Farming was found to be main occupation of victims' family as all the members of victims' family members were depended on farming as a main source of earning (100%) (Table 3.2). The majority of victims had joint (66%) followed by nuclear (34%) type of family and had 38.32 and 35.51 per cent of adult females and males respectively with 26.17 per cent of children at their home. The majority of family members of victims' family were found to be educated up to matriculation (26%) followed by middle (14.5%) and higher secondary (11.2%) level of education. He had found to be occupied 3.55 acres of operated land for the livelihood of his family. The percentage area to holding was found to be maximum in marginal (70%) followed by medium (14%) ,small (12%) and large (4 %) size of farms, while percentage of holding to total sample was found to be highest in medium (33.60%) followed by marginal (32%), large (19.91%) and small (14.50%).

Table 3.1: Socio-economic profile of victim

Particulars		
Total number of victim households surveyed: (Numbers)		50
Type of respondents (% to total sample)	1.Wives / Sons / Daughters	20.00
	2.Brothers / Sisters / others	80.00
Gender (% to total sample)	1.Male	64.00
	2.Female	36.00
Social status (% to total sample)	1.SC	10.00
	2.OBC	38.00
	3.General	52.00
Religion (% to total sample)	1.Hindu	100.00

	Particulars	
Age group (% to total sample)	1.Upto 30 years	24.00
	2.Between 31 to 60 years	60.00
	3.Above 60 years	16.00
Years of schooling (% to total sample)	1.Illiterate	26.00
	2.Primary (4 years)	10.00
	3.Middle (7 years)	14.00
	4.Matriculation/secondary (10 years)	26.00
	5.Higher secondary (12 years)	12.00
	6.Degree/Diploma (15 years)	12.00
Marital status (% to total sample)	1.Married	96.00
	2.Un Married	4.00
Type of marriage (% to total sample)	1.Arranged	100.00
Married to whom (% to total sample)	1.Within relatives	100.00
Heirs of the victim (Average No. to total sample)	1.Sons	1
	2.Daughters	1
Victims who had parents and had brothers and sisters (% to total sample)	1.Only Mother	24.00
	2.Only Father	24.00
	3.Both mother and father	48.00
	4.Brothes and sisters	22.00
Method of suicide (% to total Sample)	1.Poison consumption	40.00
	2.Hanging	40.00
	3.Jumping into river / well	0.00
	4. Currrent shock	0.00
	5. Self immolation	16.00
	6. Railway Track	0.00
	7. Others	4.00
Place of suicide (% to total sample)	1.House	80.00
	2.Farm	18.00
	3. Lodge / Hotel	0.00
	4. Others (Pond/Talab)	2.00

Table 3.2: Socio-economic profile of victims' family

Particulars			%age to Total Sample
Existing household size: (Average numbers)			4
Households depending on farming as a main occupation			100.00
Family type		1.Joint	66.00
		2.Nuclear	34.00
Location of the households		1.Within the village	94.00
		2.In their own farm	6.00
Age group of family members		1.Adult Males (>15 yrs)	35.51
		2.Adult Females (>15 yrs)	38.32
		3.Children (<15 yrs)	26.17
Years of schooling of family members		1.Illiterate	17.80
		2.Primary (4 years)	4.10
		3.Middle (7 years)	14.50
		4.Matriculation/secondary (10 years)	26.00
		5.Higher secondary (12 years)	11.20
		6.Degree/Diploma (15 years)	5.90
Farm Size	% of area to holdings of sample	1.Marginal (0.1 to 2.5 ac)	70.00
		2.Small (2.51 to 5 ac)	12.00
		3.Medium (5.1 to 10 ac)	14.00
		4.Large (10.1 and above)	4.00
	% of holdings to total sample	1.Marginal (0.1 to 2.5 ac)	32.00
		2.Small (2.51 to 5 ac)	14.50
		3.Medium (5.1 to 10 ac)	33.60
		4.Large (10.1 and above)	19.91
Average operational holding size (acres Per HH)			3.21

3.3 Characteristics of Operational Holdings:

The characteristics of operational holding of an average victim are presented in table 3.3. An average HH was found to cultivate 4.97 acres of land in a year.

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

S.No.	Particulars	Irrigated	Un-Irrigated	Total
1	Total Owned land	2.07	0.87	2.95
2	Uncultivated land	0.00	0.00	0.00
3	Cultivated land(Own)	2.07	0.87	2.95
4	Leased- in land	0.26	0.02	0.28
5	Leased-out land	0.01	0.00	0.01
6	Net Operated Area(1-2+4-5)	2.32	0.89	3.21
7	Gross cropped area	3.91	1.06	4.97
8	Gross irrigated area	3.91	0	3.91
9	Net irrigated area	2.07	0	2.07
10	Cropping intensity (%)	169	119	155
11	Irrigation Intensity (%)	189	-	189

It is observed from the data that an average HH had 3.21 acres of operated land out of which 72.27 per cent (2.32 acres) was found under irrigation with an average cropping and irrigation intensity of 155 and 189 per cent/year respectively.

Under irrigated condition the victims had operated 2.32 acres of land with cropping and irrigation intensity of 169 & 189 per cent per year respectively, while in un-irrigated condition an average HH was found to operate 0.89 acres of land with cropping intensity of only 119 per cent per year

The major sources of irrigation were found to be tube-well (45.25%) followed by canal (32.10%), nala (7.78%), open well (7.76%) and tank (7.05%) as per the percentage to total sample area of an average victims (Table 3.4).

Table 3.4: Source-wise distribution of irrigated area

S. No.	Source of irrigation	Total Area in acres (Per HH)	% to total sample area
1	Open well	0.18	7.76
2	Tube well	1.05	45.25
3	Tank	0.16	7.05
4	Canal	0.75	32.10
5	Nala	0.18	7.84
	Total	**2.32**	**100.00**

The practice of leased in and lease out land was found to be rare in practice, an average HH was found to cultivate only 0.26 (Irrigated) and 0.02 (Un-irrigated) acre lease in land at the rate of Rs. 11357 and Rs. 8000/year/acre respectively. Under irrigated condition he used to lease out only 0.01 acre land at the rate of Rs. 10000/year/acre (Table 3.5).

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

S.No.		Particulars	Irrigated	Un-irrigated
A	Leased - in	Area in acres per HH	0.26	0.02
		Rental value paid per acre in Rs.	11357	8000
B	Leased-out	Area in acres per HH	0.01	0.0
		Rental value received per acre in Rs.	10000	0.0

3.4 Net Income and Expenditure

Agriculture followed by agriculture wages, services, self business and dairy and animal husbandry were found to be main sources of income generation through which, 69.44, 11.43, 11.28, 6.12 and 1.73 per cent of total income (Rs. 54250/year) was found to be generated by average HHs. The majority of HHs reported that income from agriculture was found to be reduced in the reference period of the study, while only 10 per cent of HH reported that income from agriculture wages and self business had reduced in this period. An average HH was found to spend 89.70 per cent total income in food and non-food items.

The expenditure on food (53.85%) was found to be more as compared to non-food (46.15%) items to the total expenditure (Rs. 48724) in a year.

Table 3.6: Net income and expenditure during 2015-16

S. No.	Source	Amt. in Rs./HH	% to total	% of HH to Total sample who mentioned that the income has reduced
A. INCOME				
1	Agriculture	37670	69.44	80
2	Agriculture Wage income	6200	11.43	10
3	Dairy and animal husbandry	940	1.73	4
6	Service(salary and pension)	6120	11.28	6
7	Self business	3320	6.12	10
	Total income (A)	54250	100.00	
B. CONSUMPTION EXPENDITURE				
1	Food	26237	53.85	92
2	Non-food	22487	46.15	88
	Total Expenditure(B)	48724	100	
C Surplus/Deficit(+/-) A-B		5594		
D % of Expenditure to income		89.70		

3.5 Cropping Pattern and Net Return

Kharif (2.55 acres) as well as *rabi* (2.42 acres) were found to be main season of cultivation in which an average HH was found to devote his gross cropped area (4.97 acres). Paddy (57%) followed by soybean (27%), urd (8%) and moong (8%) were found to be major crops of *kharif* season (Fig. 3.1), while wheat (89%) followed by gram (8%) and lentil (4%) were found to be major crops of rabi season (Fig. 3.2).

An average HH was found to invest Rs. 8306 (paddy) Rs. 8268 (soybean) Rs. 2563 (urd) and Rs. 3423 (moong) per acre in cultivation of kharif crops, while Rs. 7052 (wheat), Rs. 7232 (gram) and Rs. 1898 (lentil) per acre in cultivation of rabi crops.

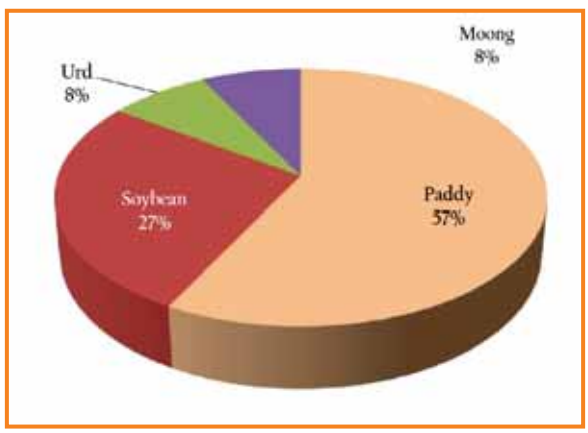


Fig. 3.1: Percentage Share of different *Kharif* Crops

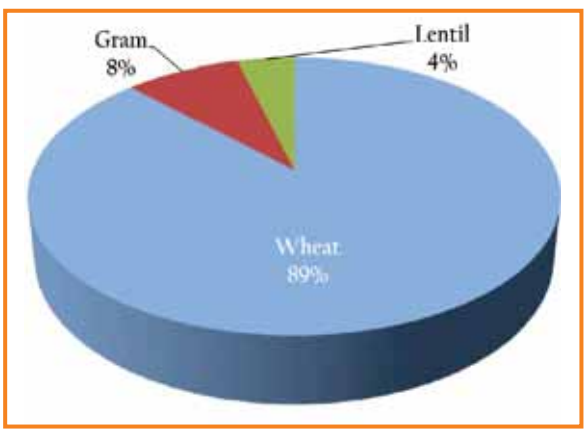


Fig. 3.2: Percentage Share of different *Rabi* Crops

As regards to net return per HH per year is concerned, cultivation of paddy (Rs. 13682) was found to be more remunerative as compared to wheat (Rs. 12887), soybean (Rs. 4397), gram (Rs. 2033), moong (Rs. 1187), urd (Rs. 973) and lentil (Rs. 302).

As for as return over the investment of Re. 1.00 is concerned urd (3.52) gave more benefit as compared to moong (2.67), lentil (2.62), gram (2.25), paddy (2.07) and wheat (1.87).

Table 3.7: Cropping pattern and net return received by on an average HH (Rs./Acre)

Crops	No. of HH	Cultivated area in acres /HH	Yield q/acre	Average price received per qtl.	Gross return per acre	Cost of cultivation per acre	Net returns per acre	Net returns per HH
Kharif								
Crop Group-I Cereals								
Paddy	41	1.5	9.8	1749	17175	8306	8869 (2.07)	13682
Crop Group-II Pulses								
Urd	9	0.2	2.1	4300	9023	2563	6459 (3.52)	973
Moong	9	0.2	2.0	4500	9130	3423	5707 (2.67)	1187
Crop Group-III Oilseeds								
Soybean	18	0.7	4.4	3405	15033	8268	6765 (1.82)	4397
Sub-Total	**50**	**2.55**	**4.6**	**3488**	**12590**	**5640**	**6950**	**5060**
Rabi								
Crop Group_I Cereals								
Wheat	37	2.1	8.4	1567	13182	7052	6130 (1.87)	12887
Crop Group-II Pulses								
Gram	8	0.2	3.9	4163	16307	7232	9075 (2.25)	2033
Lentil	2	0.1	1.5	3250	4974	1898	3077 (2.62)	302
Sub-Total	**47**	**2.42**	**4.6**	**2993**	**11488**	**5394**	**6094**	**5074**
Grand Total	**50**	**4.97**	**4.6**	**3241**	**12039**	**5517**	**6522**	**10134**

Figure in parenthesis shows Benefit Cost Ratio

3.6 Details on Credit

Only 16 per cent of victims were found to borrow from institutional sources of credit viz. cooperatives bank (6%) and commercial bank/RRBs (10%), while 6 per cent from non-institutional sources i.e. from relatives and friends.

Out of total HHs, who borrowed credit from cooperative bank, 67 per cent borrowed for farming purposes and remaining 33 per cent for non-farming purposes.. While in case of commercial bank it was found to be 60 and 40 respectively. As far as purpose of borrowing from non-institutional sources is concerned it was found to be for non-farming purposes only.

Table 3.8: Details on credit of sample HHs

S. No.	Source of credit	No. of borrowing HH	Purpose of borrowing HH				Outstanding amount: Rs/HH of borrowing HH	Average interest rate	% of borrowing HH who paid the instalments as per schedule
			Farming purposes		Non-farming purposes				
			No. of HH	Amount borrowed per HH of borrowing HHs	No. of HH as a % to borrowing HHs	Amount borrowed per HH of borrowing HHs			
				Institutional					
A	Cooperatives Bank	3 (6)	67	45000	33	25000	18667	12.5	33
B	Commercial Bank (RRBs)	5 (10)	60	218333	40	32500	24000	11	60
				Non-Institutional					
A	Relatives and friends	3 (6)	0	0	100	61667	36667	15	33
	Grand Total	**11 (22)**	-	**263333**	-	**119167**	**79334**	-	-

Thus, more than 60 per cent HHs used to obtained credit for farming purpose from institutional sources, whereas all the HHs were found to borrow credit from non-institution sources for non-farming purpose only. The majority of respondent (78%) did not found to borrow loan from institutional and non-institutional sources because farmers were found to practice subsistence farming rather than modern agriculture in the area under study. They used to sow their own seeds and apply minimum inputs in cultivation of crops. It is found during the course of investigation that borrowing is not in the practice of majority of farmers.

3.7 Summary of the Chapter

All the socio economics parameters were considered while analysing the socio economic profile of the victim and his family. The results of the study revealed that the majority of the victims were found male (64%) related to general categories (52%) followed by other back ward classes (38%). They were found *Hindu* in religion (100%) and their age between 31 to 60 years (60%). The majority of them found literate from primary to matriculation (50%) and married (96%). They all were preformed arranged marriage with in relatives. On an average they had 1 son and 1 daughter. The majority of them had both mother and father (48%). The majority of them committed suicide by hanging (44%) followed by poison consumption (40%) and through self immolation (16%). The majority of them found to be committed suicide at their home (80%) followed by farm (18%) and at lodge/hotel (2%).

Farming was found to be main occupation of victims' family (100%). The majority of victims had joint (66%) type of family and had 38.32 and 35.51 per cent of adult females and males respectively with 26.17 per cent of children at their home. The majority of family members' of victims were found to be educated up to matriculation (26%) followed by middle (14.5%) and higher secondary (11.2%) level of education. He had found to be occupied 3.55 acres of operated land for the live hood of his family.

The percentage area to holding was found to be maximum in marginal (70%) followed by medium (14%) ,small (12%) and large (4 %) size of farms, while percentage of holding to total sample was found to be highest in medium (33.60%) followed by marginal (32%), large (19.91%) and small (14.50%). An average HH had 3.21 acres of operated land out of which 72.27 per cent (2.32 acres) was found under irrigation with an average cropping and irrigation intensity of 155 and 189 per cent/year respectively. An average HH was found to be cultivated 4.97 acres of land in a year.

Under irrigated condition the victims had operated 2.32 acres of land with cropping and irrigation intensity of 169 & 189 per cent per year respectively, while in un-irrigated condition and average HH was found to be operated 0.89 acres of land with cropping intensity of only 119 per cent per year. The major sources of irrigation was found to be tube-well (45.25%) followed by canal (32.10%), nala (7.78%), open well (7.76%) and tank (7.05%).

The practice of leased in and leased out land was not found to be rare in practice, an average HH was cultivated only 0.26 (Irrigated) and 0.02 (Un-irrigated) acre lease in land at the rate of Rs. 11357 and Rs. 8000/year/acre respectively. Agriculture followed by agriculture wages, services, self business and dairy and animal husbandry were found to be main sources of income generation and obtained 66.44, 11.28,11.43, 6.12 and 1.73 per cent of his total income (Rs. 54250/year) respectively. The majority of HHs reported that income from agriculture was found to be reduced in 2014-15, while only 10 per cent of HH reported that income from agriculture wages and self business had reduced in this period. An average HH spent 89.70 per cent total income in food and non-food items. The expenditure on food (53.85%) was found to be more as compared to non-food (46.15%) items to the total expenditure (Rs. 48724) in a year.

Kharif (2.55 acres) as well as *rabi* (2.42 acres) were found to be main season of cultivation in which an average HH was found to devot his gross cropped area (4.97 acres). Paddy (57%) followed by soybean (27%), urd (8%) and moong (8%) were found to be major crops of *kharif* season, while wheat (89%) followed by gram (8%) and lentil (4%) were found to be major crops of rabi season. An average HH was found to expended Rs. 8306 (paddy) Rs. 8268 (soybean) Rs. 2563 (urd) and Rs. 3423 (moong) per acre in cultivation of kharif crops, while he was found to be invested Rs. 7052 (wheat), Rs. 7232 (gram) and Rs. 1898 (lentil) per acre in cultivation of rabi crops. As regards to net return per HH per year was concerned cultivation of paddy (Rs. 13682) was found to be gave more remunerative as compared to wheat (Rs. 12887), soybean (Rs. 4397), gram (Rs. 2033), moong (Rs. 1187), urd (Rs. 973) and lentil (Rs. 302). As far as return over the investment of Re. 1.00 is concerned urd (3.52) gave more benefit as compared to moong (2.67), lentil (2.62), gram (2.25), paddy (2.07) and wheat (1.87).

Only 16 per cent of HHs were found to be borrowing from institutional sources of credit viz. cooperatives bank (6%) and commercial bank/RRBs (10%), while 6 per cent HH were found to be borrowed credit from non-institutional sources i.e. from relatives and friends. The majority of HHs obtained credit for farming purpose (>60%) from institutional sources, whereas all the HHs found to be borrowed credit for non-farming purpose (100%) from non-institution sources.

farming purpose (>60%) from institutional sources, whereas all the HHs found to be borrowed credit for non-farming purpose (100%) from non-institution sources.

*****

CHAPTER-IV

CAUSES AND AFTER EFFECT OF FARMER SUICIDES

This chapter deals with symptoms observed by family members before suicide of victims, causes of suicide, impact on HH after committing suicide and suggestions given by the respondents of the study area.

4.1 Symptoms observed by the Family Members

Symptoms observed by family members before suicide of victims were examined and found that the victim was mingling with his/her own community (70%) and neighbours households/ friends (74%). He was also consuming food regularly (76%) and sleeping adequately during night (72%) 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 the suicide.

Table-4.1: Symptoms observed by family members before suicide (% of HH)

S. No.	Symptoms Enquired	Who answered Yes to total
1	Was victim mingling with his/her own family member?	70
2	Was victim mingling with his/her own community?	70
3	Was victim mingling with his/her neighboring households/friends?	74
4	Was victim consuming food regularly?	76
5	Was victim sleeping adequately during nights?	72

4.2 Causes of Suicide

As far as suicides of farmers in the state are concerned various causes of suicide i.e. social farming and indebtedness were examined for the study.

4.2.1 Social Causes

The social causes of suicide includes poverty, property dispute, marriage related issues, family problems/commitments, illness, drug abuse/alcoholic addiction, gambling / batting / chit-fund and falling social reputation were examined with respective respondents as well as neighbours/relatives/friends of victims and presented in table 4.2. All the HHs reported that poverty (BPL, AYY) is not a cause of suicide, while only 2 (AYY) and 8 (BPL) per cent of neighbours / relatives / friends of victims reported that poverty is also a cause of suicide. Although the percentage of HHs under APL, BPL and AAY was found to be 40, 48 and 12 percent.

Property dispute i.e. partition of land, house and jewellery was found a cause of suicide as reported by only 6, 2 and 2 per cent of respondents and only 10, 2 and 10 per cent of neighbours/relatives/friends of victims respectively. Thus, property dispute of land, house and jewellery may also not be considered as a major cause of suicide in the area under study.

In case of marriage related issues, extra marital affaires followed by love failure were found to be major cause of suicide as reported by 36 and 16 per cent of respondents. It was also confirmed by 44 and 18 per cent of neighbours/ relatives/friends of victims respectively.

Family problems/commitments were also taken into consideration, while examining the social causes of suicide. Illness (46%) followed by drug abuse/ alcoholic addiction (32%), frequent quarrel among the family members (24%) and fall in social reputation (22%) were found to be major causes of suicide as reported by the majority of respondents. Gambling/batting/chit-fund and daughters marriage were also reported causes of suicide by 8 and 4 per cent of respondents in the

Table 4.2: Social causes of suicide

S. No.	Causes	% of HH to total sample who answered Yes	
		As per respondent	As per Neighbors/ Relatives/friends
1	**Poverty**		
a	APL (40)	0	0
b	BPL (48)	0	8
c	AAY (12)	0	2
2	**Property dispute**		
a	Partition of land	6	8
b	Partition of house	2	2
d	Partition of jewelleries	2	10
3	**Marriage related issues**		
a	Extra marital affairs	36	44
b	Divorce	0	0
c	Love failure	16	18
4	**Family problems/Commitments**		
a	Daughter's marriage	4	6
b	Frequent quarrel among the family members	24	22
5	Illness	46	48
6	Drug abuse/Alcoholic addiction	32	44
7	Gambling/betting/chit fund	8	12
8	Fall in social reputation	22	18

Figure in parenthesis shows percentage of HHs under APL, BPL and AAY categories

area under study. 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, illness and drug abuse, fall in social reputation, frequent quarrel among the family members were found to be major causes of suicide, while extra marital affairs and love affairs were found to be major causes under marriage related issues. These were also confirmed by the neighbours/relatives/friends of victims. Suicide was found to be least effected by poverty and property dispute in the area under study.

4.2.2 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 and presented in table 4.3. 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.

Table 4.3: Farming related causes of suicides

S.No.	Causes	% of HH to Total sample who answered Yes	
		2014-15	2015-16
1	Failure of crops		
a	Others specify (infestation of insect pest and diseases)	6	6
2	Due to natural calamities		
a	Failure of rainfall/drought	8	8
b	Accidental fire	6	6
3	Inability to sell output	2	2
4	Quarrel between the victim & others	38	56
5	Expectations of		
a	Higher prices of output	18	16
b	Loan waiving	2	2
c	Institutional credit	2	2

Quarrel between the victim and others was found to be major cause of suicide as reported by 38 (2014-15) and 56 (2015-16) per cent of respondents. Natural calamities viz. failure of rainfall an occurrence of drought accidental fire and inability to sell output were also found to be other minor causes of suicides as reported by only 8, 6 and 2 per cent of respondents respectively.

Expectation of higher prices of output (18%), loan waiving (2%) and institutional credit (2%) were found to be causes of farming related suicides for the years 2014-15 and 2015-16.

4.2.3 Indebtedness related Causes

Indebtedness related causes of suicides were not found as major causes of suicide for the year 2014-15 and 2015-16 (Table 4.4).

Table 4.4: Indebted related causes of suicides

S. No.	Causes	% of HH to Total sample who answered Yes	
		2014-15	2015-16
1	Indebtedness -Institutional & Non-Institutional		
a	Due to crop loan	0	0
b	Due to farm equipment's' loan	4	4
c	Due to non -agricultural loan	2	2
d	Due to non -institutional loan	2	2
2	Due to pressure from institutional sources	4	4
3	Due to pressure from non -institutional sources (mainly money lenders)	2	2

However, few respondents reported that suicide would have been committed due to farm equipment loan (4%), non-agriculture loan (2%) non-institutional loan (2%) and pressure created from institutional (4%) and non-institutional (2%) agencies in recovery of loan.

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.

Illness followed by drug abuse/alcoholic addiction, fall in social reputation, frequent quarrel among family members, extra marital affairs, love failure and gambling/betting /chit fund were found to be social cause prevalent in the study area (Table 4.5). In case of farming related causes quarrel between the victim & others followed by expectations of higher prices of output, inability to sell output and failure of crops due to natural calamities were found to be major causes of suicides.

Table 4.5: Ranking of the social, farming and indebted causes of suicides

Particulars	Causes	Ranking
Social causes	Extra marital affairs	V
	Love failure	VI
	Fall in social reputation	III
	Illness	I
	Drug abuse/Alcoholic addiction	II
	Gambling/betting /chit fund	VII
	Frequent quarrel among family members	IV
Farming related causes	Due to natural calamities	IV
	Inability to sell output	III
	Quarrel between the victim & others	I
	Expectations of higher prices	II

4.3 Impact on HH after Committing Suicide by the Victims

As for as the effect on HHs family after committing suicide by the victims is concerned it is found that they have lost their earning member of the family (40%), land was sold (36%), schooling of children stopped (32%), postponement of son/daughter's marriage (18%) and insecurity in the family (18%) were found to be major effect on HH family as reported by the majority of respondents.

Table 4.6: Impact on HH household after committing suicide

S. No.	After effect	% of HH to total sample who answered Yes
1	No earning member	40
2	Schooling of the children stopped	32
3	Land sold	36
4	Other assets sold (specify) Jewellery	2
5	Postponement of son/daughter's marriage	18
6	Family member/s fell seriously ill	2
7	Family member/s under depression	4
8	Insecurity in the family	18

Family member/s were found under depression (4%), fell seriously ill (2%) and sold their Jewellery (2%) for meeting the financial obligations were found as minor after effect on the HHs after committing suicide by the victims.

4.4. Suggestions to prevent the Suicide in Future

The suggestions given by the respondents to prevent suicide in future were also examined and enlisted in Table 4.7. The most important suggestions given by the respondent are: a psychologist should be appointed at least at district hospital for mental patient (82%), establishment of rehabilitation centre for drug/alcoholic addiction (78%), skill up-gradation/capacity building centre must be established at least block level (64%), compensation for crop damage/losses should at least meet input costs (62%), supply of better quality inputs for cultivation of crops (58%), increase/declaration of MSP for all crops (54%) and creation of non/off-farm level employment opportunities by village levels (52%) as reported by the majority of respondents.

Table 4.7: Suggestions to prevent the suicides in future

S. No.	Suggestions	% of HH to Total sample who suggested
1	Establishment of rehabilitation centre for drug/alcoholic addiction	39 (78)
2	A Psychologist should be appointed at least at district hospital for mental patient	41 (82)
3	Skill up-gradation / capacity building centre must be established at block level.	32 (64)
4	Creation of non/off -farm level employment opportunities by village levels.	26 (52)
5	Public awareness should be created for difference developmental programmes of the Govt.	21 (42)
6	Increase/declaration of MSP for all crops	27 (54)
7	Crop insurance scheme should be reached at individual level	23 (46)
8	Compensation for crop damage/losses should at least meet input costs	31 (62)
9	Crop/varietal diversification	11 (22)
10	Supply of better quality inputs	29 (58)
11	Health insurance should be made mandatory with Govt. support for the farming community	16 (32)
12	Increased role of social institutions	8 (16)

The respondents also suggested that suicide would be stopped if crop insurance scheme should be reached at individual level (46%), public awareness should be created for difference developmental programmes of the Govt. (42%), health insurance should be made mandatory with Govt. support for the farming community (32%), crop/varietal diversification (22%) and increased role of social institutions (16%).

4.5 Summary of the Chapter

The causes of suicide and their after effect on family members were examined and found that the victim was mingling with his/her owned community (70%) and neighbours households/friends (74%). He was also consuming food regularly (76%) and sleeping adequately during night (72%) 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 the suicide. The study also revealed that 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/commitments, illness (46%) and drug abuse (32%) , fall in social reputation (22%) , frequent quarrel among the family members (20%) were found to be major causes of suicide, while extra marital affairs (36%) and love failure (16%) were found to be major causes under marriage related issues. These were also confirmed by the neighbours/relatives/friends of victims. Poverty and property disputes were not found to be major cause of suicide in the area under study. Quarrel between the victims and others was found to be a major cause of suicide as reported by 38 (2014-15) and 56 (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 8, 6 and 2 per cent of respondents respectively.

The after effect of farmer suicides were also examined and found that the HHs have lost their earning member of the family (40%), land was sold (36%), schooling of children stopped (32%), postponement of son/daughter's marriage (18%) and insecurity arrived in the family (18%) were found to be major after effect on HH family as reported by the majority of respondents.

Suggestions which were given by the HHs to prevent the suicides in future and it is found that the most important suggestions were found to be a psychologist should be appointed at least at district hospital for mental patient (82%), establishment of rehabilitation centre for drug/alcoholic addiction (78%), skill up-gradation/capacity building centre must be established for women and rural youth at least block level (64%), compensation for crop damage/losses should at least meet input costs (62%), supply of better quality inputs of cultivation of crops (58%), increase/declaration of MSP for all crops (54%) and creation of non/off-farm level employment opportunities by village levels (52%) as reported by the majority of respondents. The respondents also suggested that suicide would be stopped if crop insurance scheme should be reached at individual level (46%), public awareness should be created for difference developmental programmes of the Govt. (42%), health insurance should be made mandatory with Govt. support for the farming community (32%), crop/varietal diversification (22%) and increased role of social institutions (16%) in the rural area.

*****

CHAPTER-V

CONCLUSIONS AND POLICY SUGGESTIONS

Farmers suffer a repeated sense of depression due to the loss of crops, income, land and even the loss of a way of life. Another factor that increases suicides is the potential for social loneliness due to reasons like the loss of communities as well as geographical remoteness. The lack of access to mental health services in rural areas and the stigma attached to treatment is also a contributing factor. Depression arising from exposure to agricultural chemicals/pesticides may increase the risk for mood disorders and ultimately suicide.

The land holding status of the farmers who committed suicide revealed that 44.5 per cent and 27.9 per cent of victims were small and marginal farmers, respectively and that, together, they accounted for 72.4 per cent (4,095 out of 5,650) of total farmer suicides. The 53.1 and 14.5 per cent of small farmers who committed suicides were reported in Maharashtra (1,135 out of 2,516) and Telangana (366 out of 2,516) respectively during 2014. Among marginal farmers, 39.7 and 25.5 per cent farmer suicides were reported in Maharashtra (627 out of 1,579) and Madhya Pradesh (403 out of 1,579) respectively (National Crime Records Bureau, 2015).

Years of economic reforms have given farmers access to expensive and promising technological options; but these reforms have not led to crop insurance, land irrigation, or enough bank loans. These reforms have rendered Indian farmers open to global competition and in order to compete, they were forced to turn to high-cost seeds, fertilizers and pesticides; believing in easier returns. Modified seeds cost nearly twice as much as ordinary ones, necessitating larger loans. Unfortunately for farmers in India, foreign subsidies (such as the United States and the United Kingdom who receive over $18 billion a year in subsidies) have driven down the price of crops (such as cotton) in the global market. In addition, there has been minimal financial support from the government for marginal and small farmers. Many of these farmers don't qualify for bank credit, forcing them to turn to moneylenders who charge up to 20 to 36 per cent interest on them. Consequently, farmers often sign away the title to their land as collateral.

Concerned with the agrarian crisis and farmer suicides in suicide prone states of India, the Prime Minister on July 1, 2006, announced a rehabilitation package with the goal of mitigating the distress driven condition of farmers. The rehabilitation package aimed at establishing a sustainable and viable farming and livelihood support system through debt relief measures to farmers such as complete institutional credit coverage, crop centric approach to agriculture, assured irrigation facilities, effective watershed management, better extension and farming support services and subsidiary income opportunities through horticulture, livestock, dairying, fisheries and other subsidiary activities. In order to alleviate the hardships faced by the debt driven families of farmers, ex-gratia assistance from Prime Minister's National Relief Fund (PMNRF) 50 lakh per district was also provided. Some other programs to increase of flow of agricultural credit includes Kisan Credit Cards (KCC), revival package for short term cooperative credit structure, concessional interest schemes, interest subvention schemes, interest subvention

against negotiable warehouse receipt and so on. All these attempts have helped to reduce farmer suicides insignificantly overtime in several states. However, farmer suicides still remain major challenge in India. With this background the present study is undertaken in one of the major farmer suicides State viz. Madhya Pradesh to analyse incidence, spread & map out hot spots of farmer suicides, causes leading to farmer suicides and recommend suitable policies to alleviate the incidence of farmer suicides.

The study confined to Rewa district of Madyra Pradesh, which was selected purposively for the study as number of victims were found to be maximum in the State during the year 2014-15. A village / police station wise list of all the victims (150) was collected from the Superintendent of Police, District Rewa for the year 2014-15 and 33.33 per cent (50) victims were selected for the study from various villages of the district. The Secondary data were collected from the office of the Additional Director General Police, Madhya Pradesh, Bhopal on district wise suicide cases in Madhya Pradesh for the period of 2003-04 to 2014-15. Suitable statistical tools i.e. mean, percentage, regression coefficient were used to draw conclusions for the study.

5.1 Conclusions

The main conclusions which were drawn from the study are classified as per the objectives of the study are as follows:

- The study revealed that due to the various agricultural and rural development programme of the central and state government farmer suicides in Madhya Pradesh were found to be reduced from 1445 (2003) to 826 (2014) with the magnitude of –44.34 person per year. The present intensity of farmer suicides (2014-15) was found to be only 5.36 suicides per lakh ha of net sown area & 3.43 suicides per lakh ha of gross cropped area, and only 8.39 farmer suicides were recorded over per lakh farming family.
- The maximum number of case were found to be registered in Rewa district 150 (18.16%) followed by Jhabua 104 (12.59%), Dindori 71 (8.60%), Shivpuri 43 (5.21%), Jabalpur 40 (4.84%), Satna 39 (4.72%), Alirajpur 37 (4.48%) and Umaria 31 (3.75%). Out of 51 districts, number of suicide were recorded to be less than 30 or 3.50 per cent in 27 districts and no suicide cases were recorded in the remaining 16 districts of the state.
- On the basis of maximum number of farmer suicides, intensity of farmer suicides per lakh hectare of net & gross cropped area and per lakh of population districts Rewa, Jhabua, Dindori, Umaria, Shivpuri, Badwani, Alirajpur, Satna, Panna, Khargoan, Bhopal and Jabalpur are considered as a hot spot of farmer suicides in Madhya Pradesh.
- The majority of the victims were found male (64%) related to general categories (52%) followed by other back ward classes (38%). They were found *Hindu* in religion (100%) and aged between 31 to 60 years (60%). The majority of them found literate from primary to matriculation (50%) and married (96%). They all were preformed arranged marriage with in relatives. On an average they had 1 son and 1 daughter. The

majority of them had both mother and father (48%). The majority of them committed suicide by hanging (44%) followed by poison consumption (40%) and through self immolation (16%), at their home (80%) farm (18%) and at lodge/hotel (2%).

- Farming was found to be main occupation of victims' family as all the members of victims' family members were depended on farming as a main source of earning (100%). The majority of victims had joint (66%) followed by nuclear (34%) type of family and had 38.32 and 35.51 per cent of adult females and Males with 26.17 per cent of children at their home. The majority of family members' of victims were found to be educated up to matriculation (26%) followed by middle (14.5%) and higher secondary (11.2%). He had found to occupy 3.55 acres of operated land for the livelihood of his family.
- Agriculture followed by agriculture wages, services, self business and dairy and animal husbandry were found to be main sources of income generation through which, 69.44, 11.43, 11.28, 6.12 and 1.73 per cent of total income (Rs. 54250/year). The majority of HHs reported that income from agriculture was found to be reduced in the reference period of the study, while only 10 per cent of HH reported that income from agriculture wages and self business had reduced in this period. An average HH was found to spend 89.70 per cent total income in food and non-food items. The expenditure on food (53.85%) was found to be more as compared to non-food (46.15%) items to the total expenditure (Rs. 48724) in a year.
- *Kharif* (2.55 acres) as well as *rabi* (2.42 acres) were found to be main season of cultivation in which an average HH found to devote his gross cropped area (4.97 acres). Paddy (57%) followed by soybean (27%), urd (8%) and moong (8%) were found to be major crops of *kharif* season, while wheat (89%) followed by gram (8%) and lentil (4%) were found to be major crops of rabi season.
- An average HH was found to be invest Rs. 8306 (paddy) Rs. 8268 (soybean) Rs. 2563 (urd) and Rs. 3423 (moong) per acre in cultivation of kharif crops, while Rs. 7052 (wheat), Rs. 7232 (gram) and Rs. 1898 (lentil) per acre in cultivation of rabi crops. As regards to net return per HH per year is concerned, cultivation of paddy (Rs. 13682) was found to be gave more remunerative as compared to wheat (Rs. 12887), soybean (Rs. 4397), gram (Rs. 2033), moong (Rs. 1187), urd (Rs. 973) and lentil (Rs. 302). As far as return over the investment of Re. 1.00 is concerned urd (3.52) gave more benefit as compared to moong (2.67), lentil (2.62), gram (2.25), paddy (2.07) and wheat (1.87).
- Only 16 per cent of HHs was found to borrow from institutional sources of credit viz. cooperatives bank (6%) and commercial bank/RRBs (10%), while 6 per cent from non-institutional sources i.e. from relatives and friends. The majority of HHs more than 60 per cent used to obtained credit for farming purpose from institutional sources,

whereas all the HHs were found to be borrow credit from non-institution sources for non-farming purpose only.

- The victim was mingling with his/her own community (70%) and neighbours households/friends (74%). He was also consuming food regularly (76%) and sleeping adequately during night (72%) 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 the suicide.
- 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/commitments, illness (46%) and drug abuse (32%), fall in social reputation (22%), frequent quarrel among the family members (20%) were found to be major causes of suicide, while extra marital affairs (36%) and love failure (16%) were found to be major causes under marriage related issues. These were also confirmed by the neighbours/relatives/friends of victims. Poverty and property dispute were not found to be major cause of suicide in the area under study.
- Quarrel between the victims and others was found to be major cause of suicide as reported by 38 (2014-15) and 56 (2015-16) per cent of respondents. Natural calamities viz. failure of rainfall an occurrence of drought accidental fire and inability to sell output were also found to be other minor causes of suicides as reported by only 8, 6 and 2 per cent of respondents respectively.
- HHs have lost their earning member of the family (40%), land was sold (36%), schooling of children stopped (32%), postponement of son/daughter's marriage (18%) and insecurity arrived in the family (18%) were found to be major after effect on HH family as reported by the majority of respondents.
- The most important suggestions reported by the respondent are: a psychologist should be appointed at least at district hospital for mental patient (82%), establishment of rehabilitation centre for drug/alcoholic addiction (78%), skill up-gradation/capacity building centre must be established for women and rural youth at least block level (64%), compensation for crop damage/losses should at least meet input costs (62%), supply of better quality inputs of cultivation of crops (58%), increase/deceleration of MSP for all crops (54%) and creation of non/off-farm level employment opportunities by village levels (52%).
- The respondents also suggested that suicide would be stopped if crop insurance scheme should be reached at individual level (46%), public awareness should be created for different developmental programmes of the Govt. (42%), health insurance should be made mandatory with Govt. support for the farming community (32%), crop/varietal diversification (22%) and increased role of social institutions (16%) in the rural area.

5.2 Policy Suggestions

The following policy suggestions are made to alleviate the incidence of farmer suicides in the State :

- As it is clear from the above that the prominent causes of farmer suicides in Madhya Pradesh 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 suicide due to poverty and property disputes. 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 addition and lack of avenues off/non farm income. Hence, the government should remove the bottlenecks and increase access 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 spots of farmer 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 launched for crop/varietal diversification in various agro climatic regions of Madhya Pradesh. The role of various social institutions must be increased for this in future.
- The Government of Madhya Pradesh is very sensitive towards various issues related to farming community. Apart from various agriculture and rural development programmes of State and Central Government, various programmes are also running in the State for the benefit of the farmers viz. Crop loan at 0.00 per cent of interest rate, procurement of food grains at MSP and onion at Rs. 6.00 per Kg through co-operative societies, immediate distribution of compensation at crop losses, implementation of online marketing for realization of remunerative prices to the farmers for their farm products, implementation of model APMC, introduction of soil health card/ crop insurance / watershed development scheme on priority basis, mid day meal programme etc. The State won prestigious national "krishi karman" award under various categories consecutively for the last 4 years. The Government of Madhya Pradesh is the first state in the country to form 'happiness ministry' to measure the state's progress with the quotation that "The State will be made responsible for happiness and tolerance of its citizens and will rope in psychologists to counsel people how to be always happy." This is an excellent initiative taken by the government of Madhya Pradesh. However sincere and dedicated steps are required to be taken involving persons who had better understanding of society and social structure. The society has to be encouraged for yoga, meditation, morning walk, laughing club etc. then

only the steps taken and efforts directed by the Govt. of M.P. will be successful in real sense, which should be measured by happiness index like in Bhutan, Denmark etc. in the years to come to quantify the happiness of the citizen/ farmers of the State. In spite of all these facts, it is found during the investigation that majority of farmers are not responsive about the programmes/ schemes running in the State for their benefits/welfare. Hence, efforts should be made for awareness among them in wider scale along with evaluation to identify the reasons that why farmers are not in a position to take the advantages of programmes/schemes running for their benefits?

- 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 farmer suicides. 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.
- Govt. should also think twice keeping in mind the benefits realized should reached to the last man of the society, while finalising the programme and taking decisions regarding declaration of MSP, import & export duties etc. The proper and adequate care should be taken while implementing the programme so that farmer should not be affected badly and take decision to commit suicide. Hence, the crop specific decisions taken by the Govt. and its shocks on farmers must be analysed well in advance and should be mapped with suicide hot spots so that pro active, quickly and prompt actions can be taken to save not only life of the farmers but to protect their family members from unforeseen shocks.

*****

References

Abraham, T. (2016, May 19). Baliraja Chetana Abhiyan helps arrest suicide rate in Yavatmal. *Times of India.*

Ahlawat, S. R. (2003). Sociology of Agrarian crises: Peasant Suicides and Emerging Challenges. *Man and Development,* 25(3), 97-110.

Assadi, M. (1998). Farmers Suicides: Sings of Distress in Rural Economy. *Economic and Political Weekly,* 33(14), 747-48.

Chandrashekhar, C. P., & Ghosh, J. (2005, August 30). The Burden of Farmers' Debt. *The Hindu Business Line.*

Cotton Corporation of India. (2016a). Statistics Retrieved from http://cotcorp.gov.in/statistics.aspx#area

Cotton Corporation of India. (2016b). *Statisics: Cotton Exports by India - 2005—06 onwards.* Retrieved from http://cotcorp.gov.in/statistics.aspx?pageid=7#cotton3

Dandekar, A., Narawades, S., Rathod, R., Ingle, R., Kulkarni, V., & Sateppa, Y. .. (2005). *Causes of Farmer Suicides in Maharashtra: An Enquiry: Final Report Submitted to the Mumbai High Court.* Tata institute of Social Sciences, Mumbai.

Deshpande, R. S. (2002). Suicide by Farmers in Karnataka: Agrarian Distress and Possible Alleviatory Steps. *Economic and Political Weekly,* 37(25), 2601-10.

Government of India. (2014). *Agriculture Census 2010-11: All India Report on Number and Area of Operational Holdings.* Agriculture Census Division, Department of Agriculture and Co-operation, Minsitry of Agriculture, Governmment of India.

Government of India. (2015). *Agricultural Statistics at a Glance 2014.* Delhi: Government of India, Ministry of Agriculture & Farmers Welfare, Directorate of Economics and Statistics.

Government of India. (2016a, November). *Key Economic Indicators.* Retrieved December 14, 2016, from Office of the Economic Adviser, Govt, of India, Ministry of Commerce & Industry: http://www.eaindustry.nic.in/key_economic_indicators/Key_Economic_Indicat ors.pdf

Government of India. (2016b). *Agricultural Statistics at a Glance 2015.* Delhi: Government of India, Ministry of Agriculture & Farmers Welfare, Directorate of Economics and Statistics.

Government of India. (2016c). *Wholesale Price Index.* Retrieved December 2016, from Office of the Economic Adviser, Govt, of India, Ministry of Commerce & Industry: http://www.eaindustry.nic.in/display_data.asp

Government of India, (n.d.). *Crop SAP Case study.* Retrieved from Department of Administrative Reforms And Public Grievances, Govt, of Inida: http://darpg.gov.in/sites/default/files/Crop%20SAP%20case%20study.pdf

Gruere, G., Mehta-Bhatt, P., & Sengupta, D. (2008). *Bt cotton and farmer suicides in India: Reviewing the evidence.* International Food Policy Research Institute.

Guha, J. (2012). *Farmer Suicides in Maharashtra, India: Facts, Factors, and Possible Fixes.* Honors Scholar Theses, Paper 235, University of Connecticut - Storrs.

Hoda, A., & Terway, P. (2015). Credit Policy for Agriculture in India-An Evaluation. Indian Council For Research On International Economic Relations.

Jadhav, N. (2008). *Farmer's suicide and debt waiver: An action plan for agricultural development of Maharashtra.*

Jodhka, S. S. (2006). Beyond 'crises': Rethinking contemporary Punjab agriculture. *Economic and Political Weekly, 41(26),* 1530-1537.

Kakodkar, P. (2015, March 22). *40% rise in farmer suicides in Maharashtra.* Retrieved from Times

of India: timesofindia. indiatimes.com/india/ 40-rise-in-farmer-suicides-in-Maharashtra/ articleshow/ 46649733.cms

Kalamkar, S. S., & Shroff, S. (2011). *PM rehabilitation package for farmers in Suicide-Prone Districts of Maharashtra.* Allied Publishers Private Limited: New Delhi.

Mishra, S. (2006). *Suicides of farmers in Maharashtra.* Indira Gandhi Institute of Development Research, Mumbai.

Mitra, S., & Shroff, S. (2007). Farmers' Suicides in Maharashtra. *Economic and Political Weekly, 42(49),* 73-77.

Mohan Rao, R. M. (2004). *Suicide Among Farmers : A Study of Cotton Growers.* Concept Publishing Co.

Mohanakumar, S., & Sharma, R. K. (2006). Analysis of farmer suicides in Kerala. *Economic and Political Weekly, 41(16),* 1553-1558.

Mohanty, B. B. (2001). Suicides of Farmers in Maharashtra: A Socio-economic Analysis. *Review of Development and Change(6),* 146-88.

Mohanty, B. B. (2005). 'We are Like the Living Dead': Farmer Suicides in Maharashtra, Western India. *The Journal of Peasant Studies, 32(2),* 243-276.

Murlidharan Rao, B., & Venkata Siva Reddy, G. (2004). *Crisis in Agriculture and Farmers' Distress: With particular reference to farmers' suicide in Anantpur district of Andhra Pradesh.*

Nazeeruddin, M. (2004). Farmers' Suicides in Rayalaseem Region of Andhra Pradesh.

NSSO. (2005). *Situation Assessment Survey of Farmers — Access to Modern Technology for Farming, 59th Round (January - December 2003).* New Delhi: Ministry of Statistics and Programme & Implementation, GoI.

NSSO. (2014). *Situation Assessment Survey of Agricultural Households, January -December 2013, NSS 70th Round.* New Delhi: Ministry of Statistics and Programme Implementation (MOSPI), Government of India.

Parthasarathy, G., & Shameen. (1998). Suicides of Cotton Farmers in Andhra Pradesh : An exploratory Study. *Economic and Political Weekly,* 35(13).

Planning Commission. (2006). *Report of Fact Finding Team on Vidharbha.* Retrieved from Planning Commission, Government of India: planningcommission.gov.in/ reports/genrep/ rep_vidarbha.pdf

Rasal, O. J. (2012). *A study of socioeconomic risk factors identification and analysis of farmers suicides: A case of Maharashtra.* Unpublished Ph. D. Thesis, Tilak Maharashtra Vidyapeeth, Pune.

Ratna Reddy, V., & Galab, S. (2005). Agrarian Crisis: Looking Beyond the Debt Trap. *Economical and Political Weekly, 41(19),* 1838-1841.

Ratnam, C. (2008). Market imperfections and Farmers' Distress in Andhra Pradesh. In S. M. Jharwal (Ed.), *Glimpses of Indian Agriculture: Macro and Micro Aspects: A set of 2 Volumes* (pp. 779-784).

Reserve Bank of India. (2008, May 23). *Index to RBI Circulars: Agricultural Debt Waiver and Debt Relief Scheme, 2008.* Retrieved from https://rn.rbi.org.in/scripts/BS_CircularIndexDisplay.aspx?Id=4190

Revathi, E. (1998). Farmers' Suicides: Missing Issues. *Economic and Political Weekly, 33(20).*

Shroff, S., Kajale, J., & Bodke, N. (2015, December). Agrarian Distress: Case of Maharashtra. *Agricultural Situation in India, LXXJI(9),* 58-66.

The Secretary, All India Bio Dynamic and Organic Farming Association vs the Principal Secretary, Government of Maharashtra. (2006). *2006 (3) BomCR 867.* Retrieved from https://indiankanoon.org/doc/1465785/?type=print

Vasavi, A. R. (1999). Agrarian Distress: Market, State and Suicides. *Economic and Political Weekly, 34(32),* 2263-68.

Appendix-I

Coordinator's Comments on the Draft Report and Action Taken

1. **Title of the draft report examined : Farmer Suicides in Madhya Pradesh**
2. **Date of receipt of the Draft report:** 07, January 2017
3. **Date of dispatch of the comments:** 10, February 2017
4. **Chapter-wise comments :**

Chapter 1:

- 1.3 Research Methodology: Justification for selection of one district may be given. It would have been better if at least two districts were selected for the study.

  Action: *Justification for selection of one district has been given in research methodology.*

- Kindly adhere to the format sent by us in the case of table 1.3 as it helps in consolidation of state reports and accordingly modify the write-up.

  Action: *It has been done as suggested.*

Chapter 2:

- Kindly adhere to the table 2.2 & 2.3 formats sent by us as it helps in consolidation of state reports and accordingly modify the write-up.

  Action: *The data related to month wise farmer suicides were not made available it is mentioned in 1.4 limitation of the study.*

  The compensation against the farmers' suicide was not distributed because there is no provision of compensation for farmers' suicide in the State (Revenue Book Circular Section 6 No. 4(R.B.C.6-4) of Madhya Pradesh Government Revenue Department).

Chapter 3:

- Per cent figures be given in two decimals in Table-3.1.

  Action: *It has been done as suggested.*

- Provide season-wise cropping pattern and net returns in Table-3.7.

  Action: *It has been done as suggested.*

- Only 16 per cent of victims were found to borrow from institutional (Commercial Banks/RRBs,) and 6 per cent from non-institutional (relatives and friends) sources of credit in the area under study. What about 78 per cent of the farmer's financial source? Strengthen the results and discussion in this section.

  Action: *It has been done as suggested.*

- Revise the summary of this Chapter

  Action: *It has been done as suggested.*

Chapter 4:

- All the per cent figures be given in two decimals in all tables.

  Action: It has been done as suggested.

Chapter 5:

- Some information of Chapter-5 are repetition of first, second, third and fourth chapters. For example: the objectives of study and methodology which are discussed in Chapter-I and is again discussed in Chapter-5. Kindly avoid the repetition.

  Action: *It has been done as suggested.*

5. General comments:

- The report has adhered to the outline provided except for a couple of tables as mentioned in chapter-wise comments. However, repetition of paragraphs and tables need to be avoided.

  Action: *It has been done as suggested.*

6. Overall view on acceptability of report:

- The draft report can be accepted for consolidation and further submission to the ministry after revising in accordance with the comments / suggestions. The soft copy of the revised report can be sent to us at the earliest as it helps in consolidating the state reports.

Appendix-II

Number of farmer suicides and Net Sown Area, Gross Cropped Area and Population of Farm Families in different districts of Madhya Pradesh. (2011)

Sr. No.	Districts	No. of Farmer Suicides	Net Sown Area	Gross Cropped Area	Population of Farm Families
1	Rewa	150	363063	517271	246198
2	Jhabua	104	189778	255431	186085
3	Dindori	71	203130	289458	112571
4	Shivpuri	43	458027	713794	182944
5	Jabalpur	40	278708	424268	182387
6	Satna	39	352774	515188	240162
7	Alirajpur*	37	170741	211745	0
8	Umaria	31	104865	145193	80027
9	Singroli*	28	167061	226864	0
10	Panna	28	271957	417540	157045
11	Sehore	26	398867	760512	133376
12	Sagar	23	548740	887288	255098
13	Khargone	22	303834	451472	161270
14	Balaghat	20	279017	346752	254334
15	Mandala	18	227160	325097	162592
16	katni	16	216784	308195	179026
17	Ashoknagar*	16	311109	496445	0
18	Barwani	14	229648	289122	90461
19	Sidhi	12	169458	234540	230994
20	Mandsor	12	357181	625990	161514
21	Vidisha	11	533611	919277	140351
22	Anuppur*	11	165152	208903	0
23	Ujain	10	499661	938003	160375
24	Tikamgarh	9	278379	467411	173159
25	Narsinghpur	8	309309	471782	134362
26	Ratlam	6	337513	577475	153059
27	Dewas	6	399376	728419	145619
28	Shajapur	3	279500	501508	187595
29	khandawa	3	402304	547009	168475
30	Harda	2	182397	361132	35365
31	Datia	2	211563	268507	102614
32	Betul	2	440576	604455	178027
33	Neemanch	1	183248	311079	94719
34	Damoh	1	317971	519135	159018
35	Chhatarpur	1	466626	661123	235237
36	Shivni	0	396876	578037	191955
37	Sheopur	0	169541	260547	82483
38	Shahdol	0	191989	268682	228396
39	Rajgarh	0	439102	783952	197963

Farmer Suicides in Madhya Pradesh

Sr. No.	Districts	No. of Farmer Suicides	Net Sown Area	Gross Cropped Area	Population of Farm Families
40	Raisen	0	434092	719472	148649
41	Morena	0	271682	396442	176713
42	Indore	0	251353	466632	107717
43	Hoshangabad	0	313994	636209	112424
44	Gwalior	0	211358	293795	109830
45	Guna	0	339017	524466	242072
46	Dhar	0	501898	818257	187174
47	Chindwara	0	511495	720374	252871
48	Burhanpur*	0	104016	124672	0
49	Bhopal	0	155391	247552	59411
50	Bhind	0	341332	382813	178039
51	Agar*	0	179833	297742	0
TOTAL		**826**	**15422057**	**24047027**	**7359756**

* Newly born districts in Madhya Pradesh

Appendix III

Interview Schedule used for collecting data

मध्यप्रदेश में कृषक आत्महत्याऐं

सन्दर्भ अवधि : जुलाई 2015–फरवरी (खरीफ व रबी 2015–16)

A. सामान्य जानकारी		अनुसूची संख्या	
1	गाँव	7	अन्वेषक का नाम
2	तहसील/तालुका	8	साक्षात्कार की तिथि
3	जिला/ब्लॉक	9	राज्य मध्य प्रदेश
4	रीवा	10	प्रतिवादी का नाम
5	पीड़ित का नाम	11	सम्पर्क नं.
6	पीड़ित के साथ प्रतिवादी का रिश्ता		

B. पारिवारिक विवरण

क्रं.सं	पीड़ित के परिवार के सदस्यों के नाम	पीड़ित के साथ रिश्ता	पु./म.	उम्र	स्कूली शिक्षा के वर्ष	मुख्य व्यवसाय*
1	पीड़ित					
2						
3						
4						
5						
6						
7						
8						

* नोटः कृषि तथा कृषि से संबंधित गतिविधियाँ = 1; सेवा (वेतन और पेंशन) = 2; स्व–व्यवसाय = 3; अन्य (बताएं) = 4; बेरोजगार = 5

a) परिवार का प्रकार (संयुक्त = 1; एकल =2)

b) घर (गांव में = 1; खेत में = 2

c) सामाजिक समूह (अनुसूचित जाति = 1; अनुसूचित जनजाति = 2; ओबीसी = 3; सामान्य = 4)

d) धर्म (हिंदू = 1; मुस्लिम = 2; ईसाई = 3; अन्य (बताएं) ..... = 4) :

e) क्या पीड़ितध्पीडिता शादीशुदा था, (हाँ = 1; नहीं = 2) : ..... यदि हाँ, तो विवाह का प्रकार (अरेंज मैरिज = 1; लव मैरिज = 2) : .....; (संबंधियों में = 1, गैर संबंधियों में= 2) : .....

C. भूमि से संबंधित जानकारी

क्र.स.	भूमि का प्रकार	सिंचित (एकड़)	वर्षा आधारित (एकड़)	भूमि के टुकड़ों कि संख्या	सिचाई के स्रोत'	किराया (मूल्य/एकड़)	मृदा की गुणवत्ता (अच्छी =1,/ औसत =2, खराब =3)
1	स्वयं की कुल भूमि						
2	किराये पर ली गई						
3	किराये पर दी गई						
4	अ–कृषित भूमि						
5	dqy						

* सिचाई के प्रमुख स्रोतरू– (कुआँ =1,नल कूप =2,तालाब =3 नहर =4, अन्य =5)

D. कृषि और गैर कृषि शुद्ध आय का ब्यौरा

क्र.स.	स्रोत	संदर्भ अवधि के दौरान	शुद्ध आय (रु)	आपको लगता है कि आपकी आय पिछले 5 वर्षों में बड़ी है? (हाँ=1/नहीं=2)	यदि कोई टिप्पणी हो
1	कृषि				
2	कृषि मजदूरी आय				
3	डेयरी और पशुपालन				
4	मुर्गी पालन				
5	मछली पालन				
6	सेवा (वेतनध्पेन्शन)				
7	स्व–रोजगार				
8	*				

नोट : स्रोत निर्दिष्ट *

E. उपभोग लागत

क्र.स.	विवरण	संदर्भ अवधि	आपको लगता है कि आपकी लागत पिछले 5 वर्षों में बड़ी है? (हाँ=1/नहीं=2)	यदि कोई टिपण्णी हो
1	खाद्य			
2	अखाद्य			

F. फसल पध्दति (जुलाई 2015 से फरवरी 2016)

क्र.स	मौसम ६ फसल	क्षेत्र (एकड)		सिंचाई स्रोत कोड *	कुल उत्पादन (क्विंटल)		उत्पादन लागत	बेची गयी मात्रा (क्विंटल)		बची हुई मात्रा (क्विंटल)		किसे बेचा		औसत मूल्य (रू/(क्विंटल)	
		सिंचित	वर्षा आधारित		मुख्य	उप उत्पाद		मुख्य	उप उत्पाद	मुख्य	उप उत्पाद	मुख्य	उप उत्पाद	मुख्य	उप उत्पाद
							खरीफ								
1															
2															
3															
4															
							रबी								
1															
2															
3															
4															
							वार्षिक जायद								
1															
2															
3															

'नोट:–मुख्य स्रोत संकेत, कुआँ = 1, नल कूप = 2,नहर = 3, तालाब = 4 और अन्य = 5.

** जिसे बेच गया – कमिशन एजेंट =1,थोक व्यापारी =2, आधुनिक रिटेल चौन (रिलायंस,मोर,सफल आदि) = 3 सहकारिता = 4, अन्य किसान = 5, अन्य (विशेष) = 6

G. संदर्भ अवधि के दौरान राज्य और केंद्र सरकार की योजनाओं से सहायता के प्रकार को निर्दिष्ट करें।

क्र.स.	कार्यक्रम	सहायता के प्रकार (जैसे–इनपुट आदि)	सब्सिडी की राशि (रू)
1			
2			
3			

H. पिछले 5 वर्षों के दौरान आप की स्थिति में सुधार हुआ है अथवा बद्त्तर हुई है या कोई परिवर्तन नहीं है।

क्र.स.	मापदंड	परिवर्तन की स्थिति*	यदि कोई टिपण्णी हो
1	सामान्य आर्थिक स्थिति		
2	विपणन सुविधा के उपयोग		
3	प्रचलित कीमतों के बारे में जानकारी		
4	सड़क और परिवहन की सुविधा		
5	इनपुट वितरण प्रणाली		
6	बिजली के लिए उपयोग (मात्रा और गुणवत्ता)		
7	इनपुट कि गुणवत्ता (बीज ,खाद, अन्य)		
8	संचार सुविधायें		
9	कृषि विस्तार सुविधायें		
10	संस्थागत ऋण सुविधा		
11	गैर–संस्थागत ऋण सुविधा		
12	बिचोलियाओं का अस्तित्व में आना		
13	बाजार की इंटरलाकिंग (उत्पाद–अन्य)		
14	*		

सुधार = 1, बद्त्तर हो गयी = 2, कोई परिवर्तन नहीं = 3 मापदंड निर्दिष्ट करें ।

I. आत्महत्या कि घटना से पहले परिवार के सदस्यों द्वारा उसमे देखे गये परिवर्तन ।

क्र.स.	लक्षण	हाँ=1 / नहीं=2
1	पीड़ित द्वारा अपने परिवार के किसी सदस्य के साथ मिलने–जुलने कि कोशिश की थी?	
2	पीड़ित / पीडिता का अपने समुदाय में मिलना दृजुलना था?	
3	पीड़ित / पीडिता का अपने मित्रोंध पडोसिओं के साथ मिलना दृजुलना था?	
4	पीड़ित / पीडिता नियमित रूप से भोजन लेता था?	
5	पीड़ित / पीडिता नियमित रूप से रात में सोता था?	
6	अन्य यदि कोई	
7		

J. आत्महत्या कि विधि तथा जगह।

विधि : जहर खाकर = 1, फांसी लगाकर = 2, नदी / कुआँ में कूदकर = 3, बिजली लगने से = 4, आत्मदाह करके = 5, रेलवे ट्रैक पर = 6 .....
जगहरू घर = 1, खेत पर = 2, लॉजध्होटल = 3, अन्य = 4.....

K. आत्महत्या के सामाजिक कारण।

क्र.स.	कारण	प्रतिवादी हाँ = 1/नहीं = 2	पड़ोसियों/रिश्तेदारों/दोस्तों # हाँ = 1/नहीं = 2
1	गरीबी		
a	एपीएलरू गरीबी रेखा से ऊपर		
b	बीपीएल : गरीबी रेखा से नीचे		
c	अंत्योदय अन्न योजना		
2	संपत्ति विवाद		
a	जमीन का बिभाजन		
b	घर का विभाजन		
c	आय का विभाजन		
d	गहनों का विभाजन		
e	अन्य (निर्दिष्ट करें)..... ।		
3	विवाह से संबंधित विबाद		
a	दहेज को लेकर विबाद		
b	विवाह से जुड़ा अन्य कोई विबाद		
c	तलाक		
d	प्यार विफलता		
e	अन्य (निर्दिष्ट करें) ..... ।		
4	परिवार की समस्याओं/प्रतिबद्धताओं		
a	सामाजिक कार्य		
b	बेटी की शादी		
c	बेटे की शादी		
d	परिवार के सदस्यों के बीच अक्सर झगड़ा		
e	अन्य (निर्दिष्ट करें) ..... ।		
5	बीमारी *		
6	नशीली दवाओं के सेवन/शराब की लत		
7	जुआ/सट्टेबाजी/चिटफंड		
8	सामाजिक प्रतिष्ठा में गिरावट		

नोटः * एड्स/एसटीडी/= 1; कैन्सर = 2; पक्षाघात = 3; पागलपन/मानसिक बीमारी = 4; अन्य लंबी बीमारी = 5; लंबी बीमारी/के परिवार के सदस्य/एड्स/एसटीडी/कैंसर एस = 6; अन्य (बताएं) = 7; : प्रतिवादी से डेटा संग्रह के पूरा होने के बाद पड़ोसियों/रिश्तेदारों/दोस्तों द्वारा भरा जाना।

L. खेती से सम्बंधित आत्महत्या के कारण।

क्र.स.	कारण	2014–15 हाँ = 1/नहीं = 2	सन्दर्भ अवधि (2015–16) हाँ = 1/नहीं = 2
1	फसलों का खराब होना		
a.	कीट और रोगों = 1		
b.	सिचाईं के लिये पानी कि अनउपलब्धता = 2		
c.	अन्य कारण ..... = 3		
2	प्राकृतिक आपदाओं के कारण		
a.	चक्रवात प्रभाव = 1		
b.	अति वर्षा/सूखा = 2		
c.	आकस्मिक आग का लगना = 3		
d.	अन्य ..... = 4		
3	उत्पाद बेचने में असफलता		
4	कुआँ में पानी का न होना		
5	पीड़ित/पीडिता का किसी के साथ झगडा		
6	अन्य कोई उम्मीद :		
a.	उच्च उत्पादन		
b.	उच्च कीमत		
c.	ऋण माफी		
d.	संस्थागत ऋण		
e.	गैर–संस्थागत ऋण		
7	विस्तार सेवाओं का अभाव		
8	बेचे गये उत्पाद का समय पर भुगतान न होना/किस्तों में मिलना		
9	खेती फसल के लिये बीमा		

M. ऋणग्रस्तता के कारण आत्महत्या

क्र.स.	कारण	2014–15 हाँ = 1/नहीं = 2	सन्दर्भ अवधि (2015–16) हाँ = 1/नहीं = 2
1	ऋणग्रस्तता – संस्थागत और गैर–संस्थागत		
a.	ऋण फसल के कारण		
b.	कृषि उपकरणों के ऋण के कारण		
c.	गैर कृषि ऋण के कारण		
d.	गैर–संस्थागत ऋण के कारण		
2	संस्थागत स्रोतों से दबाव के कारण		
3	गैर–संस्थागत स्रोतों से दबाव के कारण (मुख्य रूप से साहूकारों)		

N. क्रेडिट विवरण

क्र.स.	एजेंसी का नाम	उधार ली गई राशि (रु।)	ऋण का उद्देश्य	ब्याज/प्रतिवर्ष (%)	बकाया ऋण राशि (रु।)	अतिदेय के लिए कारण
1	**संस्थागत**					
a	सहकारिता सोसायटी / बैंक					
b	कमर्शियल बैंक					
c	अन्य (निर्दिष्ट करें)					
2	**गैर–संस्थागत**					
a	भूस्वामी					
b	कृषि साहूकार					
c	व्यावसायिक साहूकार					
d	व्यापारी और कमीशन एजेंट					
e	रिश्तेदार एवं मित्र					
f	अन्य (निर्दिष्ट करें)					

O. आत्महत्या की घटना के बाद घर में स्थिति।

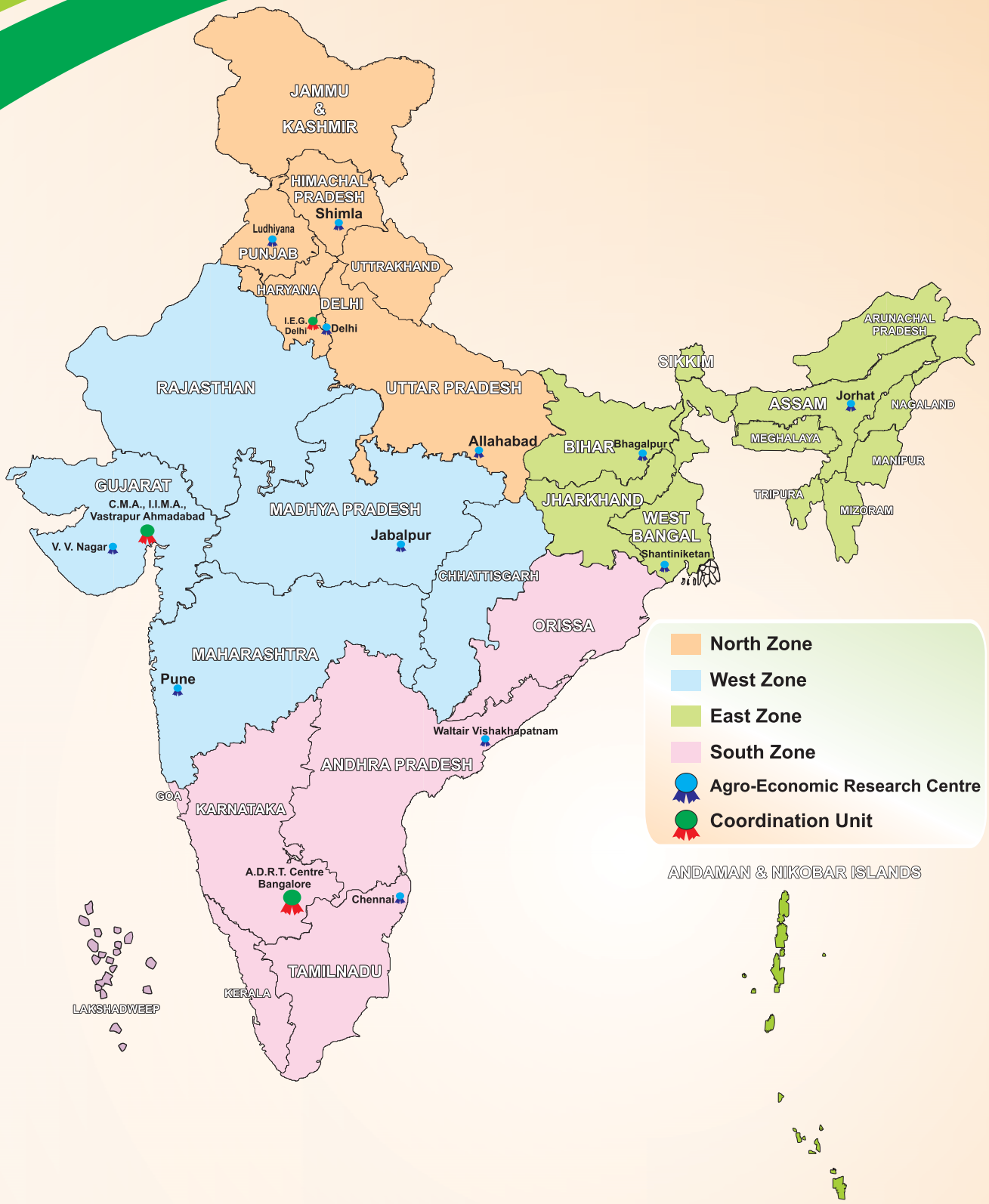
क्र.स.	घटना के बाद की स्थिति	आत्महत्या वाले परिवार का कथन (हाँ=1, नहीं=2)	यदि कोई टिप्पणी हो
1	कृषि गतिविधियां बंद कर दी गयी		
2	कमाऊ सदस्य नहीं रहा		
3	बच्चों की शिक्षा बंद कर दी गयी		
4	जमीन बेचना पड़ा		
5	घर बेचना पड़ा		
6	अन्य संपत्ति बेचनी पड़ी (निर्दिष्ट करें)		
7	बेटे/बेटी की शादी स्थगित करनी पड़ी		
8	परिवार के सदस्य गंभीर रूप से बीमार हो गये		
9	परिवार के सदस्य सदमे में चले गये		
10	परिवार में असुरक्षा		
11	अन्य (निर्दिष्ट करें) ..... ।		

P. क्या यह आत्महत्या रुक सकती थी? हाँ/नहीं यदि हाँ तो सुझाव दो :

1
2
3
4
5

Q. भविष्य में कृषकों द्वारा आत्महत्या न की जाये (सुझाव दें)–

1
2
3
4



Agro Economic Research Centre for Madhya Pradesh & Chattishgarh

Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur (M.P.) 482 004

Phone : 0761-2680315, Tele-Fax : 0761 - 2680315, e-mail : aerc_jbp@yahoo.co.in, web: www.aerc.jnkvv.org