

Study Number – 197

Farmers' Suicide:

Causes and Policy Prescription in West Bengal

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Agro-Economic Research Centre

(For the States of West Bengal, Sikkim, and Andaman
& Nicobar Islands)

Visva-Bharati, Santiniketan

West Bengal

Study sponsored by the Ministry of Agriculture and Farmers' Welfare,
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Preface

The present study, entitled “Farmers’ Suicides: Causes and Policy Prescription in India,” forms part of an All-India Coordinated Study undertaken at the instance of the Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Government of India, New Delhi. The responsibility for coordination was entrusted to the Agricultural Development and Rural Transformation Centre (ADRTC), Institute for Social and Economic Change (ISEC), Bengaluru. The present report specifically reports the findings for West Bengal.

Agriculture continues to be a cornerstone of the Indian economy, sustaining the livelihoods of a substantial proportion of the rural population. Despite structural transformation, a significant share of the workforce remains dependent on agriculture, underlining its continued socioeconomic importance. In this context, farmers’ suicides represent not merely isolated tragedies but a deeply concerning manifestation of agrarian distress. Recognized as a critical social and policy issue, the phenomenon calls for urgent and empathetic attention from policymakers. Against this backdrop, the present study seeks to develop a comprehensive understanding of the underlying causes of farmers’ suicides in West Bengal and to propose appropriate policy interventions. In addition, the study incorporates a revisit of previously surveyed households, with nearly half of the sample drawn from earlier rounds, to capture the evolving dynamics of affected families.

The National Crime Records Bureau (NCRB) serves as the principal agency for compiling and disseminating official statistics on suicides in India. However, changes introduced in its methodology and definitional parameters since 2012 resulted in the reporting of negligible or zero cases of farmers’ suicides in several states, including West Bengal. During the study, no new cases of farmers’ suicides were evident. In the absence of consistent secondary data, the present study undertook a field-based revisit of households during 2021-22, which were initially surveyed during 2016-17 to generate primary evidence. The findings reveal a distressing scenario: a considerable proportion of households remain dependent on uncertain natural conditions, with limited and predominantly primary-sector employment opportunities for others. The incidence of suicide has had profound repercussions on agricultural activities within affected households, often leading to a sharp decline or complete cessation of farming. This, in turn, has altered employment patterns and income sources, resulting in a marked deterioration in economic conditions and living standards.

While the precise psychological triggers behind such extreme decisions remain difficult to ascertain, the study underscores the multidimensional nature of agrarian distress encompassing economic, social, institutional, and climatic factors. Addressing farmers’ suicides, therefore, requires a holistic policy approach that goes beyond immediate financial relief. Risk mitigation strategies must encompass not only climatic and production risks but also market-related vulnerabilities such as price volatility, distress sales, and income uncertainty. Strengthening rural infrastructure –

particularly irrigation, storage, and cold chain facilities – alongside the promotion of non-farm employment opportunities, emerges as crucial for enhancing resilience and reducing vulnerability in rural livelihoods.

The study conducted by the research team led by Mr. Saptarsi Chakraborty deserves all the appreciation. The successful completion of this study would not have been possible without the guidance and support of several individuals and institutions. Particularly, the contributions of Prof. I. Maruthi, Former Head, ADRTC, and Dr. Villas S.J., Assistant Professor, ADRTC, ISEC, Bengaluru in effective coordination of the study is gratefully acknowledged. The encouragement and direction provided by the former Directors of the Centre, Prof. B.C. Roy (2018-22) and Prof. D. Bhattacharya (2022-25), during different phases of the study are gratefully acknowledged. The sincere efforts of the research, administrative, and supporting staff of the Centre are duly appreciated. We appreciate the important contributions made by the Directors, research teams, and employees of the coordinating centre (ADRTC, ISEC, Bengaluru) in carrying out this study. The efforts of Dr. Achiransu Acharyya, Deputy Director, in reviewing this research report are appreciated.

Our gratitude to Dr. Probir Kumar Ghosh, Hon'ble Vice Chancellor, Visva-Bharati, for his kind guidance and encouragement. We acknowledge the support and valuable guidance of the Adviser (AER Division), Ministry of Agriculture & Farmers Welfare, Government of India, New Delhi, in the completion of the study. The support of other officials in the Ministry is also invaluable to us in undertaking this research.

Finally, sincere gratitude is extended to the family members of the affected households for their patient and wholehearted cooperation in responding to the queries during the survey.



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Important Abbreviations

CI	Cropping Intensity
GCA	Gross Cropped Area
SHG	Self Help Group
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
PM-KISAN	Pradhan Mantri Kisan Samman Nidhi
IAY	Indira Aawas Yojna
PMAY	Pradhan Mantri Awas Yojana
BPL	Below Poverty Level
APL	Above Poverty Level
AAY	Antyodaya Anna Yojana
PMFBY	Pradhan Mantri Fasal Bhima Yojana
PMKSY	Pradhan Mantri Krishi Sinchayee Yojana
LPG	Liquid Petroleum Gas
PMKVY	Pradhan Mantri Kaushal Vikas Yojana
PM-AASHA	Pradhan Mantri Annadata Aay Sanrakshan Abhiyan
MSP	Minimum Support Price
KCC	Kishan Credit Card
ACP	Annual Credit Plan
AEZ	Agri Export Zone
AFC	Agricultural Finance Corporation
APMC	Agriculture Produce Marketing Committee
ATMA	Agriculture Technology Management Agency
CACP	Commission for Agriculture Costs and Prices
DAC&FW	Department of Agriculture, Cooperation & Farmers' Welfare
DAHDF	Department of Animal Husbandry, Dairying & Fisheries
DARE	Department of Agricultural Research & Education
DBT	Direct Benefit Transfer
DIPP	Department of Industrial Policy & Promotion
DoFPD	Department of Food & Public Distribution
DoLR	Department of Land Resources
DoPR	Department of Panchayati Raj

DoR	Department of Revenue
DoRD	Department of Rural Development
e-NAM	Electronic National Agriculture Market
ERFS	Extended Range Forecast System
FSSAI	Food Safety and Standards Authority of India
GAP	Good Agricultural Practices
ICAR	Indian Council of Agricultural Research
IDWG	Inter Departmental Working Group
KCC	Kisan Credit Card
KMS	Kharif Marketing Season
KVK	Krishi Vigyan Kendra
MANAGE	National Institute for Agricultural Extension Management
MNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MoF	Ministry of Finance
MoWR	Ministry of Water Resources
MSDA	Mission on Sustainable Dryland Agriculture
MSDE	Ministry of Skill Development & Entrepreneurship
MSME	Ministry of Micro, Small and Medium Enterprises
MSP	Minimum Support Price
NABARD	National Bank for Agriculture and Rural Development
NADP	National Agriculture Development Programme
NAFED	National Agricultural Cooperative Marketing Federation
NAM	National Agriculture Market
NFSM	National Food Security Mission
NITI Aayog	National Institution for Transforming India
PDMC	Per Drop More Crop
PDPS	Price Deficiency Payment Scheme
PGS	Participatory Guarantee System
PKVY	Paramparagat Krishi Vikas Yojana
PM KISAN	Pradhan Mantri Kisan Samman Nidhi Scheme
PM KUSUM	Pradhan Mantri Kisan Urja Suraksha evam Utthan Mahabhiyan Scheme
PM-AASHA	Pradhan Mantri-Annadata Aay Sanrakshan Abhiyan
PMFME	Prime Minister's Formalization of Micro Food Processing Enterprises Scheme

Executive Summary

Background:

Since independence, Indian society has experienced dozens of economic plans being implemented, and all these plans have been seemingly taken to ensure an egalitarian distribution of income and wealth among all its stakeholders in the society. In India, agriculture, being one of the main sources of livelihood, was always considered the top priority by policymakers. Although agriculture is considered the principal source of livelihood in rural India, it is incapable of delivering both financial and social security to the farming sector. Suicide is considered one of the foremost causes of death in the world and stands tenth in the list of causes of death. Farmers' suicide is a social menace and a very sensitive issue in India that requires immediate attention and sympathy from policymakers to cope with the situation at the earliest.

The National Crime Records Bureau (NCRB) is the chief authority in India and is involved in crime-related data collection and analysis, including suicides. NCRB reported zero farmers' suicides during 2012 in as many as 12 States, and 6 Union Territories, including three major states like West Bengal, Rajasthan, and Bihar. In 2010, in contrast, not a single state claimed zero suicide, although several newspapers and media outlets were claiming farmers' suicides in these states. There are various reasons behind this farmer's catastrophe, such as the inability to repay loans mostly taken from non-institutional sources, crop failure due to unanticipated climate shocks, price volatility in cash crops, a surge in input costs in terms of both the material and labour costs, losses in non-farm activities, family problems, and even chronic illness. The present study, titled "*Farmers' Suicide: Causes and Policy Prescription in India*", is an attempt to develop an in-depth understanding of agrarian distress and farmers' suicide in the Indian agrarian scenario (in West Bengal as well) and to make some policy suggestions to prevent such incidents in the future, with the following specific objectives:

- 1. To study the trends in inter-state variation in the farmers' suicide rates and the causes of these differences.**
- 2. To identify the factors that influenced the intensity of farmers' suicide among the different farm categories and responses.**
- 3. To resurvey the victim's household (old households of 2016-17) and analyse the impact of victim's livelihood security of farm families.**
- 4. Ways to tackle the root cause of the farmers' suicide with the best pragmatic remedies.**
- 5. To document the status and implementation of the farmer suicide relief scheme.**

In the methodological aspects, the study was conducted mainly with two segments. The first segment is to resurvey the present conditions of the farmers' suicide households surveyed in the year 2016-17 for a study conducted by the same coordination unit in the year 2017, and the second part is to survey the farming households that committed suicide in the reference year 2020-21. As there were no official records of farmers' suicide in West Bengal during the reference periods (October 2020-September 2021), this study mainly focused only on the first segment of the proposed study.

It is also important to mention that in the previous study (2017), 30 households across three districts, viz., Burdwan (*after 2017, bifurcated as two separate districts, Purba and Paschim Bardhaman; our sample was confined to Purba Bardhaman only*), Birbhum, and North 24-Parganas, have been interviewed with the help of the snowball sampling technique, mainly through newspaper reports. The present study also focused on resurveying all the farmer suicide households surveyed in the previous study, but in 2020-21, the re-survey was conducted on 27 households, and the remaining 3 households were untraced, as these households shifted their old habitat (or became abandoned in one case) after the previous survey.

Major Findings:

The major findings of the study are summarised below:

The main conclusions that can be drawn from the findings of this study are as follows:

- I. According to the NCRB report, zero cases of farmers' suicide have been recorded for West Bengal since 2012. Resurveys of old households have been conducted based on the author's own source by adapting snowball sampling and various newspaper reports. For that reason, data related to the number, percentage, district-wise, and gender-wise distribution cannot be calculated. But, as per the report of 2016-17, the claim of zero suicide does not match the ground realities.
- II. Looking into the socio-economic profile of sample households, it is found that most of the family heads are aged females, and the literacy rate among them is very low. It is also evident that most of the deceased farmers' families are of a nuclear type with a family size of four or fewer members in the family.
- III. The most miserable picture is observed from the re-survey that 50 per cent of the total population is dependent in nature, i.e., living without any earning sources during the reference survey period, followed by cultivation and agricultural labour.
- IV. It is also observed that most of the victim households are poor in terms of their PDS card holding status, implying that the benefit of Public Distribution Service (PDS) is indeed satisfactory to the local government. However, this is not quite an unusual case at all in rural areas.
- V. Employment opportunities are mainly concentrated in the primary sectors. 70 per cent of total occupations belong to the primary sectors, followed by the secondary sectors. Some members of the sample household are rearing milch animals not for commercial purposes but for their own consumption of milk.
- VI. All the sample households have their own houses with residential land. Most of the houses (55 per cent) are kutcha in nature, followed by pucca or semi-pucca houses, and one household is living in a khapra-type house, which implies their incapability to reside in a well-structured pucca house, probably due to a lack of finance.
- VII. The number of asset sales is higher than assets purchased by the deceased farmer's households in the last five years, indicating the households have still been facing financial instability for the last five years.

- VIII. Presently, the holding of agricultural assets is very low for the sample households. About 26 per cent of total households have access to a water pump for irrigation, and the percentage is 11 for the holding of a thresher. In the case of non-agricultural assets, it is found that the average asset holdings are pretty low.
- IX. In the case of 14 sample households, those that are engaged in farming activities own land in terms of operational holding, whereas there are few leased-in and leased-out cultivation operations by the sample households, and the average rental value of leased-in and leased-out land is about Rs. 8000/- to Rs. 9000/- per acre, respectively in the reference year. Cropping intensity is estimated as 150% for the sample households, which is much lower than the state average (189.8%) and a little higher than the national average (144.6%).
- X. It is observed that sample households are doing farming activities for subsistence rather than for commercial purposes. This story can be supplemental as paddy is the main crop cultivated for about 55 per cent of the total Gross Cropped Area, mainly for securing their annual need of food crops.
- XI. In the case of the disposal or marketing channel, the study found that no sample farming households are involved with APMC Mandi, and most of them prefer to sell their products to private traders in both the private wholesale markets and the village markets.
- XII. In this study, three patterns of cost-return relation from cultivation are observed. Per-acre expenditure and income are very high, and net income per acre (expenditure less income) is also high, in the case of crops, vegetables, and jute. On the other hand, per-acre cost is high, but net income is low, e.g., for paddy and potato, where returns from the sale of paddy have been low over the years, and the selling price of potato has been volatile in the last few years in West Bengal. The third one is per acre cost is low, but the net income per acre is high in the case of mustard. It is clear that the second one is in the worst condition, and unfortunately, the same pattern has been seen in West Bengal, like the rest of our sample. This can be considered a significant influencing factor behind farmers' suicides in West Bengal.
- XIII. Incidents of indebtedness, i.e., the percentage of the indebted total households for the sample is 70.37%, which is very high for the study sample, and the amount of outstanding loan is more than the amount borrowed, as these are taken from local money lenders with much higher interest rates.
- XIV. Agricultural labourers, non-agricultural labourers, and self-business are the three principal earning sources among the sample households, and the net income is highest from the paddy, followed by the vegetables, mustard, jute, and potato.
- XV. Annual income share is highest from non-farm activities for the sample households (69.84%), followed by the share of off-farm income (20.30%), and farm income (9.86%), compatible with the vulnerable situation of farm income in West Bengal (29.75%, NSSO, 77th round, 2018-19).

- XVI. Share of the annual income out of total income is highest for the scheduled caste category, followed by general, OBC, and scheduled tribe categories. It is also found that victim households are spending more on staple foods (rice/wheat and pulses) and vegetables than on other food items, implying their food preference, and in the total expenditure, the share of food expenditure is more than double that of non-food expenditure, which is not very unusual for rural Bengal.
- XVII. It is estimated that the crop income-expenditure ratio and farm income-expenditure ratio are the same at level 17, concluding that the sample households have not been involved in other farming activities rather than crop cultivation, and the income-expenditure ratio is more than one (1.77), implying higher annual income than expenditure, which in turn indicates that the sample households are capable of earning adequate income to meet over expenditure, possibly by shifting their earning dependency towards non-farm and off-farm income sources rather than farming activities.
- XVIII. Changing victims' sleeping patterns and behaviour noticed by the neighbour and friend were the major symptoms observed by the victim before the incident of suicide, and most of the victim farmers committed suicide by consuming poison and hanging at home.
- XIX. In the social part of the root causes, respondents reported various types of problems faced by the victims, like poverty, family-related problems, drug or alcohol addiction, and daughter marriage-related issues. Failure of crops due to pests & diseases and meteorological issues, irrigation problems, unfulfillment of expectations of getting higher output, higher crop prices, lack of extension services, delayed payment, lack of credit facilities, and loan weaving facilities can be considered as farming-related causes for the farmers' suicide. The burden of non-institutional indebtedness with a much higher interest rate is also a prime cause of unforeseen incidents like farmers' suicide.
- XX. Farmers' suicide negatively impacted the farming activities in the victim households. The farming activities drastically declined or totally stopped in some cases after the incident, and in turn, this affected the employment pattern and income generation sources, which changed compared to before the occurrence of the incident. In most cases, it is found that the economic condition has deteriorated, which has affected the standard of living of victim households directly, and most of the respondents claimed that living standards have declined after the incident.
- XXI. Improvement in the composite dimensions, comprising all economic, social, and psychological aspects, can make some ways to tackle the drastic incidents like farmers' suicide, although it is hard to ensure the victims' state of mental health.
- XXII. PDS is the only scheme whose benefit has been reaching all sample households in terms of rice and wheat at a subsidised rate, whereas very few sample households have been availing the monetary benefit of 'PM-Kishan' (Central Government Farm Income Support scheme), and 'Krishak Bandhu' (State Government Scheme in West Bengal). The story remains the same for the housing scheme (IAY or PMAY), 'PM-Ujjwala Yojana' (LPG scheme), and 100 days of

work (MGNREGS). But most surprisingly, no households have benefited from the farmers' suicide compensation scheme.

XXIII. Members in the sample households have experienced the highest loss of man-days to avail the central and state farm income support schemes like 'PM-Kishan' and 'Krishak Bandhu'. It is also found that net operated land, the education level of the family head along with other members, and the proportion of farm income in total income have a positive influence on getting benefits.

Policy Suggestions:

Agriculture in West Bengal has been passing through a critical time, and calls for an immediate multi-sided solution that might be able to address the primary challenges faced by the farmers. The ways to tackle the root causes of farmers' suicide are really challenging, as there are various heterogeneous reasons behind this farmer's catastrophe, such as economic, social, political, and meteorological. Since agrarian and economic distress are the root causes of farmers' suicide in West Bengal, immediate attention to these dimensions is needed to secure farmers' income, which suffers from natural as well as market failure. Farmers' suicide is such a social peril in India, vis-à-vis West Bengal, that needs to be addressed and sympathised with by the policymakers at the earliest. Some possible policies are prescribed below:

- I. In general, an improvement in the composite dimensions comprises all economic, social, and psychological aspects that can make some ways to tackle the drastic incidents like farmers' suicide, although it is hard to ensure the victims' state of mental health. A development in the financial condition of the farmers is possible by reinforcing the farming activities towards a more profitable sector with an assured and appropriate compensation for environmental hazards like changes in rainfall patterns, hailstorms, etc., that affect agricultural production. On the other hand, some alternative income sources for the farmers, along with cultivation, have to be provided.
- II. The first one can be ensured by providing adequate agriculture extension facilities that may include policies towards risk management, not only in terms of climate risk, but also that have to provide input price restriction, sufficient crop harvest price, various types of crop insurance facilities, facilities for institutional loans, strengthening of the irrigation systems, improved machinery, and rural infrastructure as a whole. For the latter, an alternative livelihood support scheme is needed, like MGNREGS, the availability of various agribusiness opportunities, support for various self-employment opportunities, etc.
- III. To improve social and psychological dimensions, the best and general way is to educate the farmers. In general, farmers do not have proper conventional education. So, with the help of adult learning or adult education, basic knowledge can be provided to the farmers, which possibly will help to develop their internal as well as cognitive thinking, which can also generate alternative earning sources. Again, facilities for social counselling are another important

possible way towards the development of the social and psychological strength of the farmers.

- IV. Policy needs to be rectified towards livelihood settlement for the victim families to secure the minimum subsistence level of income. A one-time consolidated lump sum benefit or compensation is not a permanent solution in resettling the means of support of the family members of victim households. So, it is prescribed that it is a need of the hour to bring at least a single member of those victim households under any permanent livelihood support scheme with immediate effect to sustain themselves, and the rest of the family members.
- V. The former recommendation also calls for the inclusion of victim households under the loan waiver scheme, although the Central Government has not launched any loan waiver scheme in the last five years and supports the victim's family members if the loan was taken from institutional sources.
- VI. Farmers should be more encouraged to grow more diversified alternatives, and remunerative cash crops rather than sticking to the traditional ideas of cultivating only potatoes (during rabi season) or Boro paddy (during summer). Especially, small and marginal farmers need to be encouraged to grow other remunerative crops like off-season vegetables, pulses, and oilseeds.
- VII. At the same time, as suggested by the National Commission on Farmers, a higher Minimum Support Price (MSP) for all the major crops, including paddy, is very important. However, a nominal increase in MSP alone will not be sufficient unless there is appropriate improvement in the procurement infrastructure in the state, which is very poor to date.
- VIII. To protect the potato farmers from distress sales, the government must think of introducing some innovative procurement mechanisms (like MSP for paddy) for potatoes for their requirements in the mid-day meal and ICDS schemes. Timely and frequent intervention or monitoring by the government officials for procurement, storage, and export of potatoes can reduce the distress sale to a greater extent.
- IX. A particular focus also has to be required to resolve the issues of the tenant farming system, and their miserable conditions. Most of the farmers' suicide compensations or nominal benefits are allocated only to farmers with clear land titles. So, it is recommended that the tenant farmers be brought under the benefit of crop insurance schemes. For such action, an explicit and formal agreement with the landowner is needed to ensure their crop is under insurance schemes as per the rules. But unfortunately, most of the farmers are unaware of it, and the landowners also avoid this procedure. So, a proper awareness programme must be implemented such that tenant farmers can also take advantage of the crop insurance scheme, and it can be a fruitful way to avoid the misery of farmer's suicide.
- X. Other essential livelihood support schemes like *Pradhan Mantri Awas Yojana*, *Ujjwala Yojana*, *Widow Pension Scheme*, *Old-age Pension Scheme*, and

MGNREGA should be provided mandatorily to the victim's households to protect them from further unforeseen situations.

- XI. A public awareness programme regarding the ill effects of drug addiction and alcoholism is necessary. For these counselling services, the establishment of rehabilitation centres can be of great help or a fruitful step. Simultaneously, revamping rural health facilities, which are severely inadequate in West Bengal, is also necessary to avert farmers' suicide to a broader extent.
- XII. Finally, it is also required to change the reporting system or mechanism of farmers' suicide. As we said before, the claim of 'zero farm suicide' in the official documents does not fit with ground realities. So, some alternative checks must be introduced.

Chapter - 1: Introduction

1.1 Background

Since independence, Indian society has experienced dozens of economic plans being implemented, and all these plans have been seemingly taken to ensure an egalitarian distribution of income and wealth among all its stakeholders in the society. In India, agriculture, being one of the main sources of livelihood, has always been considered the top priority in the policy circle. It is no longer an oratory, and an irony in some sense that most of the population of India lives in the villages, and a substantial amount of the rural workforce is still engaged in agriculture, which attests that agriculture is the predominant source of livelihood for nearly half of the population in India¹. Although agriculture is considered the principal source of livelihood in rural India, it is incapable of delivering both financial and social security to the farming sector. However, the vast share of the workforce involved in the agricultural sector aptly justifies the importance of this very sector in India, and at the same time, the need for farmers' welfare in the country. The development of the agricultural sector can also play a deliberate role in the process of economic development of any country if there is a proportionate growth in the farmers' income. An upswing in per capita income of the farmers not only assists the farmers themselves but can also amplify the demand for industrial goods and services. But this idea remains like an ornament, as India has been facing a gradual decline in the relative share of the agricultural sector in the GDP, in spite of experiencing a prominent increase in farm outputs during the last 75 years, indicating farming is not a worthwhile livelihood in our country.

Suicide is considered one of the foremost causes of death in the World, and India stands tenth in the list as per causes of death. The leading contributors in terms of absolute number of suicides in the world are China and India, where more than half the suicides, i.e., approximately 54 per cent, in the world take place (Vijayakumar, 2004). It is also found that about 0.5 per cent to 1.4 per cent of people die by suicide, with a significant mortality rate of 11.6 per 100,000 persons per annum. Suicide rates differ significantly between countries and over time. But a more concerning fact is that the rate of suicide has increased by 60 per cent from 1960 to 2012 (Varnik, 2012). In India, the rate of suicide was 10.4 per cent in 2019 compared to 10.6 in 2015, and the majority of suicides were reported highest in Maharashtra (13.6%), followed by Tamil Nadu (9.7%) and West Bengal (9.1%), respectively, during 2019 (NCRB, 2019).

¹ [Brochure2025_r.pdf](#)

Farmers' suicide is a social menace and a very sensitive issue in India that requires immediate attention and sympathy from policymakers to cope with the situation at the earliest. The present study, entitled "*Farmers Suicide: Causes and Policy Prescription in India*", is an attempt to develop an in-depth understanding of agrarian distress and farmers' suicide in the Indian agrarian scenario (in West Bengal as well), and to make some policy suggestions to prevent such incidents in the future.

The National Crime Records Bureau (NCRB) is the chief authority in India, involved in crime-related data collection and analysis, including suicides. NCRB changed the methodology as well as parameters for compiling farmers' suicide related data in 2012. NCRB reported zero farmers' suicides during 2012 in as many as 12 States and 6 Union Territories, including three major states like West Bengal, Rajasthan and Bihar. In 2010, in contrast, not a single state claimed zero suicide, although several newspapers and media were claiming farmers' suicides in these states. Later in 2017, as per instructions from the Ministry of Agriculture and Farmers Welfare, Government of India, and the coordinating centre, AERC, Visva-Bharati, Santiniketan, conducted the farmers' suicide study to collect information by adapting the snowball sampling technique through various newspapers to check information ambiguity.

1.2 Status of Farmers' Suicides

The incidence of farmers' suicide is recorded at 4.3 per cent of all suicides that happened in India, and the rate of suicides among the farmers is near about 20 per cent higher than the national average of all suicides (NCRB, 2019). Later, it became a national concern. Although farmers' suicide in India is a national issue, a closer look reveals that this problem is more regionally concentrated. Maharashtra (2680), Karnataka (1331), Andhra Pradesh (628), Telangana (491) and Punjab (239), the five states, accounted for over 90 per cent of total farmer suicides (5369 out of 5957), while at the same time, 14 States and 5 Union Territories reported zero farmers' suicide in 2019.

Many instances of these invisibles have been coming into the limelight in recent years, evident from various newspaper articles. The study titled "*Farmer Suicides in West Bengal*"² concluded with some significant findings and nullified the claim of "Zero Farm Suicide" as reported in the official documents. Though occurrences of farmers' suicide in West Bengal are much lower than the national average, as well as suicide-prone states like Maharashtra, Andhra Pradesh, Telangana, Madhya Pradesh, Chhattisgarh, and Karnataka, the claim of 'zero suicide' of farmers as well as agricultural labourers by the NCRB does not support the ground realities.

² <https://www.visvabharati.ac.in/file/Summary-183.pdf>

1.3 Causes for Farmers' Suicides

In the context of Farmers' Suicide, the first thing that comes to mind is the agrarian crisis and the distress caused by farmers' low incomes. Since independence, the issue of agricultural crisis and farm distress has been widely discussed in academic and non-academic contexts, but the problem persists in this sector. Though the rate of farmers' suicide has been declining over the years, the suicidal incidents in farming households remain very concerning for the policy experts in the agrarian and rural fields.

There are various reasons behind this farmer's catastrophe, such as the inability to repay loans mostly taken from non-institutional sources, crop failure due to unanticipated climate shocks, price volatility in cash crops, a surge in input costs in terms of both material and labour costs, losses in non-farm activities, family problems, and even chronic illness. Perhaps suicide is an easy answer to that bedevilment, escaping from the existing pressure. But it thrusts the rest of their family members towards an indefinite future, which possibly is much more severe than the pressure for which the victim to commit suicide. The National Commission on Farmers (in 2006) under the chairmanship of Prof. M.S. Swaminathan has also pointed out that the incidence of farmers' suicide is led primarily by agrarian crises in terms of unfinished agendas in land reforms, poor quality and quantity of water, technological lethargy, lack of smooth access to institutional credit, and almost null opportunities to have an assured remunerative marketing. Although adverse meteorological factors are also considered as a severe problem, Governmental initiative to unravel the above-mentioned primary causes of farmers' suicide can mitigate the risk of agrarian distress.

1.4 Coverage of Government Programmes

In 2006, the Central Government announced a relief package for the farm sector of Rs. 110 billion, which includes a compensation grant of Rs. 100,000 to each of the suicide victim's families. The package also considered debt relief to farmers and a rehabilitation package for the victims, aiming to mitigate the extent of the distressed condition of farmers. Several state governments in India have simultaneously launched their own policy initiatives to prevent suicidal incidents among farmers. But this kind of populist "special" package has generally been gone in vain one time, as those are reactionary, i.e., focused on credit and loan purposes rather than any pre-emptive and long-term policy in terms of improving the livelihood and employment opportunities. At the same time, the very existence of social loss in terms of lives and dignity has ostensibly raised the issues of its effective implementation. The agricultural debt waiver and debt relief scheme launched in 2008 helped over 36 million farmers at a total cost of 65000 crore rupees. This spending was aimed at the writing off of part of the loan

principal as well as the interest owed by the farmers. Later in 2013, the Govt. of India launched a special livestock and fishery sector-oriented package in the then suicide-prone states like Andhra Pradesh, Maharashtra, Karnataka and Kerala, aimed at diversifying the income sources of the rural farm sector. Although a few years back a compensation package to the victim households of Rs. 200,000 for the victim households was announced by the Govt. of West Bengal, the cases of farmers' suicide reported zero since 2014 by the state Government.

1.5 Review of Literature

Among the livelihood patterns, farming is the most important and an enormous employment opportunity for the rural society in India. In general, suicide commitment by a farmer clearly depicts the distressed situation of that particular farming household, which creates severe pressure on the rest of the family members. Such a tragic incident is not only happening in India; it spreads across different nations with different dimensions of causes (Behera & Bhise, 2009; Fraser et al., 2006). However, the rate of suicide has been significantly different across the nations over time (Varnik, 2012). Many scholarly articles contributed to various dimensions of the most unforeseen incident, farmers' suicide, around the globe. Some of them have been reviewed here to better understand the context of farmers' suicide.

Mohanty and Shroff (2004), with the help of micro-level data of cotton farmers in Maharashtra, emphasized that unforeseen situations in agriculture have led farmers in the direction of hardship and social imbalances, which is the general cause of farmer suicides. These unforeseen situations have arisen due to crop failure, domestic price risk, and international price risk since the advent of neo-liberalization in several countries, which can be considered as the main culprit behind the occurrences of farmers' suicides (Schurman, 2013). Dongre and Deshmukh (2012), Mishra, S. (2008), Jeromi (2007) added some other socio-economic causes of farmers' suicide, like indebtedness, distress sale, increasing cost of cultivation, poor irrigation system, family responsibilities, and both financial and, in turn, mental stresses. Behera and Bhise (2009), Mishra (2006), and Ravi (2015) also supported the argument that indebtedness is one of the important causes in the context of farmers' suicide.

Apart from that, Abichandani and Bailey (2011) opined that the climatological or meteorological issues could be influential behind the agricultural sectors' imbalances, contributing to the main causes of the farmer's suicide. They postulated that lack of knowledge about environmental and climatic parameters was another root cause of farmers' suicides in India. Adult education on environmental issues has the potential to mitigate the risk of agricultural production and thus, could prevent farmers' drive to the ultimate decision of

suicide. Guiney, R. (2012) also supported the climatological issues, where he found that drought leads to increasing farmers' suicides in Australian agriculture.

Despite all economic or climatic causes, some scholars also emphasized on the social causes that led the farmers towards suicidal incidents in India. Dipanjana Roy (2021), suggested that the causes of farmers' suicide are specifically a region-based problem and it could not be considered a universal case. She also emphasized that the farmers' suicide might have been occurring due to some other problems, rather than only economic and livelihood problems. Basu et al. (2016) took the same stand much earlier than that. Chindarkar (2007) also highlighted the emotional and psychological aspects of farmers' suicides. The combination of imbalances among livelihood securities, economic, and social causes led to the occurrence of the farmers' suicide.

Apart from the fundamental causes of farmers' suicides, some scholars have pointed to administrative lacunas in governmental policies that continue to create imbalances in the agrarian sector. By streamlining and increasing the transparency of these policies, the incidence of farmers' suicides might be reduced. Deshpande (2002) highlighted that poor earnings from agriculture, along with inadequate income opportunities from non-farm sources, have added further stress to farmers' livelihoods. Mishra (2008), in a chronological examination of Indian agriculture, found declining trends in the value of output and increasing marginalization of agricultural land, which could also be significant factors contributing to farmers' suicides (Kennedy and King, 2014). Moreover, the shortfall in resource allocation to the agricultural sector has slowed infrastructural growth, particularly in areas such as irrigation, extension services, and other agricultural facilities. This persistent inadequacy has significantly contributed to the rising trend of farmers' suicides.

Some scholars also blamed the neo-liberalization policy, taken up in 1991 by the Indian Government, for the possible reason of farmers' suicides in India. After opening up the Indian economy in the face of globalization, competition in domestic sectors has increased in the global market. In such a situation, the Indian agricultural sector has faced a lack of competitiveness with the global market and has gradually become a threat to Indian agriculture. This adverse shock pushed Indian agriculture towards a serious agrarian crisis (Jeromi, 2007). For example, it can be mentioned that the Indian cotton farming sector was affected severely due to liberalization policy without safety nets, which led to an increase in the suicide of cotton farmers (Mitra and Shroff, 2007). The policy experts should have taken some precautions to protect the domestic infant industries along with agriculture from global competitiveness, but till the late nineties, issues related to the Indian agrarian crisis and the suicide of farmers were

not a need of the hour in the policy circle of the Indian Government. The policy began to take serious action only after the issue of farmers' suicide became widespread (Sainath, 2010). The National Commission on Farmers (2006), under the chairmanship of Prof. M.S. Swaminathan, pointed out that the incidence of farmers' suicides was led primarily by the agrarian crisis in terms of unfinished agenda in land reforms, poor quality and quantity of water, technological lethargy, lack of smooth access to institutional credit, and almost null opportunities to have assured remunerative marketing. Although adverse meteorological factors were also considered as a severe problem for such a drastic decision, a Governmental initiative to unravel the above-mentioned primary causes of farmers' suicide could mitigate the risk of agrarian distress. Another expert committee was constituted by the Government of India in 2007 under the chairmanship of Prof. R. Radha Krishna to examine the nature and causes of farmers' suicide in India. The committee reported some serious issues regarding the productivity and profitability in agriculture, indicating a threat to marginal and landless farmers, towards the contribution of the most unforeseen cases, like farmers' suicide. The findings were quite similar to another study by Ravi (2015).

So, in a nutshell, the agrarian crisis and the problem regarding farmers' suicide are very concerning issues in India now, where the agricultural sector plays an essential role in constructing the economy. No doubt there should be an appropriate policy towards mitigation of the problem, but it needs a proper understanding of the root causes of the problem. One crucial way to understand the problem is to analyze the suicide cases, where the data relating to the farmers' suicide can be able to play an important role. But Sainath (2015) expressed a severe anxiety about the data on farmers' suicide in India, where he pointed out that the data on farmers' suicide are severely under-reported.

1.6 Need of the Study

It is already understood that farmers' suicide is a socio-economic jeopardy and also can be considered as a very sensitive socio-political issue as well in India, which needs to be addressed at a quick pace by the policymakers to cope with the situation at the earliest. The present study, titled "*Farmers' Suicide: Causes and Policy Prescription in India*", is an attempt to develop an in-depth understanding of agrarian distress and farmers' suicide in the Indian agrarian scenario. So, identification of root causes behind these suicidal incidents after diagnosing the exact response from victims' family members and following that, some policy suggestions to prevent such incidents in the future are the need of the hour.

1.7 Objectives of the Study

With this background in view, the following objectives were addressed in this study:

1. To study the trends in inter-state variation in the farmers' suicide rates and the causes of these differences.
2. To identify the factors that influenced the intensity of farmers' suicide among the different farm categories and responses.
3. To resurvey the victim's household (old households of 2015-16) and analyse the impact of victims' livelihood security on farm families.
4. Ways to tackle the root cause of the farmers' suicide with the best pragmatic remedies.
5. To document the status and implementation of the farmers' suicide relief scheme.

1.8 Data and Methodology

This study and report, as well, are confined to the state of West Bengal, which is a part of an All-India study coordinated by ADRTC, Institute for Social and Economic Change (ISEC), Bangalore under the aegis of the Ministry of Agriculture and Farmers Welfare, Government of India, to assess the most unforeseen agrarian distress, namely, farmers' suicides.

In the methodological aspects, the study was conducted mainly with two segments. The first segment is to resurvey the present conditions of the farmers' suicide households surveyed in the year 2016-17 for a study conducted by the same coordination unit in the year 2017, and the second part is to survey the households of farmers' suicide committed in the reference year 2020-21. As there were no official records of farmers' suicide in West Bengal during the reference periods (October 2020-September 2021), this study mainly focused only on the first segment of the proposed study.

It is also important to mention that in the previous study (2017), 30 households across three districts, viz., Burdwan (*after 2017, bifurcated as two separate districts, Purba and Paschim Bardhaman; our sample was confined to Purba Bardhaman only*), Birbhum and North 24-Parganas, have been interviewed with the help of snowball sampling technique, mainly through newspaper reports. The present study also focused on resurveying all the farmers' suicidal households surveyed in the previous study, but in 2020-21, the re-survey was conducted in 27 households, and the remaining 3 households were untraced, as these households had shifted their old habitat (or became abandoned in one case) after the previous survey.

The resurvey was conducted with a structured questionnaire covering two parts. The first part of it was designed to collect information about the present socio-economic indicators and the

other important aspects of livelihood, along with coverage of various Governmental support programmes. In the second part of the questionnaire, information about the present agricultural activities after the death of the farming member of the households has been collected.

Table 1:1 Details of Selected Sample Districts and Sample Size

Sl. No.	Name of the districts	No. of Taluka/ Blocks	No. of Villages	No. of Revisiting Households	No. of New Households	Total Victim HHs	% of the total sample
1	Birbhum	3	3	5	0	6	20
2	Burdwan	7	11	14	0	16	53
3	North 24 Parganas	3	5	8	0	8	27
Source: Primary Survey; 2016-17 and 2021							

The district-wise distribution of farmers' suicide cases in the state of West Bengal, as shown in Table 1:1, gives an interesting picture. The table reveals that most of the cases of farmers' suicide took place in Burdwan district, which is often called the "Rice Bowl" of this state and is one of the predominant producers of potatoes and other vegetables as well. A higher incidence of farmers' suicide in the agriculturally developed areas in West Bengal initially points to the agrarian crisis and distress of the income level of the farmers, especially due to price volatility in cash crops.

1.9 Organization of Report

The present report is organised into eleven chapters. Chapter-1, which is the introductory chapter provides a glimpse of the background of this study, the current status of farmers' suicide, several possible causes of farmers' suicide, coverage of government programmes (both Central and State), a brief review of literature, need, and objectives of the study, along with a detailed description of data and methodology, respectively. Chapter-2 essentially deals with the trends in the farmers' suicide scenario in the state of West Bengal. Chapters 3 and 4, respectively, contain socio-economic characteristics, employment patterns and asset ownership details of the victim household. Cropping patterns, along with net returns from different crops cultivated by the existing members of the victims' household in 2020-21, are exhibited in Chapter-5. Details of credits taken and different sources of income earned by the sample households have been discussed in Chapter 6. Chapter-7 deals with the extent of the adequacy of the current income levels to meet the current expenditure of re-visited victim households, while Chapter-8 describes the causes and ways to tackle those root causes. Chapter-9 and Chapter-10 analysed the factors influencing the farmers' suicide and the effectiveness of

different Government intervention programmes on the farmers' suicide, respectively. Finally, conclusions and policy suggestions are covered in Chapter-11.

Chapter - 2: Trends in Farmers' Suicides in West Bengal

2.1 Background

As per the Periodic Labour Force Survey (PLFS) report 2019-20, 61.5 per cent of rural people are engaged in the agricultural sector³ support that farming is a major employment opportunity among other livelihood-supporting economic activities in rural India. Committing suicide by farmers is an immediate alarm to the most employment-absorbing sectors, caused by the unforeseen agrarian crisis in the primary sector of India. As it is already mentioned in the previous chapter, the incidences of farmers' suicides have been recorded by the concerning authority, i.e., the National Crime Records Bureau (NCRB) in India, along with the correspondence of several state authorities, and these records of suicide are published in a report titled 'Accidental Deaths & Suicides in India (ADSI)' every year. The main theme of the chapter is to describe the last ten years' trends of farmers' suicide, which can indicate whether the tendency of farmers' suicide in West Bengal has been declining or not. But, as per the NCRB report, no cases of farmers' suicide have been recorded for West Bengal since 2012. In the previous report of farmers' suicide (in 2016-17), some cases have been reported in the tenure of 2012 to 2016, which was completely the author's own source by adapting snowball sampling and various newspaper reports. For that reason, specifying one single source, i.e., NCRB's secondary report, all the tables related to the number, percentage, district-wise and gender-wise distribution (Table 2.1 to Table 2.6) of farmers' suicide in West Bengal, remain blank in this very report, excluding all suicide and population.

2.2 Trends in Farmers' Suicide Rates in West Bengal

It is already mentioned earlier that there is no record of farmers' suicide in West Bengal as per the National Crime Record Bureau since 2012. So, it is not possible to capture the trend and percentage of all suicides. Only from Table 2:1, we can show the records of all suicides, where it is seen that the number of all suicides falls to 13103 from 14957 in the period 2012-2020 with a negative annual compound growth rate (-1.45).

³ https://www.niti.gov.in/sites/default/files/2022-04/Discussion_Paper_on_Workforce_05042022.pdf

Table 2:1 Trends in Farmers' Suicides and all Suicides in West Bengal 2012-2020

Year	Farmers' Suicides		All Suicides	
	Number	As a percent of all Suicides	Number	Suicide Rates (per 100,000 population)
2012	0	0	14957	16.50
2013	0	0	13055	14.30
2014	0	0	14310	15.50
2015	0	0	14602	15.70
2016	0	0	13451	14.30
2017	0	0	12014	12.50
2018	0	0	13255	13.70
2019	0	0	12665	13.00
2020	0	0	13103	13.40
Total number of suicides in the period 2012-2021	0	0	121412	14.32
Annual Compound Growth Rate (in %)	0	0	-1.45	-2.26

Source: ADSI in different years, NCRB

The following Table 2:2 is showing Gender-wise Farmers' Suicides and all Suicides in West Bengal, 2012-2020, where it is evident that all male suicides drop to 7967 in 2020 compared to 2012 (8680) with a falling annual compound growth rate of -0.94%, and for females, the same thing happens, i.e., from 6277 to 5136 (with a negative annual compound growth rate of -2.18%). It reveals clearly that the female suicide rate declines more than the male suicide rate.

Table 2:2 Gender-wise Farmers' Suicides and all Suicides in West Bengal, 2012-2020

Year	Farmers' Suicides					All Suicides		
	Male		Female		Male Farmers' suicides as a % of all farmers' suicides	Male	Female	Male suicide as a % of all suicides
	Number	% of all male suicides	Number	% of female suicides				
2012	0	0	0	0	0	8680	6277	58.03
2013	0	0	0	0	0	7860	5195	60.21
2014	0	0	0	0	0	8886	5424	62.10
2015	0	0	0	0	0	9065	5537	62.08
2016	0	0	0	0	0	7794	5657	57.94
2017	0	0	0	0	0	7243	4771	60.29
2018	0	0	0	0	0	7830	5425	59.07
2019	0	0	0	0	0	7769	4896	61.34
2020	0	0	0	0	0	7967	5136	60.80
Total number of suicides in the period 2012-2021	0	0	0	0	0	73094	48318	60.20
Annual Compound Growth Rate (in%)	0	0	0	0	0	-0.94	-2.18	0.51

Source: ADSI in different years, NCRB

2.3 Reasons for Farmers' Suicides

In the context of Farmers' Suicide, the first thing that comes to mind is the agrarian crisis and the distress caused by farmers' low incomes. Since independence, the issue of agricultural crisis and farm distress has been widely discussed in different academic and non-academic ways, but the problem has remained consistent in particular sectors. Though the rate of farmers' suicide has been declining over the years, the suicidal incidents in farming households remain very concerning for the policy experts in the agrarian and rural fields.

In our sample, various reasons behind the suicide are found, such as the inability to repay loans mostly taken from non-institutional sources, crop failure due to unanticipated climate shocks, price volatility in cash crops, surges in input costs in terms of both the material and labour

costs, losses in non-farm activities, family problems, and even chronic illness. Apart from these root causes, some psychological factors, such as insomnia, irritation, appetite loss, etc., have also been noticed by the members of the victim farmers. Also, it is important to point out that a significant amount of our total sample are tenant farmers, and due to the absence of land entitlement, they naturally went for non-institutional loans at a higher interest rate, and also, they were out of the box of most of the government programmes, especially the institutional loan facility and agricultural subsidies. So, in a nutshell, incidences of farmers' suicide are led primarily by agrarian crises in terms of unfinished agenda in land reforms, poor quality and quantity of water, technological lethargy, lack of smooth access to institutional credit, and almost null opportunities to have an assured remunerative marketing. Although adverse meteorological factors are also considered as a severe problem, Governmental initiative to unravel the above-mentioned primary causes of farmers' suicide can mitigate the risk of agrarian distress.

2.4 Trends in Inter-district Variation in Farmers' Suicide Rates

Table 2:3 Annual Compound Growth Rate of Farmers' suicides and all suicides in the major districts of West Bengal, 2012-2021

Sl. No.	Name of districts	Farmers Suicides	All Suicides
1	NA*	NA*	NA*
2	NA*	NA*	NA*
3	NA*	NA*	NA*
4	NA*	NA*	NA*
5	NA*	NA*	NA*
6	NA*	NA*	NA*
7	NA*	NA*	NA*
8	NA*	NA*	NA*
9	NA*	NA*	NA*
10	NA*	NA*	NA*

*NA=Not Available

Table 2:4 Gender-wise Annual Compound Growth Rate of Farmers' suicides and all suicides in major districts of West Bengal 2012-2021

Sl. No.	Name of districts	Farmers' Suicides		All Suicides	
		Male	Female	Male	Female
1	NA*	NA*	NA*	NA*	NA*
2	NA*	NA*	NA*	NA*	NA*
3	NA*	NA*	NA*	NA*	NA*
4	NA*	NA*	NA*	NA*	NA*
5	NA*	NA*	NA*	NA*	NA*
6	NA*	NA*	NA*	NA*	NA*
7	NA*	NA*	NA*	NA*	NA*
8	NA*	NA*	NA*	NA*	NA*
9	NA*	NA*	NA*	NA*	NA*
10	NA*	NA*	NA*	NA*	NA*

*NA=Not Available

Table 2:5 Farmers' Suicide Rates in West Bengal 2012-2021

Years	Population (in Lakhs)	Farmers' Suicides (Number)	Rate of Farmers' suicides (%)	Percentage Change in rate of farmers' suicides over the previous year
2012	905.95	0	0	0
2013	913.9	0	0	0
2014	921.9	0	0	0
2015	930	0	0	0
2016	938.27	0	0	0
2017	958.9	0	0	0
2018	965	0	0	0
2019	971.1	0	0	0
2020	977.2	0	0	0
2021	NA*	0	0	0

Source: ADSI in different years, NCRB

*NA=Not Available

Table 2:6 Gender-wise Farmers' Suicide Rates in West Bengal 2012-2021

Year	Population (in Lakhs)	Farmers' Suicides (Number)			Rate of Farmers' suicides (%)		
		Male	Female	Total	Male	Female	Total
2012	905.95	0	0	0	0	0	0
2013	913.9	0	0	0	0	0	0
2014	921.9	0	0	0	0	0	0
2015	930	0	0	0	0	0	0
2016	938.27	0	0	0	0	0	0
2017	958.9	0	0	0	0	0	0
2018	965	0	0	0	0	0	0
2019	971.1	0	0	0	0	0	0
2020	977.2	0	0	0	0	0	0
2021	NA*	0	0	0	0	0	0

Source: ADSI in different years, NCRB

*NA=Not Available

2.5 Chapter Summary

According to the NCRB report, zero cases of farmers' suicide have been recorded for West Bengal since 2012. In the previous report of farmers' suicide (in 2016-17), some cases have been reported in the tenure of 2012 to 2016, which was completely the author's own source by adapting snowball sampling and various newspaper reports. For that reason, specifying one single source, i.e., NCRB's secondary report, all the tables related to the number, percentage, district-wise and gender-wise distribution of farmers' suicide in West Bengal, cannot be calculated in this very report.

Chapter - 3: Socioeconomic Characteristics of Sample Households

3.1 Background

Preparation of a socio-economic profile is the most essential appliance to the social assessment of households in a society. Furthermore, the profile gets more important when we try to assess the present economic and social condition of those households that faced the pathetic incidents like farmers' suicide and lost their prominent earning members. In this chapter, the present socio-economic characteristics of the sample households of deceased farmers and how they are living after the five years of incidents in the state of West Bengal have been tried to visualize.

3.2 Type of Respondents

During the resurvey period, interviewers are scheduled for a face-to-face interview with the family members of deceased farmers reported in the previous study report (2017), and it is observed in Table 3:1 that in most of the cases (almost 63%), the spouse or heir of the victim farmers was the respondent.

Table 3:1 District-wise Details on the Type of Respondents

Sl. No.	Districts	Data collected from (Revisiting households)		Data collected from (New households) *	
		Spouse or Heir of victim (% to total sample of HHs)	Others like parents, brothers/ sisters, relatives, friends of victim (% to total sample of HHs)	Spouse or Heir of victim (% to total sample of HHs)	Others like parents, brothers/ sisters, relatives, friends of victim (% to total sample of HHs)
1	Birbhum	11.1	7.4	-	-
2	Purba Bardhaman	29.6	22.2	-	-
3	North 24 Parganas	22.2	7.4	-	-
<i>Source: Primary Survey'2021-22</i>				*There are no new cases	

3.3 Distribution of Sample Households by Gender

In Table 3:2, it is found that most of the households have been headed by female members (mainly by victims' spouses) since the suicide committed by the farmers, which implies the

passing of more family burden in terms of decision-making of the household on the female head.

Table 3:2 Distribution of Sample Households by Gender

Sl. No.	Family type	Revisiting Household		New Household*		All Household	
		Number	%	Number	%	Number	%
1	Male	10	37.00	-	-	10	37.00
2	Female	17	63.00	-	-	17	63.00
	Total	27	100.00	-	-	27	100.00

Source: Primary Survey'2021-22 *There are no new cases

3.4 Distribution of Sample Households by Age

It is also evident that the burden is more painful and distressing, as 70 percent of the household heads are aged, i.e., beyond 47 years depicted in Table 3:3. Out of 27 deceased farmers' households, only four heads of the sample households are in young and middle age each, respectively.

Table 3:3 Distribution of Sample Households by Age

Sl. No.	Age category	Revisiting Household		New Household*		All Household	
		Number	%	Number	%	Number	%
1	Young (<40 years)	4	15	-	-	4	15
2	Middle (40-47 years)	4	15	-	-	4	15
3	Old (> 47 years)	19	70	-	-	19	70
	Total	27	100	-	-	27	100

Source: Primary Survey'2021-22 *There are no new cases

3.5 Distribution of Sample Households by Literacy

The following Table 3:4 shows the distribution of literacy level of the current heads of the victim's households. It is found that no one has post-secondary educational experience. Most of them are secondary and below secondary level, followed by illiterate. The gap between these two percentages is marginal, possibly revealing the lesser scope of professional specialization and occupational diversification of the head of the households to make their family economically sustainable.

Table 3:4 Distribution of Sample Households by Literacy

Sl. No.	Age category	Revisiting Household		New Household*		All Household	
		Number	%	Number	%	Number	%
1	Illiterate	11	41	-	-	11	41
2	Primary	4	15	-	-	4	15
3	Secondary	12	44	-	-	12	44
4	PUC	0	0	-	-	0	0
5	Degree	0	0	-	-	0	0
6	PG	0	0	-	-	0	0
	Total	27	100	-	-	27	100
<i>Source: Primary Survey'2021-22</i>						*There are no new cases	

3.6 Distribution of Sample Households by Family Type

Table 3:5 also captures victims' households' sensitivity to sustenance regarding financial vulnerability. The above table represents that most of the sample households are of a nuclear family set-up, again implying the aforesaid scenario of social and economic insecurity for their smaller family size.

Table 3:5 Distribution of Sample Households by Family Type

Sl. No.	Family type	Revisiting Household		New Household*		All Household	
		Number	%	Number	%	Number	%
1	Nuclear	25	93	-	-	25	93
2	Joint	2	7	-	-	2	7
	Total	27	100	-	-	27	100
<i>Source: Primary Survey'2021-22</i>						*There are no new cases	

3.7 Distribution of Sample Households by Family Size

Table 3:6 shows nothing but a replica of the above story, where the average family size has been represented in different categories (63 percent of total sample households having less than five family members).

Table 3:6 Distribution of Sample Households by Family Size

Sl. No.	Family Size (Members)	Revisiting Household		New Household*		All Household	
		Number	%	Number	%	Number	%
1	Small (Up to 4 members)	17	63	-	-	17	63
2	Medium (5-8 members)	10	37	-	-	10	37
3	Large (> 8 members)	0	0	-	-	0	0
	Total	27	100	-	-	27	100

Source: Primary Survey'2021-22 *There are no new cases

3.8 Distribution of Sample Households by Dependency

Dependency of the household member means that the member has no earning sources in the reference year. Thus, the dependency of any family member is inversely related to the economic condition of the household. Table 3:7 shows that out of the total 104 population, 60 individuals are dependent, i.e., non-earning members in our sample, and among them, most of the members are female, followed by the percentage of dependent children. The most miserable picture is evident that almost 58 % of the total population is dependent, implying having no earning member for the family.

Table 3:7 Distribution of Sample Households by Dependency

Sl. No.	Particulars	Revisiting Household		New Household*		All Household	
		Number	%	Number	%	Number	%
1	Dependent Males	11	18.33	-	-	11	18.33
2	Dependent Females	32	55.33	-	-	32	55.33
3	Dependent Children (<14)	17	28.34	-	-	17	28.34
	Total	60	100.00	-	-	60	100.00

Source: Primary Survey'2021-22 *There are no new cases

3.9 Distribution of Sample Households by Caste

Representation of caste distribution is very important in any literature as it captures the sensitivity of social fragmentations. Here in Table 3:8, it is observed that most of the sample households belong to the scheduled caste category, followed by the general caste, and partially merging the castes, indicating that most of the suicidal cases had taken place in socially backward families.

Table 3:8 Distribution of Sample Households by Caste

Sl. No	Particulars	Revisiting Household		New Household*		All Household	
		Number	%	Number	%	Number	%
1	General	7	26	-	-	7	26
2	OBC	5	18	-	-	5	18
3	SC	14	52	-	-	14	52
4	ST	1	4	-	-	1	4
	Total	27	100	-	-	27	100

Source: Primary Survey'2021-22 *There are no new cases

3.10 Distribution of Sample Households by Religion

The following table expresses the distribution of non-farm activity and land ownership across different religions. It is important to mention that out of a total sample of 27, only one household belongs to the Muslim religion; the rest of the sample households are Hindu.

Table 3:9 Distribution of Sample Households (Revisiting) by Religion

Sl. No.	Religion	Non-farm		Small		Medium	
		Number	%	Number	%	Number	%
1	Hindu	13	100	13	93	0	0
2	Muslims	0	0	1	7	0	0
3	Christians	0	0	0	0	0	0
4	Sikhs	0	0	0	0	0	0
5	Buddhists	0	0	0	0	0	0
6	Jains	0	0	0	0	0	0
	Total	13	100	14	100	0	0

Source: Primary Survey'2021-22

It is also seen in Table 3:9 that the sample households that do not have any agricultural land are mainly engaged in non-farm activities and are coming from the Hindu religion. Whereas the households those are owning land are mainly small or marginal holders, and most of them came from Hindu families, except one household that is Muslim by religion.

3.11 Distribution of Sample Households by Marriage

In the section on marital status above, Table 3:10 shows a pretty realistic depiction. Seventy percent of the household heads are widowed or widowers, implying that the particular members (can be the eldest now) had become the household head after their spouse or husband's suicidal death.

Table 3:10 Distribution of Sample Households by Marriage

Sl. No.	Family type	Revisiting Household		New Household*		All Household	
		Number	%	Number	%	Number	%
1	Married	8	30	-	-	8	30
2	Unmarried	0	0	-	-	0	0
3	Widowed/Widower	19	70	-	-	19	70
4	Separated/Divorced	0	0	-	-	0	0
5	Other	0	0	-	-	0	0
	Total	27	100	-	-	27	100

Source: Primary Survey'2021-22

*There are no new cases

3.12 Distribution of Household Head by Occupations

The primary occupation of the household heads, distributed across different livelihood groups, is represented in the following Table 3:11, where it is depicted that 33 percent of all heads of total sample households are currently engaged in the farming sector, both in terms of main cultivators and agricultural labourers; however, labouring dominates over own farming a little bit. Only 4 percent of all household heads are self-employed in their own business, while the overall distribution is more skewed towards the household heads' non-earning activities. It possibly establishes that most of them are considered the nominal head of the households for their elderly status.

Table 3:11 Distribution of Household Head by Occupations

Sl. No.	Livelihood Groups	Revisiting Household		New Household*		All Household	
		Number	%	Number	%	Number	%
1	Farmers/Cultivators	4	15	-	-	4	15
2	Agricultural labour	5	18	-	-	5	18
3	Self-employed in business/shop	1	4	-	-	1	4
4	Non-agriculture casual labour	0	0	-	-	0	0
5	Salaried work	0	0	-	-	0	0
6	Pensioner	1	4	-	-	1	4
7	Household work	0	0	-	-	0	0
8	Dependent Unemployed	16	59	-	-	16	59
	Total	27	100	-	-	27	100

Source: Primary Survey'2021-22 *There are no new cases

3.13 Distribution of Sample Households by PDS Card Type

Table 3:12 represents the distribution of Public Distribution System (PDS) card-holding status across different kinds of cards (like APL, BPL, AAY, etc.), family-owned. The distribution simply states that most of the revisiting households are holding BPL-type PDS cards (reflected primarily by SPHH ration card), followed by Antyodaya Anna Yojna (AAY), APL, and APL (like RKSY-I and RKSY-II), respectively. Here also, it is important to mention that the 15 percent of the total sample households that belong to the AAY category also fall under the BPL category. So, the above table establishes the fact that most of the victim households are poor in terms of their PDS card-holding status.

Table 3:12 Distribution of Sample Households by PDS Card Type

Sl. No.	PDS Card type	Revisiting Household		New Household*		All Household	
		Number	%	Number	%	Number	%
1	APL	4	15	-	-	4	15
2	BPL	19	70	-	-	19	70
3	AAY	4	15	-	-	4	15
4	Others	-	-	-	-	-	-
	Total	27	100	-	-	27	100
<i>Source: Primary Survey'2021-22</i>						*There are no new cases	

3.14 Chapter Summary

The chapter summarized the disconsolate pictures prevailing in the households of deceased farmers. The importance of the findings is pointed out below:

- I. Most of the family heads are aged females, and the literacy rate among them is very low.
- II. At present, most of the deceased farmers' families are of a nuclear type, with a family size of four or fewer members in the family.
- III. The most miserable picture observed from the resurvey is that more than 50 % of the total population is dependent in nature, i.e., living without any earning sources during the reference survey periods, followed by cultivation and agricultural labour.
- IV. It is observed that most of the victim households are poor in terms of their PDS card holding status, which implies that the benefit of Public Distribution Service (PDS) is indeed satisfactory to the local government. However, this is not quite an unusual case at all in rural areas.

Chapter - 4: Employment and Ownership of Assets

4.1 Background

Employment and its opportunities, i.e., different sources of earnings, support a household to maintain the overall demand of goods and services of the household towards a satisfactory level. Generally, employment provides the earning sources, and it reinforces a household to sustain its livelihood in society. This chapter is going to postulate the present employment patterns and opportunities of the sample households where the prime earning member of the household once died by suicide in West Bengal. Therefore, this chapter is very important since it will help to understand the present economic condition of the households and livelihood dynamics, or the way of survival in the last five years.

4.2 Distribution of Household Members by Employment Pattern

Firstly, it is important to mention here that in Table 4:1, no additional column is added as there is no new case. Table 4:1 represents the distribution of household members by employment pattern in terms of the number of days in a year they are engaged across different occupations. This table simply states that employment occupation concentrates mainly in the primary sector, and it is 73.33 percent of total employment occupation, followed by the rest of the secondary sources. 44 members across 25 households are involved in the primary income sources and are employed for an average of 201 days in a year in that particular sector. While in the case of the secondary one, they do the same for 158 days per head per year. This distribution of the employment pattern somehow suggests that the scope of income generation throughout the year in the sample households is a bit limited, and this is the general picture of rural West Bengal. This table also shows the bleakest picture that out of 27 households, 2 households have no members to earn; hence, they are entirely dependent on the occupational nature.

**Table 4:1 Distribution of Household Members by Employment Pattern
(Revisiting Households)**

Sl. No.	Occupations	Revisiting Household			
		No. of HHs	No. of occupations	Avg. Days of Employment	%*
1	Primary	25	44	201	73.33
2	Secondary	15	16	158	26.67
3	Tertiary	0	0	0	0
4	No earning members	2	0	0	0
	Total HHs	27	60	189.53	100

4.3 Extent of Migration of Sample Households

The physical shift of labour from one place to another in order to maintain livelihood is nothing but migration. The main reason for migration is to ensure livelihood through any sources of employment with the expectation of higher income. It is observed in Table 4:2 that an out-migration occurred only in the case of two sample households in the reference year, and it happened in an isolated way (i.e., not in terms of the entire family). It is also seen that they have stayed 302 days on average in their locations of migration, covering an average distance of 880 kilometres from their home.

Table 4:2 Extent of Migration of Sample Households

Sl No.	Particulars	Revisiting Household	New Household*	All Household
1	No of HHs having Migrant Members	2	-	2
2	Number of days in the reference year	302	-	302
3	Number of times in the reference year	1	-	1
4	Distance (KM)	880	-	880
5	Alone (Number of respondents)	2	-	2
6	Family (Number of respondents)	0	-	0

Source: Primary Survey'2021-22. Considering the households where at least one member is migrant

*There are no new cases

4.4 Distribution of Households by Ownership of Land/Assets

The distribution of households by the ownership of land/assets is described in Table 4:3. The table shows that all of the revisited households have their own residential houses on their own land, and out of 27 total households, 15 households have cultivable land.

Table 4:3 Distribution of Households by Ownership of Land/Assets (Values in Rs.)

Sl No.	Ownership	Revisiting Household			New Household*			All Household		
		No. of HHs	Area	Values	No. of HH	Area	Values	No. of HHs	Area	Values
1	Residential land (SqFt)	27	2167	83963	-	-	-	27	2167	83963
2	Residential house (SqFt)	27	664	167593	-	-	-	27	664	167593
3	Commercial land/building (SqFt)	0	0	0	-	-	-	0	0	0
4	Cultivable land (Acres)	15	1.6	1316663	-	-	-	15	1.6	1316663
5	Cattle sheds/Farm houses (No)	12	103	5875	-	-	-	12	103	5875
6	Pond/Tank (No)	1	7600	70000	-	-	-	1	7600	70000
7	Storage house (No)	0	0	0	-	-	-	0	0	0
8	Any others (Specify) Sheep and Goat Shed (No)	0	0	0	-	-	-	0	0	0

Source: Primary Survey'2021-22 Cattle sheds/Farm houses (No.) and area in Square feet (SqFt.)

*There are no new cases

4.5 Sells Transactions by Households During 2017 to 2021

The sale and purchase of land is a sharp weapon to judge the financial stability or instability of households. The sale of land assets is basically one kind of distress sale, forcibly driven by the financial instability and crisis faced by households. Table 4:4 shows that three households had to sell their cultivable lands after the misery, whereas one household was compelled to do the same in the case of residential land.

Table 4:4 Details of Sales Transactions by Households during 2017 to 2021

(Values in Lakh Rs.)

Sl. No	Ownership	Revisiting Household			New Household*			All Household		
		No. of HHs	Area	Values	No. of HH	Area	Values	No. of HHs	Area	Values
1	Residential land (SqFt)	1	6840	100000	-	-	-	1	6840	100000
2	Residential house (SqFt)	0	0	0	-	-	-	0	0	0
3	Commercial land/building (SqFt)	0	0	0	-	-	-	0	0	0
4	Cultivable land (Acres)	3	0.5	187333	-	-	-	3	0.5	187333
5	Cattle sheds/Farm houses (No.)	0	0	0	-	-	-	0	0	0
6	Pond/Tank (No.)	0	0	0	-	-	-	0	0	0
7	Storage house (No.)	0	0	0	-	-	-	0	0	0
8	Any others (Specify)	0	0	0	-	-	-	0	0	0
Source: Primary Survey'2021-22								SqFt= Square feet		

*There are no new cases

4.6 Purchase Transactions by Households During 2017 to 2021

On the contrary, the below-mentioned Table 4:5 is showing that only one household could purchase some amount of cultivable land in the reference period. But this fact is quite natural, as surviving members of victim households, often widows, children and elderly dependents are forced to steer mounting financial pressures with much-limited resources. This economic vulnerability is compounded by social stigma along with psychological trauma, which further restricts their ability to recover. The absence of sustainable income sources frequently leads to reduced educational opportunities for children, deterioration of health and nutrition standards, and long-term impoverishment.

Such households often experience a cycle of vulnerability, like debt accumulation, diminished resilience against future crises and marginalization within the community. All these cumulative effects are not only economic hardship but also social and emotional disintegration, making recovery and reintegration into stable livelihoods a difficult struggle.

Table 4:5 Details of Purchase Transactions by Households during 2017 to 2021

(Values in Lakh Rs.)

Sl. No.	Ownership	Revisiting Household			New Household*			All Household		
		No. of HHs	Area	Values	No. of HHs	Area	Values	No. of HHs	Area	Values
1	Residential land (SqFt)	0	0	0	-	-	-	0	0	0
2	Residential house (SqFt)	0	0	0	-	-	-	0	0	0
3	Commercial land/building (SqFt)	0	0	0	-	-	-	0	0	0
4	Cultivable land (Acres)	1	0.25	200000	-	-	-	1	0.25	200000
5	Cattle sheds/Farm houses (No)	0	0	0	-	-	-	0	0	0
6	Pond/Tank (No)	0	0	0	-	-	-	0	0	0
7	Storage house (No)	0	0	0	-	-	-	0	0	0
8	Any others (Specify)	0	0	0	-	-	-	0	0	0
<i>Source: Primary Survey'2021-22</i>									SqFt= Square feet	

*There are no new cases

4.7 Distribution of Households by Types of Residence

The distribution of sample households by the type of residence has been shown in the following Table 4:6, where it is observed that more than half of the victim households are yet unable to reside in a fully pucca house, indicating livelihood vulnerabilities in terms of their residence.

Table 4:6 Distribution of Households by Types of Residence

Sl. No.	Type of residence	Revisiting Household		New Household*		All Household	
		Number	%	Number	%	Number	%
1	Pucca	11	41	-	-	11	41
2	Kutchra	15	55	-	-	15	55
3	Khapra	1	4	-	-	1	4
4	Any other (Shed)	0	0	-	-	0	0
	Total	27	100	-	-	27	100
<i>Source: Primary Survey'2021-22</i>							

*There are no new cases

4.8 Livestock Inventory of Sample Households

The distribution of average livestock holding along with their mean present values (only for those households that possess the particular livestock) has been represented in Table 4:7, where it is noticed that 12 and 8 households possess milch cattle (cow and buffalo) and sheep and goats, respectively. The average holding of milch cattle is found to be less than two, along with the mean present value of 11514 Rs. per animal, while the mean holding of sheep and goats has recorded 2.5 times the average value of 2073 Rs. per animal. This observation simply states that the victim households are more inclined toward smaller livestock like sheep and goats rather than larger ones.

Table 4:7 Livestock Inventory of Sample Households

Sl. No	Particulars	Revisiting Household			New Household**			All Household		
		No. of HHs	No	Present Values*	No. of HHs	No	Present Values*	No. of HHs	No	Present Values*
1	Working cattle/buffalo	0	0	0	-	-	-	0	0	0
2	Milch cattle/buffalo	12	1.8	11514	-	-	-	12	1.8	11514
3	Young stock	0	0	0	-	-	-	0	0	0
4	Sheep & Goat	8	2.5	2073	-	-	-	8	2.5	2073
5	Goat	0	0	0	-	-	-	0	0	0
6	Pigs	0	0	0	-	-	-	0	0	0
7	Poultry & Duck	0	0	0	-	-	-	0	0	0

Source: Primary Survey'2021-22. * Present Values in Rs/Animal

**There are no new cases

4.9 Ownership of Agriculture Assets

The ownership details of agricultural (other than land) and non-agricultural assets by the sample households have been projected in the above-specified Table 4:8. In the case of agricultural assets, it is seen that only seven households (26 percent of the total sample) are holding water pumps on average of one. In comparison, only three households possess a thresher (11 percent of the total sample), possibly implying their inability to buy capital-intensive agricultural assets and thus scaling down the farming potential.

Table 4:8 Details Ownership of Agriculture Assets (Other than land)

Sl. No.	Ownership of Assets	Revisiting Household			New Household*			All Household		
		No. of HHs	Nos.	Values (in Rs)	No. of HHs	Nos.	Values (in Rs)	No. of HHs	Nos.	Values (in Rs)
1	Tractor / trolley	0	0	0	-	-	-	0	0	0
2	Power tiller	0	0	0	-	-	-	0	0	0
3	Bullock cart	0	0	0	-	-	-	0	0	0
4	Wood/iron plough	0	0	0	-	-	-	0	0	0
5	Water pump	7	1	9071	-	-	-	7	1	9071
6	Threshers	3	1	5333	-	-	-	3	1	5333
7	Sprayers	0	0	0	-	-	-	3	0	0
8	Land leveler	0	0	0	-	-	-	0	0	0
9	Weeder	0	0	0	-	-	-	0	0	0
10	Seed drill/ Hoes	0	0	0	-	-	-	0	0	0
11	Other farm machines	0	0	0	-	-	-	0	0	0

Source: Primary Survey'2021-22

*There are no new cases

4.10 Ownership of Non- Agriculture Assets

Table 4:9 shows that most of the households own low-valued non-agricultural assets like two-wheelers, including bicycles and televisions (17 and 16 households, respectively), indicating their financial incompetence. However, a tiny percentage of sample households possess comparatively high-valued assets like refrigerators, jewellery, four-wheeler, air-conditioner, etc., which are never considered appropriate representatives of the total sample.

As it is mentioned earlier, most of the victim households have been facing an amalgamated set of difficulties in terms of finance, psychology and even in society in some cases, which limits them from accumulating non-agricultural assets as well.

Table 4:9 Details Ownership of Non- Agriculture Assets (Other than land)

(Values in Rs/Asset)

Sl. No	Ownership of Assets	Revisiting Household			New Household**			All Household		
		No. of HHs	Nos	Values	No. of HHs	Nos	Values	No. of HHs	Nos	Values
1	Rickshaw/Auto	0	0	0	-	-	-	0	0	0
2	Two-Wheeler including Bicycle	17	1	21647	-	-	-	17	1	21647
3	Four-wheeler	1	1	500000	-	-	-	1	1	500000
4	Any other vehicle	0	0	0	-	-	-	0	0	0
5	Sewing machine	0	0	0	-	-	-	0	0	0
6	Radio	0	0	0	-	-	-	0	0	0
7	TV	16	1	4406	-	-	-	16	1	4406
8	Computer / Laptop	1	1	40000	-	-	-	1	1	40000
9	Refrigerator	3	1	13667	-	-	-	3	1	13667
10	Washing Machine	1	1	12000	-	-	-	1	1	12000
11	Electricity Connection & material cast*	0	0	0	-	-	-	0	0	0
12	LPG with cooking set*	0	0	0	-	-	-	0	0	0
13	Air Conditioner	1	1	15000	-	-	-	1	1	15000
14	Jewellery, Gems etc	3	1	85000	-	-	-	3	1	85000
15	Furniture steel / wooden	1	11	160000	-	-	-	1	11	160000
16	Functional Sanitary Toilet in the house*	0	0	0	-	-	-	0	0	0
17	Others	3	1	900	-	-	-	3	1	900

Source: Primary Survey'2021-22.

*LPG with cooking set, Electricity Connection & material cast, Functional Sanitary Toilet in the house were not included in the questionnaire.

**There are no new cases

4.11 Chapter Summary

The chapter is an attempt to understand employment patterns and asset holding by the sample households, which in turn also helps to diagnose their current financial stability. The most important findings are pointed out below.

- I. Employment opportunities are mainly concentrated in the primary sectors. 70 percent of total occupations belong to the primary sectors, followed by the secondary sectors. Some members of the sample household are rearing milch animals not for commercial purposes but for their own consumption.
- II. All the sample households have their own houses with residential land. Most of the houses (55 percent) are kutcha in nature, followed by pucca or semi-pucca houses, and one household is living in a khapra type of house, implying their incapability to reside in a well-structured pucca house, probably due to lack of finance.
- III. Asset sales are higher than assets purchased by the deceased farmer's households in the last five years, indicating the households have still been facing financial instability for the last five years.
- IV. Currently, the holding of agricultural assets is very low for the sample resurveyed households. About 26 percent of total households have access to a water pump for irrigation, and the percentage is 11 for the holding of the thresher.
- V. In the non-agriculture assets section, it is found that the average asset holdings are pretty low.

Chapter - 5: Cropping Pattern and Net Returns

5.1 Introduction

Cropping pattern refers to the spatial arrangement of the cultivation of different crops at different points in time. It basically reveals the depth or intensity of farming activities by the farmers as different crops are cultivated in different seasons, and depicts the direct relation to the farming experiences with it. The cropping pattern is linked with various climatological, economic and social factors. Hence, the cropping pattern is an influential factor that exhibits the present farming strength of our sample households; one of the main cultivators committed suicide. So, this chapter will focus on the issues related to crop cultivation of those families who faced the painful incident and lost their primary earning member in terms of the farmer's suicide.

5.2 Operational Land Holdings

The following Table 5:1 represents the distribution of operational land holdings among sample households. Here it is found that the own cultivated land contributes more to the total operational holding of the sample households, along with a few acres of leased-in land. On the other hand, some households provided their lesser amount of land to others for cultivation in terms of leased out. The leasing out may happen due to declines or the absence of farmers after a suicidal incident in the households. The table shows that the rental value of both leased-in and leased out is Rs. 8000/- to Rs. 9000/- per acre per crop, respectively, which is quite compatible with the rate of other areas in West Bengal. From the table, it is also found that the total net operated area of our sample households is 20.16 acres.

Table 5:1 Details of Operational Land Holdings by Household

(Land Holding in Acres)

Sl. No.	Particulars	Revisiting Household	New Household*	All Household
1	Owned	22.75	-	22.75
2	Leased in	5.03	-	5.03
3	Leased out	7.62	-	7.62
4	Uncultivated / Fallow land	0.0	-	0.0
5	Rental value of leased in land (Rs/acre)	8088	-	8088
6	Rental value of leased out land (Rs/acre)	9069	-	9069
	Net operated area (1+2-3-4)	20.16	-	20.16

Source: Primary Survey 2021-22

*There are no new cases

5.3 Cropping Pattern

The cropping pattern of the sample households has been elicited in Table 5:2. Here, the table states the average area and different percentages of gross cropped area (GCA) under several crops. It is observed that the gross cropped area (GCA) is 30.20 acres, whereas the net operational land is 20.16 acres. Hence, the GCA is 50 percent higher than the total operated land, which implies a cropping intensity which is 150%. In the section on cropping patterns, it is found that among all the seasons, land under Kharif cultivation is highest and covers almost 55 percent of total GCA, followed by the Rabi and summer seasons. In crop-wise distribution, it is observed that the area of paddy cultivation is much higher, followed by oilseed, vegetables, jute, and potato. It is clearly evident that the sample households are cultivating more traditional food crops than cash crops. This finding establishes that the farming of our sample farming households is to ensure their own subsistence level rather than for commercial purposes.

Table 5:2 Cropping Pattern Followed by Sample Farm Households (n=27)

Sl. No.	Season /Crops	Revisiting Household		New Household**		All Household		
		Area (ac)*	% of GCA	Area (ac)*	% of GCA	Area (ac)*	% of GCA	
I	Rabi							
	1. Fruits and Vegetables	2.33	7.72	-	-	2.33	7.72	
	2. Oilseeds	4.58	15.16	-	-	4.58	15.16	
	3. Potato	.66	2.19	-	-	.66	2.19	
	Subtotal	7.57	25.07	-	-	7.57	25.07	
II	Kharif							
	4. Paddy	16.77	55.53	-	-	16.77	55.53	
	Subtotal	16.77	55.53	-	-	16.77	55.53	
III	Summer							
	5. Jute	1.07	3.54	-	-	1.07	3.54	
	6. Paddy	4.79	15.86	-	-	4.79	15.86	
	Subtotal	5.86	19.40	-	-	5.86	19.40	
IV	Perennials							
	NA	0	0	-	-	0	0	
	Subtotal	0	0	-	-	0	0	
V	Gross cropped area	30.20	100	-	-	30.20	100	
VI	Net cropped area	20.16		-		20.16		
VII	Cropping Intensity (%)	150		-		150		
Source: Primary Survey'2021-22							ac*=Acres	

**There are no new cases

5.4 Crop-wise Expenditure & Income of Major Crops

Table 5:3 represents crop-wise expenditure and income (in terms of revenue) in rupees per acre. It is noticed that sample households are generating more revenue from vegetables and spending more in the same amount as well. Apart from that, jute and mustard also produce a significant profit margin. The margin of profit is very low for paddy, which is the major crop cultivated by the sample households.

Table 5:3 Crop-wise Expenditure & Income of Major Crops (Rs/Acre)

Sl. No.	Name of the Crops	Revisiting Household		New Household**		All Households	
		Exp*	Income	Exp*	Income	Exp*	Income
1	Paddy	22144	28170	-	-	22144	28170
2	Mustard	12106	24717	-	-	12106	24717
3	Vegetables	50626	91730	-	-	50626	91730
4	Potato	32323	36970	-	-	32323	36970
5	Jute	31970	55909	-	-	31970	55909

Source: Primary Survey'2021-22 Exp*= Expenditure

**There are no new cases

5.5 Disposal of Major Farm Produces and Price Realization by Households

Table 5:4 shows the disposal scenario of major crops. In this table, it is noticed that potatoes have been recorded as having the highest disposal amount at the lowest price. Whereas, in the case of mustard, the disposal amount is the lowest, and the market rate has been recorded as the highest among the crops mentioned below.

Table 5:4 Disposal of Major Farm Produces and Price Realization by Households

Sl. No.	Name of the Crops	Revisiting Household			New Household*			All Household		
		Qty	Price	Mkt. Cost	Qty	Price	Mkt. Cost	Qty	Price	Mkt. Cost
1	Paddy	19.0	1286	201	-	-	-	19.00	1286	201
2	Mustard	4.40	5700	0	-	-	-	4.40	5700	0
3	Vegetables	18.20	4988	25	-	-	-	18.20	4988	25
4	Potato	86.90	450	0	-	-	-	86.90	450	0
5	Jute	9.10	5500	0	-	-	-	9.10	5500	0

Source: Primary Survey'2021-22. (Quantity in Quintal/Acre and Price and marketing cost Rs/Quintal)

*There are no new cases

It is also important to mention that the marketing cost is highest for paddy among all crops, which implies marketing inconvenience for the major crop cultivated by sample households.

5.6 Disposal pattern of Major Farm Produces by Markets

The location or place of disposal is shown in Table 5:5, where we can see that for paddy, most of the farmers are selling their product in the private wholesale market, followed by the village market, and vegetables have been sold primarily in village markets. The following table also shows that no one is selling their crops in APMC Mandi, implying reluctance of the sample household to sell their produce at the minimum support price at least for paddy.

Table 5:5 Disposal Pattern of Major Farm Produces by Markets (Number of farmers)

Sl. No.	Crops	Revisiting Household				New Household*				All Household			
		1	2	3	4	1	2	3	4	1	2	3	4
1	Paddy	5	0	7	1	-	-	-	-	5	0	7	1
2	Mustard	0	0	0	2	-	-	-	-	0	0	0	2
3	Vegetables	2	0	1	0	-	-	-	-	2	0	1	0
4	Potato	1	0	0	1	-	-	-	-	1	0	0	1
5	Jute	0	0	0	1	-	-	-	-	0	0	0	1

Source: Primary Survey 2021-22 *There are no new cases

Note: Village market=1, APMC Mandi=2, Private wholesale market=3, Sale from home=4

5.7 Disposal pattern of Major Farm Produces by Market Agencies

In Table 5:6, it is observed that all the responding households have sold their produced product to private traders. This may be due to the smoothness in selling offered by local village traders, private wholesale markets and processing delays or information lacuna in any government agency or APMC Mandi. It is important to mention here that this frequency is taken in both tables for all crops. So, this scenario also indicates their distressed condition in selling their agricultural produces in exact price.

Table 5:6 Disposal Pattern of Major Farm Produces by Market Agencies

Sl. No.	Particulars	Revisiting Household		New Household*		All Household	
		Number	%	Number	%	Number	%
1	Commission agent	0	0	-	-	0	0
2	Govt. agency	0	0	-	-	0	0
3	Processing plant	0	0	-	-	0	0
4	Private company	0	0	-	-	0	0
5	Private trader	21	100	-	-	21	100
6	Any other	0	0	-	-	0	0
	Total	21	100	-	-	21	100

Source: Primary Survey'2021-22 *There are no new cases

5.8 Net Income from Farming Activity

Net income from farm activities in the last year (2020-21), out of its expenditures (both material and labour costs), has been shown in Table 5:7, where it is observed that the contribution of income from vegetable production per acre is highest, followed by jute, mustard, paddy, and potato, respectively. Another noticeable fact in the table is that the net income per acre is recorded lowest for potatoes since it has a higher cost of cultivation and a very low price, i.e., volatile in nature, around the reference year.

Table 5:7 Net Income from Farming Activity by Households

(Income in Rs/acre/annum)

Sl. No	Crops	Revisiting Household	New Household*	All Household
		Income	Income	Income
1	Jute	23939	-	23939
2	Mustard	12611	-	12611
3	Paddy	6026	-	6026
4	Potato	4647	-	4647
5	Vegetables	41104	-	41104

Source: Primary Survey'2021-22 *There are no new cases

Again, per-acre return from paddy cultivation is also very low, where paddy is one of the crucial crops cultivated by the farmers of sample households. These can be considered as some significant influencing factors behind farmers' suicide in West Bengal as well.

5.9 Chapter Summary

The critical findings of this chapter are summarized as below:

- I. In case of 14 sample households those are engaged in farming activities have own land in terms of Operational holding, where as there are few leased in and leased out cultivation operating by the sample households and the average rental value of leased in and leased out land is about Rs. 8000/- to Rs. 9000/- per acre, respectively in the reference year.
- II. Measured gross cropped area (GCA) over net operated land, i.e., cropping intensity (CI) is estimated as 150% for sample households, which is much lower than the state average (189.8%) and a little higher than the national average (144.6%).
- III. It is observed that sample households are doing farming activities for subsistence rather than for commercial purposes. This story can be supplemental as paddy is the main crop cultivated for about 55 percent of total GCA, mainly for securing their annual need of food crops. Concentrating on the cultivation of a single crop suggests that farming activities by sample households are not in a prime attentive position. However, there are still some other crops like mustard, jute, vegetables, and potatoes cultivated by the households along with paddy.
- IV. In the case of the disposal or marketing channel, the study found that no sample farming households are involved with APMC Mandi, and most of them prefer to sell their products to private traders in private wholesale markets and village markets.
- V. In the cost and income from crops section, the study observed three patterns of cost-return relation from cultivation. Per-acre expenditure and income are very high, and net income per acre (expenditure less income) is also high, in the case of crops, vegetables, and jute. On the other hand, per-acre cost is high, but net income is low, e.g., for paddy and potato, where generally returns from the sale of paddy are estimated low over the years, and frequent price volatility lowers the return from the sale of potato in the last few years in West Bengal. The third one is per acre cost is low, but the net income per acre is high in the case of

mustard. Among these three patterns, it is clear that the second one is the worst condition, and unfortunately, the same pattern has been seen in West Bengal, similar to our sample. This can be considered a significant influencing factor behind farmers' suicides in West Bengal.

Chapter - 6: Credits and Sources of Net Income

6.1 Introduction

Income is the backbone and the only weapon to fulfil the requirements of daily life in order to maintain the standard of living. But in the neediness of money, if income earning fails to support or meet its demand, the household has to arrange by borrowing money from any person or any institution. Generally, the households belonging to the agrarian sector take loans to meet a shortfall in income, mostly during the time of crop sowing. The situation might be even worse for those households whose one of the leading earning members had committed suicide. So, in this chapter, the study is focused on assessing the role of credit and net income of sample households, as the inability to repay the loans can be an important parameter in farmers' suicide.

6.2 Loans Borrowed

The average amount and percentage of loans borrowed by the sample households from different sources have been elicited in Table 6:1. Here, it is found that out of 27 sample households, 19 households are indebted in nature (above 70 percent). In the sectoral distribution of borrowing, it is found that 24 different loans have been taken by the 19 indebted households and among the various sources of borrowing, loans from other borrowing sources' others' is highest, followed by the co-operative bank, money lender, friends and relatives, and the commercial bank, respectively. The sources of others are very high due to Self Help Group (SHG) loans being included in that part, and in rural Bengal, taking SHG loans is very common, as reflected in our sample households as well. Considering the distribution of borrowing amount is taken from different sources, it is found that 28.13 percent of the total amount is taken from the commercial bank, followed by money lenders, friends and relatives, and co-operative banks. One of the alarming situations is that the percentage amount of loans from money lenders is very high, which may push the households towards a miserable situation in the future, as the interest rate is very high for loans from money lenders in their localities, and the households may fall into the interest trap for taking such kind of loans. The average amount of borrowing credit of indebted households is estimated to be Rs. 41157.89/-, whereas the average amount of 24 loans is Rs. 32583.

Table 6:1 Loans Borrowed by Households during the last 5 years (Rs. in lakh)

Sl. No.	Sources of borrowing	No. of HHs	Revisiting Household		New Household**		All Household	
			Average Amount	% of Total	Average Amount	% of Total	Average Amount	%
1	Commercial Banks	3	73333	28.13	-	-	73333	28.13
2	RRBs	0	0	0.00	-	-	0	0.00
3	Co-operative Banks	5	29000	18.54	-	-	29000	18.54
4	Traders and Commission agents	0	0	0.0	-	-	0	0.0
5	Money lenders	4	42000	21.48	-	-	42000	21.48
6	Friends and relatives	4	39250	20.08	-	-	39250	20.08
7	Others (SHG, etc)	8	11500	11.77	-	-	11500	11.77
8	Total	24	32583	100.00	-	-	32583	100.00
9	Total No. of Indebted Household	19*	41157.89	100.00	-	-	41157.89	100.00

Source: Primary Survey'2021-22: *19 households are indebted with 24 different loans as one household can avail multiple sources of loan

**There are no new cases

6.3 Loans Outstanding

The outstanding loan indicates the present loan liability of sample households that must be repaid. The following table 6:2 observed that the outstanding amount has been recorded highest for the loans taken from commercial banks, followed by loans from money lenders, friends and relatives, co-operative banks, and others. From the table, it is evident that the average amount of outstanding is more than the amount borrowed from moneylenders. It is due to the interest trap, i.e., the households are failing to repay the loan, and even a higher rate of interest makes the interest amount also high, resulting in a much higher outstanding loan, even if more than the borrowed amount in some cases. This huge loan outstanding, along with the principal amount, creates a worse financial situation in the sample households.

Table 6:2 Loans Outstanding Amounts by Households during last 5 years (Rs. in lakh)

Sl. No.	Particulars	No. of HHs	Revisiting Household		New Household**		All Household	
			Average Amount	% Amount of Total Loan	Average Amount	% Amount of Total Loan	Average Amount	%
1	Commercial Banks	3	63387	26.08	-	-	63387	26.08
2	RRBs	0	0	0.0	-	-	0	0.0
3	Co-operative Banks	5	22000	15.09	-	-	22000	15.09
4	Traders Commission agents	0	0	0.0	-	-	0	0.0
5	Money lenders	4	47000	25.78	-	-	47000	25.78
6	Friends and relatives	4	39250	21.53	-	-	39250	21.53
7	Others (Specify)	8	10500	11.52	-	-	10500	11.52
	Total	24	30381.70	100.00	-	-	30381.70	100.00
	Total No. of Indebted Household	19*	38376.89	-	-	-	38376.89	-

Source: Primary Survey'2021-22: *19 households are indebted with 24 different loans as one household can avail multiple sources of loan

**There are no new cases

6.4 Purpose of Loan Borrowed by Victim Households

Table 6:3 shows the purpose-wise distribution of loans for which the victim households took the loans.

Table 6:3 Purpose of Loan Borrowed by Victim Households

Sl. No.	Purpose of Borrowing	Revisiting Household		New Household**		All Household	
		Nos	%	Nos	%	Nos	%
1	Children's education and marriage	0	0.00	-	-	0	0.00
2	Family expenditure	8	27.59	-	-	8	27.59
3	Crop production and Infrastructure development	12	41.38	-	-	12	41.38
4	Business and health	5	17.24	-	-	5	17.24
5	Others (House construction, purchasing of vehicles, etc)	4	13.79	-	-	4	13.79
	Total	29	100.00	-	-	29	100.00
	Total No. of Indebted Household	19*	-	-	-	19*	-

Source: Primary Survey'2021-22: *19 households are indebted with 24 different loans for 29 different purposes as one household can avail multiple sources of loan and multiple purposes

**There are no new cases

19 sample households have taken 24 loans for 29 different purposes. The purpose of borrowing is highest for crop production and infrastructure development (41.38%), followed by the purpose of family expenditure, business and health, and other purposes.

6.5 Composition of Annual Off-Farm and Non-Farm Net Income

The following Table 6:4 shows the composition of annual income from different off-farm and non-farm activities. The percentage share of income is highest (28.70%) from the income source of self-business, followed by the second highest (18.53%) from the income source of non-agricultural labour. The percentage share of aggregate income from both agricultural and non-agricultural labour is about 34 percent, and the self-business percentage share is about 63 percent. These three sectors are considered the principal earning sources for this sample household. The income from government salaried is higher than private salaried, contributing 16.69 percent to the total income, followed by the private salaried, 6.36 percent. It is also found that the annual income generation from others also has a moderate share, as all the government benefits are included in that part, along with PM-Kisan by the Central Govt. and Krishak Bandhu by the State govt. of West Bengal. Again, some of the transfer earnings received by the sample household's members are also included in that part.

Table 6:4 Composition of Annual Off-Farm and Non-Farm Net Income of Households in the Village by Livelihood Groups

Sl. No	Sources of income	Revisiting Household		New Household*		All Household	
		Income	%	Income	%	Income	%
1	Agricultural labour	17786	15.90	-	-	17786	15.90
2	Govt. Salaried	18667	16.69	-	-	18667	16.69
3	Private Salaried	7111	6.36	-	-	7111	6.36
4	Agri. business	2700	2.41	-	-	2700	2.41
5	Self-business	32107	28.70	-	-	32107	28.70
6	Non-agriculture labour	20722	18.53	-	-	20722	18.53
7	Household Work	356	0.32	-	-	356	0.32
8	Others (Various Govt. benefit +transfer earning)	12406	11.09	-	-	12406	11.09
	Total	111855	100.00	-	-	111855	100.00

Source: Primary Survey'2021-22

*There are no new cases

6.6 Net Income from Farming Activity

The earnings from agricultural activities are depicted in Table 6:5. Here, it is found that the percentage share of farm income is high for paddy, followed by vegetables, mustard, jute, and potato. Though the return per acre of paddy is severely low, the area covered by the cultivation of paddy is much higher in West Bengal, as per our sample households. It is also found that the average income from cultivation per annum is very low (Rs. 12232 per annum) for our sample households, which is true all over West Bengal as well. One of the foremost issues regarding the low return from crop cultivation in West Bengal is the severely low per-hectare yield for the prime crop, paddy.

Table 6:5 Average Net Income from Farming Activity by Households

(Income in Rs/annum)

Sl. No	Crops	Revisiting Household		New Household*		All Household	
		Income	%	Income	%	Income	%
1	Jute	856	7.00	-	-	856	7.00
2	Mustard	2751	22.49	-	-	2751	22.49
3	Paddy	4239	34.66	-	-	4239	34.66
4	Potato	156	1.28	-	-	156	1.28
5	Vegetables	4230	34.58	-	-	4230	34.58
	Total	12232	100.00	-	-	12232	100.00
<i>Source: Primary Survey'2021-22</i>						*There are no new cases	

6.7 Chapter Summary

- I. Incidents of indebtedness, i.e., percentage of the indebted household to total households for the sample is 70.37%, which is very high for the study sample.
- II. At present, the amount of outstanding loans is more than the amount borrowed from a money lender. This may indicate that some indebted sample households have fallen into the interest trap by the money lender.
- III. Sample households mainly have taken loans for agricultural activities, followed by family expenditure, business and health, and other purposes like house construction and purchase of vehicles.
- IV. The percentage share in aggregate income from agriculture and non-agriculture labour is about 34 percent, and considering self-business, this share becomes about 63 percent, clearly revealing that these three sectors can be treated as the principal earning sources among the sample households.

- V. In agricultural activities, the net income is highest for the paddy, followed by the vegetables, mustard, jute, and potato. The return from the cultivation of almost all crops is very low, leading to a low farm income for the agricultural household. The return from potatoes is severely low due to the very low price in the reference year. In the case of potatoes, it is observed that the price has been very volatile over the years in West Bengal.

Chapter - 7: Adequacy of the current income levels to meet current expenditure of victim's households

7.1 Background

Expenditure is an integral part of daily life, and it is incurred to consume basic needs like food, clothes, harmless shelter to survive as a human being. Generally, expenditure is backed up by the level of income, and a sufficient amount of income leads to meeting the adequate expenditure level of any household. In every study, the relation of income and expenditure is essential, and for this very study, it is very crucial to inquire into the income-expenditure relation after the decease of the main earning member a few years back. So, this chapter is an attempt to emphasize on the current income and consumption pattern and its relationship for the resurveyed households.

7.2 Sources of Household Income

The amount of annual income earnings (in Rs.) from different sectors or occupations and its share in total income has been presented in Table 7:1, where it is observed that the annual income share is highest from non-farm activities for the sample households (69.84%), followed by the share of off-farm income (20.30%) and farm income (9.86%). Here, it is also found that the share of earnings from farm income is critically low, even below ten percent of the total income of the households, which postulates the present critical agricultural situation of victim households, indicating the vulnerability of farm income in West Bengal (29.75%, NSSO, 77th round, 2018-19). A possible reason behind the critically low share of income from farming in sample households that the farming activities declined or most of the family members have been shifted to other off-farm and non-farm sectors, after the suicidal incident. From the following table, it is also found that the per capita income in the reference year is Rs. 31950. It is also important to mention here that although the total income is found very satisfactory, the distribution of it across sample households is not so equal, and it is happening for some outlier values of income, depicted in Figure 7:1 below in a Lorenz curve.

Table 7:1 Sources of Household Income (Rs/Annum)

Sl. No.	Sources of income	Revisiting Household		New Household*		All Household	
		Income	%	Income	%	Income	%
1	Farm Income	12231	9.86	-	-	12231	9.86
2	Off-farm Income	25188	20.30	-	-	25188	20.30
3	Non-farm Income	86667	69.84	-	-	86667	69.84
4	Total income	124085	100.00	-	-	124085	100.00
5	Per capita income (Rs/Annum)	31950	-	-	-	31950	-

Source: Primary Survey'2021-22 *There are no new cases

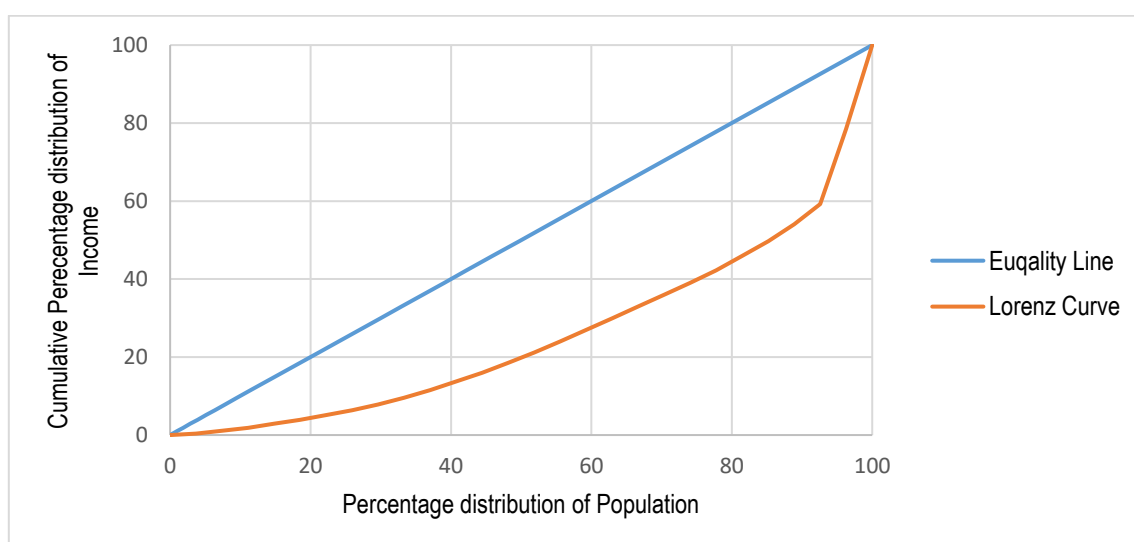


Figure 7:1 Income Distribution for the Sample Households

7.3 Composition of Annual Income by Castes

The composition of annual income from all sources across different castes is shown in Table 7:2. Here, it is seen that the income contribution in total is highest by the general category, followed by the scheduled caste, OBC, and scheduled tribe categories, respectively. From the following table, it is also found that the number and percentage of victim resurvey households are highest with the scheduled caste category, followed by general, OBC, and scheduled tribe categories.

Table 7:2 Composition of Annual Income by Castes

Sl. No.	Particulars	Revisiting Household		New Household*		All Household		Per capita income (Rs/Annum)	
		Income	No. & % of HH	Income	%	Income	No. & % of HH	Income	No. & % of HH
1	General (GM)	190490	7(26)	-	-	190490	7(26)	46285	7(26)
2	OBC	70972	5(18)	-	-	70972	5(18)	35456	5(18)
3	Scheduled Caste (SC)	116272	14(52)	-	-	116272	14(52)	24999	14(52)
4	Scheduled Tribe (ST)	34206	1(4)	-	-	34206	1(4)	11402	1(4)
	Average	124085	27(100)	-	-	124085	27(100)	31950	27(100)

Source: Primary Survey'2021-22 *There are no new cases

7.4 Expenditure on Food Items

Total annual expenditure on both food and non-food items has been elicited in Tables 7:3 and 7:4, respectively. Table 7:3 shows that the victim households are expending more on staple foods (Rice/wheat and pulses) and vegetables, and lesser annual expenditures on protein items (Egg, fish, meat, milk, etc.), which is not very unusual in rural Bengal, revealing a picture of their food culture. The expenditure on other food items is also high, as sugar and jaggery, spices, milk, milk products, edible oil, etc., are included in it.

Table 7:3 Expenditure Incurred on Food Items (Rs/year)

Sl. No.	Sources of Expenditures on Food Items	Revisiting Household		New Household**		All Household	
		Exp	%	Exp	%	Exp	%
1	Cereals and Pulses	10176	20.80	-	-	10176	20.80
2	Vegetables+ Fruits	12888	26.40	-	-	12888	26.40
3	Meat, fish and egg+ Milk	9600	19.60	-	-	9600	19.60
4	Beverages and intoxicants	2676	5.50	-	-	2676	5.50
5	Processed foods	1656	3.40	-	-	1656	3.40
6	Other Foods*	11868	24.30	-	-	11868	24.30
	Total food expenditure	48864	100.00	-	-	48864	100.00

Source: Primary Survey'2021-22
 *Others foods = Sugar and Jaggery, Spices, Milk and milk products, Edible oil etc. as in the questionnaires' these items were not included.

**There are no new cases

7.5 Expenditure on Non-Food

In Table 7:4, it is very interesting to note that the victim households' medical expenditure contributed the highest, stating their physical and mental level susceptibility on a regular basis. However, the average annual expense of sample households on clothing, usage of electricity, phone, and LPG also have a significant share, and even the expenditure share on education lies below these.

Table 7:4 Expenditure on Non-Food (Rs/year)

Sl. No.	Sources of Expenditures on Non-Food Items	Revisiting Household		New Household**		All Household	
		Exp	%	Exp	%	Exp	%
1	Clothing	4322	20.5	-	-	4322	20.5
2	Education	2296	10.9	-	-	2296	10.9
3	Medical	5348	25.4	-	-	5348	25.4
4	LPG Gas	3556	16.9	-	-	3556	16.9
5	House rent / repairs	84	0.4	-	-	84	0.4
6	Electricity+ Phone & Entertainment	3768	17.9	-	-	3768	17.9
7	Phone and Entertainment	-	-	-	-	-	-
8	Cleaning & personal care	400	1.9	-	-	400	1.9
9	Ceremonies	1041	4.9	-	-	1041	4.9
10	Remittances / transfers	0	0.0	-	-	0	0.0
11	Taxes, litigation and other charges	46	0.2	-	-	46	0.2
12	Repairs of machinery, house, etc.)	196	0.9	-	-	196	0.9
13	Petrol/diesel for two/four-wheeler*	0	0.0	-	-	0	0.0
14	Other non-food Expenditure	23	0.1	-	-	23	0.1
	Total non-food expenditure	21080	100	-	-	21080	100

Source: Primary Survey'2021-22, * Petrol/diesel for two/four-wheeler expenditure included with other non-food expenditure.
 **There are no new cases

7.6 Total Expenditure Incurred on Food and Non-Food Items

In the relation of total food and non-food expenditure to total expenditure, it is observed from Table 7:5 that the percentage share is relatively high for food expenditure than non-food items in the total annual expenditure of sample households, possibly implying that victims' families have been incurring expenditure more on food items for least sustenance or to meet the demand for necessary food items over the non-food items.

Table 7:5 Total Expenditure Incurred on Food and Non-Food Items (Rs/Year)

Sl. No.	Sources of Expenditures	Revisiting Household		New Household*		All Household	
		Exp	%	Exp	%	Exp	%
1	Total food expenditure	48864	70	-	-	48864	70
2	Total non-food expenditure	21080	30	-	-	21080	30
	Total expenditure	69944	100	-	-	69944	100
<i>Source: Primary Survey'2021-22</i>						<i>*There are no new cases</i>	

7.7 Adequacy of Income to Meet the Expenditure on the Part of Farm and Non-Farm Households

In the following Table 7:6, the adequacy of farm income to meet the total annual expenditure has been shown, where it is found that the crop income-expenditure ratio and farm income-expenditure ratio are the same at the level 0.17. This implies that the sample households have not been involved in other farming activities other than crop cultivation. Here, it is also observed that the total income-expenditure ratio is more than one (1.77), implying higher annual income than the expenditure, indicating that the sample households can earn adequate income to meet their expenditure, possibly. But as mentioned earlier, it can happen for some outlier values of income as well. So, perhaps it should not be concluded from here that the income-earning position is satisfactory for all households. But on the contrary, it can be possible since, after the incident, the rest of the earning members are focused on securing non-farm and off-farm income sources rather than uncertain farm income, and as a result, the income generation from non-farm activities is possibly higher, which leads to maintaining the adequate income level of the households.

Table 7:6 Adequacy of Farm Income to Meet the Expenditure (Rs/Annum)

Sl. No.	HH category	Average annual household expenditure	Adequacy of crop income		Adequacy of farm income		Adequacy of total income	
			Crop income	Crop income-expenditure ratio	Farm income	Farm income-expenditure ratio	Total Income	Total income-expenditure ratio
1	Revisiting Household	69944	12231	0.17	12231	0.17	124085	1.77
2	New Household*	-	-	-	-	-	-	-
3	All Household	69944	12231	0.17	12231	0.17	124085	1.77
Source: Primary Survey'2021-22							*There are no new cases	

7.8 Chapter Summary

- I. It is found that the share of earnings from farm income to total income is 9.86%, which is critically low. This result concludes that after the commitment of suicide by the particular farmer of the sample households, the farming activities have declined, and most of the family members were shifted to other off-farm and non-farm employment sectors.
- II. Composition of annual income from all sources across different castes is highest for the general category, followed by the scheduled caste, OBC, and scheduled tribe categories. It is also found that the number and percentage of victim households are highest in the scheduled caste category, followed by general, OBC, and scheduled tribe categories.
- III. It is evident that the victim households are spending more on staple foods (Rice/wheat and pulses) and vegetables than on other food items, implying their food preference, and in the total expenditure, the share of food expenditure is more than double to non-food expenditure, not very unusual for rural Bengal.
- IV. It is found that the crop income-expenditure ratio and farm income-expenditure ratio is the same at the level .17. This concludes that the sample households have not been involved in other farming activities other than crop cultivation.
- V. It is also observed that the total income-expenditure ratio is more than one (1.77), implying higher annual income than expenditure, which in turn indicates that the sample households are capable of earning adequate income to meet over expenditure. This concludes that, at present, the earning members of sample households are focused on securing non-farm and off-farm income sources rather than uncertain farm income,

and as a result, the income generation from non-farm activities is higher, which leads to maintaining an adequate income level of the households.

Chapter - 8: Causes and Ways to Tackle the Root Cause

8.1 Introduction

In this present study of farmers' suicide, the foremost concerning issue is the proper enquiry of the reasons for suicides, which will help to find out the ways to tackle such an unforeseen incident in society. If we try to develop any particular theory regarding the causes of farmers' suicide, it is very hard to summarise a particular cause; rather, we will arrive at a state where an integration of several interrelated issues (social, economic, environmental, and psychological) is present behind the decision by a farmer to exterminate himself by several methods. This chapter is basically developed to identify the leading root causes behind farmers' suicide and ways to tackle those causes. But due to having no new cases during the reference period in West Bengal, this chapter will only focus on the revisited households, where the causes are repeated that had already been published in the earlier report in the year 2017⁴.

8.2 Symptoms of suicides noticed by the victim households

Symptoms of suicide are mental as well as physical reflection, indicating the change from normal conditions to both mental and physical imbalance by the victim, and that indication may help us as a hint or clue to characterize the then internal condition of the victim.

Table 8:1 is prepared with such a reflection noticed before the misery by the family members. It was reported that in 70 percent of cases of sample farmers' suicide, victims did not give any clue or family members did not get any clue from the victims as they were mingling with their family. It is more obvious because 48 percent of the total sample households reported that the suicide victim had maintained social relations with the local community. It was also noticed that a couple of days before the accident, 56 percent of the victims did not normally behave toward their friends, and 41 percent of total suicide victims reduced their food than the usual quantity. Significantly, 70 percent of responses stated that the victim was not sleeping adequately, which was a possible hint before committing suicide.

⁴ <https://www.visvabharati.ac.in/file/Summary-183.pdf>

Table 8:1 Symptoms Observed by the Family Members before the Suicide Incident

Sl. No.	Symptoms notice in victim	Revisiting Household		New Household*		All Household	
		No	%	No	%	No	%
1.	Was victim mingling with his/her own family member?	19	70	-	-	19	70
2.	Was victim mingling with his/her own community?	13	48	-	-	13	48
3.	Was victim mingling with his/her neighbouring households/friends?	12	44	-	-	12	44
4.	Was victim consuming food regularly?	16	59	-	-	16	59
5.	Was victim sleeping adequately during nights?	8	30	-	-	8	30
6.	Others (specify)	0	0	-	-	0	0

Source: Primary Survey'2016-17.
Note: The Total number of farmers' revisiting household is 27. The result not be identical with previous report as 3 numbers of household have not been traced for the present study

*There are no new cases

8.3 Method of Suicides by the victim

The method of suicide is nothing but a way by which one is driven to make an end of his or her life. As mentioned frequently, in the context of farmers' distress, it is not merely an act in isolation but rather the specific means through which an individual, driven by devastating financial pressures, social marginalization and psychological exhaustion, ultimately brings an end to his or her life. It represents the culmination of a prolonged struggle against debt, crop failure and systemic neglect, where the chosen method becomes the final expression of despair rather than a random occurrence. In this sense, the method of suicide is both a symbolic and practical pathway through which the farmer's unresolved hardships manifest in the most tragic outcome, leaving behind households to hand-to-hand struggle with the enduring consequences of economic instability, emotional trauma and social stigma. Among various methods, the victim generally chooses the most common or usual ways available to them, or sometimes a more unusual way has been taken to hide their premeditated decision of suicide from other family members. However, from the following Table 8:2, it was observed that most of the suicides were committed through hanging, followed by poison consumption in terms of pesticides, which is obvious as well due to its availability to the farmers for farming activities.

Table 8:2 Methods or Types of Suicides by the Victim

Sl. No.	Method/types of Suicides	Revisiting Household		New Household*		All Household	
		No	%	No	%	No	%
1.	Poison consumption	13	48	-	-	13	48
2.	Hanging	14	52	-	-	14	52
3.	Jumping in river/well	0	0	-	-	0	0
4.	Current shock	0	0	-	-	0	0
5.	Self-immolation	0	0	-	-	0	0
6.	Railway track	0	0	-	-	0	0
7.	Others (specify)	0	0	-	-	0	0

Source: Primary Survey'2016-17 *There are no new cases

8.4 Place of Suicide by the victim

The following Table 8:3 describes the place of suicide by the victim. Here it is found that almost 78 percent of total cases happened in their own houses, followed by the farm/farmhouse and roadside.

Table 8:3 Place of Suicide by the victim

Sl. No.	Place of Suicide	Revisiting Household		New Household*		All Household	
		No	%	No	%	No	%
1.	House	21	78	-	-	21	78
2.	Farm /farm house	4	15	-	-	4	15
3.	Lodge/Hotel	0	0	-	-	0	0
4.	Road side	2	7	-	-	2	7
5.	Others (specify)	0	0	-	-	0	0

Source: Primary Survey'2016-17 *There are no new cases

8.5 Social causes of farmers' suicides

In the section on the leading causes behind the farmers' suicide, the study is very much concerned to find out the main root causes of farmers' suicide, and in doing so, the causes can

be classified into three sub-sections: social causes, farming causes and the causes arising due to indebtedness.

Table 8:4 Social Causes of Farmers' suicides

Sl. No.	Social Causes	Revisiting Household		New Household*		All Household	
		No	%	No	%	No	%
I.	Poverty						
	1. APL	5	19	-	-	5	19
	2. BPL	19	70	-	-	19	70
	3. AAY	7	26	-	-	7	26
II	Property Dispute						
	1. Partition of land	0	0	-	-	0	0
	2. Partition of house	0	0	-	-	0	0
	3. Partition of income	0	0	-	-	0	0
	4. Partition of Jewellery	0	0	-	-	0	0
	5. Others (specify)	0	0	-	-	0	0
III	Marriage						
	1. Dowry related issues	0	0	-	-	0	0
	2. Extra marital affairs	3	11	-	-	3	11
	3. Divorce	0	0	-	-	0	0
	4. Love failure	3	11	-	-	3	11
	5. Others (specify)	1	4	-	-	1	4
IV	Family Problems						
	1. Social functions	5	19	-	-	5	19
	2. Daughter's marriage	3	11	-	-	3	11
	3. Son's marriage	0	0	-	-	0	0
	4. Frequent quarrel among the family members	13	48	-	-	13	48
	5. Fall in social reputation	12	44	-	-	12	44
	6. Illness*	11	41	-	-	11	41
	7. Drug abuse/Alcoholic addiction	5	19	-	-	5	19
	8. Gambling/Betting /Chit fund	0	0	-	-	0	0
	9. Others (specify)	0	0	-	-	0	0
Source: Primary Survey'2016-17						**There are no new cases	

In case of finding social causes, the above Table 8:4 is prepared based on the responses that came from the respondents of the victim households. Here in the table, the attempted enquiry to find root causes of suicide further decomposes the social causes into four different aspects: poverty level, property dispute, marriage-related problem, and family problem. It is found that poverty as a cause of suicide is recorded at a very high. Almost 70 percent of responses belong to the category below the poverty line (BPL), which clearly reveals that poverty is a prime cause behind the farmers' suicide. Again, the family-related problem is another important social aspect that leads to farmers' suicide. From the table, it is clear that the family-related causes, like frequent quarrels among the family members, are a very significant cause, and even this leads to a fall in social reputation in their locality, which in turn is another vital cause of farmers' suicide. Apart from these causes, the illness is also marked by the victim's households as a cause of happening that drastic incident. Drug or alcohol addiction, daughter marriage, and social function are also reported by the respondents of the victim households as some important causes of farmers' suicide in West Bengal. Some of the responses reported by the victim households also pointed to causes related to the marriage issues behind this unforeseen incident. Another sub-category of social causes of the farmers' suicide, i.e., property dispute, is not considered a cause of suicidal incidents in West Bengal.

8.6 Farming Causes of Farmers' suicides

In the case of farmers' suicide, the decision to exterminate themselves by any means, some direct imbalances are present, along with an association of some subsidiary phenomena behind the finalization of the decision to commit suicide. In this particular study of farmers' suicide, it is generally found that the direct misbalances are primarily occur due to any significant loss in farming activities and as a result, it produces other disturbances in social life. So, it is very clear that commitment to this kind of suicidal incidents is nothing but a composition of all these imbalances. Thus, in this enquiry, it is essential to critically examine the causes related to farming activities.

Here, based on the responses from respondents of the victim households, Table 8:5 is prepared to understand the contribution of farming-related imbalances for finding the root causes of farmers' suicide. To serve this purpose, the study further decomposes the farming causes into three different aspects, such as failure of crops, occurrence of natural calamities, and expectations about various farming-related issues.

Table 8:5 Farming Causes of Farmers' suicides

Sl. No.	Social Causes	Revisiting Household		New Household*		All Household	
		No	%	No	%	No	%
I	Failure of Crops						
	1.Pests & diseases	12	44	-	-	12	44
	2.Lack of access to irrigation water	11	41	-	-	11	41
	3.Cultivation of high commercial crops	0	0	-	-	0	0
	4.Adoption of high-cost technology	0	0	-	-	0	0
	5.Others (specify)	0	0	-	-	0	0
II	Due to Natural Calamities						
	1.Cyclone effect	0	0	-	-	0	0
	2.Crisis of rainfall/drought	3	11	-	-	3	11
	3.Accidental fire	0	0	-	-	0	0
	4.Others specify (Hailstorm)	10	37	-	-	10	37
III	Expectations of:						
	1. Higher output	16	59	-	-	16	59
	2. Higher prices	16	59	-	-	16	59
	3. Loan waiving	12	44	-	-	12	44
	4. Institutional credit	9	33	-	-	9	33
	5. Non-institutional credit	12	44	-	-	12	44
	6. Inability to sell output	12	44	-	-	12	44
	7. Well failures	4	15	-	-	4	15
	8. Quarrel between the victim & others	10	37	-	-	10	37
	9. Lack of extension services	20	74	-	-	20	74
	10. Delayed payment/ payment in instalments for the sold output	11	41	-	-	11	41
	11. Insurance for the cultivated crop	0	0	-	-	0	0
	12. Others (specify)	0	0	-	-	0	0
	13. Others (specify)	0	0	-	-	0	0
<i>Source: Primary Survey'2016-17</i>				*There are no new cases			

In the above table, it is clear that crop failure due to pests & diseases and lack of access to irrigation water are among the important causes of these drastic incidents like farmers' suicide.

Apart from that, respondents of victim households also reported losses due to the occurrence of natural calamities as another farming-related cause behind the suicide commitment by the farmers. Here, the causes of natural calamities arise mainly due to the crisis of timely rainfall and hailstorms during harvesting seasons. It is also reported that the farmers' expectation to get higher output, higher crop prices, credit facilities and loan waivers are also some significant farming-related causes of farmers' suicide. Here it is to be noted that the lack of extension service as a vital cause of farmers' suicide is very high, which indicates the negligence in supporting the farming activities by the Government in West Bengal. Some of the respondents also blamed the delayed payment of sold crops as a cause of farmers' suicide.

8.7 Indebtedness Causes

Indebtedness can be linked directly to the incidence of farmers' suicide. It is a common phenomenon that the loans are taken by the farmers mostly from the unorganized monetary sectors or from any non-institutional sources, with the prior verbal contract of repayment after the end of crop harvesting. But if any losses occur in the production and for the inconveniences that took place in the marketing system, the farmers naturally failed to repay the loan, which leads them to fall into an interest trap. This type of continuous burden is a very significant cause of the issue of farmers' suicide. It is also found in the following Table 8:6 that 63 percent of responses reported in favour of non-institutional credit, which clearly depicts it is a significant cause behind this tragic incident.

Again, 48 percent of respondents also pointed out the crop loan as a cause of farmers' suicide, followed by 37 percent for the non-agricultural loan and 19 percent for farm equipment loans, respectively. The contribution of non-institutional loans to farmers' suicide becomes more compatible when it is seen that 56 percent of household respondents blamed indebtedness pressure from non-institutional sources as the main cause of farmers' suicide. This pressure is recorded as 11 percent for indebtedness from institutional sources; most of the victim farmers did not have the proper land title paper on his or her own name to get an institutional loan. Apart from those official procedures also limits its access to at least the sample households.

Table 8:6 Indebtedness Causes of Farmers' suicides

Sl. No.	Indebtedness Causes	Revisiting Household		New Household*		All Household	
		No	%	No	%	No	%
Indebtedness – Institutional & Non-Institutional							
1	Due to crop loan	13	48	-	-	13	48
2	Due to farm equipment's' loan	5	19	-	-	5	19
3	Due to non-agricultural loan	10	37	-	-	10	37
4	Due to non-institutional loan	17	63	-	-	17	63
5	Due to pressure from institutional sources	3	11	-	-	3	11
6	Due to pressure from non-institutional sources	15	56	-	-	15	56
<i>Source: Primary Survey'2016-17</i>				*There are no new cases			

8.8 Impact on Victims' Household after the Suicide Incident

Suicide is an easy answer to that bedevilled, escaping from the imbalance of life and all the then existing pressures. However, after the rigorous incident, it thrusts the rest of their family members toward an indefinite future, which is possibly much more severe than the pressure for which the victim to commit suicide. In Table 8:7, an attempt is made to catch the socio-economic changes of the victim's household after the incidents. It is observed that 78 percent and 48 percent of responses go towards "Family under depression" and "fell seriously ill," respectively, revealing a typical case after the suicide. Besides that, the accident impacted their families in various dimensions, such as lack of food, eating poor quality food, lack of social security, inability to purchase food and non-food materials, etc. The most significant finding reported by the respondent of the victim households is that the tragic incident impacted a lot to the farming activities of the suicide victims' households.

Table 8:7 Impact on Victims' Household after the Suicide Incident

Sl. No.	Effect after Suicide Incident	Revisiting Household		New Household*		All Household	
		No	%	No	%	No	%
1	Agricultural activities stopped	12	44	-	-	12	44
2	No earning member	2	7	-	-	2	7
3	Schooling of the children stopped	4	15	-	-	4	15
4	Land sold	6	22	-	-	6	22
5	House sold	0	0	-	-	0	0
6	Postponement of son's/ daughter's marriage	0	0	-	-	0	0
7	Family member/s fell seriously ill	13	48	-	-	13	48
8	Family member/s under depression	21	78	-	-	21	78
9	Insecurity in the family	19	70	-	-	19	70
10	Out-migration of Family members	3	11	-	-	3	11
11	In-migration of Family members	1	4	-	-	1	4
12	Due to poverty went a whole day and night without food?	5	19	-	-	5	19
13	Inability to purchase food and non- food materials?	4	15	-	-	4	15
14	Anxious that the households would not have enough food?	10	37	-	-	10	37
15	Ate some poor-quality foods that you really did not like?	15	56	-	-	15	56
16	Were not able to eat the kind of food you preferred?	14	52	-	-	14	52
17	Did you ask food from your neighbours and guests?	3	11	-	-	3	11
18	Went for outside eating like in temple/ other places?	1	4	-	-	1	4
19	Inability to purchase cloths	0	0	-	-	0	0
20	Other assets sold (specify)	2	7	-	-	2	7

Source: Primary Survey'2016-17 *There are no new cases

8.9 Perceptions about Changes of Farmers Suicide Household

With the continuation of the issues regarding the impact on the households after a suicide incident, Table 8:8 depicts the most significant picture regarding the social condition and the family's employment pattern. In the above Table 8:7, a significant impact is observed in the farming activities where farming activities drastically fall or stop after the suicide, which pushed the rest of the family members to change the employment pattern. In the following Table 8:8, it is found that 82 percent of respondents out of the total sample had to change their employment pattern after the suicide incident. The table also found that 26 percent of respondents agreed that the social condition of their family had changed.

Table 8:8 Perceptions about Changes of Farmers Suicide Household

Sl. No.	Perceptions	Revisiting Household		New Household*		All Household	
		No	%	No	%	No	%
1	Change in Social condition of your family	7	26	-	-	7	26
2	Change in farm infrastructure	2	7	-	-	2	7
3	Change in Agriculture condition (by adopting new technology)	0	0	-	-	0	0
4	Change in employment pattern	22	82	-	-	22	82
<i>Source: Primary Survey'2016-17</i>				*There are no new cases			

8.10 Perceptions about Changes of Farmers Suicide Household

Another important dimension regarding the context of the impact on victim households by the suicide incident is how the existing family members perceive the direction of changes (increased, decreased and no change) in their living conditions after the long years of the incident. The following Table 8:9 is prepared to arrest such kinds of responses by the victim households' members. From the table, it is found that out of 27, twelve households claimed that a degeneration of the economic condition is present after suicide, whereas nine households revealed that their economic condition has improved.

Six households mentioned that their economic condition remained the same as before the incident, and the result is almost the same for the changes in the living standard of the family. A significant change has been observed in the family's medical expenditure and the total expenditure. Most of the respondents have claimed an increase in both medical and overall expenditure. In case of a change of family status in the locality, most of the households responded that no such changes in family status had happened in the village. Another critical finding in that table is that the income generation sources of the rest of the family members of victim households have been significantly increased. This is quite obvious as changing employment patterns leads to an increase in the income generation sources, after the suicidal incident.

Table 8:9 Perceptions about Changes of Farmers Suicide Household

(Numbers)

Sl. No.	Perceptions	Revisiting Household			New Household*			All Household		
		1	2	3	1	2	3	1	2	3
1	Economic condition of your family	9	12	6	-	-	-	9	12	6
2	Incidence of disease and medical expenditure in your family	16	0	11	-	-	-	16	0	11
3	Changes of your family status in the village	4	1	22	-	-	-	4	1	22
4	Change in income generation sources	20	6	1	-	-	-	20	6	1
5	Changes in family standard of living	8	11	8	-	-	-	8	11	8
6	Changes in family expenditure	19	3	5	-	-	-	19	3	5

Source: Primary Survey 2016-17 Note: Increase-1, Decrease-2, No Change-3
 *There are no new cases

8.11 Reason for such changes in the society

Farmer suicide is a tragic and helpless event that drastically changes the family's conditions of the victims and has an impact on various aspects related to social, economic, and psychological dimensions. In most of the cases, it is found that the suicide victim was a prime earning member, and even in some households where the victim was the only income-earning source of the family. Hence, the loss of earning members directly reduces the source of income, and even for some families, it has become a shutdown position of income. So, it is obvious that the economic condition of those households must be improved, and the situation directly impacts their standard of living. In most cases, it is found that the economic condition has drastically deteriorated. There are also some households whose economic condition has improved because of having other prominent earning members who can protect their families from the hardships of those drastic incidents and realities as well. As pointed earlier, the income generation sources have been increased significantly by the members of victim households, indicating a changing employment pattern that leads to an increase in the income generation sources, after the suicidal incident.

8.12 Ways to Tackle the Root Cause

This chapter enquired into the various possible root causes and perceptions that lead to the pathetic incident of farmers' suicide. The ways to tackle the root causes of farmers' suicide are really challenging as there are various heterogeneous reasons behind this farmer's catastrophe, such as economic, social, political and meteorological. As depicted earlier, in a region, almost all the farmers faced the same disaster alike of the victim, but none of them followed the victim's way. So, it is complicated to understand the victims' state of thinking, and many more psychological implications are involved here. However, the calamity starts with some significant economic, social or political imbalances that affect the existing structure of victims' daily life. Hence, improvement in the composite dimensions comprises all economic, social and psychological aspects, which can make some ways to tackle drastic incidents like farmers' suicide, although it is hard to assure the victims' state of mental health. The improvement of the economic dimension indicates the improvement in the financial strength of the farmers. A development in the financial condition of the farmers is possible by reinforcing the farming activities towards a more profitable sector with an assured and appropriate compensation of environmental hazards like changes in rainfall patterns, hailstorms, etc., that affect agricultural production. On the other hand, some alternative income sources for the farmers, along with cultivation, have to be provided. The first one can be ensured by providing adequate agriculture extension facilities that may include input price restriction, sufficient crop harvest price, various types of crop insurance facilities, facilities of institutional loan, strengthening the irrigation systems, improvement of machinery, etc. For the latter, an alternative livelihood support scheme is needed, like MGNREGS, the availability of various agribusiness opportunities, support for various self-employment opportunities, etc. Most of the respondents of the victim households also support these arguments as their suggestions in terms of the economic dimension for tackling the social peril, such as farmers' suicide.

To improve social and psychological dimensions, the best and most general way is to educate the farmers. In general, farmers do not have proper conventional education. So, with the help of adult learning or adult education, basic knowledge can be provided to the farmers, which possibly will help to develop their internal thinking and also generate alternative earning sources. Again, the facility of social counselling is another important possible way towards the development of the social and psychological strength of the farmers.

8.13 Chapter Summary

- I. Changing Victims' sleeping patterns and behaviour noticed by the neighbour and friend were the major symptoms observed by the victim before the incident of suicide, and most of the victim farmers committed suicide by consuming poison and hanging at home.
- II. Imbalances among social, economic and psychological issues are the main root causes of farmers' suicide. The respondents have reported the various problems perceived by the victim that lead to the occurrence of a drastic incident like farmers' suicide. In the social part of the root causes, respondents reported various types of problems faced by the victim, like poverty, family-related problems, drug or alcohol addiction, and daughter marriage-related issues.

The problems like failure of crops due to pests & diseases and climatological issues, irrigation problems, unfulfillment of expectation of getting higher output, higher crop prices, lack of extension services, delayed payment, lack of credit facilities, and loan weaving facilities are the main farming causes of the farmers' suicide reported by the members of the victim's households. Again, the members of farmers' suicide victim households also blamed the causes of indebtedness, mainly non-institutional indebtedness, as another important cause of unforeseen incidents like farmers' suicide.
- III. The incident of the farmers' suicide impacted a lot to the rest of the family members. It mostly affects the rest of the family members' physical and mental health, along with their social security. The most significant finding reported by the respondent of the victim households is that the tragic incident negatively impacted the farming activities of the suicide victim's household. The farming activities drastically declined or totally stopped in some cases, after the incident, and this affected the employment pattern and income generation sources compared to before the incident.
- IV. In the maximum cases, it is found that the economic condition has deteriorated, which affected the standard of living of victim households, and most of the respondents claimed that living standards have declined after the incident.
- V. It is very hard to arrive at a particular root cause behind farmers' catastrophe as several economic, social, political and environmental aspects are involved. But the calamity starts with some major economic, social, or political imbalance that affects the existing structure of the daily life of the suicide victim. Hence, improvement in the composite dimensions comprises all economic, social and psychological aspects, which can make

some ways to tackle the drastic incidents like farmers' suicide, although it is hard to assure the victims' state of mental health.

Chapter - 9: Factor Influencing to Farmers Suicides

9.1 Preamble

In the study related to farmers' suicide, the primary concern is to identify the principal factors those are influencing the decision-making of committing suicide by a farmer and, in turn, which will help to find out the ways to tackle such kind of unforeseen incidents. In the process of developing a particular theory of the farmers' suicide, it is very hard to arrive at an exact cause of suicide, as several co-integrated issues in terms of social, economic, and psychological dimensions are present behind the decision to annihilate themselves. This chapter aims to estimate various factors came from different dimensions that influence the farmer's suicide with the application of particular statistical methods, and that is the novelty of this chapter as well.

But, as mentioned earlier, no new cases have been recorded in the state of West Bengal since the year 2012. So, this study only considered the revisit of those old victim households, where the suicides took place long years back from the current reference year. So, it is not possible to estimate the factors that currently influence the farmers in committing suicide since the data related to several economic dimensions consists of the current period only, whereas the incidents happened in the distant past. Therefore, it would not be possible to fit the present data into the various reasons for past incidents. Apart from that, as these tables consider only the new cases of farmers' suicide, the tables remain blank for this study in the case of West Bengal.

9.2 Contributing Factors for Farmers' Suicides

Due to the absence of new cases in the current reference year, it is not possible to statistically estimate the factors influencing farmers in committing suicide for this particular study in West Bengal. But this study is attempting to look into the root causes behind the farmers' suicide by using a well-structured questionnaire in conducting face-to-face interviews with the existing members of victim households.

The present members of sample households have reported various problems faced by the victim, like poverty, family-related problems, drug or alcohol addiction, and daughter marriage-related issues. The problems like failure of crops due to pests & diseases and climatological issues, irrigation problems, unfulfillment of expectation of getting higher output, higher crop prices, lack of extension services, delayed payment, lack of credit facilities, and loan weaving facilities are the main farming causes of the farmers' suicide reported by the members of the victim's households. Again, the members of farmers' suicide victim households

also blamed the causes of indebtedness, mainly non-institutional indebtedness, as another important cause of unforeseen incidents like farmers' suicide.

9.3 Linear Estimation of Factor Influencing to Farmers' Suicides

Table 9:1 Linear Estimation of Factor Influencing to Farmers' Suicides

(New Cases)

Sl. No	Explanatory variables	Coefficients	t-Stat

*There are no new cases

9.4 Multiplicative Models

Table 9:2 Multiplicative Models for Factor Influencing to Farmers' Suicides

(New Cases)

Sl.No	Explanatory variables	Regression Coefficients	t-Stat

*There are no new cases

Table 9:1 and Table 9:2 are deputed to capture the new cases, but we are unable to do linear estimation and a multiplicative model for factors influencing farmers' suicide, as there are no new cases of farmers' suicide at the time of the survey. So, only a re-survey of previous victim households has been done.

9.5 Chapter Summary

This chapter aims to estimate the various factors of different dimensions that influence the farmer's suicide with the application of statistical methods. But, due to the absence of new cases in the state of West Bengal, this study considered only the revisiting of victim households of the farmers' suicide. Henceforth, all the tables of this chapter remain blank for this study report of West Bengal.

Chapter - 10: Effectiveness of different Governmental Programme Interventions on the Farmers Suicide

10.1 Preamble

Problems related to such social menaces as farmers' suicide can be mitigated by long-term support policies implemented by the Government, through various governmental direct benefit schemes. In this chapter, the study is focused on describing the effectiveness of such different governmental programmes in the context of the farmers' suicide.

10.2 Benefits from Government Programmes

Table 10:1 Benefits from Participation in Government Programmes

Sl. No	Name of the Schemes/ Programmes	No. of farmers benefited out of total sample	Annual benefit availed per beneficiary family (in Rs)
1	Farmers Suicide Scheme	0	0
2	Pradhan Mantri Krishi Sinchayee Yojana (PMKSY, Irrigation)	0	0
3	Pradhan Mantri Fasal Bhima Yojana (PMFBY, Crop Insurance)	0	0
4	Pradhan Mantri Kisan Samman Nidhi (PM-KISAN, Central Government Farm Income Support)	5	5600
5	Pradhan Mantri Kisan Samman Nidhi (PM-KISAN State Government Farm Income Support)	7	5571
6	Pradhan Mantri Kaushal Vikas Yojana (PMKVY/Organic Farming)	0	0
7	Pradhan Mantri Annadata Aay Sanrakshan Abhiyan (PM-AASHA/ MSP Scheme)	0	0
8	Soil Health Card	0	0
9	Credit through KCC Card	2	One time
10	Farm Loan Waiver Scheme	0	0
11	Farm machinery or implements	0	0
12	Seed Minikit Scheme	0	0
13	Food through BPL/APL/AAY Card	27	Rice & Wheat
14	Employment through MGNAREGA	8	One time
15	Housing Scheme (IAY/PMAY)	6	One time
16	PM UJJALA (LPG scheme)	9	
17	Others (Specify)	6	14000
<i>Source: Primary Survey'2021-22</i>			

The above Table 10:1 depicts the benefits availed from government programmes or schemes by the sample victim households. It is observed that PDS is the only scheme whose benefit has been reaching all sample households in terms of rice and wheat at a subsidised rate, whereas very few sample households have been availing the monetary benefit of 'PM-Kishan' (Central

Government Farm Income Support scheme) and ‘Krishak Bandhu’ (State Government Farm Income Support scheme in West Bengal). The story remains the same for the housing scheme (IAY and PMAY), ‘PM-Ujjwala Yojana’ (LPG scheme) and 100 days employment generation scheme through ‘MGNREGS.’ It is also interesting that 6 households get financial benefit from other sources like local resource persons, relatives and neighbours. But most surprisingly, no households have benefited from the farmers’ suicide compensation scheme. This is happening possibly because there is no record of farmers’ suicide in the NCRB report for West Bengal since 2012.

10.3 Transaction cost incurred by farmers in availing the benefits

Transaction costs incurred to avail the above-mentioned benefits have been shown in Table 10.2, where it is found that members in the sample households have experienced the highest loss of man-days to avail the central and state farm income support schemes like ‘PM-Kishan’ and ‘Krishak Bandhu’. Whereas, they spent comparatively fewer man-days to get the benefits of other government programs like housing schemes, LPG scheme, etc. Apart from these, although some man-days have been lost by the sample households to avail other governmental programmes, they did not incur any direct transaction cost except the benefits programme of PM-UJJWALA Yojana (the LPG scheme), shown in the following Table 10:2. Despite incurring no transaction cost for most of the benefits received by the households, some opportunity cost of spent man-days to avail the benefit have been calculated that is shown in the following table. The opportunity cost has been estimated by the valuation of man-days with the average wage rate of the nearby locality of that particular sample. From Table 10:2, it is also found that the total transaction cost is highest for the PM-KISAN, Central Government Farm Income Support scheme.

Table 10:2 Transaction Cost Incurred by Farmers in Availing the Benefits

Sl. No	Name of the Scheme/ Programme	Time spent in availing the benefits (man days)	Transaction cost			Total Transaction cost per program (Rs)
			Opportunity cost of labour in availing benefits (Rs)	Expenditure involved in obtaining documents (Rs)	Rent paid exclusively for receiving programme benefits (Rs)	
1	Farmers Suicide Scheme					
2	Pradhan Mantri Krishi Sinchayee Yojana					
3	Pradhan Mantri Fasal Bhima Yojana (PMFBY,					
4	Pradhan Mantri Kisan Samman Nidhi (PM-KISAN, Central Government Farm Income	6.6	1795.2			1795.2
5	Krishak Bandhu (State Government Farm Income Support)	6.3	1713.6			1713.6
6	Pradhan Mantri Kaushal Vikas Yojana (PMKVY/Organic Farming)					
7	Pradhan Mantri Annadata Aay Sanrakshan Abhiyan (PM-AASHA/ MSP Scheme)					
8	Soil Health Card					
9	Credit through KCC Card	1.5	408			408
10	Farm Loan Waiver Scheme					
11	Farm machinery or implements					
12	Seed Minikit Scheme					
13	Food through BPL/APL/AAY Card					
14	Employment through MGNAREGA					
15	Housing Scheme (IAY/PMAY)	3.8	1033.6			1033.6
16	PM UJJALA (LPG scheme)	3	816	267		1083
17	Others (Specify)					

Source: Primary Survey 2021-22, Average Wage Rate 272 (Male+Female) for 8 working hours

10.4 Economic dimensions influencing the distribution of benefits from governmental programmes

Table 10:3 represents the total variance explained by the principal components. The information regarding the possible factors and their relative explanatory power was expressed by their eigenvalues. As the first three components have the total initial eigenvalues of more than one, only the first three principal components are considered here as crucial to explain the total variance. Among these three components, 35 per cent of variance is explained by the first component, followed by 22 per cent by the second component, and 17 per cent of variance is explained by the third component. The cumulative per cent of variance is 74 from the three components.

Table 10:3 Economic dimensions influencing the distribution of benefits from governmental programmes (Components)

Components	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.809	35	35	2.81	35.11	35.11	2.33	29.08	29.08
2	1.751	22	57	1.75	21.89	57.01	1.89	23.67	52.75
3	1.338	17	74	1.34	16.73	73.74	1.68	20.99	73.74
4	0.812	10	84						
5	0.676	8	92						
6	0.269	3	96						
7	0.219	3	98						
8	0.126	2	100						

Extraction Method: Principal Component Analysis

The three extracted components from PCA (Table 10:3) are shown in Table 10:4; the first component includes the proportion of irrigated land to total land, net operated area, and proportion of farm income to total income. The second component consists of the education of the current head of the family, the proportion of educated family members to total family members, the proportion of dependent members to total members, proportion of female members to total members. The third component includes only the variable family size. In the first component, all variables have a positive association among themselves except family size, proportion of dependent members, and proportion of female members.

Table 10:4 Economic Dimensions Influencing the Distribution of Benefits from Governmental Programmes (variables)

Sl. No.	Name of the Variable	Components		
		1	2	3
1	Education of the Head of the family	0.093	0.827	-0.013
2	Family Size	-0.161	0.333	0.746
3	Proportion of Irrigated Land to Total Land	0.751	0.334	0.300
4	Proportion of Educated Family Members to Total Family Members	0.245	0.824	0.053
5	Proportion of Dependent Members to Total Members	-0.576	0.381	0.149
6	Proportion of Female Members to Total Members	-0.191	0.185	-0.877
7	Net Operated Land	0.831	0.318	0.243
8	Proportion of Farm Income to Total Income	0.780	0.171	-0.423

Note: Extraction Method principal Component analysis, rotation method varimax with Kaiser Normalization.

It is also noticeable that in the second component, all variables are positively associated. In the third component, the education of the family head, the proportion of female members and the proportion of farm income to total income have a negative association among themselves. Net operated land holds the highest factor loading of 0.831 in the first component, followed by education of family head with 0.827 in the second component and proportion of educated members in family in the second component with 0.824 and proportion of farm income to total income with 0.780 in the first component. Whereas in the case of the proportion of female members in the family, factor loading is negative 0.877, indicating that as the number of female family members increases, the total benefit received by farmers from the farmer suicide scheme will reduce.

Furthermore, the extraction Method used was Principal Component Analysis, while the rotation method used was Varimax with Kaiser Normalization. The rotation was converted into five iterations. From the PCA, it is evident that Net operated land, education level of family head and other members, proportion of farm income in total income have a positive influence on benefits.

10.5 Efficiency in availing the benefit of government programmes

In West Bengal, sample victim households did not get any government support in terms of particulars mentioned in Table 10:5. That is why the following table remained blank. But as it

is said earlier, other supports like the PDS scheme, PM-KISAN, and Krishak Bandhu help them to recover to the mainstream of their life.

Table 10:5 Efficiency in Availing the Benefit of Government Programmes

Sl. No	Particulars	Amount (Rs)
1	Net returns from crops per farm family	-
2	Net returns from livestock per farm family having livestock	-
3	Net return from non-farm income for working population for farm family	-
4	Net returns from all sources per family	-
5	For every rupee of net return earned from, all sources	-
6	For every rupee of net return earned from, livestock	-
7	For every rupee of net return earned from, off farm income	-

10.6 Chapter Summary

- I. PDS is the only scheme whose benefit has been reaching to all sample households in terms of rice and wheat in a subsidised rate, whereas very few sample households have been availing the monetary benefit of ‘PM-KISAN’ (Central Government Farm Income Support scheme) and ‘Krishak Bandhu’ (State Government Farm Income Support scheme in West Bengal).
- II. The story remains the same for the housing scheme (IAY and PMAY), ‘PM-Ujjwala Yojana’ (LPG scheme) and 100 days employment generation scheme through ‘MGNREGS.’ But most surprisingly, no households have benefited from the farmers’ suicide compensation scheme. This is happening possibly because there is no record of farmers’ suicide in the NCRB report for West Bengal since 2012.
- III. Members in the sample households have experienced the highest loss of man-days to avail the central and state’s farm income support schemes like ‘PM-KISAN’ and ‘Krishak Bandhu’. Whereas, they spent comparatively fewer man-days to get the benefits of other government programs like housing schemes, LPG scheme, etc.
- IV. Novelty of this chapter is to identify the factors those are influencing the benefit received by the victim households using principal component analysis, where it is found

that net operated land, education level of family head and other members, proportion of farm income in total income have a positive influence on getting benefits.

Chapter - 11: Summary and Conclusions

11.1 Introduction:

Since independence, Indian society has experienced dozens of Economic Plans being implemented, and all these plans have been seemingly taken to ensure an egalitarian distribution of income and wealth among all its stakeholders in the society. In India, agriculture, being one of the main sources of livelihood, was always considered the top priority by the policy makers. Although agriculture is considered the principal source of livelihood in rural India, it is incapable of delivering both financial and social security to the farming sector. Suicide is considered one of the foremost causes of death in the World and stands tenth in the list of causes of death. Farmers' suicide is a social menace and a very sensitive issue in India that requires immediate attention and sympathy of policymakers for coping with the situation at the earliest.

The National Crime Records Bureau (NCRB) is the chief authority in India, involved in crime-related data collection and analysis, including suicides. NCRB reported zero farmers' suicide during 2012 in as many as 12 States and 6 Union Territories, including three major states like West Bengal, Rajasthan and Bihar. In 2010, in contrast, not a single state claimed zero suicide, although several newspapers and media were claiming farmers' suicides in these states. There are various reasons behind this farmer's catastrophe, such as the inability to repay loans mostly taken from non-institutional sources, crop failure due to unanticipated climate shocks, price volatility in cash crops, surge in input costs in terms of both material and labour costs, losses in non-farm activities, family problems, and even chronic illness. The present study, titled "*Farmers Suicide: Causes and Policy Prescription in India*", is an attempt to develop an in-depth understanding of agrarian distress and farmers' suicide in the Indian agrarian scenario (in West Bengal as well) and to make some policy suggestions to prevent such incidents in future, with the following specific objectives:

- 1. To study the trends in inter-state variation in the farmers' suicide rates and the causes of these differences*
- 2. To identify the factors that influenced the intensity of farmers' suicide among the different farm categories and responses*
- 3. To resurvey the victim's household (old households of 2016-17) and analyze the impact of victims on the livelihood security of farm families.*
- 4. Ways to tackle the root cause of the farmers' suicide with the best pragmatic remedies.*
- 5. To document the status and implementation of the farmers' suicide relief scheme*

In the methodological aspects, the study was conducted mainly with two segments. The first segment is to resurvey the present conditions of the farmers' suicide households surveyed in the year 2016-17 for a study conducted by the same coordination unit in the year 2017, and the second part is to survey the households of farmers' suicide committed in the reference year 2020-21. As there were no official records of farmers' suicide in West Bengal, during the reference periods (October 2020-September 2021), this study mainly focused only on the first segment of the proposed study.

It is also important to mention that in the previous study (2017), 30 households across three districts, viz., Burdwan (*after 2017, bifurcated as two separate districts, Purba and Paschim Bardhaman, our sample confined to Purba Bardhaman only*), Birbhum and North 24-Parganas, have been interviewed with the help of the snowball sampling technique, mainly through newspaper reports. The present study also focused on resurveying all the farmer suicide households, surveyed in the previous study, but in 2020-21, the re-survey was conducted on 27 households, and the remaining 3 households were untraced as these households had shifted their old habitat (or became abandoned in one case) after the previous survey.

11.2 Main Findings:

The major findings of the study are summarised as follows:

The main conclusions that can be drawn from the findings of this study are as follows:

- I. According to the NCRB report, zero cases of farmers' suicide have been recorded for West Bengal since 2012. A resurvey of old households has been conducted based on the author's own source by adapting snowball sampling and various newspaper reports. For that reason, data related to the number, percentage, district-wise and gender-wise distribution cannot be calculated. But, as per the report of 2016-17, the claim of zero suicide does not match the ground realities.
- II. Looking into the socio-economic profile of sample households, it is found that most of the family heads are aged females, and the literacy rate among them is very low. It is also evident that most of the deceased farmers' families are of a nuclear type with a family size of four or fewer members in the family.
- III. The most miserable picture is observed from the resurvey that 50 percent of the total population is dependent in nature, i.e., living without any earning sources

during the reference survey period, followed by cultivation and agricultural labour.

- IV. It is also observed that most of the victim households are poor in terms of their PDS card holding status, which implies that the benefit of Public Distribution Service (PDS) is indeed satisfactory to the local government. However, this is not an unusual case at all in rural areas.
- V. Employment opportunities are mainly concentrated in the primary sectors. 70 percent of total occupations belong to the primary sectors, followed by the secondary sectors. Some members of the sample household are rearing milch animals not for commercial purposes but for their own consumption of milk.
- VI. All the sample households have their own houses with residential land. Most of the houses (55 percent) are kutchha in nature, followed by pucca or semi-pucca houses, and one household is living in a khapra type of house, which implies their incapability to reside in a well-structured pucca house, probably due to a lack of finances.
- VII. The number of assets sold is higher than assets purchased by the deceased farmer's households in the last five years, indicating the households have been facing financial instability for the last five years.
- VIII. Presently, the holding of agricultural assets is very low for the sample households. About 26 percent of total households have access to a water pump for irrigation, and the percentage is 11 for the holding of the thresher. In the case of non-agriculture assets, it is found that the average asset holdings are pretty low.
- IX. In case of 14 sample households those are engaged in farming activities have own land in terms of Operational holding, where as there are few leased in and leased out cultivation operating by the sample households and the average rental value of leased in and leased out land is about Rs. 8000/- to Rs. 9000/- per acre, respectively in the reference year. Cropping intensity is estimated as 150% for the sample households, which is much lower than the state average (189.8%) and a little higher than the national average (144.6%).

- X. It is observed that sample households are doing farming activities for subsistence rather than for commercial purposes. This story can be supplemental as paddy is the main crop cultivated for about 55 percent of the total Gross Cropped Area, mainly for securing their annual need of food crops.
- XI. In the case of the disposal or marketing channel, the study found that no sample farming households are involved with APMC Mandi, and most of them prefer to sell their products to private traders in private wholesale markets and village markets.
- XII. In this study, three patterns of cost-return relation from cultivation are observed. Per-acre expenditure and income are very high, and net income per acre (expenditure less income) is also high, in the case of crops, vegetables, and jute. On the other hand, per-acre cost is high, but net income is low, e.g., for paddy and potato, where returns from the sale of paddy are low over the years and a volatile price in the sale of potato in the last few years in West Bengal. The third one is per acre cost is low, but the net income per acre is high in the case of mustard. It is clear that the second one is the worst condition, and unfortunately, the same pattern has been seen in West Bengal, similar to our sample. This can be considered a significant influencing factor behind farmers' suicides in West Bengal.
- XIII. Incidents of indebtedness, i.e., percentage of the indebted household to total households for the sample is 70.37%, which is very high for the study sample, and the amount of outstanding loan is more than the amount borrowed loan as these are taken from local money lenders with much higher interest rates.
- XIV. Agricultural labour, non-agricultural labour and self-business are the three principal earning sources among the sample households, and the net income is highest from the crop paddy, followed by the vegetables, mustard, jute, and potato.
- XV. Annual income share is highest from non-farm activities for the sample households (69.84%), followed by the share of off-farm income (20.30%) and

farm income (9.86%), compatible with the vulnerable situation of farm income in West Bengal (29.75%, NSSO, 77th round, 2018-19).

- XVI. Share of the annual income out of total income is highest for the scheduled caste category, followed by the general, OBC, and scheduled tribe categories. It is also found that victim households are spending more on staple foods (Rice/wheat and pulses) and vegetables than on other food items, implying their food preference and in the total expenditure, the share of food expenditure is more than double to non-food expenditure, not very unusual for rural Bengal.
- XVII. It is estimated that the crop income-expenditure ratio and farm income-expenditure ratio is the same at level.17, concluding that the sample households have not been involved in other farming activities rather than crop cultivation and income-expenditure ratio is more than one (1.77), implying higher annual income than expenditure, which in turn indicates that the sample households are capable of earning adequate income to meet over expenditure possibly by shifting their earning dependency towards non-farm and off-farm income sources rather than farming activities.
- XVIII. Changing Victims' sleeping patterns and behaviour noticed by the family members, neighbours, and friends were the major symptoms observed by the victims before the incident of suicide, and most of the victim farmers committed suicide by consuming poison and hanging at home.
- XIX. In the social part of the root causes, respondents reported various types of problems faced by the victim, like poverty, family-related problems, drug or alcohol addiction, and daughter marriage-related issues. Failure of crops due to pests & diseases and meteorological issues, irrigation problems, unfulfillment of the expectation of getting higher output, higher crop prices, lack of extension services, delayed payment, lack of credit facilities, and loan weaving facilities can be considered as farming-related causes for the farmers' suicide. Burden of non-institutional indebtedness with much higher interest rates is also a prime cause of unforeseen incidents like farmers' suicide.

- XX. Farmers' suicide negatively impacted the farming activities in the victim's household. The farming activities drastically declined or totally stopped in some cases, after the incident and in turn, this affected employment patterns and income generation sources compared to before the incident. In most cases, it is found that the economic condition has deteriorated that affected the standard of living of victim households, and most of the respondents claimed that living standards have declined after the incident.
- XXI. Improvement in the composite dimensions comprises all economic, social and psychological aspects, which can make some ways to tackle the drastic incidents like farmers' suicide, although it is hard to assure the victims' state of mental health.
- XXII. PDS is the only scheme whose benefit has been reaching all sample households in terms of rice and wheat at a subsidized rate, whereas very few sample households have been availing the monetary benefit of 'PM-KISAN' (Central Government Farm Income Support scheme) and 'Krishak Bandhu' (State Government Scheme in West Bengal). The story remains the same for the housing scheme (IAY and PMAY), 'PM-Ujjwala Yojana' (LPG scheme) and MGNREGS. But most surprisingly, no households have benefited from the farmers' suicide compensation scheme.
- XXIII. Members in the sample households have experienced the highest loss of man-days to avail the central and state farm income support schemes like 'PM-KISAN' and 'Krishak Bandhu'. It is also found that net operated land, education level of family head and other members, proportion of farm income in total income have a positive influence on getting benefits.

11.3 Conclusions and Policy Suggestions:

The Agriculture in West Bengal has been passing through a critical time, calling for an immediate multi-sided solution that might be able to address the primary challenges faced by the farmers. The ways to tackle the root causes of farmers' suicide are really challenging as there are various heterogeneous reasons behind this farmer's catastrophe, such as economic, social, political and meteorological. Since Agrarian and economic distress are the root causes

of farmers' suicide in West Bengal, immediate attention to these dimensions is needed to secure farmers' income, suffering from natural as well as market failure. Farmers' suicide is such a social menace in India, vis-à-vis West Bengal, that needs to be addressed and sympathized by the policymakers at the earliest. Some possible policies are prescribed below:

- I. In general, an improvement in the composite dimensions comprises all economic, social and psychological aspects, which can make some ways to tackle the drastic incidents like farmers' suicide, although it is hard to ensure the victims' state of mental health. A development in the financial condition of the farmers is possible by reinforcing the farming activities towards a more profitable sector with an assured and appropriate compensation of environmental hazards like changes in rainfall patterns, hailstorms, etc., that affect agricultural production. On the other hand, some alternative income sources for the farmers, along with cultivation, have to be provided.
- II. The first one can be ensured by providing adequate agriculture extension facilities that may include policies towards risk management, not only in terms of climate risk, but also have to provide input price restriction, sufficient crop harvest price, various types of crop insurance facilities, facilities of institutional loan, strengthening the irrigation systems, improved machineries and rural infrastructure as a whole. For the latter, an alternative livelihood support scheme is needed, like MGNREGS, availability of various agri-business opportunities, support for various self-employment opportunities, etc.
- III. To improve social and psychological dimensions, the best and general way is to educate the farmers. In general, farmers do not have proper conventional education. So, with the help of adult learning or adult education, basic knowledge can be provided to the farmers, which possibly will help to develop their internal thinking and also generate alternative earning sources. Again, the facility of social counselling is another important possible way towards the development of the social and psychological strength of the farmers.
- IV. Policy needs to be rectified towards livelihood settlement for the victim families to secure the minimum subsistence level of income. One-time consolidated

lump sum benefit or compensation is not a permanent solution in resettling the livelihood of the family members of victim households. So, it is prescribed that it is a need of the hour to bring at least a single member of those victim households under any permanent livelihood support scheme with immediate effect to sustain themselves and the rest of the family members.

- V. The former recommendation also calls for the inclusion of victim households under the loan waiver scheme, at least though Central Government has not launched any loan waiver scheme in the last five years and supports the victim's family members if the loan is taken from institutional sources.
- VI. Farmers should be more encouraged to grow more diversified alternative and remunerative cash crops rather than sticking to the traditional ideas of cultivating only potato (during rabi season) or Boro paddy (during summer). Specifically, small and marginal farmers need to be encouraged to grow other remunerative crops like off-season vegetables, pulses and oilseeds.
- VII. At the same time, as suggested by the National Commission on Farmers, higher MSP for all the major crops, including paddy, is very important. However, a nominal increase in MSP alone will not be sufficient unless there is appropriate improvement in the procurement infrastructure in the state, which is very poor to date.
- VIII. To protect the potato farmers from distress sale, the government must think of introducing some innovative procurement mechanisms (like MSP, i.e., Minimum Support Price for paddy and some selected crops or pulses) for potatoes for their requirement in mid-day meal schemes and ICDS schemes. Timely and frequent intervention or monitoring by the government for procurement, storage and export of potatoes can reduce the distress sale to a great extent.
- IX. A particular focus is also required to resolve the issues of the tenant farming system and its miserable condition. Most of the farmers' suicide compensations or nominal benefits are allocated only to farmers with clear land titles. So, it is recommended that the tenant farmers be brought under the benefit of crop

insurance schemes. For such action, an explicit and formal agreement with the landowner is needed to ensure their crop is under insurance schemes as per the rules. But unfortunately, most of the farmers are unaware of it, and the landowners also avoid this procedure. So, a proper awareness programme must be implemented such that tenant farmers can also take advantage of the crop insurance scheme, and it can be a fruitful way to avoid the misery of farmers' suicide.

- X. Other essential livelihood supporting schemes like *Pradhan Mantri Awas Yojana*, *Ujjwala Yojana*, *Widow Pension Scheme*, *Old-age Pension Scheme*, *MGNREGA* should be provided mandatorily to the victim's households to protect them from further unforeseen situations.
- XI. A public awareness programme regarding the ill effects of drug addiction and alcoholism is necessary. These counselling services and the establishment of a rehabilitation centre can be of great help. At the same time, revamping rural health facilities, which are severely inadequate in West Bengal, is also necessary to avert farmers' suicide to a great extent.
- XII. Finally, it is also required to change the reporting system or mechanism of farmers' suicide. As we said before, the claim of 'zero farm suicide' in the official documents does not fit with ground realities. So, some alternative checks should be introduced such that families of proper victims can avail the farmers' suicide compensation.

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Annexure

Revisiting Household Schedule

Household ID

AGRICULTURAL DEVELOPMENT AND RURAL TRANSFORMATION CENTRE

Institute for Social and Economic Change (ISEC), Bangalore-560 072

“FARMERS SUICIDE: CAUSES AND POLICY PRESCRIPTION IN INDIA”

REFERENCE PERIOD: OCTOBER 2020 TO SEPTEMBER 2021

Date of the Interview: _____ Name of the Interviewer: _____

Name of the Respondent & Relationship with the Victim: _____ & _____

Phone: _____

Name of the Victim and Father/Husband name: _____

1. General Information

1. Village and Taluk/Hobli Name	
2. District / State Name	
3. Name of the Head of HH and Father/Husband name	
4. Contact Number of the Head of Household	
5. Gender of the Household Head (Tick√)	Male / Female
6. Age of the Household Head (yrs)	
7. Education of the Household Head (years of schooling)	
8. Religion of the Household Head (Tick√)	Hindu / Muslims / Christians / Sikhs / Buddhists / Jains
9. Caste of the Household Head (Tick√)	SC / ST / OBC / General
10. Family Type (Tick√)	Nuclear / Joint
11. Location of the household	Within the village/In his own farm
12. Aadhar Card Number of HH Head (if available)	

13. Occupation of the HH Head / Livelihoods of the household*	Primary: _____ Secondary: _____ Tertiary _____ Others (Specify)_____
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Note: * Agriculture& allied-1, Agricultural labour-2, Self-employed in household business/industry-3, Non-agricultural casual labour-4, Salaried work-5, Household work-6, Pensioner-7, Other-8 (Specify)_____.

2. Family Member Details

Member ID	Name	Age (Yrs)	Gender #	Relation with HH	Marital Status*	Education **	Occupation***		Dependent @
							Primary	Secondary	
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									

Note: # Male-1, Female-2; * Married-1, Unmarried-2, Widowed/Widower-3, Separated/Divorced-4, Others (Live together etc.)-5; ** Primary(up to 5) - 1, Secondary(up to 10)-2, Intermediate(up to 12)-3, Technical (ITI, Polytechnic)-4, Graduate-5, Post Graduate-6, Professional (MBBS, MBA, Ph.D)-7, Illiterate-8; *** Farmers/Cultivator-1, Agril. Labour-2, Dairying/Fishing/Poultry Keeping-3, Salaried Govt-4, Salaried Pvt-5, Pensioner-6, Daily wage non-agriculture-7, Trade-8, Self business/shop-9, Household work-10, Student -11, Others (if any Specify)-12; @ Dependent-1, Not dependent-2

3. Employment Pattern of Working Family Members

Member ID	No. of Days Employed in Reference Year in Different Occupations		Any Out Migration for Job/Employment? If yes, Answer the following					Any change in occupation in last five years? Provide details
	Primary	Secondary	No. of Days and Times in the ref year?	Name of the Place & Distance (km)	Nature (Alone=1/ Family=2)	Description of Work	Reason for Migration	

4. Main Causes of Farmers Suicides (Factors)

Social Causes	Yes=1; No=2	Farming Causes	Yes=1; No=2	Indebtedness Causes	Yes=1; No=2
I. Poverty		I. Failure of Crops		I. Indebtedness – Institutional & Non-Institutional	
1.APL		1.Pests & diseases		1.Due to crop loan	
2.BPL		2.Lack of access to irrigation water		2.Due to farm equipment's' loan	
3.AAY		3.Cultivation of high commercial crops		3.Due to non-agricultural loan	
II. Property Dispute		4.Adoption of high-cost technology		4.Due to non-institutional loan	

1.Partition of land		5.Others (specify)...		5.Due to pressure from institutional sources	
2.Partition of house		II. Due to Natural Calamities		6.Due to pressure from non-institutional sources	
3.Partition of income		1.Cyclone effect			
4.Partition of Jewellery		2.Crisis of rainfall/drought			
5. Others (specify).....		3.Accidental fire			
III. Marriage		4.Others specify			
1.Dowry related issues		III. Expectations of:			
2.Extra marital affairs		1.Higher output			
3.Divorce		2.Higher prices			
4.Love failure		3.Loan waiving			
5.Others (specify)...		4.Institutional credit			
IV. Family Problems		5.Non-institutional credit			
1.Social functions		6. Inability to sell output			
2.Daughter's marriage		7. Well failures			
3.Son's marriage		8.Quarrel between the victim & others			

4.Frequent quarrel among the family members		9.Lack of extension services			
5.Fall in social reputation		10.Delayed payment/ payment in instalments for the sold output			
6.Illness*		11.Insurance for the cultivated crop			
7.Drug abuse/ Alcoholic addiction		12.Others (specify)...			
8.Gambling/ Betting /Chit fund		Others (specify)...			
9.Others (specify)...		Others (specify)...			

Note: *AIDS= 1; Cancer=2; Paralysis=3; Insanity/Mental illness=4; Other prolonged illness=5; Prolonged illness/AIDS/STD/Cancer of family member/s=6; Others(specify)=7.

5. Impact on Victims' Household after the Suicide Incident

Effect after Suicide Incident	Yes-1; No-2	Effect after Suicide Incident	Yes-1; No-2	Remarks (if any)
1.Agricultural activities stopped		13.Due to poverty went a whole day and night without food?		
2.No earning member		14.Inability to purchase food and non-food materials?		
3.Schooling of the children stopped		15.Anxious that the households would not have enough food?		
4.Land sold		16.Ate some poor-quality foods that you really did not like?		

5. House sold		17. Were not able to eat the kind of food you preferred?		
7. Postponement of son's/ daughter's marriage		18. Did you ask food from your neighbours and guests?		
8. Family member/s fell seriously ill		19. Went for outside eating like in temple/ other places?		
9. Family member/s under depression		20. Inability to purchase cloths		
10. Insecurity in the family		21. Other assets sold (specify)		
11. Out-migration of Family members		22. Others (Specify)		
12. In-migration of Family members		23. Others (Specify)		

6. Perceptions about Changes of Farmers Suicide Household

Sl. No.	Perceptions	Status	Remarks
1	Economic condition of your family*		
2	Change in Social condition of your family (Yes=1, No=2)		
3	Incidence of disease and medical expenditure in your family*		
4	Change in farm infrastructure (Yes=1, No=2)		
5	Changes of your family status in the village*		
6	Change in Agriculture conditions (by adopting new technology) (Yes=1, No=2)		

7	Change in employment pattern (Yes=1, No=2)		
8	Change in income generation sources*		
9	Changes of family standard of livings*		
10	Changes in family expenditure*		
11	Reason for such a changes in the society		

Note: * Increase-1, Decrease-2, No Change-3

7. Details of All Types of Benefits from Participation in Governmental Programmes, Government Sponsored Schemes during last 5 Years and Socio-Economic Status of the Household

Name of the Scheme/ Programme GOI / State/ Panchayath / TMC program/NGO	Kind of benefit received including quantity and value et. #	Year of benefit availed	Transaction cost		
			Time spent for obtaining benefit (hours/days)	Expendi ture in obtainin g benefit (Rs)	Rents paid
1.Farmers Suicides Scheme (Mentioned the Year of incidents_____)					
2.Pradhan Mantri Krishi Sinchayee Yojana (PMKSY, Irrigation)					
3.Pradhan Mantri Fasal Bhima Yojana (PMFBY, Crop Insurance)					
4.Pradhan Mantri Kisan Samman Nidhi (PM-KISAN, Central Government Farm Income Support)					
5.Pradhan Mantri Kisan Samman Nidhi					

(PM-KISAN State Government Farm Income Support)					
6.Pradhan Mantri Kaushal Vikas Yojana (PMKVY/Organic Farming)					
7.Pradhan Mantri Annadata Aay Sanrakshan Abhiyan (PM-AASHA/ MSP Scheme)					
8.Soil Health Card					
9.Credit through KCC Card					
10.Farm Loan Waiver Scheme					
11.Farm machinery or implements					
12.Seed Minikit Scheme					
13.Food through BPL/APL/AAAY Card					
14.Employment through MGNAREGA					
15.Housing Scheme					
16.PM UJJALA (LPG scheme)					
17.Membership of Professional Bodies**					
18.Others (Specify)					

Note: ** Gram Panchayat Member=1, Gram Panchayat Chairman=2, Taluk Panchayat Member=3, Taluk Panchayat Chairman=4, Zilla Panchayat Member =5, Zilla Panchayat Chairman=6, SHG=7, Club member=8, Other organization (Specify _____) =9; # Government-1, NGO-2, Others (Specify)-3;

8. Ownership of Land & Transactions (Agriculture Land /Non-Agriculture)

Type of Land	Owned (Yes=1; No=2)	Area	Value (Rs.)	Sold after suicide		Purchased after suicide	
				Area	Value (Rs.)	Area	Value (Rs.)
1.Residential Land*							
2.Type of Residential House* (Pucca/Kutchu/							
3.Commercial Land/Building *							
4.Cultivable Land (Acres)							
5.Cattle Sheds/Farm Houses (No.)							
6.Pond/Tank (No.)							
7.Storage House (No.)							
8.Any Others (Specify)_____							

Note: * (Square feet)

9. Ownership of Assets and Transactions (Other than Land)

Sl. No	Items	Owned (Yes=1; No=2)	No	Prese nt Value (Rs.)	Sold after suicide		Purchased after suicide	
					Numbe r	Values	Numbe r	Values
1	Working Cattle/Buffalo							
2	Milch Cattle/Buffalo							
3	Sheep and Goats							
4	Pigs							
5	Tractor / Trolley							

6	Power tiller							
7	Bullock cart							
8	Water pump							
9	Threshers							
10	Seed drill/ Hoes							
11	Rickshaw /Auto							
12	Two-Wheeler							
13	Four-Wheeler							
14	TV							
15	Computer / Laptop							
16	Refrigerator							
17	Washing Machine							
18	Air Conditioner							
19	Jewellery etc							
20	Furniture steel / wooden							
21	Other Agriculture							
22	Other Non-							

10. Loans Availed for Crop Production, Livestock and Machinery during last 5 Years

Sources of Borrowing	Amount	Year of	Purpose*	Rate of	Amount
Commercial Banks					
RRBs					
Co-operative Banks					
Traders and commission agents					
Money lenders					
Friends and relatives					
Others (Specify)					

* Purpose loan Code: Crop loan-1 Machinery loan-2 land development loan -3, Hi-tech crop loan-4, Others (Specify)-5

11. Average Household Expenditures during Current Year only

Items	Rs. / Month	Items	Rs. /Year	Items	Rs. /Year
Foods (Total)		Non-Food (Total)		Non-Food (Total Contd.)	
Staple foods*		Clothes and		Ceremonies	
Milk/Egg/Fish/ Chicken		Education		Remittances	
Fruits/Vegetabl		Medical expenses		Taxes, litigation	
Processed foods (sweets / snacks etc)		House rent / repairs		Other services (Repairs of machinery, house, etc.)	
Tea, coffee and		Electricity, phone,		Family members	
Fuels charges (LPG/coal etc.)		Cleaning & personal care (soap, shampoo, washing powder, hair oil etc.)		Other major non-food expenses (Specify)	
Other food expenses		Any other non-food expenses		Any other non food expenses	

Code: *Staple foods Own-1, Purchase-2, BPL/APL/AAY-3, Others (Specify)-4;

12. Sources of Household Net Income (Rs. /year): During Reference Year only

Sources	Amount (Rs.)	Sources	Amount (Rs.)	Sources	Amount
I. Farming activity		II. Off-farm activity (Specify)		III. Non-farm activity	
1.Field		1		1	
2.Fruits		2.		2.	
3.		3.		3.	
4.		4.		4.	
5.		5.		5.	
6. Any		6.		6.	

Note: Off farm includes allied activities like animal husbandry, dairy, poultry, fishery etc.

Non-Farm Activities includes income from non-agricultural wages, salary and pension, self-business and so on.

Household Schedule-Part-II (Only for Farmers / Cultivators)

AGRICULTURAL DEVELOPMENT AND RURAL TRANSFORMATION CENTRE

Institute for Social and Economic Change (ISEC), Bangalore-560 072

"FARMERS SUICIDE: CAUSES AND POLICY PRESCRIPTION IN INDIA"

REFERENCE PERIOD: OCTOBER 2020 TO SEPTEMBER 2021

1. Operational Land Holdings (only Agriculture Land) (in acres)

Particulars	Irrigated	Un-irrigated	Total	Irrigation source*	Water charges (including maintenance) (Rs./acre)
Owned					
Leased in					
Leased out					
Uncultivated / Fallow land					
Rental value of leased in land (Rs/acre)					
Rental value of leased out land (Rs/acre)					
Net operated area (1+2-3-4)					

Note: * Dug well-1, Borewell-2, Canal-3, Tank-4, Others (Specify)-5;

2. Wage rate: Male: _____ Women: _____

Bullock/ Buffalo Plough: _____ Machine (Rs. /Hr.)-Ploughing: _____

Harrowing: _____ Harvester (Rs/ac) _____

Thresher (Rs/bag) _____ FYM (Rs/tractor load) _____ Irrigation (Rs/ac) _____

Any others (Specify) _____

3. Cropping Pattern, Income & Expenditure of Major Crops

Name of the Crop	Area (acre)		Production (Qtl)		Value of output (Rs.)		Cost of cultivation (Rs.)	
	Irrigated	Rainfed	Irrigated	Rain-fed	Main Product	By-Product	Material Cost	Labour & Marketing
Kharif								
Rabi								
Summer								
Perennial Crops								

Details on Marketing

Sl. No.	Name of the Crop	Type of market code*	Distance from the field (km)	To whom sold code**	Quantity sold (Qtl)	Unit price (Rs./qtl)	Marketing cost (Rs./qtl)	Income (Rs.)	Remarks (if any)
1									
2									
3									
4									

Note: * Village market-1; APMC Mandi-2; Private wholesale market-3; Any other-

4 _____;

** Commission agent-1; Govt. agency-2; Processing plant-3; Private company-4; Private trader-5; Any other (Specify _____)-6;

5. Suggestions to Prevent Farmer's Suicides (Five Major Suggestions only)

Sl. No.	Suggestions
1	
2	
3	
4	
5	



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