



Magnitude and Determinants of Indebtedness Among Farmers in Punjab

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Abstract

The primary objective of this research paper is to check the position of farmers due to the problem of the agrarian crisis that exists in India as well as Punjab. A recent report presented in the Lok Sabha indicated that farmers from Punjab have the highest outstanding loans among northern states, amounting to Rs 1,04,064 crore. To know the exact situation of debt being taken by the farmers, the magnitude and severity of debt have been measured in three different zones of Punjab. The severity of indebtedness was mounting among farmers in the southwestern zone, which mostly produce cotton. As the magnitude of debt on marginal and small farmers increases, they are viciously trapped under it, which further leads to farmer suicide. The other objective of this paper deals with the determinants of indebtedness, which are leading them to critical situations. These factors are responsible for the mounting debt on these cultivators. So increasing indebtedness, crop failure, loss of livelihood, and farmer suicide further indicate the multidimensional nature of agrarian distress, so the government should help the aggrieved farmers by making policies in favour of them.

Keywords: Rural indebtedness, Vicious cycle, Severity of debt, Debt trap, Farmer suicide

“Something is terribly wrong in the countryside.”

M. S. Swaminathan,

Former Chairman, National Commission of Farmers, 2006.

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Introduction

“Since times immemorial, Indian farmers are living vulnerable life and this will continue until the problems lies in the farming sector are solved”. The quotation of M. L. Darling (1925) defines the challenges faced by Indian farmers. This is true as almost 86 percent of Indian farmers are either small or marginal farmers. According to Merriott (2016), farming is a dangerous occupation. It can work for you, but it can also be very risky as it depends upon natural factors. This research paper will discuss the problems of Indian farmers at the national level as well as at the state level of Punjab by discussing three main research questions in hand firstly, it will measure the magnitude of indebtedness by studying the extent and nature of debt being taken by the farmers. Secondly, the paper will discuss the repayment behaviour of the farmers and how they will use and try to repay this debt. Then, this paper will discuss the factors influencing debt or the determinants of debt with the help of factor analysis using SPSS.

Agricultural production needed to be increased to attain and achieve certain targets, and Indian agriculture saw an incredible increase in production at the time of the Green Revolution, which increased the productivity of paddy and wheat many times. The adoption of improved crop technologies and the use of High Yield Variety Seeds (HYV) of wheat and rice led to the green revolution (Pingali 2012). However, the green revolution was limited to wheat & rice in particular, which experienced an astonishing yield increase (Briggs 2009). This change pushed farmers to invest more and more in agriculture, and traditional farming gave way to capitalistic farming. Even the phases of globalization and liberalization and the pressure of the WTO have compelled the government to reduce the subsidies given to agriculture. This puts pressure on Indian farmers as the cost of production increases and their profitability decreases, making their lives miserable. As the inputs became costlier, farmers had to take on more and more debt to keep pace with the changing and competitive trends. As institutional credit sources are not easily accessible or have very complicated and time-consuming procedures, the farmers take the easy route and prefer to borrow from non-institutional sources such as moneylenders or shahukars.

Although Punjab is known as a bread basket and contributes heavily to the central pool. Punjab’s share in the total geographical

area of India is 1.53 percent, but it contributes nearly 24.56 percent of rice and 30.50 percent of wheat in the central pool (Economic survey of Punjab 2021-22), but still, its farmers are reeling under severe debt, and the recent climate change also affected their production as their wheat production shrinks by 15 to 20 percent in 2022. As productivity declines and profitability shrinks, all this leads to farmer distress as they have to take more and more debt from institutional and non-institutional sources.

Rural credit and its resources are important inputs for agricultural development, and there are basically institutional and non-institutional sources at their disposal. The survey of NSSO 59th & 70th round shows that only 56 percent of cultivators have access to formal sources. Money lenders were the only source of credit till 1935, and they used to charge very high rates of interest (Mishra & Mohapatra, 2017). These money lenders were minting profits until commercial banks and cooperatives came into existence, but analysis shows that cooperatives were mostly providing credit in rural areas while commercial banks were concentrating in urban areas. Various studies (Mohan 2006; Goliat 2007; Kumar et al., 2017; Pandey et al., 2019; Singh 2006; D'souza 2020) discussed the nature and importance of rural credit in India and also discussed the impact of rural credit on rural indebtedness. Institutional sources include commercial banks, cooperatives, and Regional Rural banks. According to the NABARD study, more than 60 percent of the farmers avail loans from institutional sources, and less than 40 percent from non-institutional sources. NSSO has depicted the same position. According to the AIDIS report, non-institutional sources were dominant in 1951, accounting for 90 percent of the outstanding debt of cultivator households, but their share declined sharply to 34 percent in 1991 and 39 percent in 2002 and finally dropped to 33 percent in 2019.

Agrarian Distress in Punjab

The central or main problem of indebtedness lies in the usage of debt being taken by the farmers. Our studies show that rural indebtedness is vital in our social structure as farming is not possible without taking debt, and more often than not, farmers take undue loans, which sometimes they are not able to repay. As rural credit is

both productive and unproductive, it becomes important in the area of small and marginal farmers if they are using this credit for agricultural purposes, as it is the need of the hour to take debt for covering increasing their cost of production (Shergill 1998; Singh and Toor 2005; Singh 2006). Some studies, such as (Merriott 2016; Sajjad et al., 2016 Pandey 2016, and Singh et al., 2014), show that debt burden increases with the farm size, showing large farmers take a larger amount of debt as their repaying capacity is more.

Punjab has been facing the problem of rural indebtedness for the past few decades as the cost of production has gone northwards, and profit margins have gone southwards. Many research studies (Singh et al., 2014; Singh and Toor, 2005; Satish, 2006; Gill, 2005; Singh et al., 2020) have discussed rural indebtedness and its magnitude in Punjab. The problem of indebtedness has increased after the policy of liberalization and globalization, and it has made the lives of farmers miserable. As their situation deteriorated further in recent times, farmers were forced to end their lives, known as farmer suicide. National Crime Record Bureau's latest report shows that approximately 7 percent of suicides were reported as farmers' suicides out of the total suicides committed in India. A recent report also shows that 3,58,164 people engaged in the farming profession have committed suicide in India from 1995 to 2019. Several studies show this deplorable situation of farmers in their studies (Satish, 2006; Gill & Singh, 2006; Thatai, 2015; Singh et al., 2014; Singh et al., 2016; Singh, 2018; Singh et al., 2020; Singh et al., 2021) and also discussed the causes and cure of farmer suicide. Some studies (Banik, 2018; Narayanan & Mehrotra, 2019; Phadnis & Gupta, 2019; Kumar et al., 2020) have also discussed the policies and methods adopted by the governments to pacify the problem of agrarian distress.

Farmer suicide is prevalent in some major states such as Andhra Pradesh, Telangana, Maharashtra, and Kerala, and these states do not represent the healthy picture either as more and more deaths were being reported from these states as a major share of farmers belong to small and marginal categories.

Table 1: Total suicides in the Agriculture sector in selected states

S. No.	State	2019	2020	2021	2022
1	Andhra Pradesh	1029	889	1065	917
2	Telangana	499	471	359	178
3	Kerala	150	398	304	233
4	Karnataka	1992	2016	2169	2392
5	Tamil Nadu	427	477	599	728
6	Punjab	302	257	270	204
7	Maharashtra	3927	4006	4064	4248
	India	10281	10677	10881	11290

(Source: NCRB latest reports)

As the debt amount increased and because of the mounting pressure of agrarian distress, farmers' lives became miserable, and the pressure led to farmer suicide. The issue of farmer suicide was not new in India, but the situation became critical in the past two decades or so. Although the NCRB data show that only 7 percent of total suicides belong to farmers and rural labourers, this data did not project the correct picture as more and more farmers wanted to end their lives.

Although Punjab has been instrumental in bringing a green revolution to the country, it also remains in a difficult phase recently and has witnessed 16,606 farmers' suicides during 2000-15. The falling profitability resulted in quitting this occupation as more than 2 lakh small and marginal farmers quit between 1991 and 2011 (Singh et al., 2014). The study conducted by the Department of Economics and Sociology, Punjab Agricultural University, Ludhiana, in four phases between 2000-2018 reported that 9,291 farmers died in Punjab by suicide, and Sangrur and Mansa reported a maximum number of suicides because of the cotton belt area (Singh et al., 2022). Out of these farmers, more than 77 percent belong to the small and marginal category, and approximately 88 percent of farmers take this dreaded step due to heavy debt burden. To pacify this societal problem of farmer suicide, the center, as well as the state

government, announces relief measures now and then. Farm loan waivers are a fiscal burden and fall under the category of public policy decisions. The first major farm loan waiver initiated by the central government was the Agricultural Debt Waiver and Debt Relief Scheme 2008. The program targeted higher relief for small and marginal farmers. These farm debt waivers saw an unprecedented increase since 2014-15 as more and more states resort to these relief measures to get political mileage. The Punjab Government also announced a similar farm Debt waiver scheme for small and marginal farmers in 2017. The farmers who have crop loan liability up to 2 lakhs were to be provided debt relief. The data by the level Bankers committee show that out of 17.30 lakh farmers in Punjab who had taken loans, 5.64 lakh were found to be eligible for loan waivers. Studies highlighted that depleted farmers were not always the real beneficiaries of these loan waiver schemes as they have been used by state governments to take political mileage. The loan waivers do not always solve the purpose as these only increase the financial burden on the states concerned. The write-off can affect both borrowers' and banks' behaviours because repeated write-offs can encourage willful default as the farmers expect more debt waivers in the near future. It was rightly authenticated by the SBI research report published in Business Standard (17th July 2022), which depicted that farm loan waivers have benefitted just 50 percent of indebted farmers since 2014. It strongly criticizes the farm loan waiver schemes as they did not distribute the benefits to small and marginal farmers and strongly advocates that farmers should get enhanced MSP of their products as it definitely increases their income positively. Most of the past studies are cross-sectional and have measured magnitude and indebtedness in different areas, especially in the cotton belt area, but this study was more comprehensive and has taken all three zones of Punjab.

Methods and Findings

In the last few years, the agricultural growth rate has not been up to the mark due to several challenges faced by the farmers, especially small and marginal farmers. The main causes of farmer suicides are agrarian distress and debt trap, so this societal problem needs to be discussed. The present study analyses the magnitude and nature of

debt taken by farmers, which is probably pushing farmers into agrarian distress.

The following methodology was used to discuss the magnitude and severity of indebtedness. We have taken three agroclimatic zones for our study, out of which we have selected districts, blocks, villages, and farmers, respectively, for this stratified random sampling method has been used. We have taken a sample of 504 indebted farmers who have taken either type of loan from institutional as well as from non-institutional sources. Five categories of farmers have been selected according to the size of their landholdings as given in the Economic Survey of Punjab, and further primary data has been collected from the respondents with the help of a pre-tested Questionnaire, then the data was analysed with the help of suitable statistical techniques. We have also used secondary data to fortify our research study where and when it is required. We have also collected some qualitative data on a Likert scale of five, and further suitable and appropriate statistical tools like exploratory factor analysis have been used to extract the factors that may affect the indebtedness the most. The cropping year that was taken was 2021-22.

Table 2: Selection of Districts from Each Zone

Zone	Agro Climatic Zone	Districts Covered
I	Sub Mountainous region (4)	Gurdaspur, Pathankot, Hoshiarpur and Rupnagar
II	Central Plain Region (10)	Amritsar, Tarn Taran, Kapurthala, Jalandhar, Ludhiana, Patiala, SAS Nagar, Shaheed Bhagat Singh Nagar, Barnala and Sangrur
III	South-Western region (8)	Bhatinda, Faridkot, Ferozepur, Fazilika, Mansa, Fatehgarh Sahib, Moga and Mukatsar

(Source: State Focus Paper 2021-22, NABARD)

Table 3: Selection of Respondents

Zones	Zone I	Zone II	Zone III	Total
Number of Districts selected	1	3	2	6
Number of Blocks selected	2	6	4	12
Number of Villages selected	2	6	4	12
Number of farmers selected	84	252	168	504

(Source: Author)

Magnitude of Debt

Past studies were related to measuring the magnitude of debt in Punjab Singh and Toor, 2005 and Singh et al., 2014, which show that per household debt increased from Rs 1,17,849 to Rs 2,18,092, respectively. The latest Situation Assessment Survey Report 2019 by NSSO shows that overall, Indian farmers were indebted Rs 74,121, and Punjab farmers were indebted Rs 2,03,249, which is almost three times more than all India levels. The recent study is based upon primary data collected from indebted farmers from six districts covering three zones, namely zones I, II, and III. The data was analysed first Zone-wise as we have taken three agro-climatic zones from Punjab, Zone I is known as **the mountainous region** where Hoshiarpur is our sampled District. Then we have Zone II, which is known as the **Central Plain Region**, which is the largest region in the state our study includes the following three districts that are Ludhiana, Patiala, and Barnala districts, then we have Zone III, known as **South Western region** consisting Bhatinda and Faridkot districts. Then, we analysed our data based on the landholding size. The farmers are then categorised into five groups' namely marginal farmers, small, semi-medium, medium, and large farmers.

The zone-wise results were discussed in Table 4 as our zone-wise result represents that the average amount of debt was Rs 540759 per household, and if we will discuss it in zone I, then it was Rs 319702, in zone II, it was Rs 512504, and in Zone III it was Rs 693670. The

result shows that the average amount of debt was highest in Zone III, as this southwestern zone is known as the Cotton Belt of Punjab, and average productivity was also less in this zone, leading to more incidence of indebtedness. It also shows that the average amount of debt was lowest in zone I, as this zone consists of more literate and skilled people as the literacy rate is highest in Hoshiarpur, who are hardworking and believe in taking secure debt from Institutional sources rather than non-institutional ones.

The category-wise result shows that as the land size increases, the outstanding amount also increases as the large farmers have Rs 9,10,416 average amount of debt and marginal farmers have Rs 2,36,999 respectively, which simply means that large farmers have more debt repaying capacity than the other category of farmers as depicted in the table below.

Table 4: Magnitude and Extent of Indebtedness: Zone & Category-wise
(Average amount of debt per household)

Operational land holding in Acres/ Categories	Zone I	Zone II	Zone III	Total
Less than 2.5/ Marginal	Rs 221333	Rs 229820	Rs 255600	Rs 236999
2.51 to 5/ Small	Rs 201000	Rs 382756	Rs 471756	Rs 382130
5.1 to 10/ Semi-Medium	Rs 212892	Rs 502759	Rs 626365	Rs 495650
10.1 to 25/ Medium	Rs 474833	Rs 653354	Rs 1150782	Rs 789410
25 and above/ Large	Rs 906500	Rs 1102666	Rs 624000	Rs 910416
Average	Rs 319702	Rs 512504	Rs 693670	Rs 540759

(Source: Author)

Anova was also applied to compare means of Different categories and Zones and found that there is a comparative difference between average debts of all Zones, but in the case of categories, there is no difference between marginal, small, and semi-medium categories, but these categories have a difference when

compared with medium and large categories farmers. There is a significant difference between the means or average outstanding debt of three Zones. This means that Zone I's average outstanding is different from Zone II and Zone III, Zone II is different from Zone I and Zone III, and Zone III is different from Zone I and Zone II.

Severity of Debt

In this section, the severity of debt has been calculated because it can easily tell us how many farmers were under severe debt and how they came under this peculiar situation for this, a formula has been adopted where their disposable income has been calculated after deducting all types of costs of production and household expenditures then their outstanding debt has been deducted from their annual disposable income. If the amount is negative, it means their expenditures are too high, and they will not be able to repay these debts with their current income, so either they have to generate extra income or they have to borrow more money, which means they will be under severe debt trap and has to borrow more money to repay their old debt.

Table 5 Severity of Indebtedness Among Farmers

Severity of Debt	Total Number of indebted farmers	Percentage
1) Number of farmers who have more outstanding debt than their annual disposable income	269	53%
2) Number of farmers who have less outstanding debt than their annual disposable income	239	47%
Total	504	100

(Source: Author's Estimation)

Table 6: Severity of Indebtedness Across Zones (%)

Zones	Total	Severely indebted	Percentage
Zone I	84	30	36
Zone II	252	126	50
Zone III	168	113	67
Total	504	269	53

(Source: Author's Estimation)

Table 7: Severity of Indebtedness Across Sizes (%)

	Total	Severely indebted	Percentage
Marginal	72	66	92
Small	96	71	74
Semi medium	166	73	44
Medium	144	56	39
Large	24	3	12
Total	504	269	53

(Source: Author's Estimation)

In Tables no 6 and 7, we calculated the severity of debt, where severity was measured category-wise and zone-wise, respectively, when the peasants were not in the position to pay back their loan; in that case, they had to take a fresh loan to repay their old loan or has to sell their assets, and in our study, 53 percent of the indebted farmers were found in this critical situation. In the case of marginal farmers, 92 percent of them were severely indebted, which clearly shows that these farmers take more debt than their original assets and their annual income. This was the reason why commercial banks have always avoided giving loans to marginal and small farmers.

Determinants of Indebtedness

Besides the magnitude of debt, there are several factors that determine indebtedness among farmers in Punjab. These factors were identified from the existing literature review as given below,

and factor analysis was used with the help of SPSS to extract determinants.

All these factors and determinants are included in the study so that we can easily identify factors that impacted the farmer's thinking to take more and more debt.

Factor I: **Rising consumption expenditure** (Nagraj 2008, Singh 2006 and Singh et al., 2008)

Factor II: **Hereditary debt**

Factor III: **Crop failure** (Dhandekar & Bhattacharya, 2017; Singh et al., 2008)

Factor IV: **Low land holding size** (Singh et al., 2014)

Factor V: **Rising medical expenditure** (Singh et al., 2008, Nagraj 2008, Singh 2006)

Factor VI: **Weak government policies**

Factor VII: **Litigation and family disputes** (Gill & Singh 2006, Nagraj 2008)

Factor VIII: **Rising educational expenditure** (Singh et al., 2008)

Factor IX: **Rising input cost and low profitability** (Gill & Singh, 2006; Assadi M, 2006; Singh et al., 2008; Sajjad et al., 2016; Dhandekar & Bhattacharya, 2017)

Factor X: **Increased use of alcohol and intoxicants** (Gill & Singh 2006, Nagraj 2008)

Factor XI: **Demonstration leads to indebtedness**

Factor XII: **Lack of financial literacy leads to indebtedness**

Factor XIII: **Exploitation by commission agents** (Gill & Singh 2006)

Factor XIV: **Using loans for unproductive expenditure** (Kaur 2012)

The data was collected from the respondents regarding these qualitative questions, which were asked on the Likert scale of five, and then their responses were further analysed using Spss software. This gives us the following results To check the reliability of the questionnaire, we have calculated Cronbach's Alpha, which is 0.729 in our case, and content validity has been determined by various

experts in the field. The first output from the analysis is a table of descriptive statistics for all the variables under investigation. In this table, the mean and standard deviation of the factors have been given, and using loans for unproductive expenditure is the most important factor with the highest mean.

Table 8: Descriptive Statistics Analysis

	Mean	Std. Deviation
Rising Consumer Expenditure	4.675	.6221
Hereditary Debt	3.415	.6184
Crop Failure	4.601	.5403
Low land holding size	4.196	.6607
Rising medical expenditure	4.200	.5214
Weak policies	4.462	.6036
Rising educational expenditure	4.085	.7235
litigation or family disputes	3.214	.6596
Rising input costs and low profitability	4.728	.4453
Increased use of Alcohol and intoxicants	3.196	.6987
Demonstration leads to indebtedness	4.387	.5489
lack of financial literacy	4.323	.5953
Exploitation by commission agent	3.377	1.0779
Using loan for unproductive expenditure	4.812	.5066

Table 9: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.716
Bartlett's Test of Sphericity	Approx. Chi-Square	1815.280
	DF	91
	Sig.	.000

Table 10: Rotated Component Matrixes

	1	2	3	4	5
Exploitation by commission agent	.858				
lack of financial literacy	.683				
Demonstration leads to indebtedness	.658				
Increased use of Alcohol and intoxicants	.599				.506
Rising medical expenditure		.723			
Hereditary Debt		.698			
Rising educational expenditure		.615			
Using loans for unproductive expenditure			.819		
Low land holding size			.692		
weak Government policies					
Rising input costs and low profitability				.796	
Crop Failure				.618	
Rising Consumer Expenditure				.600	
litigation or family disputes					.876
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 8 iterations.					

Summary: Data were subject to factor analysis using exploratory factor analysis and orthogonal varimax rotations. The Kaiser-Meyer-Olkin measure (KMO) was .716, indicating the data were sufficient for EFA. Bartlett's test of Sphericity $\chi^2 (91) = 1815.280$, $P < .001$, showed a patterned relationship between the items. Using an Eigenvalue cutoff of 1.0, there were 5 factors that explain a

cumulative variance of 65.388%. The Scree plot confirmed the findings of retaining 5 factors.

As an exploratory factor has been used, this further reduced our 14 factors to 5. Then, we have given names to each of these factors, which are given below.

Factor I (Financial Behavioural Factors)	Covered factors <ol style="list-style-type: none"> 1) Exploitation by Commission Agent 2) Lack of Financial Literacy 3) Demonstration leads to indebtedness 4) Increased use of Alcohol and Intoxicants
Factor II (Expenditure Related Factors)	<ol style="list-style-type: none"> 1) Rising Medical Expenditure 2) Hereditary Debt 3) Rising Educational Expenditure
Factor III (Social Factors)	<ol style="list-style-type: none"> 1) Using loans for unproductive Expenditure 2) Low land holding size
Factor IV (Economic Factors)	<ol style="list-style-type: none"> 1) Rising input Costs and Low Profitability 2) Crop failure 3) Rising consumer expenditure
Factor V (Individual Factors)	<ol style="list-style-type: none"> 1) Litigation or family disputes

Hence, five factors that push the indebtedness among farmers in Punjab are financial factors like lack of financial literacy and Exploitation by commission agents, when they charge high rates of interest, leads to a debt trap and take more and more debt from them and never been able to repay the outstanding amount. Even the demonstration and increased use of alcohol and intoxicants lead to lower disposal income being spent on productive activities, and that leads to lesser economic power to repay the outstanding debt. Then,

there are expenditure-related factors that show that farmers spend more money on education and health issues as the modern lifestyle leads to more expenditure on these two activities. Even hereditary debt is also responsible for more expenditure on unproductive debt, which leads to indebtedness among farmers in Punjab. Even social factors such as marriages and social celebrations like birth and death push farmers to spend more money on unproductive activities and reduce their repaying capacities. Even the low land holding size of the cultivable land leads to increased production costs and reduced profitability for farmers.

Economic factors are the most powerful and important factors, such as rising input costs, falling profitability, and crop failure because of natural calamities or pests and crop diseases, which lead to lesser income than before. Even rising consumer demand and expenditure leads to more spending and lesser profitability for the producers. Individual factors such as increasing use of intoxicants or increasing cost of litigations lead to more expenditure on these types of activities, and even litigation leads to mental harassment among farmers who are indebted.

Conclusion and Policy Implications

The zone-wise results depict that the aggregate average amount of debt was Rs **540759** per household, and if we discuss it in Zone I, then it was Rs **319702**, in Zone II, it was Rs **512504**, and in Zone III, it was Rs **693670**. The result shows that the average amount of debt and severity was highest in Zone III, as this South Western Zone is known as the Cotton Belt of Punjab, and average productivity was also lower in this zone, leading to more incidences of indebtedness. It also shows that the average amount of debt and severity of debt was lowest in zone I, as this zone consists of more literate and skilled people as the literacy rate is highest in Hoshiarpur, who are hardworking and believe in taking secure risks from Institutional sources rather than non-institutional one. Our category-wise result shows that large farmers have more outstanding debt and less severity of debt as their repayment capacity is much higher compared with small and marginal farmers who are severely indebted and have lesser repaying capacity. Our exploratory model squeezed fourteen factors into five factors that impacted

indebtedness the most. Hence, the government should check these factors and try to work on these factors so that farmers do not go under distress as the trend of suicide among farmers of Punjab has been troublesome and needs to be tackled carefully, although the Punjab Government has announced loan waivers for small and marginal farmers still only 50 percent of the victims have been benefitted so far. Concrete and solid steps should be taken by the government and policymakers to help farmers who are in a severe agrarian crisis.

Agrarian distress is critical as the farmers were reeling under pressure and were not able to survive. Increasing Indebtedness, Crop failure, loss of livelihood, and farmer suicide indicate the multidimensional nature of agrarian distress where loan waiver was only a short-term measure and the marginal and small farmers in the country getting a rough deal regarding the waivers of farm loans. Even the precious lives of the farmers can be saved by locating the farmers and giving them the much-required monetary and psychological help.

- 1) The southwestern region, or Zone III, was mostly indebted to Punjab due to low fertile land, low productivity, crop failure, and illiteracy, so the government should make special policies for this region.
- 2) Cooperative farming among the small and marginal farmers needs to be encouraged so that they can derive the benefits of scale economies.
- 3) As a long-term measure, the Government should promote crop diversification and promote coarse grains/ millets, which will lead to micro-management.
- 4) More and more financial awareness camps should be organised by Government institutions so that farmers can become financially literate.
- 5) Arthiyas/Commission agent's loan procedure needs to be regulated and brought under the ambit of formal credit.
- 6) Psychological and monetary help should be provided to the distressed and severely indebted small and marginal farmers.

Further Scope of the Study

The present study focused on the impact of indebtedness on different categories of farmers. Further studies need to be undertaken to study the impact on different casts and religions.

Conflict of Interest

The author of this paper declares that there was no financial interest or personal relationship, which may be considered a potential conflict of interest.

Author Contribution

The author confirms sole responsibility for the initial study conception, design, data collection analysis, interpretation of results, and manuscript preparation.

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Data Availability

The primary data was collected by the author himself, and secondary data and supplementary data taken to fortify the study have been duly acknowledged.

Disclaimer

The views expressed in this article are the author's own analysed views. The article is original and not sent for publication elsewhere.

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