

Inter-Regional Analysis of Indebtedness among Rural Labour Households in Punjab

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Abstract

This paper examines the extent and patterns of indebtedness among rural labour households across different regions of Punjab. The findings show that both the incidence of debt and the average loan burden are highest in the South-West region. The average amount of loan per sampled and per indebted household is higher for the non-agricultural labour households as compared to agricultural labour households. These households have taken maximum loans from the non-institutional agencies in all the three regions. The large farmers and money-lenders are the major sources of non-institutional loans. The reliance on non-institutional loans is particularly pronounced in the South-West, while the Shivalik Foothills see the greatest share of borrowing from institutional agencies, with commercial banks serving as the main lenders. The borrowings are largely directed towards consumer purchases, marriages, and socio-religious ceremonies. The household indebtedness is significantly influenced by the number of dependents, the reliance on non-institutional credit, and spending on social functions. The study highlights the need for institutional credit agencies to come forward with new credit schemes for the rural labourers enabling them to avail the required loans at concessional rate of interest.

Keywords: Rural, Labourers, Loan, Sources, Purposes, Region.

JEL Classification: H31, J80, J81, O21

Introduction

India is a land of villages as around two-third of the total labour force in the country lives in rural areas. The majority of the Indian workers are the agricultural labourers who constitute the major segment of the rural work-force. The number of agricultural workers had been steadily rising ever since due to low agricultural returns and division of small land holdings due to increasing agricultural population in the country (Naidu et al., 2018). Wage paid employment is the main source of their livelihood. Most of them do not possess any land (Kavita, 2015). They usually get low wages, conditions of work put an excessive burden on them, and the employment which they get is extremely irregular. Since, they possess no skill or training, they have no alternative employment opportunities either (Anand, 2022). The labourers are unorganized and exploited group of the rural population of the country. Their standard of living, level of income and the rate of wages have remained abnormally low (Kumar, 2022). The new economic policy has not made any significant impact on the conditions of rural labourers. It is due to the introduction of labor-saving

machinery, the use of pesticides and shifting from grain production to cash crops that landlords are squeezing out higher profits by reducing jobs and increasing the workload (Singh and Singh, 2016). The labour-saving technologies and pattern like mechanization and shifting of cropping pattern might have decreased the demand for labour (Bethi, 2017).

Indebtedness is an age-old malady among the rural households in India in general and agricultural labour households in particulars. These households are thus caught up in the vicious circle of low earning, poverty and indebtedness (Singh et al., 2019). In India agricultural laborers are usually highly indebted and the agricultural labourers are still forced to work as bonded labourers due to inability to pay to the landlords or money lenders (Kumar, 2022).

The technological advancements of the green revolution may have given wealth and success to some, but not to the workers. Despite their significant contribution to the green revolution, they have not benefited from it, in terms of the betterment of their living conditions (Bharti, 2011). The income generated by the rural labour households is not enough to meet their consumption expenditure. They have to fulfill their socio religious obligations in addition to their fundamental requirements for food, shelter, and

medical attention. (Singh et al., 2019). In order to fulfil their consumption expenditure and income gap, they have to borrow from various credit agencies. But institutional agencies do not ready to give loans to rural labour households due to their poor repayment capacity and low income. They are also not covered in the net of rural credit due to the requirement of collateral and the designs of the credit schemes (Deshpande et al., 2001). As a result, rural labour households are forced to take loans from non-institutional agencies. These non-institutional agencies exploit the rural labour households in number of ways. The problem of indebtedness of rural labour households is not only a pure economic problem but it is equally a political, social and socio-ethical problem. It has its root in the social, political, ethical and economic texture of the society. Indebtedness has been known as one of the most infamous obstacles in the way of rural prosperity. Hence, this paper is an attempt to examine the inter-regional extent and magnitude of indebtedness among the rural labour households in Punjab.

Data Sources and Methodology

The study is based on primary data collected from 530 rural labour households across 22 villages in Punjab. The state is divided into three agro-climatic regions: Shivalik Foothills, Central Plains, and South-West, with one district selected from each (S.B.S. Nagar, Ludhiana, and Mansa, respectively). One village was chosen from every block, covering five in Mansa, five in S.B.S. Nagar, and twelve in Ludhiana. A random sample of one-tenth of rural labour households was drawn, yielding 163 households in Mansa, 175 in S.B.S. Nagar, and 192 in Ludhiana. Of the total, 229 were agricultural labour households (99 from Mansa, 49 from S.B.S. Nagar, and 81 from Ludhiana) and 301 were non-agricultural (64, 126, and 111, respectively). The survey was conducted in year 2015-16.

The factors determining and influencing indebtedness of the rural labour households have been analysed and carried out by the use of multiple regression analysis. To select the regression function, a number of series of regression functions have been fitted, and then the function is finally selected on the basis of the coefficient of multiple determination (R^2) and significance of the factors. The multiple regression model used as follows:

$$Y = a + b_1X_1 + b_2X_2 + \dots + b_nX_n + E_i$$

Where, Y is the dependent variable; X_1 - X_n are the explanatory variables; a is a constant term and b_1 - b_n are the regression coefficients for X_1 - X_n , respectively. The factors influencing level of debt of the rural labour households are considered to be the determinants of indebtedness. The following factors were considered in our model:

$$Y = f(X_1, X_2, X_3, X_4, X_5, X_6)$$

Where, Y= Level of indebtedness (Rs.), X_1 = Family size, X_2 = Number of dependents, X_3 = Education level of the

decision-maker in the family, X_4 = Income from subsidiary occupations (Rs.), X_5 = Ratio of non-institutional loan to total loan, X_6 = Expenditure on socio-religious ceremonies (Rs.)

Results and Discussion

Indebtedness: Extent and magnitude

The extent and magnitude of indebtedness among the sampled rural labour households in Punjab is presented in Table 1. It has been found that the incidence of indebtedness among the rural labour households is the highest (95.09%) in the South-West region followed by the Shivalik Foothills (92.00 %) and Central Plains (90.62%) region. Further, about 97 per cent of the agricultural labour households are under debt in the South-West region. This proportion is about 94 and 91.36 per cent in the Shivalik Foothills and Central Plains regions, respectively. Slightly more than 92 per cent of non-agricultural labour households are under debt in the South-West region. The corresponding figure is 91.27 per cent in the Shivalik Foothills region and 90.09 per cent in the Central Plains region. The incidence of indebtedness is higher among the agricultural labour as compared to non-agricultural labour households in all the regions. The analysis shows that the incidence of indebtedness is higher in the South-West and Shivalik Foothills regions than the Central Plains region.

The average amount of loan per sampled rural labour households is the highest (Rs. 54448) in the South-West region, while the figures are Rs. 52811 and Rs. 49260 in the Shivalik Foothills and Central Plains regions, respectively. Similarly, the average amount of loan per indebted household for rural labour households is Rs. 57404 in the Shivalik Foothills region followed by the South-West (Rs. 57258) and Central Plains (Rs. 54356) regions. Further, the agricultural labourers of the South-West region of Punjab are under the heavy burden of debt. The average amount of loan in the South-West region is Rs. 52626 per sampled household and Rs. 54271 per indebted household, while in the Shivalik Foothills region, this amount is Rs. 47286 and Rs. 50370 per sampled and per indebted household, respectively. The agricultural labour households in the Central Plains region have the lowest amount of loan which is Rs. 43938 per sampled household and Rs. 48095 per indebted household. Similarly, in the case of non-agricultural labour households, the average amount of loan per sampled and per indebted household is the highest in the South-West region and the lowest in the Central Plains region. The amount of loan among non-agricultural labour households is higher as compared to agricultural labour households in all the regions.

Indebtedness by sources of loan

The average amount of loan taken by the rural labour households from different credit institutions is reflected in Table 2. The table reveals that an average rural labour household in the South-West region has taken the maximum

Table 1: Extent of indebtedness among rural labour households

Particulars	South-West Region			Central Plains Region			Shivalik Foothills Region		
	AL	NAL	All	AL	NAL	All	AL	NAL	All
Number of sampled households	99	64	163	81	111	192	49	126	175
Number of indebted households	96	59	155	74	100	174	46	115	161
Percentage of indebted households	96.97	92.19	95.09	91.36	90.09	90.62	93.88	91.27	92.00
Amount of loan per indebted household (Rs.)	54270.83	62118.64	57258.07	48094.60	58990.00	54356.32	50369.57	60217.39	57403.73
Amount of loan per sampled household (Rs.)	52626.26	57265.63	54447.85	43938.27	53144.14	49260.42	47285.71	54960.32	52811.43

Note: AL-Agricultural Labour Households and NAL-Non-agricultural Labour Households

amount of loan of Rs. 50184 from the non-institutional agencies. The corresponding figures are Rs. 41040 and Rs.38714, respectively for the Shivalik Foothills and Central plainsregions. Among the non-institutional agencies, the amount of loan taken from large farmers is Rs.28252 and Rs. 19115, respectively in the South-West and Central Plains regions. In Shivalik Foothills region, an average rural labour household has taken the highest amount of loan i.e. Rs. 20371 from the money-lenders. The amount of loan borrowed by an average rural labour household from institutional agencies is the highest (Rs. 11771) in the Shivalik Foothills region followed by the Central Plains (Rs.10547) and South-West (Rs. 4264) regions. Among institutional agencies, commercial banks are the main source of credit for the rural labour households.

In the case of households under agricultural labour category, the amount of loan taken from non-institutional agencies is the highest in the South-West region followed by the Central Plains and Shivalik Foothillsregions. The agricultural labour households have taken maximum loan from large farmers followed by money-lenders, traders, relatives and friends in all the three regions.The share of large farmers in the total loan amount of agricultural labour households is the highest (Rs.33687) in the South-West region. This amount is Rs.27143 in the Shivalik Foothills region and Rs. 23889 in the Central Plains region. Moreover, the agricultural labour households have taken Rs. 3737, Rs. 9082 and Rs. 5494 in the South-West, Shivalik Foothills and Central Plains regions, respectively from institutional agencies. Further, the non-agricultural labour households are indebted to the extent of Rs. 52188 in the South-West

region, Rs. 42143 in the Shivalik Foothills region and Rs. 38910 in the Central Plains region to the non-institutional agencies. While institutional agencies provide merely a small amount of loan of Rs. 5078, Rs. 12817 and Rs. 14234 in the South- West, Shivalik Foothills and Central Plains regions, respectively. Money-lenders are the main source of credit for the non-agricultural labour households.

The analysis of relative share of institutional and non-institutional agencies of loan in the total loan of the rural labour households reveal that the share of non-institutional agencies in the total loan of the rural labour households is the maximum (92.17 %) in the South-West region and the lowest (77.71 %) in the Shivalik Foothills region. Among the non-institutional agencies, the share of large farmers and traders in the total loan of rural labour households is the highest in the South-West region followed by the Central Plains and Shivalik Foothills regions. Further, the share of money-lenders is the maximum (38.57 %) in the Shivalik Foothills region followed by 33.55 per cent in the Central Plains region and 33.35 per cent in the South-West region. Furthermore, the share of institutional agencies in the total loan of the rural labour households is the maximum (22.29 %) in the Shivalik Foothills region and the lowest (7.83 %) in the South-West region. The commercial banks are the main lending agency among institutional agencies for the rural labour households in all the three regions.

In case of the agricultural labour households, the proportional share of non-institutional agencies in lending is as high as 93 per cent in the South-West region followed by 87.50 per cent in the Central Plains region and 81 per cent in the Shivalik Foothills region. The corresponding figure for

Table 2: Loan incurred from different credit agencies by rural labour households (Rs.)

Particulars	South-West Region			Central Plains Region			Shivalik Foothills Region		
	AL	NAL	All	AL	NAL	All	AL	NAL	All
A Non-Institutional Agencies									
Money-lenders	10858.59 (20.63)	29453.13 (51.43)	18159.51 (33.35)	11419.75 (25.99)	20252.25 (38.11)	16526.04 (33.55)	6224.49 (13.16)	25873.02 (47.08)	20371.43 (38.57)
Large farmers	33686.87 (64.01)	19843.75 (34.65)	28251.53 (51.89)	23888.89 (54.37)	15630.63 (29.41)	19114.58 (38.80)	27142.86 (57.40)	12896.83 (23.46)	16885.72 (31.98)
Traders	3989.90 (7.58)	2343.75 (4.09)	3343.56 (6.14)	2654.32 (6.04)	2747.75 (5.17)	2708.33 (5.50)	4285.71 (9.06)	2023.81 (3.68)	2657.14 (5.03)
Relatives and friends	353.54 (0.68)	546.88 (0.96)	429.45 (0.79)	481.48 (1.10)	279.28 (0.53)	364.58 (0.74)	551.02 (1.17)	1349.21 (2.46)	1125.71 (2.13)
Sub-total	48888.89 (92.90)	52187.5 (91.13)	50184.05 (92.17)	38444.44 (87.50)	38909.91 (73.22)	38713.54 (78.59)	38204.08 (80.79)	42142.86 (76.68)	41040.00 (77.71)
B Institutional Agencies									
Commercial banks	1717.179 (3.26)	2812.5 (4.91)	2147.24 (3.94)	4567.90 (10.40)	12657.66 (23.82)	9244.79 (18.77)	6938.78 (14.67)	11111.11 (20.22)	9942.86 (18.83)
Other societies or banks	2020.20 (3.84)	2265.63 (3.96)	2116.56 (3.89)	925.93 (2.10)	1567.58 (2.96)	1302.08 (2.64)	2142.86 (4.54)	1706.35 (3.10)	1828.57 (3.46)
Sub-total	3737.37 (7.84)	5078.13 (8.87)	4263.80 (7.83)	5493.83 (12.50)	14234.23 (26.78)	10546.88 (21.41)	9081.63 (19.21)	12817.46 (23.32)	11771.43 (22.29)
Total	52626.26 (100)	57265.63 (100)	54447.85 (100)	43938.27 (100)	53144.14 (100)	49260.42 (100)	47285.71 (100)	54960.32 (100)	52811.43 (100)

Note: Figures in parentheses indicate column-wise percentages

the non-agricultural labour households in the South-West, Shivalik Foothills and Central Plains regions is 91, 77 and 73 per cent, respectively. The agricultural labour households' avail most of the loans from large farmers and the non-agricultural labour households from money-lenders in all the three regions. The agricultural labour households avail as much as 64 per cent in the South-West region, 57 per cent in the Shivalik Foothills region and 54 per cent in the Central Plains region from large farmers. The share of money-lenders in the total loan of the non-agricultural labour households in the South-West, Shivalik Foothills and Central Plains regions is 51, 47 and 38 per cent, respectively. Among agricultural labour households, the share of institutional agencies in total borrowings is highest in the Shivalik Foothills region at 19 per cent, followed by the Central Plains at 12.50 per cent and the South-West at seven per cent. For non-agricultural labour households, institutional loans account for the largest share in the Central Plains region at 27 per cent, while the South-West records the lowest share at nine per cent.

Hence, the above analysis brought out the fact that the rural labour households have taken maximum loans from the non-institutional agencies as compared to the institutional agencies in all the three regions. The agricultural labour households have taken maximum amount of loan from large farmers and non-agricultural labour households from

money-lenders in rural Punjab. This is due to the reason that these households have very fewer collateral assets. So, these households do not able to take loans from various institutional agencies like commercial banks, co-operative societies etc. The non-institutional sources of loan are providing loan to them without any security and exploiting them by charging high rate of interest. Hence, the burden of indebtedness on labourers is increasing day by day.

Indebtedness by rate of interest

The mean values of loan according to the rate of interest are reflected in Table 3. The table depicts that an average rural labour household in the South-West region has borrowed the highest amount of loan (Rs. 21721) at 22 to 28 per cent per annum rate of interest followed by Rs. 20891 in the Central Plains region and Rs. 17628 in the Shivalik Foothills region. This amount ranges between Rs. 13612 for the agricultural labour households of the Shivalik Foothills region to Rs. 24453 to the non-agricultural labour households of the South-West region.

The amount borrowed at the rate of interest ranging between 15 to 21 per cent per annum is the highest (Rs. 16814) in the Shivalik Foothills region followed by the South-West (Rs. 14447) and Central Plains (Rs. 10698) regions. This amount increases from Rs. 10148 in the Central Plains

Table 3: Loan according to rate of interest by rural labour households (Rs.)

Rate of Interest (% per annum)	South-West Region			Central Plains Region			Shivalik Foothills Region		
	AL	NAL	All	AL	NAL	All	AL	NAL	All
0	3353.54 (6.36)	2546.88 (4.45)	2829.45 (5.20)	6234.57 (14.19)	5279.28 (9.93)	5660.42 (11.49)	5306.12 (11.22)	4555.56 (8.29)	4985.71 (9.44)
1-7	2505.05 (4.76)	3406.25 (5.95)	3058.90 (5.62)	2481.48 (5.65)	4072.07 (7.66)	3322.92 (6.75)	1612.25 (3.41)	1873.02 (3.40)	1700.00 (3.22)
8-14	7181.81 (13.65)	4437.50 (7.75)	5682.21 (10.44)	3135.80 (7.14)	4828.83 (9.09)	4148.95 (8.42)	2061.22 (4.36)	4531.75 (8.25)	3740.00 (7.08)
15-21	14787.88 (28.10)	14609.38 (25.51)	14447.24 (26.53)	10148.15 (23.10)	11099.10 (20.89)	10697.92 (21.72)	20816.32 (44.02)	12896.83 (23.47)	16814.29 (31.84)
22-28	18979.80 (36.07)	24453.12 (42.70)	21721.46 (39.89)	19691.36 (44.82)	21900.90 (41.21)	20890.63 (42.41)	13612.25 (28.79)	20357.14 (37.04)	17628.57 (33.38)
29 and Above	5818.18 (11.06)	7812.50 (13.64)	6708.59 (12.32)	2246.91 (5.10)	5963.96 (11.22)	4539.58 (9.21)	3877.55 (8.20)	10746.02 (19.55)	7942.86 (15.04)
Total	52626.26 (100)	57265.63 (100)	54447.85 (100)	43938.27 (100)	53144.14 (100)	49260.42 (100)	47285.71 (100)	54960.32 (100)	52811.43 (100)

Note: Figures in parentheses indicate column-wise percentages

region to Rs. 20816 in the Shivalik Foothills region for the agricultural labour households. Further, the rural labour households have raised a small amount of Rs. 2829, Rs. 4986 and Rs. 5660 in the South-West, Shivalik Foothills and Central Plains regions, respectively at zero per cent rate of interest. The agricultural labour households have incurred more amount of loan as compared to non-agricultural labour households at this rate of interest. A very small amount of Rs. 7943 in the Shivalik Foothills region, Rs. 6709 in the South-West region and Rs. 4539 in the Central Plains region is raised at rate of interest above 29 per cent per annum.

The table further depicts that the rural labour households have taken the highest proportion of total loan at the rate of interest ranging between 22 to 28 per cent per annum in all the three regions. The rural labour households in Central Plains region have taken the highest (42.41%) proportion of total loan at this rate of interest followed by 40 per cent in the South-West region and 33 per cent in the Shivalik Foothills region. This proportion ranges between 29 per cent in the Shivalik Foothills region to 45 per cent in the Central Plains region for the agricultural labour households.

The proportion of loan taken by rural labour households at the rate of interest ranging between 15 to 21 per cent per annum is 31.84 per cent in the Shivalik Foothills region followed by the South-West (26.53%) and Central Plains (21.72%) region. This proportion increases from 21 per cent for the non-agricultural labour households in the Central Plains region to 44 per cent for the agricultural labour households in the Shivalik Foothills region. A very small proportion of loan i.e. 5.20, 9.44 and 11.49 per cent is taken at

zero or negligible rate of interest in the South-West, Shivalik Foothills and Central Plains regions, respectively. This proportion is the highest (14.19%) for the non-agricultural labour households in the Central Plains region and the lowest (4.45 %) for the non-agricultural labour households in the South-West region. Out of total loan of the rural labour households, 15 per cent in the Shivalik Foothills region, 12 per cent in the South-West region and nine per cent in the Central Plains region is raised at the rate of interest above 29 per cent per annum. This proportion of loan is 20 per cent for the non-agricultural labour households in the Shivalik Foothills region followed by 14 per cent in the South-West and 11 per cent in the Central Plains regions. While, the agricultural labour households have raised 11 per cent of the total loan in the South-West region, eight per cent in the Shivalik Foothills and give per cent in the Central Plains regions at the rate of interest above 29 per cent per annum.

Hence, the above analysis shows that the rural labour households are taking maximum loan at a very high rate of interest in rural Punjab. This is hampering their repaying capacity. This situation is posing a serious concern in the rural areas as this situation is adding deprivations not only in current period but also for their future generations.

Indebtedness by purpose of loan

The repaying capacity of indebted rural labour households depends upon the utilization of loan taken by them. Hence, it becomes necessary to examine the distribution of loan according to purpose of loan among the sampled rural labour households in Punjab. The distribution of loan according to purpose of loan has been reflected in Table

4. The table shows that the rural labour households have taken maximum loan for the celebration of marriages and other socio-religious ceremonies followed by the purchase of consumer goods in all the three regions. The amount of loan taken for marriages and other socio-religious ceremonies and purchase of consumer goods has been the maximum in the South-West region followed by the Shivalik Foothills and the Central Plains regions. The non-agricultural labour households have borrowed more amount of loan than the agricultural labour households for the above purposes in all the three regions.

The amount of loan taken for the purpose of house construction and repairs is the highest in the Central Plains region followed by the South-West and the Shivalik Foothills regions. This amount ranges from Rs. 2619 for the non-agricultural labour households in the Shivalik Foothills region to Rs. 7222 for the agricultural labour households in the Central Plains region. Only in the Central Plains region, the loan of Rs. 833, Rs. 432 and Rs. 1126 respectively has been incurred for education purposes by the rural labour, agricultural labour and non-agricultural labour households. The loan used for health care is Rs. 5368, Rs. 6783 and Rs. 1563 respectively in the South-West, Shivalik Foothills and Central Plains regions. This amount increases from Rs. 1469 in the Central Plains region to Rs. 6939 in the Shivalik Foothills region for the agricultural labour households.

The rural labour households have taken Rs. 6436 and Rs. 8615 for the purchase of durables and livestock, respectively

in the Central Plains region followed by Rs. 5686 and Rs. 6200 in the Shivalik Foothills region and Rs. 4863 and Rs. 5982 in the South-West region. The agricultural labour households of the South-West region are using more amount of loan for the purchase of livestock as compared to other regions. While, the agricultural labour households of the Central Plains region are using more amount of loan for the purchase of durables as compared to other regions.

The proportion of loan of the rural labour households used for marriages and other socio-religious ceremonies and purchase of livestock is the maximum in the South-West region followed by the Shivalik Foothills and the Central Plains regions. The category wise analysis shows that the non-agricultural labour households are spending more proportion of their total loan on socio-religious ceremonies as compared to agricultural labour households in all the three regions. This is due to the reason that there is a minimum cultural level in the society. To attain this level, the rural labour households have to borrow funds for the celebration of marriages and other social ceremonies in all the regions. This is due to social compulsions. While, the agricultural labour households are spending more proportion of their total loan on purchase of livestock as compared to non-agricultural labour households in all the three regions.

The proportion of loan used for the purchase of consumer goods is 27, 24 and 24 per cent, respectively in the South-West, Shivalik Foothills and Central Plains regions. This proportion increases from 13 per cent for the agricultural

Table 4: Loan incurred for different purposes by rural labour households (Rs.)

Purpose of loan	South-West Region			Central Plains Region			Shivalik Foothills Region		
	AL	NAL	All	AL	NAL	All	AL	NAL	All
Marriages and other ceremonies	17121.21 (32.53)	24296.87 (42.43)	19938.65 (36.62)	12222.22 (27.82)	16810.81 (31.63)	14896.88 (30.24)	15244.90 (32.24)	20261.91 (36.87)	18857.14 (35.71)
House construction,	3383.84 (6.43)	4296.88 (7.50)	3842.32 (7.06)	7222.22 (16.44)	3423.42 (6.44)	5026.04 (10.20)	2653.06 (5.61)	2619.05 (4.77)	2628.58 (4.98)
Purchase of consumer goods	12828.28 (24.38)	15875.00 (27.72)	14453.99 (26.55)	5802.46 (13.21)	16333.33 (30.73)	11890.63 (24.14)	8571.43 (18.13)	14246.02 (25.92)	12657.14 (23.97)
Purchase of durables	3636.36 (6.91)	6250.00 (10.91)	4862.58 (8.93)	8641.98 (19.67)	4324.32 (8.14)	6436.46 (13.07)	6020.40 (12.73)	5555.56 (10.11)	5685.71 (10.77)
Health care	5606.06 (10.65)	5000.00 (8.73)	5368.10 (9.86)	1469.14 (3.34)	1630.63 (3.07)	1562.50 (3.17)	6938.78 (14.67)	6722.22 (12.23)	6782.86 (12.84)
Purchase of livestock	10050.51 (19.10)	1546.88 (2.71)	5982.21 (10.98)	8148.15 (18.54)	9495.50 (17.87)	8614.58 (17.49)	7857.14 (16.62)	5555.56 (10.10)	6200.00 (11.73)
Education	-	-	-	432.10 (0.98)	1126.13 (2.12)	833.33 (1.69)	-	-	-
Total	52626.26 (100)	57265.63 (100)	54447.85 (100)	43938.27 (100)	53144.14 (100)	49260.42 (100)	47285.71 (100)	54960.32 (100)	52811.43 (100)

Note: Figures in parentheses indicate column-wise percentages

labour households to 31 per cent for the non-agricultural labour households in the Central Plains region. The labourers in rural Punjab are not able to earn sufficient income for their survival. So, they have to borrow funds for fulfill the basic needs of their families.

Only in the Central Plains region, about two per cent of the total loan has been used for education purpose by the rural labour. The proportion of loan used for house construction and repairs is the highest in the Central Plains region followed by the South-West and Shivalik Foothills regions. For the agricultural labour households, this proportion is the highest in the Central Plains region and the lowest in the Shivalik Foothills region. In the case of non-agricultural labour households, this proportion is the highest in the South-West region and the lowest in the Shivalik Foothills region. The proportion of loan incurred for health care purpose is 12.84, 9.86, and 3.17 per cent, respectively in the Shivalik Foothills, South-West and Central Plains regions. The agricultural and non-agricultural labour households of the Shivalik Foothills region have been using more proportion of their loan for health care as compared to other regions. The proportion of loan used for the purchase of durables is 13.07 per cent in the Central Plains region followed by 10.77 per cent in the Shivalik Foothills region and 8.93 per cent in the South-West region. This proportion is as high as 19.67 per cent in the Central Plains region and 12.73 per cent in the Shivalik Foothills region for the agricultural labour households.

Thus, the above analysis shows that the major proportion

of total loan of the rural labour households have been taken for the purpose of socio-religious ceremonies, purchase of consumer goods and durables in all the three regions. This indicates that income of the rural labour households has not sufficient to meet their daily consumption expenditure. In order to fulfill their daily consumption expenditures, the rural labour households have forced to borrow from non-institutional sources of credit at a very high rate of interest. Due to this reason, they are falling into the trap of vicious circle of poverty and heavy indebtedness.

Determinants of Indebtedness

The indebtedness of rural labour households is influenced by various individual as well as macro socio-economic factors. The related literature suggests that the level of indebtedness can be affected by the family size and its composition, income, expenditure, education, caste, religion, availability and sources of loan etc. (Singh, 2019; Singh *et al.*, 2017). Hence, here, we have tried to find out the impact of different socio-economic variables on the level of indebtedness of the rural labour households in Punjab. For this purpose, multiple regression model has been used. The average values of variables are given in Table 5. The value of standard deviation is the highest in Shivalik Foothills region and the lowest in the South-West region. It indicates that the variability is higher in Shivalik Foothills region. the variability is higher in case of non-agricultural labour households in all the regions.

The results of the functional relationship can be observed

Table 5: Average values of factors determining indebtedness of rural labour households

Particulars	South-West Region			Central Plains Region			Shivalik Foothills Region		
	AL	NAL	All	AL	NAL	All	AI	NAL	All
Family size	5.12 (1.24)	5.22 (1.60)	5.19 (1.39)	5.07 (1.47)	4.88 (1.58)	4.97 (1.54)	5.61 (1.52)	5.55 (1.71)	5.56 (1.66)
Number of dependents	2.40 (1.01)	2.54 (1.29)	2.76 (1.13)	1.85 (1.05)	2.51 (1.34)	2.23 (1.27)	2.71 (1.12)	2.76 (1.49)	2.74 (1.39)
Education level of the decision maker in the family	4.60 (2.58)	5.45 (3.12)	5.07 (2.95)	4.74 (3.44)	6.62 (3.01)	5.82 (3.33)	4.16 (3.50)	5.80 (3.48)	5.35 (3.56)
Income from subsidiary occupations (Rs.)	21888.89 (11076.08)	27625 (19449)	24141 (15195)	14479.01 (7072.22)	27081.98 (10726.9)	21765.1 (11241.1)	29244.9 (24151.5)	31595.95 (19724.5)	30937.66 (21084.5)
Ratio of non-institutional loan to total loan	88.89 (31.42)	81.93 (37.97)	86.16 (34.31)	75.31 (43.12)	60.13 (48.78)	66.54 (47.08)	61.22 (48.72)	70.63 (45.54)	68 (46.64)
Expenditure on socio-religious ceremonies	17121.21 (32853.3)	24296.87 (35032)	19938.65 (33907.1)	17222.22 (30590.8)	20810.81 (38093.8)	19226.88 (35169.2)	17244.90 (31364.5)	20261.91 (38009.02)	20857.14 (36341.3)
Total income	107692 (26259.5)	115234.4 (22732.1)	110653.4 (25204.6)	91960.49 (20442.3)	122765 (30231.7)	109769.3 (30595.9)	116438.8 (23480.1)	11955.6 (25883.7)	118682.9 (25272.5)

Note: Figures in parentheses indicate standard deviation

from Table 6. The regression results show that the number of dependents, the share of non-institutional loans, and expenditure on socio-religious ceremonies have positive and significant effects on household indebtedness across all regions. This implies that larger family dependency, limited access to institutional credit, and unproductive social spending drive higher debt levels among rural labour households in Punjab. The regression coefficient for income from subsidiary occupations is negative and statistically non-significant in all the regions. The regression coefficient for family size is positive in all the regions but statistically significant only in the Central Plains region. The family size is the most important factor leading to increase in the level of indebtedness of the rural labour households. The regression coefficient of education level of the decision maker in the family is non-significant in all the productivity regions. The regression coefficient of total income is negative and significant only in the South-West region. The value of R^2 is 0.46, 0.48 and 0.53 in the South-West, Central Plains and Shivalik Foothills regions which means that 46, 48 and 53 per cent variation in the level of indebtedness of the rural labour households in the respective regions are explained by these variables.

For agricultural labour households, expenditure on socio-religious ceremonies is a positive and highly significant determinant of indebtedness across all regions. The ratio of non-institutional to total loans is also positive but insignificant

in the Shivalik Foothills. Income from subsidiary occupations and the education of the household decision-maker show negative but non-significant effects in every region. The number of dependents matters only in the Shivalik Foothills, where it is significant. The total income has a negative and significant impact in the Shivalik Foothills. Overall, the explanatory variables account for 60 per cent, 52 per cent, and 45 per cent of the variation in indebtedness in the Shivalik Foothills, South-West and Central Plains, respectively.

For non-agricultural labour households, expenditure on socio-religious ceremonies is a positive and highly significant determinant of indebtedness across all regions. The ratio of non-institutional to total loans is positive everywhere but significant only in the Shivalik Foothills. Income from subsidiary occupations has a negative effect, significant only in the South-West, while the number of dependents is positive but not significant in the Shivalik Foothills. Family size and the education of the decision-maker are significant only in the Central Plains. The total income has a negative and significant impact in the South-West. The models explain 52 per cent, 53 per cent, and 54 per cent of the variation in indebtedness in the South-West, Shivalik Foothills, and Central Plains regions, respectively.

The foregoing analysis clearly indicates that the increase in the income from subsidiary occupations and education level of the decision maker of the family, decrease in

Table 6: Factors determining indebtedness among rural labour households

Particulars	South-West Region			Central Plains Region			Shivalik Foothills Region		
	AL	NAL	All	AL	NAL	All	AL	NAL	All
Family size	0.97 ^{NS} (0.55)	-0.05 ^{NS} (-0.163)	0.10 ^{NS} (0.06)	0.09 ^{NS} (0.53)	-0.19* (-1.04)	0.24** (2.55)	0.24 ^{NS} (1.28)	0.03 ^{NS} (0.18)	0.01 ^{NS} (0.16)
Number of dependents	0.297 ^{NS} (1.60)	0.037 ^{NS} (1.32)	0.38*** (2.58)	-0.06 ^{NS} (-0.44)	0.26** (1.72)	0.25*** (2.94)	0.33** (2.06)	0.205 ^{NS} (1.34)	0.22** (1.95)
Education level of the decision maker in the family	-0.032 ^{NS} (-0.38)	0.22* (1.75)	0.08 ^{NS} (1.15)	-0.08 ^{NS} (-0.89)	-0.14* (-1.65)	-0.07 ^{NS} (-1.32)	-0.13 ^{NS} (-1.30)	-0.004 ^{NS} (-0.05)	-0.01 ^{NS} (-0.19)
Income from subsidiary occupations	-0.015 ^{NS} (-0.19)	-0.08 ^{NS} (-0.77)	-0.04 ^{NS} (-0.57)	-0.08 ^{NS} (-0.94)	-0.09 ^{NS} (-1.19)	-0.06 ^{NS} (-1.10)	-0.07 ^{NS} (-0.62)	-0.02 ^{NS} (-0.28)	-0.05 ^{NS} (-0.90)
Ratio of non-institutional loan to total loan	0.23*** (3.01)	0.04 ^{NS} (0.41)	0.11* (1.87)	0.29*** (3.14)	0.10 ^{NS} (1.24)	0.15*** (2.67)	0.08 ^{NS} (0.57)	0.16** (2.36)	0.16*** (2.80)
Expenditure on socio-religious ceremonies	0.39*** (4.80)	0.44*** (4.42)	0.46*** (7.15)	0.47*** (5.06)	0.60*** (7.83)	0.57*** (9.76)	0.52*** (4.11)	0.57*** (8.31)	0.55*** (9.53)
Gross income	-0.11 (1.43)	-0.36*** (3.19)	-0.16** (2.55)	0.21 ^{NS} (1.41)	-0.06 ^{NS} (0.61)	0.08 ^{NS} (1.12)	-0.32** (2.08)	0.004 ^{NS} (1.04)	0.02 ^{NS} (1.32)
R^2	0.52	0.52	0.46	0.45	0.54	0.48	0.60	0.53	0.53

Note: Figures in parentheses indicate t-values

***, ** and * significant at 1, 5 and 10 per cent level of significant, respectively

the family size, number of dependents and unproductive expenditure and provision of institutional credit can greatly contribute to reduce the level of indebtedness among rural labour households in all the regions.

Conclusions and Policy Implications

The study highlights that the incidence of indebtedness and average amount of loan of rural labour households is the highest in the South-West region. The average amount of loan per sampled and per indebted household is higher for the non-agricultural labour households as compared to agricultural labour households. The share of non-institutional agencies in the total loans of the rural labour households is the maximum in the South-West region and the lowest in the Shivalik Foothills region. Furthermore, the share of institutional agencies in the total loan of the rural labour households is the maximum in the Shivalik Foothills region and the lowest in the South-West region. The commercial banks are the main lending agency among institutional agencies to the rural labour households in these three regions. The purchase of consumer goods and marriages and socio-religious ceremonies are the main purposes of borrowing among sampled households in all the regions. The family size, number of dependents, ratio of non-institutional loan to institutional loan and expenditure of borrowed funds on the socio-religious ceremonies are the important determinants of indebtedness among the rural labour households. This indicates that the increase in the income from subsidiary occupations and education level of the head of the household, decrease in the family size, number of dependents and unproductive expenditure and provision of institutional credit can greatly contribute to reduce the level of indebtedness among rural labour households in all the regions.

Since majority of the rural labour households are under debt due to the loans availed from non-institutional sources, the government should take suitable measures to save them from the exploitation of these people. The functioning of money-lenders should be regulated and monitored properly. Any complaint regarding their exploitive practices should be strictly dealt with. The institutional credit agencies should come forward with new credit schemes for the rural labourers enabling them to avail the required loans at concessional rate of interest. The expenditure of the rural labour households on socio-religious ceremonies is a matter of great concern. A mass campaign should be launched creating awareness among these people about the social evils like dowry, use of intoxicants, etc. so that expenditure on such ceremonies could be reduced. The number of dependents is positively associated with indebtedness, so, the efforts should be taken towards creation of employment opportunities in the rural areas. The government should have resorted to measures like initiation of multiple cropping and allied agricultural activities like dairying, poultry, fishery and bee-keeping etc. in the rural areas of Punjab to increase the employment. By

creating more employment opportunities in rural areas and ensuring regularity of work, the labourers can be pulled out of the vicious circle of indebtedness.

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