Indebtedness among Farmers and Agricultural Labourers in Rural Punjab

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The paper examines various hitherto unexplored aspects of indebtedness among farmers and agricultural labour households in rural Punjab. It analyses the extent and distribution of indebtedness among farmers and agricultural labourers, their sources of debt and the per household debt incurred for various purposes. The paper also compares and contrasts variations in the rate of interest paid by different categories of farmers and agricultural labourers.

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In India, the rapid productivity gains of the green revolution increased producers' incomes, raised labourers' wages and lowered the price of food. In addition, new livelihood opportunities were generated when success in agriculture provided the basis for economic diversification (Thompson 2004). However, despite decades of investment in new agricultural technology and rural development, poverty and indebtedness continue to plague rural areas.

The state of Punjab was at the forefront of adopting new agricultural technology, which resulted in a large increase in the use of capital inputs to realise the benefits of this technology (Kaur and Singh 2010). Since most of the inputs used by farmers are now purchased from the market, the farmers have to spend huge amounts of cash on purchasing market-supplied farm inputs to carry out their production operations (Kaur 2011). Rising costs along with stagnant technology and a near freeze in the minimum support price of wheat and paddy, which turned the already adverse terms of trade from bad to worse, reduced returns on foodgrain production (Sajjad and Chauhan 2012). The tremendous changes in technology and mode of farming have led to increasing costs and declining farm income, and the farmers are facing difficulties in meeting both farm and domestic expenditure (Sharma et al 2015).

The demand for human labour in the farm sector has been decreasing since the late 1980s. There has been a sharp decline in the number of marginal and small holdings in the state. On the other hand, due to the unfavourable nature and structure of the industrial sector in the state, the small and marginal farmers released by the agricultural sector were not being absorbed outside agriculture (Singh and Toor 2005). Sustained agricultural growth up to 1990 reduced rural poverty in the state. Since then, a slowdown in agricultural growth has become a major cause for concern. Stagnant technology, rising input prices, weakening of the support system, and declining profitability have made cultivation a highly risky and unremunerative enterprise (GoI 2007). The decline in production, increase in the cost of production, and insufficient increase in minimum support prices have made the agricultural activity unremunerative. As a result, indebtedness in agriculture has increased (Mahajan 2015).

The rural borrowers have been depending upon institutional sources for production/investment credit requirements. But for consumption credit needs, these people are forced to go to non-institutional sources for which they have to pay a very high rate of interest. The rural financial services have mostly been controlled by rich farmers, who are able to use their large endowment base and influence within the local power structure to secure loans at very advantageous terms (Sharma 2009). The marginal, small, semi-medium farmers, and agricultural labourers have almost been excluded from these financial services because they are not considered creditworthy. The informal sources cater to the social and consumption requirements for credit to a great extent in rural areas (Amandeep and Sidhu 2012). Despite the tremendous expansion of banking network and the growth of institutional credit for agriculture, the severity of agricultural indebtedness persists (Sidhu and Rampal 2016).

Indebtedness per se need not lead to economic impoverishment but happens when repayment is difficult and the household resorts to sale of assets. Similarly, a fall in economic position can also lead to a greater reliance on credit and thereby increase the debt burden (Mishra 2007). Most of the studies on prevalence of indebtedness in agricultural sector of Punjab mainly deal with the farmers, but none have touched the severity of the same among the agricultural labour households who are economically more vulnerable, as they do not own any productive assets. Hence, the present study will add to the existing literature on rural indebtedness. In the case of farmers as well, an attempt has been made here to elaborate the internal dynamics of rural indebtedness.

Though there are studies which have discussed indebtedness according to the farm size (for example, Shergill 2010; Singh et al 2014), none of them have analysed it according to the size of owned as well as operational holdings. Though Shergill (2010) has included the variable of owned holding, he has taken it as a farm unit which gives equal weight to every farm size. Due to this flaw, the results show that indebtedness per farm unit increases with the increase in farm size. Whereas in the present study, by including the variable of debt per owned acre (rather than per owned farm unit), we try to show that it falls with the increase in farm size. Thus, in this study, an attempt has been made to show that the burden of debt is higher for farmers with smaller holdings (owned as well as operated) than those with larger holdings.

This study has been mainly inspired by the landmark study of Darling (1925); an attempt has been made to revisit all the important findings of this study in the context of the present scenario. As compared to other recent studies on the same problem, this study also reveals greater severity of debt among the agricultural households of rural Punjab. Another important point of departure is regarding the tendency of leasing in land. The existing studies mainly show that a loan is taken for the purchase of new land only, while the reality is that small and marginal farmers have to take a loan sometimes even to pay the rent on leased in land. Actually, these farmers lease in land to make their farm size viable for cultivation, but sometimes the adverse agricultural conditions push them to take loans even to pay the rent on these leased in holdings.

Thus, the present paper is an attempt to examine various hitherto unexplored aspects of indebtedness among farmers and agricultural labour households in rural areas of Punjab. More specifically, the present paper concentrates on the following objectives: to analyse the extent and distribution of indebtedness among farmers and agricultural labourers; to examine the various sources of debt; to analyse per household debt incurred for various purposes; and to compare and contrast the variations in rate of interest paid by the different categories of farmers and agricultural labourers.

Methodology

For the purpose of the present study, data have been collected from the three districts of Punjab representing three different regions—the South-west, the Central Plains, and the Shivalik foothills. The South-west region comprises Bathinda, Mansa, Ferozepur, Fazilka, Faridkot, Muktsar, and Moga districts. The Central Plains region constitutes Patiala, Fatehgarh Sahib, Sangrur, Amritsar, Kapurthala, Jalandhar, Nawanshahr, Tarn Taran, and Ludhiana districts. The Shivalik Foothills region comprises Hoshiarpur, Pathankot, Gurdaspur, and Ropar districts. Keeping in view the differences in agroclimatic conditions and to avoid the geographical contiguity of sampled districts, it was deemed fit to select one district from each region on a random basis. Mansa district from the South-west region, Ludhiana district from the Central Plains region, and Hoshiarpur district from the Shivalik Foothills region have been selected for the purpose of the present study.

On the basis of random sample method, one village from each development block of the selected districts has been chosen. There are 27 development blocks in the selected three districts. Thus, in all, 27 villages have been selected from the three districts under study. A representative proportional sample of households comprising marginal farmers, small farmers, medium farmers, large farmers, and agricultural labourers have been surveyed. Out of these 27 villages, 1,007 farm households and 301 agricultural labour households have been selected from the three districts for the purpose of our survey. Out of a total of 1,308 households, 240 farm households and 111 agricultural labour households are from Mansa district; 481 farm households and 139 agricultural labour households from Ludhiana district; and 286 farm households and 51 agricultural labour households are from Hoshiarpur district.

A household is considered to be a farm household only if more than 50% of its income comes from farm business operations. Here, it must be noticed that farmers are not a homogeneous group. For the purpose of comparison, we have classified them in different categories. We have defined the large farmers as those who own more than 15 acres of land, as the land ceiling limit in Punjab is 17.5 acres, and the medium farmers have been defined as those who own more than 10 acres and up to 15 acres. Out of the 1,007 selected farm households, 408 belong to the category of marginal farmers (owning land up to 2.5 acres), 273 to small farmers (owning more than 2.5 acres and up to 5 acres), 192 to semi-medium farmers (owning more than 5 acres and up to 10 acres), 88 to medium farmers (owning more than 10 acres and up to 15 acres) and 46 to large farmers (owning land more than 15 acres). The present study relates to the agricultural year 2014–15.

Extent of Debt

The extent of debt among different farm-size categories in the three districts under study is shown in Table 1. This table depicts that 85.9% of the farming households in the state of Punjab are under debt. There are certain variations across the different farm-size categories. As many as 89.06% of the semi-medium farm households are under debt, while in the case of marginal, small, medium, and large farm-size categories these percentages are 83.33, 88.64, 84.09 and 82.61, respectively. Slightly more than 80% of the agricultural labour households are under debt.

The average amount of debt per indebted farm household in rural Punjab is ₹5,52,064.16, while the average amount of debt per sampled farming household is ₹4,74,215.99. The amount of loan per indebted household and per sampled household increases as farm size goes up. This reveals that the needs of farmers are increasing as farm size increases because without investing in operational as well as fixed costs, the major share of income cannot be generated. The average amount of debt per indebted agricultural labour household in rural Punjab is ₹68,329.88, while the average amount of debt per sampled agricultural labour household is ₹54,709.30.

Table 1: Extent of Debt among Farmers and Agricultural Labourers—Category-wise

Farm-size Categories	No of Households		Indebted Households as Percentage of Sampled Households	Average Amount of Debt (₹)	
	Sampled	Indebted		Per Sampled Household	Per Indebted Household
Marginal farmers	408	340	83.33	2,30,699.75	2,76,839.70
Small farmers	273	242	88.64	4,94,051.29	5,57,338.85
Semi-medium farmers	192	171	89.06	6,09,765.63	6,84,649.12
Medium farmers	88	74	84.09	7,86,761.36	9,35,608.10
Large farmers	46	38	82.61	13,52,695.65	16,37,473.68
All sampled farmers	1,007	865	85.90	4,74,215.99	5,52,064.16
Agricultural labourers	301	241	80.07	54,709.30	68,329.88

Source: Field Survey, 2014–15.

Table 2: Amount of Debt per Acre—Category-wise (Mean values in ₹)

Farm-Size Categories	Debt per Owned Acre	Debt per Operated Acre
Marginal farmers	1,40,670.58	65,169.42
Small farmers	1,20,794.93	55,573.82
Semi-medium farmers	81,847.74	52,839.31
Medium farmers	63,244.48	45,398.81
Large farmers	57,512.57	50,211.41
All sampled farmers	1,16,801.97	71,203.60

Source: Field Survey, 2014–15.

Per Acre Indebtedness

The amount of debt per operated acre and per owned acre is given in Table 2. This table reveals that for an average farming household the amount of debt per owned acre and per operated acre is ₹1,16,801.97 and ₹71,203.60, respectively. The category-wise amount of debt per owned acre decreases as the farm size goes up. The amount of debt per operated acre is the highest among the marginal farm-size category, followed by the small, semi-medium, large, and medium farm-size categories. This has an important implication that the burden of debt is greater on the lower farm-size categories as compared to the upper farm-size categories. Some of the reasons identified for indebtedness among marginal and small farmers are lower income due to low productivity levels, increased cost of production, rising cost of living, inadequate institutional credit, unproductive expenditure on social ceremonies, intoxicants, etc (Singh 2010). The upper farm-size categories partly finance their crop production operations from their own savings.

Debt Incurred from Different Credit Agencies

The role of various credit agencies in the study area has been analysed, and the information is presented in Table 3. This table shows that an average farming household in rural Punjab has taken ₹1,17,279.05 from non-institutional agencies, and ₹3,56,936.94 from institutional agencies. The average debt per agricultural labour household from non-institutional agencies is ₹50,217.61 and from institutional agencies it is only ₹4,491.69. The marginal farmers are under a total debt of ₹2,30,699.75, out of which ₹91,019.61 has been taken from non-institutional agencies and the remaining ₹1,39,680.14 from institutional agencies. The small farmers are indebted to the extent of ₹1,46,754.58 to non-institutional agencies and ₹3,47,296.7 to institutional agencies, whereas the corresponding figures are ₹1,34,375 and ₹4,75,390.63 respectively for the semi-medium farmers. The medium farm-size category has taken ₹1,13,863.63 from non-institutional agencies and ₹6,72,897.73 from institutional agencies. The large farm-size category obtained ₹1,10,434.78 from non-institutional agencies and ₹12,42,260.87 from institutional agencies. The marginal, small, semi-medium, medium, and large farm-size categories

Table 3: Debt Incurred from Different Credit Agencies—Category-wise (Mean values in ₹)

Sl No	Source of Debt	Marginal Farmers	Small Farmers	Semi-medium Farmers	Medium Farmers	Large Farmers	All Sampled Farmers	Agricultural Labourers
A	Institutional							
1	Primary agricultural cooperative societies/ cooperative banks	32,628.68	85,805.87	1,15,078.13	1,22,750	1,20,413.04	74,650.94	1,823.92
2	Commercial banks	1,02,517.16	2,53,798.53	3,48,697.92	5,10,375.00	10,36,956.52	2,68,795.43	2,667.77
3	Land development banks	2,696.08	4,029.30	7,447.92	0.00	60,978.26	6,390.27	0.00
4	Regional rural banks	1,838.22	3,663.00	4,166.67	39,772.73	23,913.04	7,100.30	0.00
	Subtotal	1,39,680.14	3,47,296.70	4,75,390.63	6,72,897.73	12,42,260.87	3,56,936.94	4,491.69
B	Non-institutional							
5	Commission agents	48,117.65	96,172.16	95,130.21	67,727.27	57,065.22	72,231.38	0.00
6	Moneylenders	21,575.98	29,432.24	31,536.46	34,090.91	45,217.39	27,778.55	1,574.75
7	Traders and shopkeepers	2,700.98	2,798.53	1,875.00	113.64	8,152.17	2,592.85	5,152.82
8	Large farmers	3,894.61	3,553.12	2,604.17	5,681.82	0.00	3,534.26	37,096.35
9	Relatives and friends	14,730.39	14,798.53	3,229.17	6,250.00	0.00	11,142.01	6,393.69
	Subtotal	91,019.61	1,46,754.58	1,34,375.00	1,13,863.63	1,10,434.78	1,17,279.05	50,217.61
	Total	2,30,699.75	4,94,051.28	6,09,765.63	7,86,761.36	13,52,695.65	4,74,215.99	54,709.30

Source: Field Survey, 2014–15.

have incurred the highest amount of debt from commercial banks. But the agricultural labour households owed the highest amount of debt to large farmers. The reason behind the greater reliance of agricultural labour households upon non-institutional agencies is that they lack adequate collateral which is essential for raising loans from institutional agencies.

Pattern of Debt Incurred from Different Credit Agencies

The proportionate shares of different credit agencies in the total debt are given in Table 4. This table depicts that an average farming household has incurred 75.27% of the total debt from institutional agencies. This proportion increases with the increase in farm size. The remaining 24.73% of the total debt has been incurred from non-institutional agencies. This proportional share is inversely associated with farm size. About 57% of the total debt is incurred from commercial banks by an average farming household. This proportional share is positively related with farm size. All categories of farmers owed the highest debt to this source. These figures confirm the findings of Sekhon and Saini (2008) that commercial banks now play a major role in agricultural production and economic development of rural areas by supplying credit facilities to farmers. The agricultural labour households have hardly incurred 5% of the total debt from this particular source.

The primary agricultural cooperative societies/cooperative banks are the second important source of debt for an average farming household, contributing 15.74% to the total debt. This proportion is the highest for semi-medium farmers, followed by the small, marginal, medium, and large farm-size categories. The agricultural labour households have incurred only 3.33% of the total debt from this source.

The commission agents are the third important source of debt from which an average farming household has incurred 15.23% of the total debt. This proportion is inversely related to the farm size.

At the fourth rank were the moneylenders to whom an average farming household owed 5.86% of the total debt, and this proportionate share is the highest for the marginal farm-size category, followed by the small, semi-medium, medium, large farm-size categories. The agricultural labour households have incurred about 3% of the total debt from moneylenders.

The share of large farmers is 0.75% for an average farming household. The agricultural labour households owed about 68% of the total debt to large farmers. Slightly less than 2.40% of the total debt has been raised from relatives and friends by an average farming household. This proportion is 11.69 and 6.39 respectively for the agricultural labour and marginal farm-size category household.

As far as the source of the debt is concerned, the marginal and small farm-size categories follow a similar pattern. For these categories, the major sources of debt are commercial banks, commission agents, cooperative societies, moneylenders, and relatives and friends. For the semi-medium and medium farm-size categories, the major sources of debt are commercial banks, commission agents, cooperative societies, and moneylenders.

The remaining two categories follow a different pattern. For the large farm-size category, the major sources of debt are commercial banks, cooperative societies, and land development banks. In the case of agricultural labour households, the major sources of debt are large farmers, relatives and friends, and traders and shopkeepers. The above findings clearly bring out the fact that even after nearly seven decades of independence, the marginal, small, medium farmers, and agricultural labourers in Punjab are still in the clutches of non-institutional agencies, particularly commission agents and large farmers.

Debt Incurred for Different Purposes

The purpose for which a loan is raised is an important indication of its potential to be repaid. The amount of debt incurred for different purposes is provided in Table 5 (p 55). The table shows that the purchase of farm inputs and machinery is the major purpose for which debt has been incurred by farmers. An average farming household incurs ₹3,32,064.05 for this purpose, and this amount increases as the farm size goes up. This is due to the adoption of new agricultural technology which is a costly affair and is known as inputs package. An average farming household owes ₹32,852.04 for domestic needs, ₹32,467.73 for house construction, addition of rooms and major repairs, and ₹21,305.86 for marriages and other socio-religious ceremonies. In the case of marginal, small, and semi–medium farm-size categories, loans are raised for the purchase of farm input and machinery, house construction, addition of rooms and major repairs, domestic needs, renting land, and marriages and other social and religious ceremonies.

For the medium and large farm-size categories, the reasons for incurring debt are purchase of farm inputs, machinery and implements, house construction, addition of rooms and major repairs, education, and purchase of land. In the case of agricultural

Table 4: Debt Incurred from Different Credit Agencies—Category-wise (Percentage of total debt)

Sl No	Source of Debt	Marginal Farmers	Small Farmers	Semi-Medium Farmers	Medium Farmers	Large Farmers	All Sampled Farmers	Agricultural Labourers
A	Institutional							
1	Primary agricultural cooperative societies/ cooperative banks	14.14	17.37	18.87	15.60	8.90	15.74	3.33
2	Commercial banks	44.44	51.37	57.19	64.87	76.66	56.68	4.88
3	Land development banks	1.17	0.82	1.22	0.00	4.51	1.35	0.00
4	Regional rural banks	0.80	0.74	0.68	5.06	1.77	1.50	0.00
	Subtotal	60.55	70.30	77.96	85.53	91.84	75.27	8.21
B	Non-institutional							
5	Commission agents	20.86	19.46	15.60	8.61	4.22	15.23	0.00
6	Moneylenders	9.35	5.95	5.17	4.33	3.34	5.86	2.88
7	Traders and shopkeepers	1.17	0.57	0.31	0.01	0.60	0.54	9.41
8	Large farmers	1.69	0.72	0.43	0.72	0.00	0.75	67.81
9	Relatives and friends	6.39	3.00	0.53	0.79	0.00	2.35	11.69
	Subtotal	39.45	29.70	22.04	14.47	8.16	24.73	91.79
	Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Based on Table 3.

Table 5: Debt Incurred for Different Purposes—Category-wise (Mean values in ₹)

Sl No	Purpose	Marginal Farmers	Small Farmers	Semi-medium Farmers	Medium Farmers	Large Farmers	All Sampled Farmers	Agricultural Labourers
1	Farm inputs and machinery	1,41,991.42	3,25,263.74	4,49,687.50	5,88,011.36	10,77,695.65	3,32,064.05	265.78
2	Rent of land	12,083.33	32,161.17	14,583.33	7,386.36	0.00	17,040.71	0.00
3	Marriages and other social and religious ceremonies	10,600.49	14,102.56	53,229.17	31,363.64	6,521.74	21,305.86	17,853.82
4	House construction, addition of rooms and major repairs	14,522.06	47,435.90	32,916.67	46,590.91	73,913.04	32,467.73	4,734.22
5	Domestic needs	33,230.39	39,098.90	24,843.75	28,181.82	34,782.61	32,852.04	19,745.85
6	Healthcare	7,291.67	6,593.41	14,322.92	5,681.82	0.00	7,969.22	10,083.06
7	Livestock	2,720.59	3,754.58	0.00	0.00	0.00	2,120.16	465.12
8	Education	3,921.57	19,780.22	13,020.83	36,363.64	96,739.13	17,030.78	863.79
9	Purchase of land	0.00	0.00	3,776.04	43,181.82	32,608.70	5,983.12	697.67
10	Repayment of debt	3,602.94	5,860.81	3,385.42	0.00	0.00	3,694.14	0.00
11	Small business	735.29	0.00	0.00	0.00	30,434.78	1,688.18	0.00
	Total	2,30,699.75	4,94,051.28	6,09,765.63	7,86,761.36	13,52,695.65	4,74,215.99	54,709.30

Source: Field Survey, 2014–15.

Table 6: Debt Incurred for Different Purposes—Category-wise (Percentage of total debt)

Sl No	Purpose	Marginal Farmers	Small Farmers	Semi-medium Farmers	Medium Farmers	Large Farmers	All Sampled Farmers	Agricultural Labourers
1	Farm inputs and machinery	61.55	65.84	73.75	74.74	79.67	70.02	0.49
2	Rent of land	5.24	6.51	2.39	0.94	0.00	3.59	0.00
3	Marriages and other social and religious ceremonies	4.59	2.85	8.73	3.99	0.48	4.49	32.63
4	House construction, addition of rooms, and major repairs	6.29	9.60	5.40	5.92	5.46	6.85	8.65
5	Domestic needs	14.40	7.91	4.07	3.58	2.57	6.93	36.09
6	Healthcare	3.16	1.33	2.35	0.72	0.00	1.68	18.43
7	Livestock	1.18	0.76	0.00	0.00	0.00	0.45	0.85
8	Education	1.70	4.00	2.14	4.62	7.15	3.59	1.58
9	Purchase of land	0.00	0.00	0.62	5.49	2.41	1.26	1.28
10	Repayment of debt	1.56	1.19	0.56	0.00	0.00	0.78	0.00
11	Small business	0.32	0.00	0.00	0.00	2.25	0.36	0.00
	Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Based on Table 5.

labour households, the maximum amount of debt has been incurred for domestic needs, marriages and other socio-religious ceremonies, and healthcare. The amount of debt owed for these purposes is ₹19,745.85, ₹17,853.82 and ₹10,083.06 respectively. Thus loans used for non-income generating activities do not generate any income for their repayment, and hence the loans go on accumulating and are passed from generation to generation (Kaur 2016).

Pattern of Debt Incurred for Different Purposes

The proportional share of debt spread on different purposes is presented in Table 6. This table indicates that an average farming household owes the highest proportion of total debt for the purchase of farm inputs and machinery. As much as 70.02% of the total debt has been incurred for this purpose. This proportion is 79.67%, 74.74%, 73.75%, 65.84%, and 61.55% for the large, medium, semi-medium, small, and marginal farm-size categories respectively. These figures are somewhat different from the findings of Kaur et al (2016) in which the major proportion of debt is taken for this purpose, but the respective proportions of debt for the same among all farm size categories are much lower than those found by the present study (this study has given the same proportions as 71.85%, 56.99%, 48.58% and 38.1%). About 7% debt is owed for domestic needs. This proportion decreases as the farm size increases.

The agricultural labour households have incurred the highest proportion of debt for domestic needs, that is 36.09%, followed by the marginal, small, semi-medium, medium, and large farm size categories. The field survey has revealed the fact that the annual consumption expenditure of the marginal, small, medium farm and agricultural labour households exceeds their annual income. This finding confirms the findings of the study by Singh (2010), which shows that in Punjab, the annual income of the marginal and small farmers falls short of their total expenditure by 41.4% and 35.5%, respectively. They frequently resort to borrowing mainly for consumption purposes. The field survey also revealed another disturbing fact that very often the small and marginal farmers sell a part of their already small landholding to raise funds for consumption needs of the family.

About 7% of the total debt has been incurred for house construction, addition of rooms, and major repairs by an average farming household. This share is 9.60% and 8.65% for the small farm-size category and agricultural labour households, respectively. An average farming household owed 4.49% of the total debt for marriages and other social and religious ceremonies. This proportional share is about 33% for the agricultural labour households, followed by the semi-medium, marginal, medium, small, and large farm-size categories. The field survey has revealed the fact that debt for marriages and other social and religious obligations, house construction, addition of rooms, and major repairs was quite significant and widespread. Thus to maintain their social status and keep up with basic cultural practices and norms, these sections incur some expenditure which is beyond their means and results in their indebtedness.

About 4% of the total debt has been incurred for education by an average farming household. The large, medium, and small farm-size categories give greater importance to education, and out of their total debt, the proportion of debt incurred for education stands at 7.15%, 4.62% and 3.95%, respectively. As much as 3.59% of the total debt of an average farming household is also incurred for payment of land rent. This proportional share is the highest for the small farm-size category, followed by the marginal, semi-medium, and medium farm-size categories. The operational size of holding is uneconomic for these categories of farmers so they lease-in land from large farmers. About 2% of the total debt is incurred for healthcare by an average farming household. This proportion is as high as 18.43% for the agricultural labour households and 3.16% for the marginal farm-size category. An average farming household has incurred very little share of the total debt for purchase of land, repayment of debt, and small business, that is 1.26%, 0.78% and 0.36% respectively.

The above analysis clearly indicates that the marginal, small and semi-medium farmers, and agricultural labourers owe debt mainly for domestic expenditure and marriages and other social and religious ceremonies. On the other hand, the medium and large farmers largely incur debt for the purchase of farm inputs and machinery, education, and purchase of land. This result is in clear contrast to the study conducted by Singh et al (2014), which states that in percentage terms the large farmers spend the lowest share on farm inputs and machinery and the highest on marriages and social and religious ceremonies.

Debt According to the Rate of Interest

The mean values of debt according to the rate of interest are given in Table 7. The table depicts that an average farming household owed the maximum amount of total debt at the rate of interest ranging between 8% to 14% per annum, followed by the ranges 1% to 7%, 15% to 21% and 22% to 28% per annum. The marginal, small, medium, and large farmers have incurred the maximum amount of total debt at the rate of interest ranging between 8% to 14%. The marginal and semi-medium farmers have incurred the maximum amount of total debt at the rate of interest ranging between 1% to 7%. The agricultural labour households owed the maximum amount of total debt at the rate of interest ranging between 22% to 28%. This is because this poor section of the farming community is not able to get loans from the institutional sources due to the lack of adequate collateral.

Table 7: Outstanding Debt According to Rate of Interest—Category-wise (Mean values in ₹)

Sl No	Categories	Rate of Interest (%) 0	1 to 7	8 to 14	15 to 21	22 to 28	Above 29	Total
1	Marginal farmers	10,276.96	1,01,530.64	42,009.80	45,112.75	30,078.43	1,691.18	2,30,699.75
2	Small farmers	1,868.13	1,76,014.65	1,77,967.03	93,234.43	43,135.53	1,831.50	4,94,051.28
3	Semi-medium farmers	520.83	2,51,718.75	2,39,348.96	50,989.58	67,187.50	0.00	6,09,765.63
4	Medium farmers	6,250.00	2,60,397.73	3,97,727.27	1,01,250.00	21,136.36	0.00	7,86,761.36
5	Large farmers	0.00	2,99,760.87	9,03,369.57	62,934.78	86,630.43	0.00	13,52,695.65
6	All sampled farmers	5,315.79	1,73,297.42	1,86,926.51	64,999.01	42,495.53	1,181.73	4,74,215.99
7	Agricultural labourers	6,107.97	3,983.39	2,833.89	11,167.77	28,506.64	2,109.63	54,709.30

Source: Field Survey, 2014–15.

Pattern of Debt According to the Rate of Interest

The relative shares of debt incurred in different ranges of rate of interest are given in Table 8. This table shows that on an average 39.42% of the total debt has been incurred at the rate of interest ranging between 8% to 14% by farmers. This proportion is the highest for large farm-size category, followed by the medium, semi-medium, small farmers, and agricultural labour households. A substantial proportion of the total debt of an average farming household (36.54%) is in the range of 1% to 7% per annum. The marginal and semi-medium farm size categories owed the highest amount of total debt in this range of rate of interest. About 14% of the total debt of farmers has been incurred at the rate of interest ranging between 15% to 21%. This proportion decreases as farm size increases except for the medium farm-size category. This proportion is 20.41% for the agricultural labour households.

Table 8: Pattern of Debt According to Rate of Interest—Category-wise (Percentage of total debt)

Sl No	Categories	Rate of Interest (%) 0	1 to 7	8 to 14	15 to 21	22 to 28	Above 29	Total
1	Marginal farmers	4.45	44.01	18.21	19.55	13.04	0.74	100.00
2	Small farmers	0.38	35.63	36.02	18.87	8.73	0.37	100.00
3	Semi-medium farmers	0.19	41.24	39.21	8.35	11.01	0.00	100.00
4	Medium farmers	0.79	33.10	50.55	12.87	2.69	0.00	100.00
5	Large farmers	0.00	22.16	66.78	4.65	6.40	0.00	100.00
6	All sampled farmers	1.12	36.54	39.42	13.71	8.96	0.25	100.00
7	Agricultural labourers	11.16	7.28	5.18	20.41	52.11	3.86	100.00

Source: Based on Table 7.

About 9% of the total debt has been incurred at the rate of interest ranging between 22% to 28% by an average farming household. The agricultural labour households incurred the maximum proportion of total debt (52.11%) in this range of rate of interest. A very small proportion (0.25%) of the total debt is incurred at the rate of interest ranging from 29% and above by an average farming household. The agricultural labour households have incurred 3.86% of the total debt at this rate of interest.

The foregoing analysis brings out the fact that the marginal, small, medium, and large farm households have incurred the maximum amount of debt at relatively lower rates of interest, but the agricultural labour households have incurred the maximum amount of total debt at higher rates of interest. These households are still mainly dependent upon the non-institutional sources, which charge exorbitant rates of interest. This result of the present study is in line with the findings of another study by Kaur et al (2016), which shows that the agricultural labour households have no other choice than to avail loans from the non-institutional sources because the loans by institutional agencies are advanced to only those who can offer some collateral in shape of some land or other assets. The field survey has revealed the fact that commission agents, the most important among the non-institutional sources, because of legal and political implications now advance fewer loans to farmers.

Conclusions and Policy Implications

The above analysis shows that more than four-fifths of the farming and agricultural labour households in rural areas of Punjab are under debt. The amount of debt per indebted household and per sampled household increases as the farm size goes up. The average amount of debt per indebted agricultural labour household is ₹68,329.88, while the average amount of loan per indebted farming household is ₹5,52,064.16. For an average farming household, the amount of debt per owned acre and per operated acre is ₹1,16,801.97 and ₹71,203.60, respectively. The category-wise amount of loan per owned acre decreases as farm size goes up. The analysis further shows that institutional agencies are the most important source of loans in the case of farm households. This may be attributed to some extent to the awareness about institutional facilities, easy availability of loans, and greater accessibility to banks in rural areas.

In the case of agricultural labour households, major sources of debt are large farmers, relatives and friends, and traders and shopkeepers. These facts clearly bring out that even after nearly seven decades of independence, the agricultural labourers in the rural areas of Punjab are still in the clutches of non-institutional agencies, particularly large farmers and traders and shopkeepers which charge exorbitant rates of interest.

The majority of farmers and agricultural labourers are unable to meet their consumption expenditure with their income. This expenditure–income gap compels these farmers to use some proportion of debt to meet their daily requirements. This gap compels the agricultural labourers to use a major proportion of debt to maintain their minimum level of consumption. In spite of the fact that the institutional agencies are the most important source of agricultural credit, it appears that the burden of indebtedness among farm and agricultural labour households is likely to continue in the coming years on account of their low income and outstanding loans. Indebtedness will continue to grow in the case of farm and agricultural labour households if their income remains static and no efforts are made to improve their economic conditions.

To overcome the problem of indebtedness, effective measures should be taken to increase the income of the farm and agricultural labour households. It is extremely necessary to revisit land reforms in favour of the marginal and small farmers, as it would result in increasing their farm size and as a result will be helpful in increasing their farm business income. The agricultural labourers, an important section of the farming community that has been ignored for ages, must be equally considered while revisiting the land reforms. Emphasis should be laid on the establishment of agro-based industries owned by the producers' cooperatives in the rural areas on a priority basis. It will produce gainful employment opportunities at the village level and benefits of value addition would go to the producers. Cooperative societies should be promoted so that these societies can help in marketing of agricultural products, providing finance to farmers, and making machinery available on rent. The enforcement of the already existing special programmes for rural development should be framed in proper perspective. Increase in the plan allocation and enlarging the scope of rural specific schemes to cover a larger proportion of population can go a long way in improving the economic conditions of the farm and agricultural labour households in the state.

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