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Inter-Regional Analysis of Poverty among Labour Households in Rural Areas of Punjab

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Abstract

The present paper is an attempt to analyze the incidence and determinants of poverty among the rural labour households in different regions of Punjab. The study is based on a survey of 530 rural labour households from 22 villages. The study reveals that the incidence of poverty for rural labour households is the highest in the low productivity region followed by the high productivity and medium productivity regions. The incidence of consumption-based poverty is slightly less than the incidence of income-based poverty across the three regions. The agricultural labour households are more prone to poverty. The family size, number of earners and income from subsidiary occupations are the main determinants of income-based poverty. The number of dependents, education level of the decision maker in the family and income from subsidiary occupations are the main determinants of consumption-based poverty.

Keywords

Rural labour, Poverty, Income, Consumption, Determinants.

JEL Codes : I32, P24, P36, Q12, Q13.

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7

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1. Introduction

Poverty has been described as a situation of pronounced deprivation of well-being. The poor lack ownership of access to assets such as land, water, forest, dwelling units, credit, literacy, longevity, voice and capital-both physical and social (Mehta and Shah, 2001). Severely poor people engage in subsistence-type enterprises that yield exploitatively low profits, even when they endure great physical discomfort and take significant risks to supplement their meager income. Because earnings are less than even the necessities for survival, expenses and necessities for survival outweigh income.

The rural poor are quite diverse both in the problems they face and the possible solutions to these problems. In the community, minority groups suffer more than majority groups, and the rural poor more than the urban poor; among the rural poor, landless wage workers suffer more than small landowners or tenants. (Khan, 2001). In most developing countries, living in a rural area increases a person's probability of suffering from poverty and deprivation (Suttie, 2020). Poverty is caused by many factors and brings several effects which influence the lives of people considered to be poor. The influence of the factors varies from one place to another (Borko, 2017).

The incidence of poverty in rural areas is found to be more than the urban areas, so being rural also adds a dimension to poverty (Kaur and Anupama, 2018). The causes of rural poverty are complex and multidimensional. The problem of poverty, especially rural poverty has drawn a great deal of attention of intellectuals, planners and policy makers in India. The importance of reduction in poverty and provision of other basic needs have been emphasized in all the Five-Year Plans, particularly since the Fifth Five Year Plan (Sharma, 2009). The government had adopted two strategies, one for promoting economic growth and another direct action for alleviating poverty (Alok, 2020). These schemes have given thrust on creating adequate

livelihood opportunities, provisioning of public services and goods, targeted development of backward regions through resource transfers and supportive policy measures for the marginalised segments of the population (Kumar et al., 2011). During the post reform period, the process of poverty alleviation succeeded more widely in the case of cultivating households compared with agricultural labour households in India. The cultivating households were the beneficiaries of agricultural growth (Chadha, 2008). Though the anti-poverty programmes have been strengthened in the successive years, a large section of population is still living below the poverty line in rural Punjab. In this paper, an attempt has been made to discuss the incidence and determinants of poverty among the rural labour households in different regions of Punjab.

2. Data Sources and Methodology

The present study is based on primary data. For the purpose of data collection, the whole state has been divided into three regions on the basis of agricultural productivity namely low, medium and high productivity regions. One district has been selected from each region. The Mansa district from low productivity region, S.B.S. Nagar from medium productivity region and Ludhiana from high productivity region has been selected. One village has been chosen from each development block of the three selected districts. There are five development blocks in Mansa district, five in S.B.S. Nagar district and twelve in Ludhiana district. Thus, in all, twenty-two villages have been selected from three districts under study. One-tenth of the households from the total number of rural labour households of the villages have been selected randomly for the survey. Thus, in all, 530 rural labour households have been selected from 22 villages. Out of 530 rural labour households, 163 from Mansa district, 175 from S.B.S. Nagar and 192 from Ludhiana district have been selected. Out of 530 rural labour households, 229 households are agricultural labour households and 301 are non-agricultural labour households. Out of 229 selected agricultural labour households, 99 households are from Mansa district, 49 households from S.B.S. Nagar district and 81 households from Ludhiana district. Similarly, out of 301 selected non-agricultural labour households, 64 households are from Mansa district, 126 households from S.B.S. Nagar district and 111 households from Ludhiana district.

3. Different Criteria for Measurement of Poverty

The term 'poverty' is defined as inability of an individual to satisfy certain basic minimum needs for a sustained, healthy and reasonable productive living. All those persons who live below minimum desirable levels of living are said to be living below the poverty line. The prevalence of poverty among the sampled rural labour households in Punjab has been analyzed on the basis of following criteria:

3·1 Tendulkar Criterion

In 2005, Tendulkar committee was constituted by the Planning Commission to review the methodology for estimation of poverty in India. This committee recommended to shift away from the calorie-based model and made the poverty line somewhat broader way by considering monthly spending on education, health, electricity and transport also. For 2004-05, the poverty line using by this methodology is estimated to be ₹ 543.51 per capita, per month for the rural areas of Punjab (GoI, 2009). However, for the purpose of this study, the figures are converted for the year 2015-16 by taking consumer price index for rural labour. The cut-off income for the year 2015-16 is given below:

Table-1 : Calculation of Poverty Line on the basis of Tendulkar Methodology

Year	CPI of Rural Labour (Punjab) 1986-87=100	Index	Monthly Poverty Line	Annual Poverty Line
2004-05*	359	100	543.51	6522.12
2015-16**	894	249.03	1353.50	16242.00

Source : * The figures for 2004-05 from GoI (2009) Report of the Expert Group to review the methodology for measurement of Poverty.
**The figures for 2015-16 compiled from GoI Annual Report (2015-16), Labour Bureau, Chandigarh.

By following the above criteria, the poverty line comes to be ₹ 16242 per capita, per annum for the year 2015-16. Hence, all the rural labour households having per capita income or per capita consumption expenditure below ₹16242 per annum has been considered as poor households. The most widely used measure of poverty is the Head-Count measure, given by the proportion of the total population falling below the specified poverty income.

3·2 Rangarajan Criterion

An Expert Group under the chairmanship of Dr. C. Rangarajan, to review the methodology for measurement of poverty in the country, was constituted by the Planning Commission in June 2012. This Expert Group has submitted its report on 30th June, 2014. According to this committee, the poverty line is estimated to be ₹1127.48 per capita, per month in the rural areas of Punjab at 2011-12 prices (GoI, 2014). However, for the purpose of this study, the figures are converted by using consumer price index for rural labour for the year 2015-16. The cut-off income for the year 2015-16 is given below:

Table-2 : Calculation of Poverty Line on the basis of Rangarajan Methodology

Year	CPI of Rural Labour (Punjab) 1986-87=100	Index	Monthly Poverty Line	Annual Poverty Line
2011-12*	681	100	1127.48	13529.76
2015-16**	894	131.28	1480.16	17761.92

Source : *The figures for 2011-12 from GoI (2014) Report of the Expert Group to review the methodology for measurement of poverty.
**The figures for 2015-16 compiled from GoI Annual Report (2015-16), Labour Bureau, Chandigarh

By following the above criterion, the poverty line comes to be ₹1480.16 per capita, per month or ₹17761.92 per capita, per annum for the year 2015-16. Hence, all the rural labour households having per capita income or per capita consumption expenditure below ₹17761.92 per annum has been considered as poor households.

3·3 World Bank's Moderate Poverty Line Criterion

The World Bank's moderate poverty measure was also used to describe the incidence of poverty among the rural labour households in Punjab. The revised moderate international poverty line was $3.10 per day, per person at purchasing power parity (Ferreira et al., 2015). In this study, the poverty line was converted into rupees on the basis of purchasing power parity in 2015-16. The purchasing power parity of the Indian Rupees with US $ in 2015-16 is 1$ = ₹17.52 (Anonymous, 2016). As per this criterion, the cut-off income for the year 2015-16 is as given below :

Cut-off income = 3.10 × 17.52 × 365 = ₹19823.88

3·4 50 Per cent of State PCY Criterion

The fourth criterion to define poverty in relation to contemporary living level is half of the average per capita income (PCY) level of the state. Punjab's per capita income at current prices for the year 2015-16 is ₹ 119261 (GoP, 2016). The formula for finding the income level of persons, who appear below the poverty line, can be worked out as follows :

Cut-off income = PCY of state × 50%

= ₹ 119261 × 50/100

= ₹ 59630.50

3·5 40 Per cent of State PCY Criterion

The below poverty line persons in the rural Punjab can also be identified by taking into consideration only 40 per cent of per capita income (PCY) of the state instead of 50 per cent. The cut-off income as per this criterion can be calculated as below:

Cut-off income = PCY of state × 40%

= ₹ 119261 × 40/100

= ₹ 47704.40

The factors determining and influencing poverty of the rural labour households has been analyzed and carried out by the use of multiple regression analysis. The multiple regression model used as follows :

$$Y= a+ b_1X_1+ b_2X_2+.....+b_nX^n$$

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

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

Where, Y= Per capita income (₹), X_1 Family size, X_2=Per capita expenditure on education (₹), X_3=Number of earners, X_4=Income from subsidiary occupations (₹).

The factors which affect the consumption expenditure are considered as determinants of consumption-based poverty of rural labour households. The following variables were chosen for final run:

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

Where, Y=Per capita consumption expenditure (₹), X_1=Number of dependents, X_2=Repayment of debt (₹), X_3=Education level of the decision maker in the family, X_4=Income from subsidiary occupations (₹).

4. Results and Discussion

4·1 Incidence of Income-based Poverty

All the rural labour households having per capita income below the cut-off income have been considered as poor. Table-3 depicts the data showing the percentage of rural labour households living below the income-based poverty line, which has been worked out on the basis of different criterion as mentioned above. A perusal of the table shows that according to Tendulkar criterion, the incidence of poverty for rural labour households is the highest (42.64 per cent) in the low productivity region followed by the high productivity and medium productivity regions with the respective percentages of 40.92 and 39.32. In the case of agricultural labour households, this percentage is the highest in (48.39 per cent) in the low productivity region followed by the high productivity and medium productivity regions with the respective percentages of 42.64 and 40.90. For the non-agricultural labour households, the percentage of family members living below poverty line is the highest (38.66 per cent) in the low productivity region followed by 38.45 per cent in the high productivity and 35.02 per cent in the medium productivity region.

Table-3 : Incidence of Income-based Poverty among Rural Labour Households

Criterion	Low Productivity Region		
	AL	NAL	All
Tendulkar Criterion	48.39	38.66	42.64
Rangarajan Criterion	52.88	43.38	47.76
World Bank's Moderate Poverty Line Criterion	66.94	57.81	61.54
50 Per cent of State PCY Criterion	99.63	99.46	99.56
40 Per cent of State PCY Criterion	99.63	97.58	98.79

Criterion	Medium Productivity Region		
	AL	NAL	All
Tendulkar Criterion	40.90	35.02	39.32
Rangarajan Criterion	47.65	47.63	47.63
World Bank's Moderate Poverty Line Criterion	60.92	60.82	60.68
50 Per cent of State PCY Criterion	100	99.08	99.32
40 Per cent of State PCY Criterion	98.83	98.29	98.16
Criterion	**High Productivity Region**		
	AL	NAL	All
Tendulkar Criterion	42.64	38.45	40.92
Rangarajan Criterion	52.53	43.33	47.10
World Bank's Moderate Poverty Line Criterion	75.43	48.05	59.28
50 Per cent of State PCY Criterion	100	100	100
40 Per cent of State PCY Criterion	100	97.46	98.50

Source : Field Survey, 2015-16.

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

However, according to the Rangarajan criterion, the percentages of the family members of the rural labour households living below this poverty line is the highest (47.66 per cent) in the low productivity region and the lowest (47.10 per cent) in the high productivity region. This percentage is 47.63 in the medium productivity region. As many as 52.88, 47.65 and 52.53 per cent family members of the agricultural labour households are living below poverty line in the low, medium and high productivity regions, respectively. For the non-agricultural labour households, the percentage of family members living below this poverty line is the highest (47.63 per cent) in the medium productivity region followed by 43.38 per cent in the low productivity and 43.33 in the high productivity region.

As per the World Bank's moderate poverty line criterion, the incidence of poverty for rural labour households is the highest (61.54 per cent) in the low productivity region followed by the medium productivity and high productivity regions with the respective percentages of 60.68 and 59.28. In the case of the agricultural labour households, this percentage is the highest (75.43 per cent) in the high productivity region followed by the low productivity and medium productivity regions with the percentages of 66.94 and 60.92, respectively. For non-agricultural labour households, the percentage of family members living below poverty line is the highest (60.82 per cent) in the medium productivity region followed by 57.81 per cent in the low productivity and 48.05 per cent in the high productivity region.

Further, according to the 50 per cent of state per capita income (PCY) criterion, the whole population of the rural labour, agricultural labour and non-agricultural labour households are living below this poverty line in the high productivity region. In the medium productivity region, the whole population of agricultural labour households is living below poverty line, while the corresponding figures for the non-agricultural and rural labour households are 99.08 and 99.32 per cent, respectively. As many as 99.56 per cent persons of the rural labour households, 99.63 per cent persons of the agricultural labour households and 99.46 per cent persons of the non-agricultural labour households are living below this poverty line in the low productivity region.

Even when the 40 per cent of the state per capita income criterion is taken into account, in the high productivity region, the whole population of agricultural labour households is living below this poverty line, while the corresponding figures for non-agricultural and rural labour households are 97.46 and 98.50 per cent, respectively. The table further reveals that as many as 98.83 per cent persons of the agricultural labour households, 98.29 per cent persons of the non-agricultural labour households and 98.16 per cent persons of the rural labour households are living below poverty line in the medium productivity region. While, for the low productivity region, 98.79 per cent persons of the rural labour households are living below poverty line. Whereas the corresponding figures for the agricultural labour and non-agricultural labour households are 99.63 and 97.58 per cent, respectively.

The above analysis shows that the incidence of income-based poverty is slightly higher in the low productivity region. The

agricultural labour households are more prone to poverty across the regions.

4·2 Incidence of Consumption-based Poverty

The extent of consumption-based poverty among the family members of rural labour households is also worked out and the results are presented in Table-4. The basic criteria for the poverty line remains the same as applied in the income-based poverty measures. A perusal of the table shows that the incidence of poverty for the rural labour households is the highest (39.56 per cent) in the low productivity region followed by the medium productivity and high productivity regions with the percentages of 37.49 and 36.83, respectively. In the case of agricultural labour households, this percentage is the highest (45.43 per cent) in the low productivity region followed by the high productivity and medium productivity regions with the respective percentages of 40.61 and 39.97. For the non-agricultural labour households, the percentage of family members living below poverty line is the highest (35.50 per cent) in the low productivity region followed by 31.39 per cent in the high productivity and 30.69 per cent in the medium productivity region.

Table-4 : Incidence of Consumption-based Poverty among Rural Labour Households

Criterion	Low Productivity Region		
	AL	NAL	All
Tendulkar Criterion	45.43	35.50	39.56
Rangarajan Criterion	49.19	40.52	44.07
World Bank's Moderate Poverty Line Criterion	61.29	55.58	57.91
50 Per cent of State PCY Criterion	99.63	98.66	99.23
40 Per cent of State PCY Criterion	98.89	97.04	98.13
Criterion	**Medium Productivity Region**		
	AL	NAL	All
Tendulkar Criterion	39.97	30.69	37.49
Rangarajan Criterion	45.78	37.91	43.67

World Bank's Moderate Poverty Line Criterion	58.71	53.07	57.20
50 Per cent of State PCY Criterion	100.00	98.95	99.23
40 Per cent of State PCY Criterion	98.47	98.29	98.07
Criterion	**High Productivity Region**		
	AL	**NAL**	**All**
Tendulkar Criterion	40.61	31.39	36.83
Rangarajan Criterion	42.34	41.62	41.92
World Bank's Moderate Poverty Line Criterion	60.10	47.55	52.70
50 Per cent of State PCY Criterion	100.00	99.15	99.50
40 Per cent of State PCY Criterion	100.00	97.12	98.30

Source : Field Survey, 2015-16.

However, according to the Rangarajan criterion, the percentages of the family members of the rural labour households living below the poverty line is the highest (44.07 per cent) in the low productivity region and the lowest (41.92 per cent) in the high productivity region. This percentage is 43.67 in the medium productivity region. As many as 49.19, 45.78 and 42.34 per cent family members of the agricultural labour households are living below poverty line in the low productivity, medium productivity and high productivity regions, respectively. For the non-agricultural labour households, the percentage of family members living below poverty line is the highest (41.62 per cent) in the high productivity region followed by 40.52 per cent in the low productivity and 37.91 per cent in the medium productivity region.

As per the World Bank's moderate poverty line criterion, the incidence of poverty for the rural labour households is the highest (57.91 per cent) in the low productivity region followed by the medium productivity and high productivity regions with the respective percentages of 57.20 and 52.70. In the case of agricultural labour households, this percentage is the highest (61.29 per cent) in the low productivity region followed by the high productivity and

medium productivity regions with the respective percentages of 60.10 and 58.71. For the non-agricultural labour households, the percentage of family members living below this poverty line is the highest (55.58 per cent) in the low productivity region followed by 53.07 per cent in the medium productivity and 47.55 per cent in the high productivity region.

Further, according to the 50 per cent of state per capita consumption expenditure criterion, as many as 99.50, 99.23 and 99.23 per cent persons of the rural labour households are living below the poverty line in the high, medium and low productivity regions, respectively. The whole population of the agricultural labour households in the high and medium productivity regions and 99.63 per cent persons of the agricultural labour households in the low productivity region are living below this poverty line. In the case of non-agricultural labour households, 99.15, 98.95 and 98.66 per cent of the total persons are living below this poverty line in the high, medium and low productivity regions, respectively.

Even when the 40 per cent of state per capita consumption expenditure criterion is taken into account, in the high productivity region, the whole population of agricultural labour households is living below poverty line, while the corresponding figures for the non-agricultural and rural labour households are 97.12 and 98.30 per cent, respectively. As many as 98.47, 98.29 and 98.07 per cent persons of the agricultural labour, non-agricultural labour and rural labour households, respectively are living below this poverty line in the medium productivity region. While, in the low productivity region, 98.13 per cent persons of the rural labour households are living below this poverty line. Whereas the corresponding figures for the agricultural labour and non-agricultural labour households are 98.89 and 97.04 per cent, respectively.

The above analysis shows that the incidence of poverty is higher among agricultural labour households as compared to non-agricultural labour households in all the regions due to less work opportunities available to agricultural labour households in the agricultural sector. Moreover, due to the seasonal nature of agriculture, the employment is not available throughout the year in the agricultural sector. So, the income of the households depend on agriculture sector is low. Moreover, by comparing the income and consumption-based poverty among the rural labour households, it has been found that the incidence of consumption-based poverty is

slightly less than the incidence of income-based poverty across the three regions. This can be explained by the fact that rural labour households borrow money from a variety of institutional and non-institutional sources in an effort to maintain a minimal standard of life.

4·3 Determinants of Income-based Poverty

Table-5 depicts that per capita income based poverty of the rural labour households is explained by the family size, per capita consumption expenditure on education, number of earners and income from subsidiary occupations. The regression coefficient of family size is negative and statistically significant at one per cent level in all the productivity regions. The family size is the biggest constraint on the levels of living of rural labour households in Punjab. The regression coefficient for the number of earners is positive and statistically significant in all the three regions for the rural labour households. The regression coefficient for income from subsidiary occupations is positive in all the three regions but statistically non-significant in the low productivity region. This means that the increase in number of earners and income from subsidiary occupations can greatly contribute to reduce the income-based poverty of the rural labour households in Punjab. The regression coefficient of the per capita expenditure on education is significant only in the low productivity region. The value of R^2 is 0.57, 0.58 and 0.49 in the low, medium and high productivity regions respectively.

Table-5 : Factors Affecting Income-based Poverty of Rural Labour Households

Criterion	Low Productivity Region		
	AL	NAL	All
Family size	-0.728* (-9.108)	-0.733* (-6.796)	-0.731* (-11.377)
Per capita expenditure on education	-0.217* (-2.765)	-0.18*** (-1.697)	-0.208* (-3.249)
Number of earners	0.423* (4.878)	0.269** (2.182)	0.368* (5.110)
Income from subsidiary occupations	0.088^{NS} (1.297)	0.043^{NS} (0.440)	0.040^{NS} (0.709)
R^2	0.62	0.55	0.57

Criterion	Medium Productivity Region		
	AL	NAL	All
Family size	-0.811* (-7.761)	-0.882* (-11.344)	-0.879* (-13.730)
Per capita expenditure on education	-0.094^{NS} (-0.948)	0.008^{NS} (0.110)	-0.028^{NS} (-0.482)
Number of earners	0.429* (4.007)	0.278* (3.304)	0.312* (4.542)
Income from subsidiary occupations	0.216* (2.274)	0.068^{NS} (1.001)	0.141** (2.498)
R^2	0.70	0.57	0.58
Criterion	**High Productivity Region**		
	AL	NAL	All
Family size	-0.771* (-7.649)	-0.863* (-11.85)	-0.764* (-12.58)
Per capita expenditure on education	-0.011^{NS} (-0.115)	-0.010^{NS} (-0.161)	0.066^{NS} (1.226)
Number of earners	0.121^{NS} (1.039)	0.528* (7.269)	0.435* (7.117)
Income from subsidiary occupations	0.357* (4.000)	0.059^{NS} (0.926)	0.246* (4.638)
R^2	0.52	0.58	0.49

Source : Field Survey, 2015-16.

Note : Figures in parentheses indicate t-values.
*Significant at one per cent. **Significant at five per cent. ***Significant at ten per cent. NS : Non-Significant.

The table above further shows that the family size contributes significantly in explaining the per capita income differentials of the agricultural labour households in all the three regions. The regression coefficient of this explanatory variable is negative and statistically significant at one per cent level in all the productivity regions. It implies that with the increase in the family size, the per capita income declines. The regression coefficient for the per capita expenditure on education is negative and statistically significant only in the low productivity region. The regression coefficient for number of earners is positive and statistically significant at one per cent level of

probability in the low and medium productivity regions. The regression coefficient for income from subsidiary occupations is positive in all the regions but statistically non-significant in the low productivity region. The value of R^2 is 0.617, 0.704 and 0.520 in the low, medium and high productivity regions which means that 62, 70 and 52 per cent variations in per capita income of the agricultural labour households in the respective regions are explained by these variables.

In the case of non-agricultural labour households, the contribution of family size is negative and number of earners is positive and statistically significant in all the productivity regions. The regression coefficient for per capita expenditure on education is significant at ten per cent of probability only in the low productivity region. The regression coefficient for income from subsidiary occupations is positive but statistically non-significant in all the regions. The value of R^2 reveals that 55 to 58 per cent variations in per capita income of non-agricultural labour households are explained by these variables in all the regions.

The above analysis depicts that the policy measures like increase in income from subsidiary occupations and increase in the number of earners by providing them alternative employment opportunities can contribute significantly to reduce poverty among the rural labour households in Punjab. The other policy measure that can be adopted to reduce poverty among them is reduction in their family size by providing knowledge about family planning methods. Eyasu and Yildiz, (2020) also found that for rural households, having higher family size the likelihood of being poor was increased. While the non-off-farm income can decrease the poverty of the rural households.

4·4 Determinants of Consumption-based Poverty

The economic condition of rural labour households is also reflected from their per capita consumption expenditure. Therefore, the factors influencing the per capita consumption expenditure of rural labour households are considered to be the determinants of consumption-based poverty. Table-6 depicts that per capita consumption expenditure-based poverty of the rural labour households is explained by the number of dependents, repayment of debt, education level of the decision maker in the family and income from subsidiary occupations. The regression coefficient of the

number of dependents is negative and statistically significant at one per cent level of probability in all the three regions. The regression coefficient for the education level of the decision maker in the family is positive and statistically significant in all the three regions for the rural labour households. The regression coefficient for income from subsidiary occupations is positive in all the three regions but statistically non-significant in the low productivity region. This means that the increase in the education level of the decision maker in the family and income from subsidiary occupations can greatly contribute to reduce the consumption-based poverty among rural labour households in different regions of Punjab. The regression coefficient of the repayment of debt is negative in all the three regions but statistically significant only in the medium productivity region. The value of R^2 for explanatory variables ranges from 0.51 to 0.55 in all the productivity regions. It reveals that 51 to 55 per cent variations in per capita consumption expenditure of rural labour households are explained by these variables in all the regions.

Table-6 : Factors Affecting Consumption-based Poverty of Rural Labour Households

Criterion	Low Productivity Region		
	AL	NAL	All
Number of dependents	-0.253* (-3.035)	-0.545* (-6.069)	-0.349* (-5.478)
Repayment of debt	-0.058^{NS} (-0.746)	-0.018^{NS} (-0.258)	-0.023^{NS} (-0.418)
Education level of the decision maker in the family	0.559* (6.438)	0.425* (4.955)	0.498* (7.840)
Income from subsidiary occupations	0.014^{NS} (0.188)	0.019^{NS} (0.241)	0.020^{NS} (0.359)
R^2	0.49	0.71	0.53
Criterion	**Medium Productivity Region**		
	AL	NAL	All
Number of dependents	-0.698* (-6.369)	-0.367* (-4.931)	-0.506* (-8.504)
Repayment of debt	-0.116^{NS} (-1.059)	-0.280* (-4.161)	-0.174* (-3.029)

Education level of the decision maker in the family	0.178*** (1.670)	0.386* (5.967)	0.313* (5.886)
Income from subsidiary occupations	0.316* (2.985)	0.042^{NS} (0.724)	0.112** (2.171)
R^2	0.54	0.60	0.55
Criterion	**High Productivity Region**		
	AL	**NAL**	**All**
Number of dependents	-0.583* (-6.289)	-0.379* (-5.904)	-0.428* (-7.965)
Repayment of debt	-0.215*** (-1.877)	-0.019^{NS} (-0.348)	-0.073^{NS} (-1.273)
Education level of the decision maker in the family	0.234** (2.044)	0.562* (9.745)	0.397* (6.754)
Income from subsidiary occupations	0.167*** (1.791)	0.114*** (1.904)	0.286* (5.158)
R^2	0.41	0.70	0.51

Source : Field Survey, 2015-16.

Note : Figures in parentheses indicate t-values.
*Significant at one per cent. **Significant at five per cent. ***Significant at ten per cent. NS : Non-Significant.

For the agricultural labour households, the factor number of dependents contributes significantly in explaining the per capita consumption expenditure differentials in all the productivity regions. The regression coefficient of this explanatory variable is negative and statistically significant at one per cent level in all the productivity regions. The regression coefficient for the education level of the decision maker in the family is also positive and statistically significant in all the productivity regions. The regression coefficient for repayment of debt is significant only in the high productivity region. The regression coefficient for income from subsidiary occupations is positive in all the productivity regions but statistically non-significant in the low productivity region. The value of R^2 is 0.49, 0.54 and 0.41 in the low, medium and high productivity regions, respectively.

In the case of non-agricultural labour households, the regression coefficient of the number of dependents is negative and the education level of the decision maker in the family is positive and statistically

significant in all the productivity regions. The regression coefficient for repayment of debt is significant only in the medium productivity region. The regression coefficient for income from subsidiary occupations is positive in all the three regions but statistically significant only in the high productivity region. The value of R^2 for explanatory variables is 0.60, 0.70 and 0.71 in the medium, high and low productivity regions, respectively. It reveals that 60, 70 and 71 per cent variations in per capita consumption expenditure of the non-agricultural labour households are explained by these variables in the medium, high and low productivity regions, respectively.

The above analysis depicts that the policy measures like increase in income from subsidiary occupations, providing them alternative employment opportunities and increase in education level can contribute significantly to reduce consumption expenditure-based poverty among the rural labour households in Punjab.

5. Conclusions and Policy Implications

The above analysis highlights that the incidence of poverty is higher in low productivity region than medium and high productivity regions. The incidence of poverty is higher among agricultural labour households as compared to non-agricultural labour households. The family size, number of earners and income from subsidiary occupations are the main determinants of income-based poverty and the number of dependents, education level of the decision maker in the family and income from subsidiary occupations are the main determinants of consumption-based poverty. Lower attainments of various types of assets significantly affect rural labourers. Since most of them lack land and have little education, the returns on whatever productive assets they do have are insufficient to lift them out of the pit of poverty.

The state government must make a real effort to give rural labourers additional job options in order to improve their circumstances. The incidence of poverty would be greatly decreased by the development of agro-based industries in rural areas, the appropriate implementation of MGNREGS, and the stringent enforcement of the minimum wage act. In order to improve the skills and capabilities of rural labourers, the government should also initiate specialized training programs for them. Creating non-farm jobs in rural areas should be prioritized, particularly in the off-season.

For those without any kind of collateral security, banks and other financial institutions have stepped up to provide funding for these activities. Programs to reduce rural poverty should be well-coordinated and integrated with those to provide universal access to basic healthcare, education, and decent housing.

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