Extent of Urban Poverty in Kerala

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ABSTRACT

Kerala has made tremendous achievements in poverty reduction over the decades, the baggage of the poverty and unemployment has been continuing in the urban areas of Kerala. A large proportion of the work force among urban poor is still in the informal sector. It has given a view point that economic indicators such as nature of employment and sources of income should be accorded with the highest priority for poverty reduction. It is clear that the growth in employment opportunities has a strong influence to reduce the extent of urban poverty. This paper looks into the profile of economic activities of urban poor to measure the extent of urban poverty at household level. It covers the areas such as employment status, category of workers, monthly earnings and determinants of income of urban poor households in Thiruvananthapuram and Kochi.

Keywords: *Urban Poor, Extent of Poverty, Employment Status, Occupation, Household Income*

INTRODUCTION

Urban poverty which is a cruel reality is considered to be one of the most demanding urban challenges and a major problem because it is poverty which leads to many other problems in the urban area (Bhasin, 2001). Poverty, in simplest terms, means a state of deprivation. In broader terms, it is viewed as a failure to meet the basic requirements (which include biological requirements and nutritional norms). The poverty is increasingly being recognised as multi-dimensional, distinguishing the numerous aspects of people's lives, including economic and non-economic dimensions. A better understanding of poverty and of the interaction between different dimensions allows a more informed choice in the design and implementation of appropriate policies to reduce poverty. As per the National Sample Survey Organisation's (NSSO) survey reports, there are over 80 million poor

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people living in the cities and towns of India. It is interesting to note that the ratio of urban poverty in some of the larger states is higher than that of rural poverty leading to the phenomenon of 'Urbanisation of Poverty' (MHUPA, 2009).

Kerala was among the five poorest states in India during the Independence period. But during the period 1974 to 1994, the state achieved a remarkable decline in poverty levels, from 40.42 per cent to 25.43 per cent, which is the second highest decline attained in all Indian states. The decline in poverty level, however, was largely attributed to poverty reduction in rural areas, which declined from 25.76 per cent in 1994 to 9.35 per cent in 2000 and 13.20 per cent in 2004-05 to 7.3 per cent in 2011-12. The reduction in urban poverty was just marginal, from 25.43 per cent in 1994 to 20.27 per cent in 2000 and 20.20 per cent in 2004-05 to 15.3 per cent in 2011-12. To date, urban poverty in Kerala is more than double compared to the rural poverty level, and may further increase if not immediately addressed due to unemployment and lack of economic opportunities in urban areas.

The various studies on poverty established a close relationship between poverty and economic growth. It is clear that the growth in employment opportunities has a strong influence to reduce the extent of urban poverty. The extent of poverty focuses on the degree of poverty suffered by people, more than the number of individuals considered to be poor. Even though Kerala has made a tremendous achievement in poverty reduction over the decades, the baggage of the poverty and unemployment has been continuing in the urban areas of Kerala. Chronic unemployment of a large portion of active labour force has been the most serious socio-economic problem of Kerala during the last three decades. Available evidence suggests that the rate of urban unemployment in Kerala was very high (Prakash, 2001). It has given a view point that economic indicators such as nature of employment and sources of income should be accorded the highest priority for poverty reduction. This paper looks into the profile of economic activities of urban poor to measure the extent of urban poverty at household level. In the first section of this paper, an attempt has been made to analyse the employment status of urban poor based on NSS labour force framework. The study also examines the details of employment and subsidiary occupations of urban poor. This article also examined the sources of income and various determinants that could cause variations in household's income of the urban poor. Using the technique of multiple regression analysis, the effect of different variables on the household income has been quantified.

DATA SOURCES AND STATISTICAL TOOLS

The study is based on the use of primary data and secondary data. Interview survey method was used to collect primary data. Data were collected from the identified slums of Thiruvananthapuram Municipal Corporation and Kochi Municipal Corporation through stratified sampling. In the first stage, the entire wards of the two municipal corporations are stratified into three groups- core area, coastal area, and the wards lying outside the core area. In the second stage, 20 per cent of wards were selected from each group. After choosing those wards, in the third stage, 10 urban poor households were selected from each ward for the survey. The Thiruvananthapuram Municipal Corporation and Kochi Municipal Corporation were divided into 100 wards and 74 wards respectively. Therefore 20 wards from Thiruvananthapuram and 15 wards from Kochi were selected proportionally among the three groups. The total urban poor households selected from Thiruvananthapuram and Kochi are 200 and 150, respectively.

All the information collected from the respondents through the interviews and discussions was assembled. The used variables were meaningfully co-related to conform to the standard social science research norms. Statistical Package for Social Science (SPSS 17) was used to analyse the data. The study employed a series of statistical tools for data analysis including average, percentage, ratios, chi-square test, T test, ANOVA, and multiple regression analysis. The study also exploited graphs and tables for presentation and analysis of data.

ANALYSIS AND DISCUSSIONS

Employment Status of Urban Poor

The issues of urban poverty in the context of growing importance of unorganised workforce in the sample can be depicted. In this study, NSS labour force framework was used to measure labour force rate, work participation rate, unemployment rate and employment rate.

Labour Force Rate

Persons who are either 'working' or seeking or available for work (i.e., unemployed) during the reference period constitute the labour force and the persons who were neither working nor available for work during the reference period are considered to be 'out of labour force'. Labour force rate is the ratio of number of labour force to the total population (Government of India, 2001). The labour force rate among different age groups is given in Table 1. Of the total population, the labour force accounted for 54.3 per cent and persons not in labour force was 45.7 per

cent. The survey results showed that the labour force rate was highest in the age group of 25-54 i.e. 81.4 per cent. The old people aged 65 and above accounted for 27.4 per cent in the labour force.

TABLE 1: LABOUR FORCE RATE

Age in Years	*Number of Labour Force (Labour Force Rate)*								
	Thiruvananthapuram			*Kochi*			*Combined*		
	Male	*Female*	*Total*	*Male*	*Female*	*Total*	*Male*	*Female*	*Total*
≤ 14	0	0	0	0	0	0	0	0	0
15-24	45 (57.0)	48 (47.1)	93 (51.4)	20 (48.8)	30 (69.8)	50 (59.5)	65 (54.2)	78 (53.8)	143 (54.0)
25-54	210 (97.7)	132 (62.9)	342 (80.5)	149 (96.8)	97 (67.8)	246 (82.8)	359 (97.3)	229 (64.9)	588 (81.4)
55-64	21 (75.0)	23 (51.1)	44 (60.3)	16 (66.7)	4 (15.4)	20 (40.0)	37 (71.2)	27 (38.0)	64 (52.0)
≥ 65	10 (58.8)	4 (11.1)	14 (26.4)	8 (53.3)	4 (14.8)	12 (28.6)	18 (56.3)	8 (12.7)	26 (27.4)
Total	286 (68.8)	207 (41.3)	493 (53.8)	193 (64.1)	135 (45.9)	328 (55.1)	479 (66.8)	342 (43.0)	821 (54.3)

Source: Computed.

Work Participation Rate

Persons who are engaged in any economic activity are considered as employed. Work participation rate denotes the percentage of employed to total population gives an indication of the economically active population (Government of India, 2001). Table 2 gives an age-wise work participation rate for males and females. The results indicated that the work participation rate was 38.4 per cent. While the work participation rate of males was 59.1 per cent, the corresponding rate for the females was 19.7 per cent. Hence it can be concluded that there was a considerable difference in the work participation rates of males and females. The burden of household work and other responsibilities prevent the women from supplying their labour in the market. It was noted that socially and economically marginalised women were included in the labour market as they were often vulnerable, unprotected and inadequately remunerated for their work.

The summary of one sample t-test is given in Table 3. There was no significant difference between the work participation rates of Kerala (34.8) and that of sample households.

TABLE 2: WORK PARTICIPATION RATE

Age in Years	*Number of Employed (Work Participation Rate)*								
	Thiruvananthapuram			*Kochi*			*Combined*		
	Male	*Female*	*Total*	*Male*	*Female*	*Total*	*Male*	*Female*	*Total*
≤ 14	0	0	0	0	0	0	0	0	0
15-24	16 (20.3)	3 (2.9)	19 (10.5)	16 (39.0)	0	16 (19.0)	32 (26.7)	3 (2.1)	35 (13.2)
25-54	195 (90.7)	68 (32.4)	263 (61.9)	143 (92.9)	51 (35.7)	194 (65.3)	338 (91.6)	119 (33.7)	457 (63.3)
55-64	21 (75.0)	23 (51.1)	44 (60.3)	16 (66.7)	4 (15.4)	20 (40.0)	37 (71.2)	27 (38.0)	64 (52.0)
≥ 65	9 (52.9)	4 (11.1)	13 (24.5)	8 (53.3)	4 (14.8)	12 (28.6)	17 (53.1)	8 (12.7)	25 (26.3)
Total	241 (57.9)	98 (19.6)	339 (37.0)	183 (60.8)	59 (20.1)	242 (40.7)	424 (59.1)	157 (19.7)	581 (38.4)

Source: Computed.

TABLE 3: SUMMARY OF ONE SAMPLE T TEST

T	*Df*	*Sig. (2-tailed)*
2.189	1	0.273
Work Participation Rate of Urban Kerala = 34.8 (NSS 66 Round)		

Source: Computed.

Employment Rate

Employment rate denotes the percentage of employed to the total labour force and is given in Table 4. The survey results showed that 70.8 per cent of the labour forces were employed. It also confirmed that the employment rate of the female was low (45.9 per cent) than the employment rate of males (88.5 per cent). Another finding was that employment rate was cent per cent in the 55-64 years age group in two Municipal Corporations. The survey results also revealed that male and female workers to total labour force were lower among youth belonging to the age group 15-24 years.

Unemployment Rate

Persons who sought work or by filing applications to prospective employers are considered as unemployed. Unemployment rate denotes the percentage of unemployed to total labour force and is given in Table 5. The survey findings suggested that the incidence of unemployment

was very high in Thiruvananthapuram (31.2 per cent) and Kochi (26.2 per cent). The total unemployment rates for the males and females were estimated as 11.5 per cent and 54.1 per cent respectively. In the case of youth belonging to the age group 15-24, the rate of unemployment was (75.5 per cent) reported as very high and alarming.

TABLE 4: EMPLOYMENT RATE

Age in Years	Thiruvananthapuram			Kochi			Combined		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
≤ 14	-	-	-	-	-	-	-	-	-
15 – 24	35.6	6.3	20.4	80.0	0	32.0	49.2	3.8	24.5
25 – 54	92.9	51.5	76.9	96.0	52.6	78.9	94.2	52.0	77.7
55 – 64	100	100	100	100	100	100	100	100	100
≥ 65	90.0	100	92.9	100	100	100	94.4	100	96.2
Total	84.3	47.3	68.8	94.8	43.7	73.8	88.5	45.9	70.8

Source: Computed.

TABLE 5: UNEMPLOYMENT RATE

Age in Years	Thiruvananthapuram			Kochi			Combined		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
≤ 14	-	-	-	-	-	-	-	-	-
15 – 24	64.4	93.8	79.6	20.0	100.0	68.0	50.8	96.2	75.5
25 – 54	7.1	48.5	23.1	4.0	47.4	21.1	5.8	48.0	22.3
55 – 64	0	0	0	0	0	0	0	0	0
≥ 65	10.0	0	7.1	0	0	0	5.6	0	3.8
Total	15.7	52.7	31.2	5.2	56.3	26.2	11.5	54.1	29.2

Source: Computed.

Employment Details of Urban Poor

Urban sector is considered as a provider of employment opportunities to people; it attracts people from rural areas to cities. Labour market paradox is an important issue pertaining to Kerala's development experience. The employment details of the urban poor are given in Table 6. On the one end Kerala is hailed as topmost in literacy rate but on the other hand, it maintains top position in terms of unemployment, especially educated unemployment. A large proportion of the work force in urban poor is still in the informal sector. The workers in Thiruvananthapuram and Kochi were engaged in a variety of economic activities. The majority of urban poor survived through casual, unprotected, uncertain and hard labour. The major occupations among population were daily wage labourers, drivers, fishermen, domestic workers, etc.

Structure of Employment

The workers are classified into three categories viz regularly employed, self-employed and casually employed based on NSS definitions. Most of the poor were casual labourers (65.9 per cent) who are characterised by no fixed and regular income as it is clear from Table 6. Most of the female workers are employed as domestic helpers. Since there was no specific law for the minimum wages for domestic work, the income of such female workers was very low. Moreover, if a women worker was absent for a day even due to some inevitable circumstances, the wage was not paid to her. The owner-entrepreneur running a small business is a self-employed worker. Of the total workers 27.7 per cent of urban workers were self-employed. Only 6.4 per cent of workers from urban poor were regular wage or salaried employees. The data showed an indication of the low performance of secondary sector activities in the urban areas.

TABLE 6: DETAILS OF EMPLOYMENT

Classification Thiruvananthapuram		*Frequency (Per cent)*		
		Kochi	*Combined*	
Category of Workers	Self Employed	100 (29.5)	61 (25.2)	161 (27.7)
	Regular Wage / Salaried Employee	14 (4.1)	23 (9.5)	37 (6.4)
	Casual Labourer	225 (66.4)	158 (65.3)	383 (65.9)
	Total	339 (100)	242 (100)	581 (100)
No. of Days Worked in Last One Month	≤ 5	1 (0.3)	2 (0.8)	3 (0.5)
	6 – 10	7 (2.1)	1 (0.4)	8 (1.4)
	11 – 15	66 (19.5)	44 (18.2)	110 (18.9)
	16 – 20	115 (33.9)	59 (24.4)	174 (29.9)
	21 – 25	88 (26.0)	96 (39.7)	184 (31.7)
	26 – 30	62 (18.3)	40 (16.5)	102 (17.6)
	Total	339 (100)	242 (100)	581 (100)
No. of Hours Worked Daily	≤ 5	46 (13.6)	33 (13.6)	79 (13.6)
	6 – 10	267 (78.8)	194 (80.2)	461 (79.3)
	11 – 15	24 (7.1)	15 (6.2)	39 (6.7)
	≥ 16	2 (0.6)	0	2 (0.3)
	Total	339 (100)	242 (100)	581 (100)
Monthly Earnings	1 – 5000	142 (41.9)	84 (34.7)	226 (38.9)
	5001 – 10000	174 (51.3)	110 (45.5)	284 (48.9)
	10001 – 15000	23 (6.8)	47 (19.4)	70 (12.0)
	≥ 15001	0	1 (0.4)	1 (0.2)
	Total	339 (100)	242 (100)	581 (100)

Source: Primary Survey.

The Chi-square test was used to prove the dependency between the category of workers and region. The result showed that the two variables are dependent on each other (Table 7).

TABLE 7: SUMMARY OF CHI-SQUARE TEST: CATEGORY OF WORKERS AND REGION

	Value	*df*	*Asymp. Sig. (2-sided)*
Pearson Chi-Square	7.368*	2	0.025
Likelihood Ratio	7.264	2	0.026
N of Valid Cases	581		
*0 cells (0 per cent) have expected count less than 5. The minimum expected count is 15.41.			

Source: Computed.

Days and Time of Job

Indeed, more than half of the people reported that job was not available on a regular basis (below 20 working days in a month). In Kochi, 39.7 per cent of respondents had the employment between 21 to 25 days in a month. The corresponding figure in Thiruvananthapuram was only 26 per cent. This showed that employment opportunities in Kochi were very much higher as compared to Thiruvananthapuram. It was noted that for daily wage workers in urban poor, the availability of job also depends on the season. The respondents said that the availability of job in summer is more than that in winter; the monsoon months are the worst.

Monthly Earnings

Most of the jobs in the informal and especially in the self-employed sector provide low returns because of the irregularity of employment and lower profit margin. It was repeatedly found that the workers tend to report uncertain and lower incomes. Nearly 38.9 per cent of workers were earning monthly income of up to Rs. 5000. About 48.9 per cent of workers were earning between Rs. 5,001 to Rs. 10,000 and 12 per cent of workers were earning between Rs. 10,001 to Rs. 15,000. It was noted that a worker from Kochi was earning wages as high as above Rs. 15,001. Not surprisingly, Kochi had better for levels of earnings than Thiruvananthapuram. The measurement of monthly earning is shown in Table 8. Mean monthly income of workers showed that, female workers had a lesser income as compared to the male workers in these two regions. The mean monthly earnings of female and male workers were Rs. 3,316 and Rs. 7,959.55 respectively.

TABLE 8: MEASUREMENT OF MONTHLY EARNINGS

Corporation	Gender	Mean (Rs.)	N	Std. Deviation
Thiruvananthapuram	Male	7391.49	241	2685.420
	Female	3065.82	98	1837.266
	Total	6141.00	339	3153.755
Kochi	Male	8707.65	183	3009.234
	Female	3733.05	59	1507.785
	Total	7494.83	242	3459.335
Total	Male	7959.55	424	2900.656
	Female	3316.56	157	1746.208
	Total	6704.91	581	3348.868

Source: Computed.

The box plot for the monthly earnings of both groups is shown in Fig. 1.

Fig. 1: Monthly Earnings and Gender
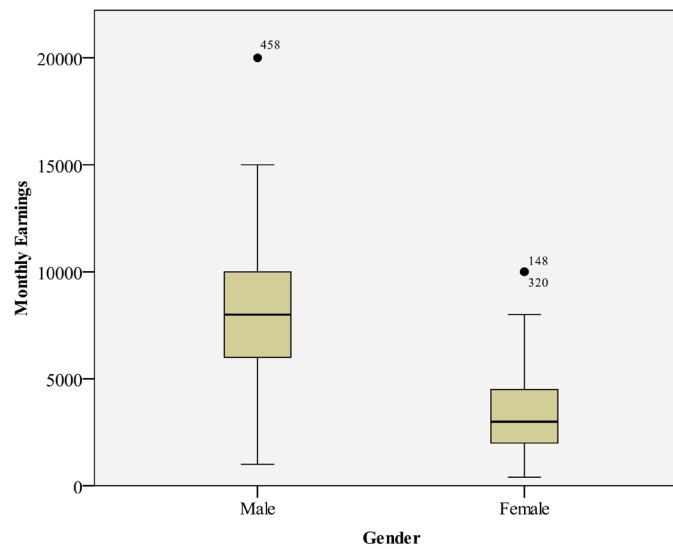
Source: Primary Survey.

The summary of t test proved that the mean and variance of monthly earnings between male and female were significantly different (Table 9).

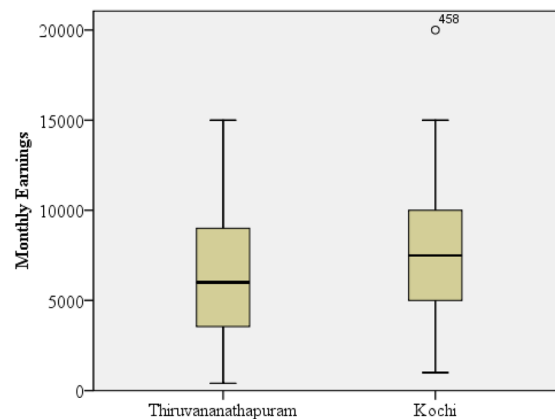TABLE 9: SUMMARY OF T TEST: MONTHLY EARNINGS AND GENDER

	Levene's Test for Equality of Variances		*t-test for Equality of Means*		
	F	*Sig.*	*t*	*df*	*Sig. (2-tailed)*
Equal variances assumed	41.615	0.001	18.827	579	0.001
Equal variances not assumed			23.431	460.385	0.001

Source: Computed.

Figure 2 shows the box plot of monthly earnings among the regions.

The summary of t test for monthly earnings and region is given in Table 10. The results revealed that the mean and variances of monthly earnings between Thiruvananthapuram and Kochi were significantly different.

Fig. 2: Monthly Earnings and Corporation

Source: Primary Survey.

TABLE 10: SUMMARY OF T TEST: MONTHLY EARNINGS AND REGION

	Levene's Test for Equality of Variances		*t-test for Equality of Means*		
	F	*Sig.*	*t*	*Df*	*Sig. (2-tailed)*
Equal variances assumed	4.489	0.035	-4.898	579	0.001
Equal variances not assumed			-4.823	489.062	0.001

Source: Computed.

The result of one way ANOVA is given in Table 11. It was found that there was a significant difference between the monthly earnings among the category of workers.

TABLE 11: ANOVA: MONTHLY EARNINGS AND CATEGORY OF WORKERS

	Sum of Squares	*df*	*Mean Square*	*F*	*Sig.*
Between Groups (Combined)	234800000	2	117400000	10.824	0.001
Within Groups	6270000000	578	10850000		
Total	6505000000	580			

Source: Computed.

Details of Subsidiary Occupation

In the urban areas, most of the poor households were earning income from their main occupation. 2.6 per cent of total households had some subsidiary occupations (as casual labourers) and they earned an additional income apart from their main source of income. Table 12 shows that only 53.3 per cent have got an income ranges between Rs. 1001 and Rs. 2000.

TABLE 12: DETAILS OF SUBSIDIARY OCCUPATION

Classification Thiruvananthapuram		Frequency (Per cent)		
		Kochi	*Combined*	
Sub. Occupation	Yes	13 (3.8)	2 (0.8)	15 (2.6)
	No	326 (96.2)	240 (99.2)	566 (97.4)
	Total	339 (100)	242 (100)	581 (100)
Sub. Earnings	≤ 1000	5 (38.5)	0	5 (33.3)
	1001 – 2000	7 (53.8)	1 (50.0)	8 (53.3)
	≥ 2001	1 (7.7)	1 (50.0)	2 (13.3)
	Total	13 (100)	2 (100)	15 (100)

Source: Primary Survey.

Income of Urban Poor Households

Household income is the sum total of income of all the earners in the households. In any analysis of poverty, it is important to analyse both the level and the components of household's income.

Sources of Income

Main sources of household income in urban areas are wages and salaries (including regular and casual), self-employment earnings and income
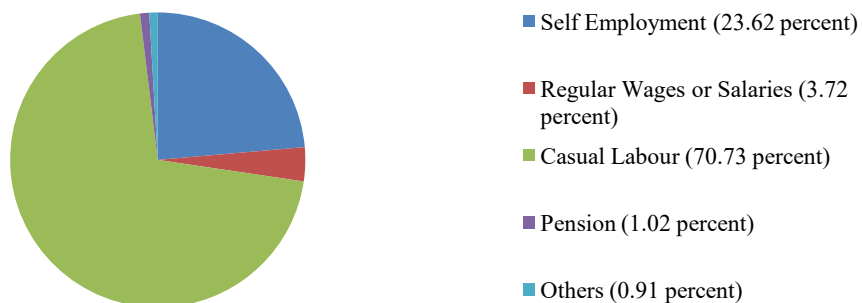
from the business. Various types of pension systems also support the urban poor households. Many of the households get income from more than one source. But this does not mean that they will be having higher incomes. Sometimes, despite the multiplicity of income sources, households may remain at the subsistence level. The sources of income are given in Table 13. In Thiruvananthapuram, 47.5 per cent of families had a monthly income ranged from Rs. 5001 to Rs. 10000 and 20.5 per cent of families had a monthly income ranged from Rs. 10001 to Rs. 15000. But the corresponding figures in Kochi were 32 per cent and 41.3 per cent respectively. This might be due to the better earning opportunities of Kochi compared to Thiruvananthapuram. The distributions of total income among various categories are shown in Figs. 3 to 5.

TABLE 13: SOURCES OF INCOME

| | *Classification Self Employment* | *Frequency (Per cent)* | | | | | |
		Regular Wages or Salaries	*Casual Labour*	*Pension*	*Others*	*Total*	
Thiruvananthapuram	1 – 5000	13 (21.3)	8 (61.5)	22 (15.2)	35 (100)	14 (100)	28 (14.0)
	5001 – 10000	36 (59.0)	4 (30.8)	71 (49.0)	0	0	95 (47.5)
	10001 – 15000	9 (14.8)	1 (7.7)	33 (22.8)	0	0	41 (20.5)
	≥ 15001	3 (4.9)	0	19 (13.1)	0	0	36 (18.0)
	Total	61 (100)	13 (100)	145 (100)	35 (100)	14 (100)	200 (100)
Kochi	1 – 5000	14 (29.2)	1 (5.3)	16 (15.0)	18 (100)	2 (100)	10 (6.7)
	5001 – 10000	16 (33.3)	7 (36.8)	35 (32.7)	0	0	48 (32.0)
	10001 – 15000	16 (33.3)	9 (47.4)	42 (39.2)	0	0	62 (41.3)
	≥ 15001	2 (4.2)	2 (10.5)	14 (13.1)	0	0	30 (20.0)
	Total	48 (100)	19 (100)	107 (100)	18 (100)	2 (100)	150 (100)
Combined	1 – 5000	27 (24.8)	9 (28.1)	38 (15.1)	53 (100)	16 (100)	38 (10.9)
	5001 – 10000	52 (47.7)	11 (34.4)	106 (42.1)	0	0	143 (40.9)
	10001 – 15000	25 (22.9)	10 (31.3)	75 (29.8)	0	0	103 (29.4)
	≥ 15001	5 (4.6)	2 (6.3)	33 (13.1)	0	0	66 (18.9)
	Total	109 (100)	32 (100)	252 (100)	53 (100)	16 (100)	350 (100)

Source: Primary Survey.
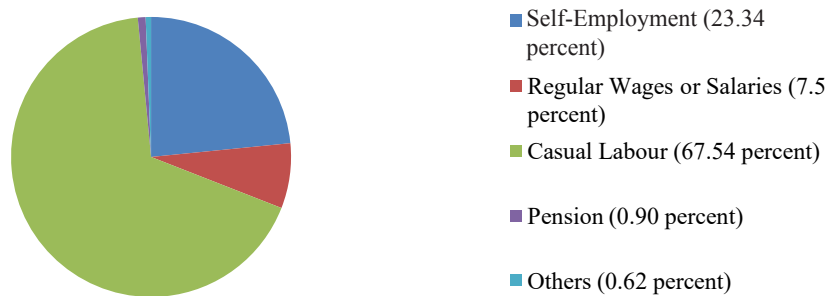
Fig. 3: Income Distribution (Thiruvananthapuram)

■ Self Employment (23.62 percent)

■ Regular Wages or Salaries (3.72 percent)

■ Casual Labour (70.73 percent)

■ Pension (1.02 percent)

■ Others (0.91 percent)

Source: Primary Survey

Fig. 4: Income Distribution (Kochi)

■ Self-Employment (23.21 percent)

■ Regular Wages or Salaries (11.90 percent)

■ Casual Labour (63.85 percent)

■ Pension (0.77 percent)

■ Others (0.27 percent)
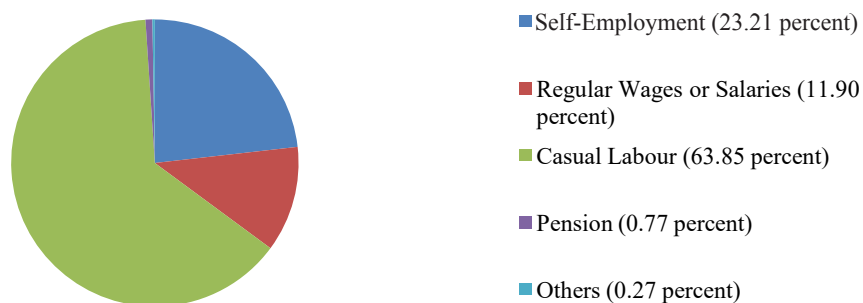
Source: Primary Survey

Fig. 5: Income Distribution (Combined)

■ Self-Employment (23.34 percent)

■ Regular Wages or Salaries (7.5 percent)

■ Casual Labour (67.54 percent)

■ Pension (0.90 percent)

■ Others (0.62 percent)

Source: Primary Survey

Determinants of Household Income

Major socio-economic characteristics have a significant influence on the household income. In this section, a more rigorous analysis is undertaken so as to go through the determinants that can cause variations in household incomes.

Dependent Variable

Household income (HHY)

Household income (monthly total income) from all sources has been taken as the dependent variable.

Independent Variables

1. No of workers in the household (EMP)

The number of workers in the household always has a direct bearing on the household incomes. Bhasin (2001) used this variable and found a significant and positive relationship between the level of household income and the number of workers in the household. More number of workers in the 25 to 54 age group will lead to an increase in income. Hence a positive relation is expected.

2. Mean education of workers in the household (EDU)

Mean education of the workers in the household is considered to be an important variable in the determination of the household's income. Singh and Oberoi (1983) and Bhasin (2001) found that this variable as a most significant variable in determining the level of household income. For the present analysis, mean education of the workers in the household has been taken as the independent variable and it is hypothesised that the variable would be positively related to the level of household incomes.

3. Average working hours/day in the household (AWH)

This variable was computed as the average working hours in the total number of employees in a family. Greater the working hours in the family are expected to bring in more income to the household. Hence one may expect a positive relationship between this variable and the level of income of the household.

4. Mean age of workers in the household (AGE)

Another important factor influencing household income is mean age of workers in the household. Mean age represents the work experience also. It is generally held that as the mean age of the worker's increases, income also increases through more and more work experience.

5. Percentage of female workers in the household (PFW)

This variable has been taken as the percentage of female workers in the household. The association between this variable and the level

of household income is expected to be negative. Female workers are generally assumed to earn less than the male workers.

The mathematical model that has been used for this investigation is as follows;

$$HHY_i = \alpha_0 + \beta_1 EMP_i + \beta_2 EDU_i + \beta_3 AWH_i + \beta_4 AGE_i + \beta_5 PFW_i + \varepsilon_i$$

where ε is the error term, i represents households, α and β are the parameters, which are to be estimated.

Empirical Findings

Using multiple regression analysis, the effect of different variables on the household income has been quantified. The estimated coefficients of the whole sample was obtained and the results are presented in the Table 14.

TABLE 14: ESTIMATED COEFFICIENTS OF MULTIPLE REGRESSIONS

Determinants	Estimated Coefficients	t-Statistic	Significance Level	Collinearity Statistics	
				Tolerance	VIF
Constant	2035.917	1.585	0.114		
EMP	5154.798	20.966	0.000	0.937	1.067
EDU	194.653	2.878	0.004	0.817	1.224
AWH	343.160	2.948	0.003	0.736	1.358
AGE	-52.486	-2.574	0.010	0.847	1.181
PFW	-47.865	-6.508	0.000	0.726	1.378

Source: Computed.   Dependent Variable: HHY

The results showed that most of the variables were of expected sign and were significant, either at one per cent or at five per cent. The variable, total number of workers in the household (EMP) had a strong positive influence on the household income because the greater number leads to a large level of income. Variable, education (EDU) and average working hours/day in the household (AWH) were positively and significantly associated with the level of income. As expected, percentages of female employment in the household had negative signs thus indicating that households having a higher proportion of female workers will be having lower incomes.

TABLE 15: MODEL SUMMARY

R^2	Adjusted R^2	Standard Error of the Estimate	F
0.614	0.608	3722.07273	109.402 (0.001)

Source: Computed, the parenthesis indicates the significant level of F-statistic.

The value of R^2 (0.614) indicated that the variables explained 61 per cent of variations in household incomes (Table 15). R^2 value is low which indicates that entirety of the variations could not be captured with the model. This means that there are many other variables which might be influencing the income of urban poor households. Collinearity statistics further clarified that all the variables under consideration were required for the analysis.

CONCLUSION

The extent of urban poverty at household level was measured through various economic indicators. In this study, NSS's labour force framework was used to measure labour force rate, work participation rate, unemployment rate and employment rate. There was a considerable difference in the work participation rates of males and females. The survey result also revealed that the employment rate of the females was very low as compared to the employment rate of males. The characteristics of employment status of urban poor are studied. It was found that most of the jobs are in the informal sectors which provide low returns. Also, it was seen that female workers had a lesser monthly income as compared to the male workers. The multiple regression analysis proved that socio-economic indicators had a significant impact on the income of urban poor households.

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