The determinants of household poverty in Sri Lanka: 2006/2007

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The Determinants of Household Poverty in Sri Lanka: 2006/2007

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Abstract

This study examines the Micro-level factors associated with household poverty in Sri Lanka using latest Household Income and Expenditure Surveys (HIES) data in 2006/07 employing OLS, quintile and probit regressions.

The results of the probit regression indicate that, the major determinants of household poverty in Sri Lanka are human capital related factors which can be link to the labour market and remittances. Further, qunatile regression shows that education and foreign remittances have significant positive effect on standard of living in Sri Lanka regardless the sector.

Keywords: Poverty determinants, Sri Lanka, Regression Analysis

1 Introduction

Achieving sustainable economic growth with a focus on combating poverty has become the key development goal for governments around the world, as reflected in the Millennium Development Goals, in particular, Goal 1; "eradicate extreme poverty and hunger". According to Food and Agriculture Organization(FAO) report most of the poor live in rural areas (FAO, 2010).

As the poverty profile is a blueprint of poverty, understanding the poverty profile is imperative for effective poverty reduction planning for any country. There are many studies have emerged for determining the factors causing poverty in national and international arena. Since there is no reason to believe that the root causes of poverty are the same everywhere in the world, country specific analysis is indispensable (siteresources.worldbank.org).

This study attempts to examine closely the factors that are strongly associated with poverty in Sri Lanka using probit, OLS and quantile regression models. The model uses the latest Sri Lankan Household Income and Expenditure Survey data in 2006/07.

The article continues as follows: Section 2 explains definition of poverty and literature, section 3 summarizes poverty trend in Sri Lanka, section 4 indicates objectives and limitations, section 5 simplifies the methodology employed, section 6 presents the results of the study and section 7 proffers conclusions.

2 Definition of poverty

A basic problem confronting all those who are involved in measuring and monitoring poverty is to define what is meant by **poverty** and who to include in the category of the **poor**. As such before attempting to measure poverty in any country or a region it is necessary to understand what is meant by **poverty**.

Poverty measures fall under two broad categories: those that examine poverty in absolute terms and these that extreme poverty in relative terms. Absolute poverty measures the number of people below a certain income threshold or unable to afford certain basic goods and services. Relative poverty measures compare household income and spending patterns of groups or individuals with the income and expenditure patterns of the population. (http://www.canadiansocialresearch.net/poverty.htm).

2.1 Literature review

Poverty measurement and analysis is needed to identify the poor, the nature and extent of poverty and its determinants, and to assess the impact of policies and welfare programs on the poor (Gunawardena, 2004). The last two decades have seen considerable analytical efforts in the poverty related literature, directed toward driving good practices in measuring poverty in all its dimensions and generating the data requirements.

There are many attempts in the recent literature to identify the determinants of poverty, how the changes of economic policies influence poverty and other poverty measures (Datt & Jolliffe D., 1999; Datt & Ravallion, 1992; De Silva, 2008; Deaton, 1997; Mok, Gan, & Sanyal, 2007). The analysis of poverty is mostly based on multivariate regression methods that attempt to identify

the determinants of poverty at the household level, using reduced form models of various structural relationships that affect poverty (Glewwe, 1991). The literature shows that regardless of the definition of poverty line, the most commonly used dependent variables in poverty functions are binary indicators (probit or logit regressions) of poverty status or measures of the poverty gap although the multiple regression model as a tool of analysis in those kind of studies has been criticized for number of drawbacks (Mok *et al.*, 2007).

There are few studies of poverty determinants in Sri Lanka (De Silva, 2008; Gunawardena, 2004; World Bank, 2007). De Silva's study employed a logistic regression for poverty determinants using the Sri Lanka Integrated Survey conducted by the World Bank in 2000. Findings of this study show that the household head education, being salaried employment and being engaged in business all have a significant effect on poverty. The probability of being poor rises with the household size, household head being female, living in rural area, and being a casual wage earner.

World Bank study (World Bank, 2007) on poverty in Sri Lanka generalised its findings such as poverty is strongly associated with attributes of individuals/households such as education attainment, employment status, and family size. Further this report explains larger households, especially those with children, are more likely to be poor.

Chandrasiri and Samarakoon's study (2008) aimed to explore the relationship between spatial patterns of poverty and its geographic determinants. They used the spatial autocorrelation analysis and geographic determinants of poverty described by global spatial error regression

model .The results indicate that geostatistical tools can be used for the advancement and furtherance of poverty mapping technique.

However there is a need of identifying whether there are changes of poverty determinants and need to update the poverty profile in Sri Lanka using the latest HIES data. Current study aims to fill this gap.

3 Poverty trends in Sri Lanka

Sri Lanka is an island-nation state in the Indian Ocean with a land area of 6.55 million hectares. Sri Lanka is a lower-middle income developing economy with a GDP per capita of US$ 2053 and GNP per capita of US$ 2029 by 2009 (Central Bank of Sri Lanka, 2009).

Since the majority of the poor in Sri Lanka live in rural areas and as agriculture remains the most important activity of them (Word Bank, 2008). Sri Lanka is an interesting case for adding literature as each Sri Lankan successive government put top priority on the poverty alleviation programms (Nanayakkara, 2006) and Sri Lanka improved other aspect of the economy over the time, still we are facing the main problem of development; poverty and inequality[2] .

As the table 1 shows, poverty has been declining over time in Sri Lanka, in terms of the proportion of the population who are below the poverty line. Sri Lanka's poverty by sector shows that poverty in the estate sector is higher than the national average while in terms of absolute numbers the urban sector has the greatest number of poor people due to higher

[2] As an example Sri Lanka reduces unemployment up to 5.8 by 2009 (Central Bank of Sri Lanka, 2009).

population density. However it is the rural sector that is the highest contributor to poverty, with over 80% of the poor residing in the rural sector (Fernando & Meedeniya, 2009).

Table 1: Poverty headcount index by districts in Sri Lanka: 1990 to 2007

Province/sector	Districts	1990-91	1995-96	2006/07
National		**26.1**	**28.8**	**15.2**
Urban sector		16.3	14.0	6.7
Rural sector		29.4	30.9	15.7
Estate sector		**20.5**	38.4	**32.0**
Western	Colombo	16	12	5.4
	Gampaha	15	14	8.7
	Kalutara	32	29	13
Central	Kandy	36	37	17
	Matale	29	42	18.9
	Nuwara- Eliya	**20**	**32**	**33.8**
Southern	Galle	30	32	13.7
	Matara	29	35	14.7
	Hambantota	32	31	12.7
North-Western	Kurunregala	27	26	15.4
	Puttalama	22	31	13.1
North-Central	Anuradapura	24	27	14.9
	Polonnaruwa	24	20	12.7
Uva	Badulla	31	41	23.7
	Monaragala	**34**	56	**33.2**
Sabaragamuwa	Ratnapura	31	46	26.6
	Kegalle	31	36	21.1

Note: Districts in the Northern and Eastern provinces are excluded since no data are available. Surveys conducted in these periods exclude these areas due to civil conflict in the country.

Source: HIES 1990-91, 1995-96, 2002, 2006-07, Department of Census and Statistics, Sri Lanka.

4 Objectives of the study

Reducing poverty is a difficult and complex challenge to Sri Lanka like many of the developing countries. Although Sri Lanka is facing the experience of reducing poverty, there is a substantial

poverty still remains (table1). Widening regional disparities increase household poverty considerably. Therefore it is very important to identify the poverty determinants of Sri Lanka and the changes of poverty determinants overtime for anti poverty programm. My attempt here is to find the causes of poverty in Sri Lanka, as well as examine the behaviour of the determinants over time.

Under the main objective of identifying and quantifying the poverty determinants in 2006/07 in Sri Lanka, we can specify few objectives to work as follows:

1. Examine the major determinants of household poverty in Sri Lanka in 2006.

   I will examine in detailed sector[3] level causes mainly geographical location, demographic, education, employment related variables associated with household poverty in Sri Lanka using above mentioned Household Income and Expenditure Survey data.

2. Identifying the causes of poverty in different deciles of the population in each sector.

   I will examine how poverty determinants change over deciles of the population and the sector differences.

[3] Urban sector**:** Area governed by either Municipal Council or Urban Council is considered as Urban Sector.
Rural sector**:** Residential areas, which do not belong to urban sector or estate sector, are considered as rural sector.
Estate sector**:** Plantation areas, which are more than 20 acres of extent and having not less than 10 residential labourers, are considered as estate sector

4.1 Limitations

Since there was a civil war going on in Sri Lanka over the last 25 years, all the surveys conducted in this period by Department of Census and Statistics (DCS), it has been excluded the area of North and East provinces or some parts of these provinces. Thus, there is no data for the North and East provinces in the country.

5 Methodology

5.1 Data collection

The data employed in this research were obtained from the latest Household Income and Expenditure Survey (HIES) carried out by the Department of Census and Statistics (DCS) Sri Lanka in 2006/07. The national sample of the 2006/07 survey consist of households; national 21790, urban 5800, rural 13930, and estate 2060.

5.2 Econometric Analysis

5.3 Probit regression

Since the aim of this study is to identify the main factors which determine the probability of a household falls below or above the poverty line, it is employed a probit regression model. In this study a household is considered to be poor if its per capita household expenditure per month is below the official poverty line[4].

Probit model will be estimated as follows;

[4] Official poverty line for Sri Lanka (national and sub -national levels) has been constructed in 2002 for the first time by Department of Census and Statistics and will be updated for every year (Nanayakkara, 2006).

$y_i = \beta x_i + \varepsilon_i$ .....(1)

Where y_i denotes household expenditure per capita for household i, x_i is a matrix of explanatory variables (K x 1 regressor vector), β is a vector of parameters to be estimated and ε_i is the error term, which is assumed to be normally distributed. Binary variable can be defined as:

$s_i = 1$ if $y_i \leq z$,

$s_i = 0$ otherwise

z is the poverty line. The binary model then becomes:

Prob $(s_i = 1) = F(z - \beta x_i)$.....(2)

F is the cumulative normal probability function.

5.4 Quantile regression

Quantile regression is gradually emerging as a unified statistical methodology for estimating models of conditional quantile functions. By complementing the exclusive focus of classical least-squares regression on the conditional mean, quantile regression offers a systematic strategy for examining how covariates influence the location, scale, and shape of the entire response distribution (Koenker & Bassett Jr, 1978).

The quantile regression model can be written as follows;

$y_i = x_i^1 \beta_\tau + \mu_{i,\tau}$ .....(3)

Where y_i is the log of per capita expenditure per month of i^{th} household and, x_i indicate characteristics of the i^{th} household. τ indicates the quantile number.

Quantile regression analysis estimates five quantile regressions at the 10,25,50,75 and 90^{th} quantiles with standard errors which computed by bootstrapping with 100 replicates (Table 3) for each sector to examine the relationship between expenditure per capita (natural log) and explanatory variables in urban, rural and estate sectors in Sri Lanka at the mean and various other points on the consumption distribution in 2006/7. Ordinary Least Square (OLS) regression was estimated in Table 3 for the comparison of these results.

5.5 Model specification

5.5.1 Dependent variable

Our concern in this study is to identify the changes of the factors which determine the probability of household being in poverty overtime in Sri Lanka using HIES data. The poverty estimates are based on per capita consumption expenditure (PCEXP) as a measure of household welfare[5].

The dependant variable for the probit regression is taken as a binary variable with 1 representing the household under the poverty line and 0 otherwise. We use household per capita expenditure per month for the poverty measuring variable here, adjusted for household size (no of person). Considering both food and nonfood expenditure in the household we calculated this variable.

Dependent variable for the quantile regression is monthly per capita expenditure in natural log.

[5] The PCE figures were calculated by dividing total monthly household expenditure by their corresponding household sizes. It includes imputed values for consumption of food and non food.

5.5.2 Explanatory variables

Explanatory variables are socioeconomic, demographic and human capital of the household. There are both continues variables and dummy variables here[6]. Demographic variables are captured by age of the household head, age squared, gender of the household head[7], ethnicity, marital status and employment status and the current employment of the household head and interactions of the employment status with the spouse's employment status. The age variable captures work experience,[8] while the age squared variable deals with the stage in the life cycle of a household. As well as the dependency ratio which includes number of children under the age of 15 and the elderly people above the age of 60 in the household[9], household size and families' less than two children are included. Mostly these variables are in the form of dummies.

Human capital variable captured the education variable includes the maximum years of schooling of the members of the household and the average education of the head and the spouse of the household. It is assumed that a year of education is of an equal value regardless of school, curriculum and time period when schooling took place. Education is considered a significant determinant of household welfare in most of the studies in Sri Lanka as well as other nations (De Silva, 2008; Glewwe, 1991; Mok et al., 2007). As higher education qualifications provide better opportunities for earnings, the expected sign here is negative.

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[6] I will not be including all the explanatory variables proposed for the study here due to data shortage. More meaningful variables will be added to the final report with full data set.

[7] This is a dummy variable. It takes value 1 if the household head is male, 0 otherwise. Although there are arguments on the sign expected, most of the literature shows that the negative sign (Mok et al., 2007).

[8] Expected sign here is negative, because older the age higher the experience which helps him to earn higher.

[9] For this report I just take dependency ratio instead of all these variables which explain how many members of the household under 15 years and above 60 years as a proportion the household size.

Foreign and local remittances are also included as explanatory variables in this study.

6 Results:

6.1 Determinants of household poverty in Sri Lanka: probit regression analysis

Literature shows that most of the studies have used household income or expenditure to identify poor households conditional to the poverty line. In Sri Lanka we have used consumption expenditure for the official poverty line. Therefore in this study we use consumption expenditure as a dependent variable. As well as income data in any country has known to be less reliable than the consumption data in household surveys. Since, income data is often under-reported and there are difficulties of quantifying (eg. self employment and capital income) and time variable will also has an influence on it (due to seasonality of earnings). Hence, consumption is often regarded as the better indicator for household welfare as household smooth their consumption overtime.

Theoretically, low educational attainment is strongly associated with poverty. Probit regression analysis shows that when the highest education (no of years schooling) of the members of the household increases, it will decrease the household being in poor. As well as higher the education of the head and spouse of the household lower the poverty in particular household.

Table 2 shows the probit results. The marginal effects here shows that a change in a specific factor which is associated with poverty on the probability of being poor. Confirming the literature on education and poverty (Datt & Jolliffe D., 1999; Mok et al., 2007),our results indicate that all the variables related to education; education of the household head, education of

the spouse and the highest education of the family are significant variables for the model and negatively correlated (Table 2).

(Table 2 here)

According to table 2, major factors associated with poverty in Sri Lanka are both head and spouse work in government or semi government sectors, and foreign remittances. Larger families are less likely to be poor and higher dependency ratio increases poverty in Sri Lanka. This is severe in estate sector rather than other sectors.

Female-headed households are less likely to be in poor in rural sector and more likely to be poor in urban sector. Confirming De Silva's study on Sri Lanka (2008),the results of this study also show that age of the head of the household have negligible positive effect on the probability of being poverty[10]. Both head age and sex are not significant factors in determining poverty in the estate sector in Sri Lanka.

A significant positive relationship can be seen in household size dependency ratio. As literature shows higher the number of children, and higher the number of children who are students in the family have increase the negative effect further[11] (Dudek, 2006; Lanjouw & Ravallian, 1995). While the families' with less than two children are less likely to be poor in rural sector, it is an insignificant variable for the urban and estate sectors. Head being married tend to be in poor than single.

[10] De Sliva has employed household survey data in 2000 in his study.
[11] I did not include the variable of number of children in the household and average education of the family due to multicollinearity problem.

6.2 Poverty determinants by expenditure quantiles in Sri Lanka: OLS and quantile regression analysis

Quantile regression (Koenker & Bassett Jr, 1978) approach was used to estimate poverty determinants in different points of the expenditure distribution. OLS regression also estimated here for the comparison purpose. Household size and dependency ratio are negatively related with expenditure per capita in each decile (table 3). Higher the female labour in the family will negatively related with expenditure distribution in higher quantiles but the lowest qunatile.

Foreign remittance is highly significant and having largest affects on expenditure distribution at all estimated quantiles. Local remittance also plays very significant role in increasing living standard of the households.

Estimates of the employment status show that head employed in private sector, both head and spouse employed in private sector are inversely related with expenditure per capita in Sri Lanka. Interestingly, head employed in government sector will increase the living standard of the households in lower quantiles and decrease the living standard of the higher expenditure quantiles. Nevertheless, both head and spouse employed in government or semi government sector will increased their living standard significantly in each quantile. In addition, self-employed couples are enjoying lower standard of living in each quantile.

All the variables related to education are highly significant and positively related with increasing living standard at all the quantiles here. Age of the head shows insignificant positive relationship with the living standard.

(Table 3 here)

The estimates of the 25th quntile regression in table 4 indicate that household size, dependency ratio and female labour lower the standard of living in each sector in this quantile. Nevertheless, higher the female labour of the family will increase standard of living in estate sector in this quantile.

Foreign remittance is highly significant and having larger positive effect on expenditure distribution in each sector .While the local remittance plays a significant role in increasing living standard of the households in rural and estate sectors, urban sector is having negative effect on this.

While head employed in private sector negatively related with expenditure in urban and rural sectors, it helps the households in estate sector to increase their standard of living. Although both head and spouse employed in private sector increased urban households' living standard, inversely related with household expenditure per capita in other sectors in Sri Lanka. Further, head employed in government sector and both employed in government sector will increase the living standard of the households in all the sectors in this quantile. In addition, self- employed couples are enjoying lower standard of living in urban and rural sectors but the estate sector.

All the variables related to education and head age are highly significant and positively contribute to the standard of living in the 25th quantile in Sri Lanka regardless the sector.

(Table 4 here)

The estimates of the 75th quantile in table 5 show that household size, dependency ratio and female labour are lower the standard of living in each sector as well. There can be seen significant negative impact by the dependency ratio in this quantile than in the 25th quantile.

Compare to the 25th quantile, almost similar impact can be seen this quantile as well. However foreign remittance brings the largest positive effect on expenditure distribution in each sector in this quantile as well. According to the estimates of this quantile, regarding employment status the similar findings of the 25th quantile can be experienced in this qunatile as well. All the variables related to education and head age are highly significant and positively contribute to the standard of living in this quantile as well in Sri Lanka regardless the sector.

(table 5 here)

7 Conclusion

This paper scrutinizes the micro level determinants of household poverty in Sri Lanka in 2006/7 period. Summary of the results say that, the major determinants of household poverty in Sri Lanka are human capital related factors which can be link to the labour market and remittances in each sector and each expenditure quantile in Sri Lanka.

Increasing education[12] of the head of the household, and education of the other family members will decrease household poverty in each sector in Sri Lanka. All the education related variables in each sector and each quantile is significant and positively related to the improving living standard of the household.

[12] No of schooling years

As per the education play very important role in poverty reduction in Sri Lanka, policies which facilitating investment in education specially for the poor in rural and estate sector where there is high regional disparities can be seen will help enormously reduce poverty in Sri Lanka.

Foreign remittances play a gigantic role in reducing poverty in Sri Lanka followed by local remittances. More attention is needed for creating opportunities for foreign employment legally and systematically.

Female headed households are less likely to be in poor in rural sector but female households are more likely to be in poor in urban sector. However gender of the household head is not a significant poverty determinant in the urban sector. Larger household size and higher dependency ratio are also tending to be in poor. As well as household with less than two children are less vulnerable to poverty in rural sector in Sri Lanka.

Self- employment in each quantile in each sector indicates negative relationship with standard of living. Special attention should go to this section as most of the poor do in self-employed activities. Using awareness programs, supplying credit facilities, creating better market for their sales poor can be motivated to do self employment more profitably.

As per the households with higher female labour more likely to be in poor, poverty reduction programs should target female labour. As households having less than two children are less likely to be in poor and larger households are more likely to be in poor, there should be effective family planning progrrams to control the number of children in the poor families. Education programs also will support in this regards.

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Appendix

Table 2: Determinants of household poverty in Sri Lanka 2006/07 : probit regression estimates (marginal effects)

Dependent variable: expenditure per capita per month as a dummy variable (poor =1)

	National	Urban	Rural	Estate
Household size	0.020	0.010	0.025	0.065
	(27.61)**	(17.69)**	(23.26)**	(14.32)**
Dependency ratio	0.013	0.003	0.015	0.020
	(11.02)**	(2.76)**	(9.37)**	(3.02)**
less than two kids	-0.022	0.004	-0.032	-0.032
	(5.93)**	(1.00)	(6.47)**	(1.79)
Foreign remittance	-0.060	-0.019	-0.066	-0.104
	(14.60)**	(5.62)**	(11.21)**	(3.99)**
Local remittance	-0.033	-0.012	-0.030	-0.157
	(7.82)**	(2.54)*	(5.40)**	(6.84)**
head education	-0.010	-0.004	-0.010	-0.017
	(27.47)**	(9.10)**	(19.70)**	(7.44)**
head married==1	0.014	0.009	0.020	-0.036
	(3.69)**	(2.17)*	(4.11)**	(1.79)
head works in govt or semi-govt	-0.050	-0.021	-0.063	-0.065
	(10.80)**	(4.84)**	(9.88)**	(2.47)*
head works in pvt sector	0.034	0.020	0.042	-0.023
	(13.15)**	(7.71)**	(11.88)**	(1.33)
head age	-0.001	-0.000	-0.001	0.000
	(7.46)**	(3.80)**	(9.04)**	(0.51)
both work govt sector	0.090		0.056	0.018
	(7.54)**		(2.86)**	(0.52)
both in pvt sector	-0.039	0.001	-0.009	-0.172
	(5.88)**	(0.06)	(0.94)	(6.24)**
spouse works govt & head pvt	-0.053		-0.074	-0.095
	(4.84)**		(3.37)**	(2.63)**
spouse education	-0.007	-0.002	-0.008	-0.001
	(18.57)**	(4.50)**	(16.34)**	(0.33)
highest education of household	-0.014	-0.006	-0.016	-0.024
	(27.19)**	(9.06)**	(22.44)**	(9.83)**
female headed house	-0.011	0.019	-0.012	-0.006
	(3.10)**	(4.40)**	(2.55)*	(0.35)
Observations	76757	19468	49296	7165
Robust z statistics in parentheses				
* significant at 5%; ** significant at 1%				

Source: Author's calculation using HIES data 2006/7

Table 3: Quantile regression estimates for poverty determinants in Sri Lanka 2006/07

Dependent Variable: log expenditure per capita per month

	Q10	Q25	Q50	Q75	Q90	OLS
Household size	-0.092	-0.087	-0.088	-0.087	-0.084	-0.090
	(47.70)**	(61.98)**	(53.90)**	(41.96)**	(30.89)**	(59.73)**
dependency ratio	-0.103	-0.170	-0.191	-0.233	-0.276	-0.194
	(6.87)**	(15.76)**	(15.58)**	(15.61)**	(13.77)**	(16.71)**
Foreign remittance	0.217	0.244	0.264	0.283	0.344	0.272
	(18.30)**	(29.05)**	(28.37)**	(26.03)**	(24.17)**	(30.71)**
Local remittance	0.068	0.029	0.048	0.063	0.034	0.039
	(5.68)**	(3.39)**	(5.09)**	(5.77)**	(2.35)*	(4.76)**
head education	0.030	0.037	0.041	0.050	0.055	0.044
	(30.39)**	(51.30)**	(50.99)**	(53.31)**	(43.82)**	(60.01)**
head married==1	-0.088	-0.073	-0.086	-0.078	-0.089	-0.079
	(9.08)**	(10.65)**	(11.28)**	(8.77)**	(7.69)**	(11.58)**
head Sinhalese=1	-0.127	-0.116	-0.093	-0.047	0.014	-0.072
	(18.97)**	(24.42)**	(17.88)**	(7.78)**	(1.75)	(15.96)**
head works in govt or semi-govt	0.127	0.102	0.070	-0.025	-0.099	0.021
	(11.10)**	(12.52)**	(7.63)**	(2.32)*	(6.89)**	(2.50)*
head works in pvt	-0.116	-0.134	-0.151	-0.203	-0.238	-0.175
	(13.94)**	(22.98)**	(23.16)**	(26.47)**	(23.54)**	(28.49)**
head age	0.003	0.003	0.003	0.003	0.003	0.003
	(10.89)**	(14.77)**	(16.40)**	(14.32)**	(9.87)**	(16.63)**
both in pvt sector	-0.040	-0.034	0.000	-0.030	-0.050	-0.027
	(3.24)**	(3.92)**	(0.05)	(2.61)**	(3.36)**	(3.38)**
both work govt sector	0.110	0.076	0.084	0.110	0.123	0.106
	(5.63)**	(5.44)**	(5.43)**	(6.13)**	(5.31)**	(7.97)**
highest education of family	0.050	0.048	0.048	0.043	0.044	0.049
	(36.50)**	(47.15)**	(39.84)**	(28.37)**	(20.89)**	(44.87)**
spouse education	0.018	0.018	0.020	0.019	0.022	0.020
	(21.14)**	(29.21)**	(27.81)**	(22.58)**	(19.45)**	(29.45)**
Female labour	0.011	-0.017	-0.021	-0.015	-0.035	-0.017
	(2.43)*	(5.28)**	(5.82)**	(3.52)**	(5.96)**	(5.11)**
Both self-employed	-0.063	-0.066	-0.070	-0.105	-0.128	-0.094
	(7.76)**	(11.54)**	(10.94)**	(13.97)**	(12.83)**	(15.33)**
Constant	7.431	7.718	7.977	8.298	8.638	7.998
	(362.83)**	(532.01)**	(474.38)**	(401.99)**	(306.60)**	(505.96)**
Observations	76742	76742	76742	76742	76742	76742
R-squared						0.35

Robust t statistics in parentheses
Absolute value of t statistics in parentheses
* significant at 5%; ** significant at 1%

Source: Author calculation using HIES data 2006/7

Table 4: Poverty determinants in 25th expenditure quantile in Sri Lanka: 2006/7

Dependent Variable: log expenditure per capita per month

	Urban	Rural	estate	National	OLS
Household size	-0.082	-0.101	-0.093	-0.087	-0.090
	(34.24)**	(53.67)**	(43.12)**	(61.98)**	(59.73)**
dependency ratio	-0.054	-0.143	-0.130	-0.170	-0.194
	(2.69)**	(10.64)**	(8.32)**	(15.76)**	(16.71)**
Foreign remittance	0.245	0.198	0.080	0.244	0.272
	(18.75)**	(17.52)**	(5.83)**	(29.05)**	(30.71)**
Local remittance	-0.031	0.001	0.172	0.029	0.039
	(1.93)	(0.06)	(15.13)**	(3.39)**	(4.76)**
head education	0.036	0.032	0.012	0.037	0.044
	(25.82)**	(36.04)**	(10.94)**	(51.30)**	(60.01)**
head married==1	0.036	-0.056	-0.011	-0.073	-0.079
	(2.81)**	(6.48)**	(1.36)	(10.65)**	(11.58)**
head Sinhalese=1	-0.020	-0.166	0.064	-0.116	-0.072
	(2.56)*	(22.23)**	(7.68)**	(24.42)**	(15.96)**
head works in govt or semi-govt	0.103	0.114	0.148	0.102	0.021
	(7.74)**	(10.60)**	(11.33)**	(12.52)**	(2.50)*
head works in pvt	-0.151	-0.135	0.100	-0.134	-0.175
	(14.81)**	(17.95)**	(11.47)**	(22.98)**	(28.49)**
head age	0.002	0.003	0.001	0.003	0.003
	(8.06)**	(13.71)**	(3.99)**	(14.77)**	(16.63)**
both in pvt sector	0.048	-0.066	-0.021	-0.034	-0.027
	(2.02)*	(5.15)**	(2.73)**	(3.92)**	(3.38)**
both work govt sector	0.158	0.177	0.007	0.076	0.106
	(6.76)**	(9.05)**	(0.45)	(5.44)**	(7.97)**
highest education of family	0.053	0.052	0.025	0.048	0.049
	(24.20)**	(39.50)**	(20.48)**	(47.15)**	(44.87)**
spouse education	0.007	0.016	0.006	0.018	0.020
	(6.40)**	(20.43)**	(5.58)**	(29.21)**	(29.45)**
Female labour	-0.034	-0.011	0.022	-0.017	-0.017
	(6.10)**	(2.56)*	(4.56)**	(5.28)**	(5.11)**
Both self-employed	-0.038	-0.056	0.072	-0.066	-0.094
	(3.49)**	(8.08)**	(5.35)**	(11.54)**	(15.33)**
Constant	7.718	7.729	7.788	7.718	7.998
	(291.13)**	(396.04)**	(388.98)**	(532.01)**	(505.96)**
Observations	20296	49288	7158	76742	76742
R-squared					0.35

Robust t statistics in parentheses
Absolute value of t statistics in parentheses
* significant at 5%; ** significant at 1%

Source: Author calculation using HIES data 2006/7

Table 5:: Poverty determinants in 75th expenditure quantile in Sri Lanka:2006/7

Dependent Variable: log expenditure per capita per month

	Urban	Rural	Estate	National	OLS
Household size	-0.082	-0.100	-0.078	-0.087	-0.090
	(33.46)**	(34.00)**	(37.20)**	(41.96)**	(59.73)**
dependency ratio	-0.148	-0.212	-0.327	-0.233	-0.194
	(7.35)**	(10.92)**	(20.94)**	(15.61)**	(16.71)**
Foreign remittance	0.282	0.282	0.177	0.283	0.272
	(22.12)**	(18.40)**	(13.21)**	(26.03)**	(30.71)**
Local remittance	-0.050	0.082	0.144	0.063	0.039
	(3.28)**	(5.76)**	(12.85)**	(5.77)**	(4.76)**
head education	0.048	0.044	0.019	0.050	0.044
	(36.70)**	(35.64)**	(17.80)**	(53.31)**	(60.01)**
head married==1	-0.030	-0.071	0.008	-0.078	-0.079
	(2.36)*	(5.92)**	(0.93)	(8.77)**	(11.58)**
head Sinhalese=1	0.070	-0.108	0.240	-0.047	-0.072
	(9.72)**	(10.94)**	(31.06)**	(7.78)**	(15.96)**
head works in govt or semi-govt	-0.084	0.020	0.119	-0.025	0.021
	(6.37)**	(1.31)	(9.61)**	(2.32)*	(2.50)*
head works in pvt	-0.241	-0.182	0.018	-0.203	-0.175
	(24.65)**	(17.61)**	(2.11)*	(26.47)**	(28.49)**
head age	0.003	0.004	0.001	0.003	0.003
	(9.41)**	(12.70)**	(3.36)**	(14.32)**	(16.63)**
both in pvt sector	0.080	-0.032	0.010	-0.030	-0.027
	(3.43)**	(1.85)	(1.30)	(2.61)**	(3.38)**
both work govt sector	0.195	0.167	-0.073	0.110	0.106
	(8.82)**	(6.26)**	(4.85)**	(6.13)**	(7.97)**
highest education of family	0.042	0.049	0.015	0.043	0.049
	(18.36)**	(23.98)**	(11.92)**	(28.37)**	(44.87)**
spouse education	0.012	0.020	0.006	0.019	0.020
	(10.03)**	(18.12)**	(5.63)**	(22.58)**	(29.45)**
Female labour	-0.022	-0.013	-0.020	-0.015	-0.017
	(4.04)**	(2.32)*	(4.35)**	(3.52)**	(5.11)**
Both self-employed	-0.037	-0.105	0.129	-0.105	-0.094
	(3.59)**	(10.95)**	(9.78)**	(13.97)**	(15.33)**
Constant	8.416	8.270	8.380	8.298	7.998
	(298.28)**	(285.40)**	(419.54)**	(401.99)**	(505.96)**
Observations	20296	49288	7158	76742	76742
R-squared					0.35

* significant at 5%; ** significant at 1%
Robust t statistics in parentheses
Absolute value of t statistics in parentheses

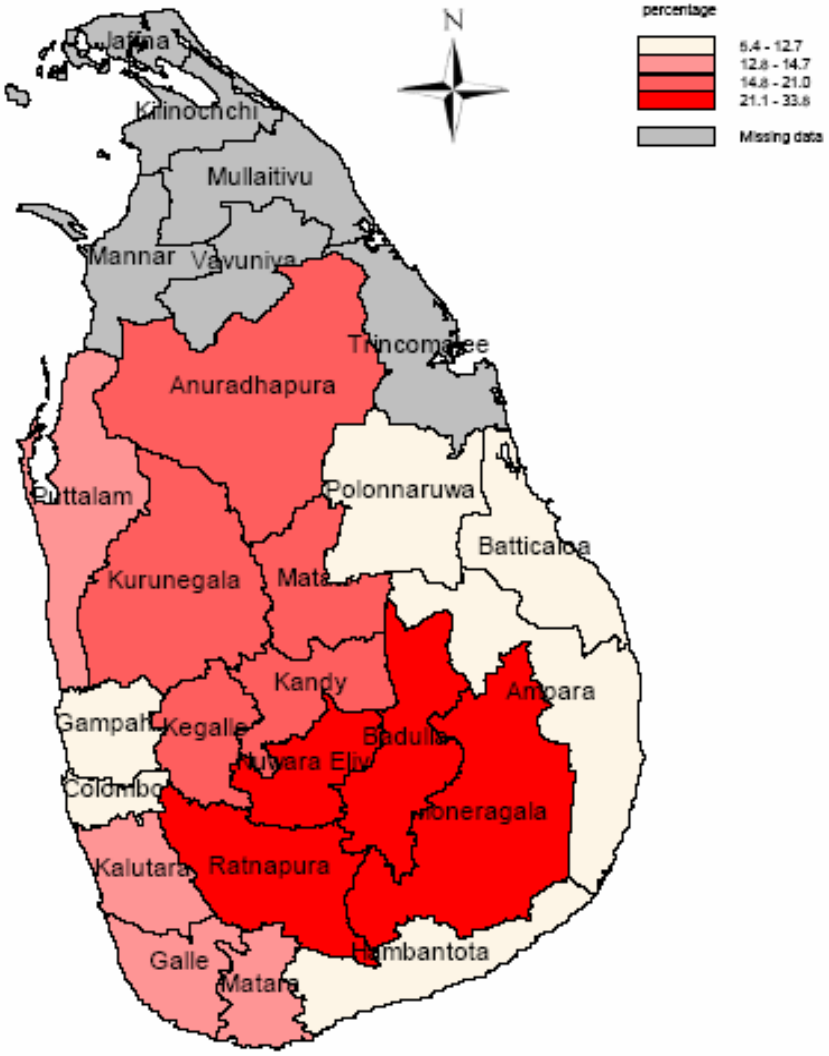
Source: Author calculation using HIES data 2006/7

Table 6: Summary statistics of the variables: 2006/07

Variable	Obs	Mean	Std. Dev.	Min	Max
Expenditure	76749	25995.52	30079.14	1219.286	767083.1
Household size	76790	4.848366	1.860627	1	16
Expenditure capita	76749	5791.466	7143.648	558.8928	285333.5
Foreign Remittance	76786	.0596202	.2367834	0	1
Local Remittance	76786	.0575496	.2328912	0	1
Head ethnicity	76790	.72835	.4457491	0	2
Head marital	76790	.8238052	.381569	0	2
Head in govt	76790	.1080479	.3104429	0	1
Head in private	76790	.3379737	.4732153	0	2
Head self-employed	76790	.2528584	.4346533	0	1
Spouse in govt	76790	.0510613	.2201243	0	1
Spouse in private	76790	.0949863	.293198	0	1
Both in govt	76790	.0257325	.1583372	0	1
Head govt& Spouse Pvt	76790	.004597	.0676453	0	1
Spouse govt & Head Pvt	76790	.0083214	.0908419	0	1
Both in pvt	76790	.0628467	.243064	0	2
Spouse self-employed	76790	.2528584	.4346533	0	1
Both in self-employed	76790	.2528584	.4346533	0	1
No of young	76790	1.456023	1.255573	0	8
Less than two kids	76790	.8108217	.3916527	0	1
No of elderly	76790	.4783696	.7079081	0	6
No of dependent	76790	1.934392	1.354755	0	8
Head age	76750	50.48447	13.47377	12	136
Urban sector	76790	.2644745	.4410559	0	1
Rural sector	76790	.6421669	.4793658	0	1
Estate sector	76790	.0933585	.2909361	0	1
Female labour	76790	1.518531	.8982768	0	10
Highest education of HH	76761	10.56434	2.614498	0	17
Head education	76790	7.449407	3.865606	0	25
Spouse education	76790	6.066714	4.753346	0	26
Female headed	76790	.2063941	.4047193	0	1

Source: Author calculation using HIES data 2006/7

Figure 1: Poverty by districts, headcount index (2006/7)



Source: DCS, HIES2006/07.