

Female Headship and Poverty in Sri Lanka: A Household Level Analysis

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Abstract: The main objective of this study is to identify the relationship between female headed households and poverty. Secondary data were obtained from the Household Income and Expenditure survey (HIES) 2009/10 conducted by the Department of Census and Statistics to analyze the poverty of female headed households at a national level. The sample size was 20137 households. Binary logistic regression analysis was used for the analysis. The study found that gender of the household head, ethnicity, and employment status of the head, residential sector, marital status and province are significantly affected on poverty among the households.

Further, it revealed that Female headed households are poorer up to a percentage of 60 – in comparison to male headed households. Poverty is higher among widows and the married group. The findings of the study highlighted that better education, investment in skill training and promotion of social dialogue between industrial partners to create a working environment is critical to encourage women to engage in marketing activities and it will reduce poverty among them.

Key words: Female headed households, Poverty, Sri Lanka , HIES

I. INTRODUCTION

The ultimate objective of the development is generally to be the eradication of poverty. Recent years have witnessed a remarkable effort at the global level to combat the poverty and deprivation. The most notable effort being the implementation of the Millennium Declaration in 2000 and Sustainable development goals in 2015. Considering the above development goals agendas, the poverty status of the women and their empowerment is highlighted and it is subject to increased attention of economists and policy makers. However, the concept of “feminization of poverty” has been severely debated among economists since 1990(Chant, 2008). A high proportion of female households are found to be suffering from poverty and the incidences of female headships is increasing worldwide and, in both developed and developing countries (Chant ,1997 and Buvinic & Guptha, 1997) . According to the definition of Javed & Asif (2011) female headed house hold means “households where no adult male is there due to divorce, breakup, separation, migration, non-migratory or widow or where man although present but do not contribute to the households”. According to the (Buvinic & Guptha, 1997) Burden of poverty, gender discrimination and absence of support as heads of households are the main explanations of the necessity of special attention of female headed households. In particular, female-headed

households are at higher risk of falling into poverty than male-headed households (Kimani and Embaku, 1995; Chant, 2003). Further in industrialized countries, female-headed households are at risk of poverty and in many parts of the developing the rise of these families and closely linked to high poverty rates. In Costa Rica, for example, women's incomes are significantly lower than men's and at least 20% of families are run by women (Schmidt, 1995). Considering the Sri Lankan context , the percentage of households headed by women in Sri Lanka was 15.7% in 1975 and 17.8% in 1987 and according to the HIES (2012) report female population is greater than male population and from 5.2 million households, 1.1 million households or 23% of the households are female headed. At this scenario the main objective of the study is to identify the impact of the household head's status of poverty in Sri Lanka.

II. THEORITICAL AND EMPIRICAL LITERATURE REVIEW

Considering the theories related to poverty, classical economics were developed mostly during the 18th and 19th centuries, including theories on both value and distribution. Adam Smith defined poverty as "the inability to purchase necessities required by nature or custom" (Smith, 1776). In this definition, the sociological or psychological status aspect of poverty receives totally the same weight as the material as economic conditions. He further explained this definition by illustrating the type of necessities required to be considered non-poor. "By necessities I understand not only the commodities which are indispensably necessary for the support of life, but whatever the custom of the country renders indecent for creditable people, even of the lowest order, to be without" (Smith, 1776). Therefore, his idea is a mixture of both relative and absolute measures.

Based on the classical tradition, the neo-classical theory emphasizes the role of unequal initial endowments of skills, competencies and capital that determine an individual's productivity in generating poverty in a market-based competitive economic system. Marshall, it is believed that the comparison of utility between individuals is valid and that marginal utility decreases with income, which means that an additional unit of income is more valuable to the poor people than to the rich one. External factors such as market failures, moral hazards and unfavorable choices, as well as asymmetric information can exacerbate poverty. Uncertainty can play a

big role in creating poverty because the poor can be traumatized for their well-being.

On the other hand Liberal theory or Keynesian empathized around the idea that not only market distortions, but also the underdevelopment of its sectors leads to poverty. Keynesians suggest that growth can promote economic development and help lift people out of poverty. Further he adopt a monetary, individual centered view of poverty, allowing the government to focus more on public goods and inequality. New Keynesians, on the other hand, aligned with neoclassical that the overall growth of their income is ultimately the most effective factor in eradicating poverty.

Considering the empirical Literature, the sex and marital status of the head of the household is more important in determining the poverty status of a family in the United States. Female-headed households recorded the highest poverty rate among all high poverty groups. Further comparing the poverty rate of female headed households and other poverty groups, gap has increased. Over the past three decades, poverty among female-headed households has nearly tripled in all households (Kimeny & Mbaku, 1995). Buvinic and Gupta,1993; González de la Rocha, 1994; Paolisso and Gammage,1996 ; Moghadam,1997 and BRIDGE,2001 in Das 2015 identified female headed households are at a much higher risk of poverty than male-headed households . On the other hand More dependents , low salaries , lack of access to assets and productive resources and time and mobility constraints due to the household chores are the main determinants of high poverty incidence of female-headed households than male-headed (Buvinic and Gupta ,1997). The study done by the Dreze and Srinivasan (1997), Meenakshi and Ray (2002), and Gangopadhyay and Wadhwa (2003) in India found that high poverty rate among female headed households compared to male headed households. Mutavi et al (2013) concluded that high poverty incidence was recorded among female-headed households who had low levels of education.

According to Rogan (2014) significant poverty differential can be seen in between female and male headed households in South Africa. Especially women are more vulnerable due to the disadvantages in the labor market. Snyder et al (2006) found that high poverty rate among the female-headed households with children that do not have another adult household earners. Further study revealed that high poverty incidence recorded among ethnic minorities and considering the female-headed households with children live in in non-metro also showed high poverty rate compared to central cities and suburban areas.

However, some studies have identified the insignificance of gender of headship on poverty determination. For an example , the study done by Assefa (2003) in Ethiopia revealed that female headship has no direct impact on poverty of household and educational level of the head, household size, location of residence and employment status of the head are

the main determinants of poverty level of household. Further according to the Rajaram (2009) the relationship between female-headed households and poverty depends on the poverty measure. For an example, Poverty measures developed using housing condition and the wealth indices indicated that poverty level of female headed households less than male headed households. On the other hand considering the standard of living index measure of poverty, female headed households are marginally poorer than male headed households.

III. METHODOLOGY

This study is mainly based on the secondary data. Data was obtained from the 2009/10 Household Income and Expenditure Survey (HIES) 2009/10 conducted by the Department of Census and Statistics of Sri Lanka. HIES surveys a sample of 25,000 housing units throughout the country. Sample design of the survey is two stage stratified and urban, rural, and estate sectors in every district are the selected domains. Binary logistic regression analyzing method is used as the analyzing tool. Demographic variables such as head of the household, age, education of the head, number of children, number of secondary earners, place, occupation, family size, and types of residence were used as explanatory variables. In logistic regression analysis, dependent variable assumed the value of 1 for poor households and 0 for non-poor households. Here the dichotomous dependent variable was used.

$$\text{Logit } P(x) = \log\left(\frac{P(x)}{1-P(x)}\right) = \alpha + \beta(x)$$

Where,

$$P(x) = \frac{e^{\alpha+\beta x}}{1+e^{\alpha+\beta x}} = \frac{\exp^{\alpha+\beta x}}{1+\exp^{\alpha+\beta x}}$$

The official food poverty line is used as to classify poor and non-poor in the dependent variable. The 2009/10 value of the Food poverty line was Rs. 2071 which is the CCPI inflated value of Rs. 973 needed to obtain 2030 kilo calories per person in 2002. Here demographic variables were used as independent variables and food Poverty line was used as dependent variable. Demographic variables, including the head of the household, age of the household, education of the head, number of children, number of secondary earners, place, occupation, family size, and type of residence were used as dependent variables.

IV. DATA PRESENTATION AND ANALYSIS

The following section describes the relationship between poverty and different socio economic factors.

Table 1: Education Levels of Head of the Household and Poverty

Level of Education	FHH %		MHH %	
	Poor	Non Poor	Poor	Non Poor
No Schooling	14.6	9.8	7.5	2.8
Special education	0.0	0.1	0.1	0.1
Up to Grade 5	35.2	27.3	34.7	23.9
Up to grade 10	42	39.7	47	45.8
Passed GCE O/L	3.7	9.9	5.5	10.8
Passed GCE A/L and above	4.4	13.3	5.0	16.6

Source: Calculated using data from HIES 2009/10

When considering females in the poor category GCE O/L and A/L and above category indicated lower level of education compared to the male headed households. Low income is a stronger predictor of poverty. When comparing education levels with Non poor category, non-poor males recorded higher education level compared to the females in up to grade 10, passed GCE O/L and passed GCE A/L and above category. Further, female headed households in the poor category, a significant amount (14.6%) of females do not attain an education at all compared to the poor Male headed households (7.5%). Even though Sri Lanka provides free education, a significant proportion of household heads failed to attain education reflecting the failure of the education system. So poor females having lower education attainments means that lower social well-being of the family, low living standards, less knowledge about health and fertility behavior.

Table 2: Marital Status of Head of the Household and Poverty

Marital Status	FHH %		MHH %	
	Poor	Non Poor	Poor	Non Poor
Never Married	3.3	4.1	0.7	1.7
Married	41.4	31.5	94.3	92.8
Widowed	49.6	57.9	3.9	4.3
Divorced	0.4	1.1	0.1	0.2
Separated	5.6	5.4	1	0.9

Source: Calculated using data from HIES 2009/10

It is confirmed that a significant proportion of female headed households are widows. However, in the male headed households, the majority of the poor is in the married category followed by the widows. In Sri Lanka the marital bond is stable and the majority of female headed households become the breadwinner due to the absence a male partner. The substantial proportion of female heads of the household is widowed.

Table 3: Employment Status of Head of the Household and Poverty

Employment Status	FHH %		MHH %	
	Poor	Non Poor	Poor	Non Poor
Employed	37.2	32.4	78	82

Unemployed	4.4	3.4	2.2	2.1
Students	0	0.2	0.1	0
House work	37.7	41.8	1.3	1.1
Unable too old to work	20.2	22.1	08.2	14.4
Other	0.5	0.2	0.3	0.4

Source: Calculated using data from HIES 2009/10

The proportion of the unemployed among the poor is more than that of the non-poor in both female and male headed households. However, the poor female headed households have the highest proportion of unemployed (4.4%) when compared to the other three categories. The unemployed rate was considerably higher among female and the highest unemployment rate (4.4%) recorded from poor female headed households reflecting the relationship between unemployment and poverty. This relationship is more noticeable among the poor female headed households. Economic status of women may face barriers to market work because of the absence of the need for female earning and the prevalence of social disagreed associated with female employment. (Gunathilaka, 2013).

In this study Binary Logistic Regression model has been used to identify the factors affect for the poverty among female headed households. The dependent variable has two categories as poor and non-poor.

$$logit(\pi_i) = \beta_0 + \beta_1^{Current\ Activity} + \beta_2^{Province} + \beta_3^{Sector} + \beta_4^{Ethnicity} + \beta_5^{Marital\ Status} + \beta_6^{Gender} + \beta_7^{Ethnicity*Gender}$$

According to the results of the best fitted logistic regression model (Table 4), there is a positive relationship between current activity and poverty. Economically inactive household heads are 54 percent poor compared to the economically active head of the households. Survey results revealed that estate sector recorded the highest poverty. Poverty incidence among the head of the household in estate sector is nearly two times poorer than household heads in the urban sector. They are 62 percent poorer than urban household heads. The rural sector is 54% poorer than urban sector. In Sri Lanka, the biggest contribution comes from the rural sector (65%), reflecting the highest population share. Thus the highest number of poor people is recorded

Table 4: The Best Fitted Logistic Model

Variable	Category	β	Sig.	Exp(β)	Referen ce Category
Current Activity	Economically Inactive	0.184	0.001	1.202	Economically Active
Sector	Estate	0.490	0.000	1.633	Urban sector
	Rural	0.159	0.000	1.165	
Marital			0.000		Never

status	Separated	0.569	0.000	1.766	Married
	Divorced	-0.185	0.022	0.831	
	Widowed	0.263	0.737	1.301	
	Married	0.653	0.191	1.922	
Ethnicity group			0.000		Sinhala
	Other	0.537	0.000	1.710	
	Indian Tamil	0.351	0.012	1.420	
	SL Tamil	0.619	0.000	1.857	
Province			0.000		
	Western	-0.602	0.000	0.547	
	Central	0.035	0.706	1.036	
	Southern	-0.128	0.159	0.880	
	Northern	-1.765	0.000	0.171	
	Eastern	-0.948	0.000	0.388	
	North Western	-0.311	0.004	0.733	
	North Central	-0.650	0.000	0.522	
	Uva	-0.149	0.159	1.160	
Gender	Female	0.389	0.000	1.475	Male
Ethnicity * Gender			0.037		Sinhala * Male
	Other * Female	-0.443	0.306	0.642	
	Indian Tamil* Female	0.536	0.015	1.709	
	SL Tamil * Female	-0.167	0.275	0.846	
	Constant	-2.832	0.000	0.059	

Source: Calculated using data from HIES 2009/10

From rural sector (12950). The absence of men from income Generating activities affecting women and children cause a high incidence of women headed households and poverty of many rural households (O’Laughin, 1997). Female headed households in the estate sector may suffer from poverty due to being involved in insufficient educational opportunities, location of the resident, household size, illiteracy and often occupied in informal sector employment activities. Considering the provinces, Western, Northern, Eastern, North Western, North Central and Uva provinces recorded lower poverty than the Sabaragamuwa province. Northern sector recorded lower poverty compared to the Sabaragamuwa province and they are 14 percent less poor than Sabaragamuwa. Eastern (28%), North Central (34%), Western (35%), North Western (42%) provinces are less poor than Sabaragamuwa Province. There is a positive relationship between marital status and poverty. Married household heads are recorded highest poverty compared to the never married household heads. They are 2 times or the probability of being poor is 66 percent poor compared to the never married household heads. Separated household heads are 64 percent poorer than never married household heads or in other words,

they are 2 times poorer than never married heads. Heads of the households are responsible for household activities and most of the unpaid household labor (Schmitz, 1995). Constrain of socio-economic mobility due to cultural and labor market barriers women are disadvantaged in respect of

Ethnicity and poverty reflect a positive relationship, according to the analysis. Compared to the Sinhala ethnic category, Sri Lankan Tamil recorded highest poverty. They are nearly 65 percent poorer than the Sinhala ethnic group. Other ethnic category (SL Moor, Malay, Burgher and others) is 63 percent poorer than the Sinhala ethnic group. Further Indian Tamils are 59 percent poorer than the Sinhala ethnic group. Results prove that the poverty among female headed household is higher compared to the male head households. In other words, female heads are 60 percent poorer than male heads. Female headed households are poor because they supported more dependents. Maclanahan (1983) proved that growing up in the female headed family increase risk for poverty. Considering Sri Lanka there are nearly 24 percent female headed households and majority is living in the rural sector. Females are poor with gender disparities in rights, entitlement or capabilities and caught them in the cycle of poverty; and the cycle of poverty has widened. Women living in poverty often deny access to critical resources such as credit, land and inheritance, unpaid labor, insufficient access to education and support services caught them in a cycle of poverty (Chant, 2003). There is a relationship between gender of the household, ethnicity and poverty. Female Indian Tamils are 2 times or 63 percent poorer than Sinhala male household heads.

Assessing the Goodness of Fit of the Best Fitted Logistic Regression Model

Hypothesis

H0: model is adequate fit

H1: model is not adequate fit

Table 5: Results of Goodness of Model Fit

	Value	Value/df
Deviance	829.246	1.103

Source: Calculated using data from HIES 2009/10

The value of all the methods is greater than the 0.05 significance level and closer to one. Therefore, it is possible to conclude that there is sufficient evidence to claim that the model fit the data adequately.

V. CONCLUSION AND RECOMMENDATIONS

The summary of the main findings of the research is outlined in this section. This study attempted to identify the impact of female headed households on poverty. This study used the official food poverty line in the year 2009 which is equal to Rs.2017 to identify the poor group for above survey. Statistical analyses revealed that poverty among female headed household is higher compared to the male headed

households. Therefore poverty alleviation programme should target female headed household and those programmes should be introduced income generating activities for them. There is a positive relationship between current activity and poverty. Economically inactive heads of the households are 54 percent poorer compared to the economically active household heads. Concerning the marital status of the head of the households compared to the never married group, poverty is higher among the married heads. Further estate sector recorded the highest poverty. Poverty incidence among the head of the household in estate sector is nearly two times poorer than household heads in the urban sector. Ethnicity and poverty reflect a positive relationship, according to the analysis. Compared to the Sinhala ethnic category, Sri Lankan Tamil recorded the highest rate of poverty. There is a provincial disparity in the poverty between female headed household and poverty. Poverty among female headed household is high in Uva, Sabaragamuwa and North Western province. Further importance of better education is highlighted. Education among females should develop beyond the secondary education. Investment in skill training further away the secondary education is crucial to inspire women to engage in market work. Thus women, who do not continue in general education, should be given the opportunity to acquire job oriented technical and vocational skills through the vocational education system. Alternative employment skills need to be provided after the GCE O/L for those who do not continue to study for A/L. Acquiring some skills is vital to enable women to engage in paid work especially in the field of Information Technology, hospitality industry, health and day care/nursery.

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