

# Empirical Assessment on Household Electricity Expenditure as a Proxy for Poverty Measurement in Sri Lanka

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Inclusion Error (Non-poor included in HH Electricity cost measurement)	Exclusion Error (Poor excluded in HH Electricity cost measurement)
137 (36%)	22 (6%)

## Results/Findings

- The Pearson's Correlation between monthly HH Expenditure & Electricity cost was moderate as 0.32
- The elasticity between HH Expenditure & Electricity cost was estimated as 0.23 – which is inelastic.
- Exclusion error is relatively small but inclusion errors quite substantial.
- Welch's t Test has shown that the poor identified by the monetary poverty indicator & the HH electricity cost indicator are not the same.
- The predictive model used to estimate the Monetary Poverty Equivalent Electricity cost (MPEE) was;  $H_{EE} f 285.3 + 0.012H_{CE}$

$$H_{EE} f 285.3 + 0.0121H_{CE}$$

Where:

$H_{EE}$  is Expenditure on electricity per month per household (kWh/M/HH)

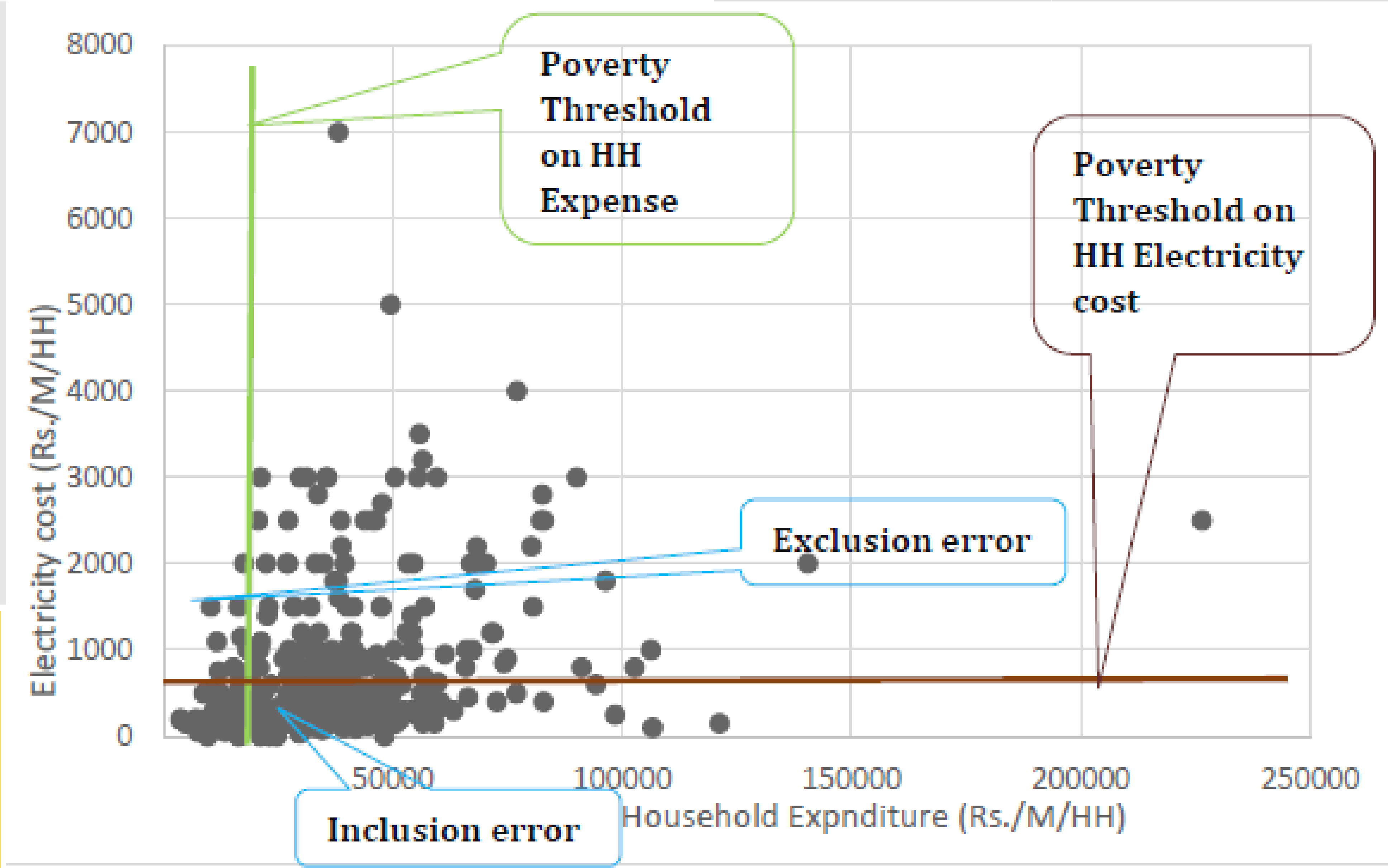
$H_{CE}$  is Expenditure on consumption per month per HH (Rs/M/HH)

## Conclusion

- "It is not possible to recommend the use of HH Electricity Expenditure as a robust measure of poverty."

## Introduction

- Sri Lanka's social safety-net mechanism underwent a change in 2022 due to the economic crisis, shifting poverty measurement from monetary to multiple dimensions.
- This led to misidentification of the poor and to a social upheaval.
- The government looked for instant poverty measurements and this study explores the **technical suitability** of using **HH electricity expenditure** as a **cheap, verifiable, and objective** alternative for poverty assessment.



## Methodology

