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Non-Price Determinants of Cooking Fuel Choice among Households in Sri Lanka

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Abstract

Clean energy is critical to bridging between economic development, human development, and environmental sustainability. The fact that one-third of the world's population still cooks with solid fuels emphasizes the need to transition to clean fuels. Thus, this study looks into the socioeconomic and demographic factors that influence cooking energy choices at the household level in Sri Lanka. Data were acquired from the Sri Lanka Household Income and Expenditure Survey 2019 conducted by the Department of Census and Statistics, which included 19,875 households. Multinomial logit model is used in this study to find the relevant factors influencing the choice of household cooking fuel. According to descriptive statistics, 59.5% of households in Sri Lanka use solid fuel for cooking as the dominant choice, whereas 39.2% use clean fuel. Empirical findings show that urban, wealthier households, younger and more educated household heads, the presence of educated spouses, fewer household members, and annexed housing units significantly increase the likelihood of using clean fuels for cooking. The results are consistent with the energy ladder theory, as household income increases, households shift from solid fuels to transitional fuels and then to clean fuels. Private sector employees and self-employees and households in the rural sector are less likely to use clean fuels. Apart from estate households, transitional fuels such as kerosene are preferred by households with fewer members and representing different socioeconomic sub-groups. Also, ethnicity is a significant factor in determining household cooking fuel choices. The findings underscore the importance of formulating a proper national energy policy. Also, since the transition to clean energy is not instantaneous, attention should be paid to providing adequate incentives to households to switch from solid energy to clean energy, especially in rural and estate sectors.

Keywords: Clean fuel, Solid fuel, Cooking fuel, Energy transition, Sri Lanka