

### **Determinants of fuel choice for cooking in Valikamam area of Jaffna district**

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This study is to identify the determinants of fuel choice for cooking in the households of the Valikamam area of Jaffna District. The Valikamam area of the Jaffna District was purposively selected for this study because this area consists of municipality and urban and village areas. There are significant variations in fuel use, based on the geographical situation and socio economic factors among households in Valikamam area. A simple random sampling method was used to select 150 households for interviewing. A multinomial logit model was estimated that encompasses three discrete-choice decisions of households; fire wood use only, fire wood with kerosene use, fire wood with kerosene and LPG use. Multinomial logit model shows that rural people who live far from town use mostly firewood than other modern fuels like gas or kerosene because of the availability of biomass in rural areas and cheaper but urban people prefer to use firewood with kerosene and or LPG because of convenience. The interaction effect of household size and income shows that when two households are of the same size but they differ in the income level the house hold with higher income will prefer other fuel choices than fire wood only choice. The interaction effect of education level and income shows that when education increases with income the probability to choose “firewood and kerosene use” and “firewood, kerosene and LPG increase. When people have high education they will have been employed. They have to seek convenient fuel choices that save time and provide clean energy with least cost. The interaction effect of female share and household size shows when two households with same household size but number of females differ the household with higher number of females will prefer “fire wood use only” because they have enough labour force for cooking and they can reduce the cost for cooking. The effect of household size shows that when household size increases the probability for household size of “firewood use only” increases. With increasing family size people prefer to cook with fire wood because it is cost effective for large scale cooking.