Motivation

- **Question**: How community’s fuel choice influence household’s fuel choice? How policy should be designed to influence household’s fuel choice?
- **Contribution**:
  - reduce selection bias in neighborhoods’ fuel choice through a massive conversion program.
  - the first nation-wide policy study that investigates neighborhood effect of fuel choice.

The Subsidy Policy

**Start**: Mid 2007 in Indonesia.

**Purpose**: reduce kerosene subsidies.

Kerosene (1,2) | Liquid Petroleum Gas (LPG) (3,4)

Data and Methods

**Data**: Indonesia Family Life Survey (IFLS) panel data for the years 2000, 2007 and 2014.

**Method**: Random effects logit model by grouping consumers into three categories according to the main fuel: LPG, kerosene, and wood.

Empirical Strategy

\[ Y_{irt} = \alpha R_{rt} + \beta P_{rt} + \gamma R_{irt} \times P_{rt} + \tau F E_{irt} + \lambda X_{irt} + \epsilon_{irt} \]

![Marginal Effects of Neighborhood's Fuel Choice](image)

![Marginal Effects of Female as Household Head](image)

Results Highlight

The LPG subsidy program reduced the neighborhood effects by 20%. Take-up rates of LPG is higher on female headed households.

**Policy to influence household’s fuel choice** could be a mixed between price control and quantity restriction, and could be more effective if targeted to woman community.