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Understanding the Underutilization of Electric Pressure Cookers in Urban Uganda: Barriers, Motivators, and Policy Recommendations.

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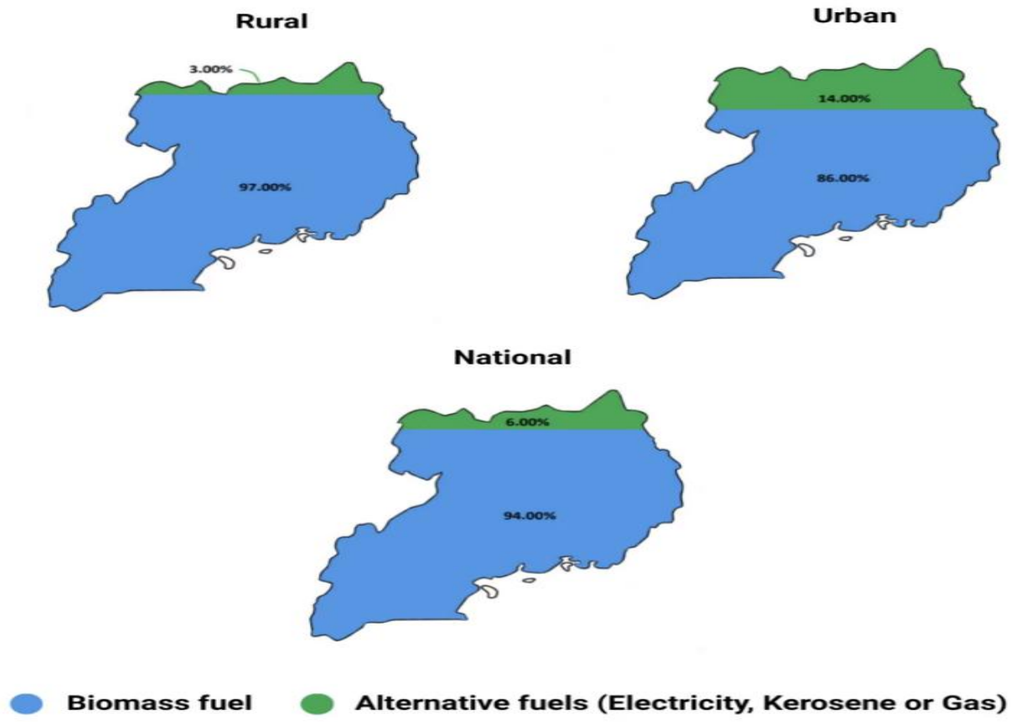
Background

- Cooking in Uganda is characterized by significant dependence on biomass as an energy source

- **94%** households primarily use biomass as an energy source for cooking according the UBOS Household Survey of 2019/2020

- Uganda has lost **41.6%** forest cover in the past century leading to only **12.4%** forest cover in 2017



Introduction

Several policy and regulatory initiatives aimed at promoting electric cooking as an alternative to biomass-fueled cooking have been introduced including:

- "Charcoal to Power" pilot project supported by the UNHCR and implemented by ERA which aims to transitioning of institutions and households from use of biomass to use to electricity for cooking

- Introduction of a "cooking tariff" to promote affordability of electricity for cooking

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Problem Statement

The Paradox of Electricity Access, EPC Viability & Biomass Use

559 MW

Electricity Surplus

Despite this surplus, biomass use remains high

88%

Charcoal Use

Percentage of Kampala households using charcoal

41.6%

Forest Loss

Deforestation over the last century due to biomass use

EPCs offer a cleaner, cheaper alternative — so why are they underused?

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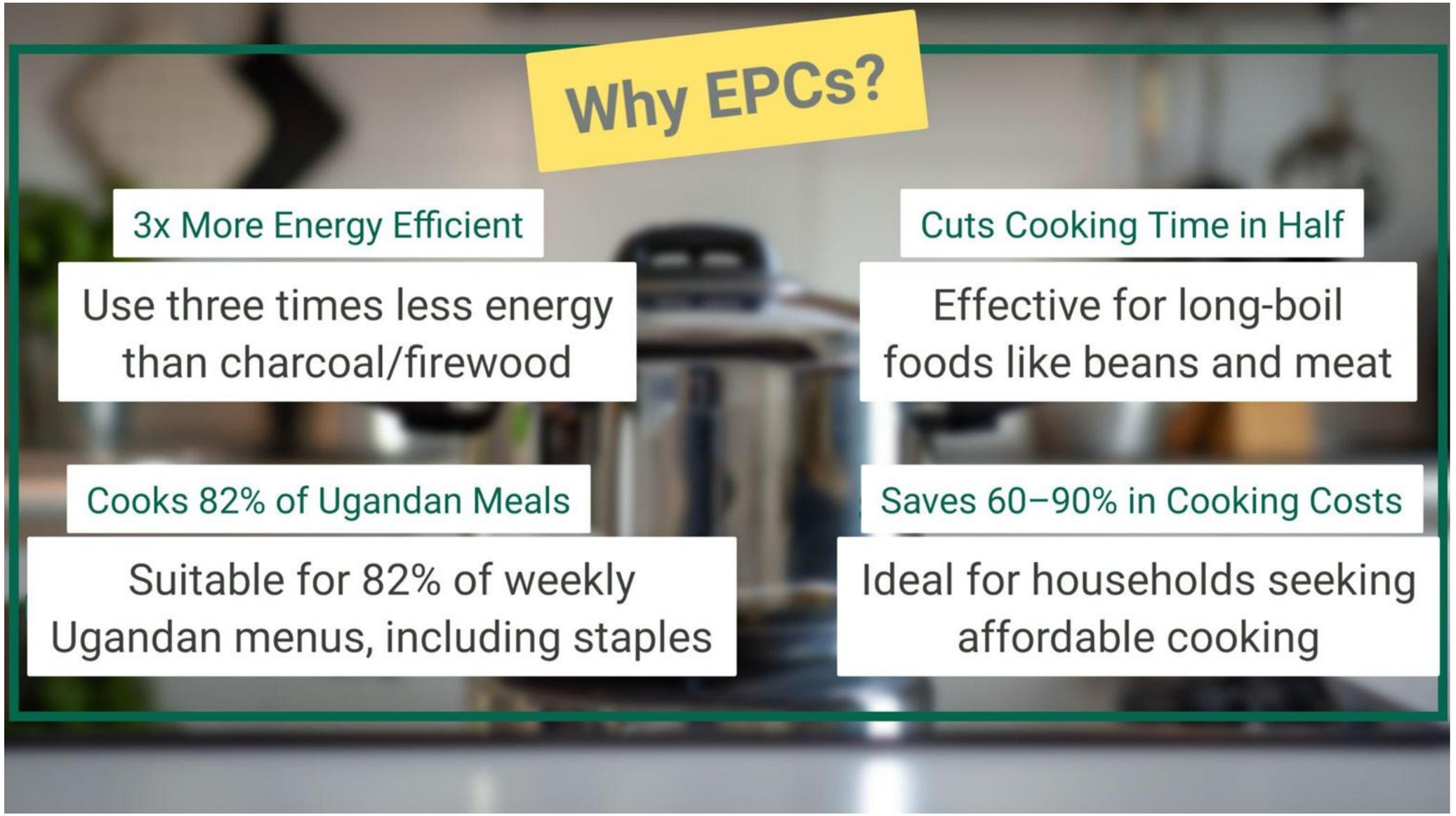

Methodology

Rationale

- To investigate the adoption of Electric Pressure Cookers (EPCs) in grid-connected households

Case study area

- Kikoni, a suburb in Kampala.
- The survey area was 100 households covering 365 individuals

Research questions

- What are the main factors preventing the adoption of EPCS among grid connected households in Urban Uganda?
- What factors would encourage or motivate grid-connected households in Uganda to adopt EPCS?
- How can the identified drivers be leveraged to develop effective strategies or policy recommendations that promote EPC adoption in urban Uganda?

Methodology

Survey design: A closed ended questionnaire was developed focusing on five core areas;

- Demographics
- Cooking practices
- Knowledge and awareness
- Attitudes and perceptions
- Anticipated impact

Data collection: Responses were collected in real time using Google Forms by the survey team

Data analysis: using Microsoft excel, Google sheets and Zoho sheets focusing on;

- Descriptive statistics
- Logical comparisons
- Pattern identification
- Visual representation

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Barriers to EPC Adoption

Awareness Gap

60.71% of those over 35 have never heard of EPCs

54.41% of dissatisfied users had no prior EPC knowledge.

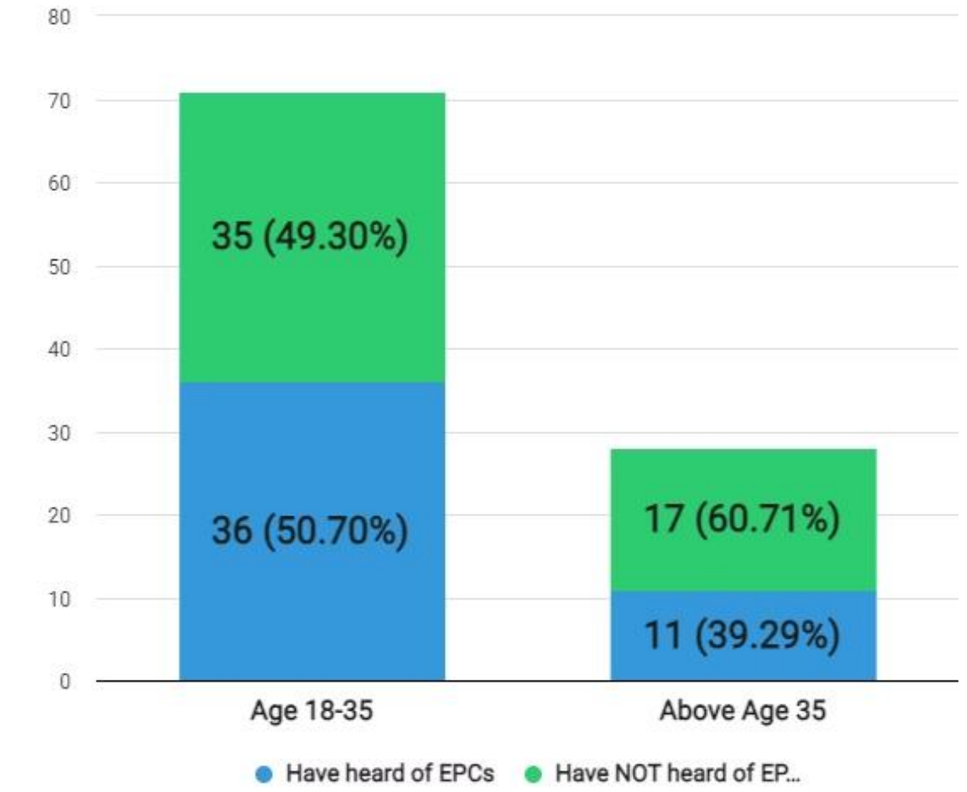
Cultural Perceptions

82% believe EPCs can't handle traditional dishes

Cost Concerns

Cost fears shared equally by those familiar and unfamiliar with EPCs.

73% view EPCs as too expensive



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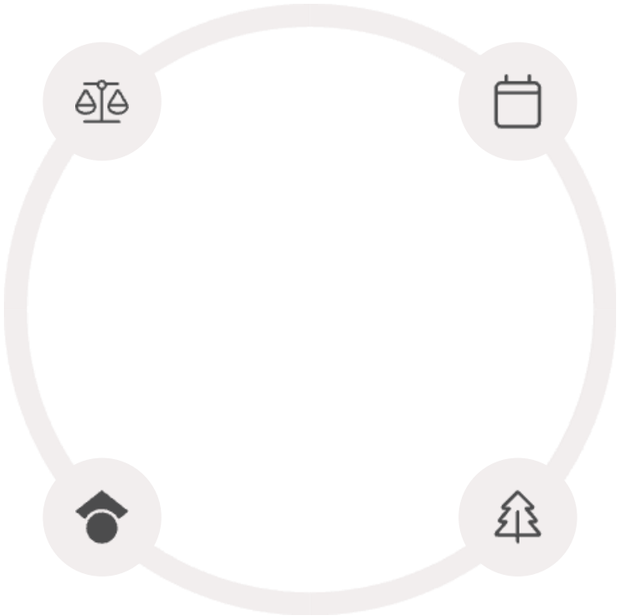
Barriers to EPC Adoption

Policy Awareness Gap

78% unaware of the government's cooking tariff

Education Impact

91% of those satisfied with biomass have only secondary education or less



SKEPTICISM

75% of EPC skeptics are over **35**

Biomass Satisfaction

32.1% of people over **35** are satisfied with biomass (vs. **24.24%** of younger ones)

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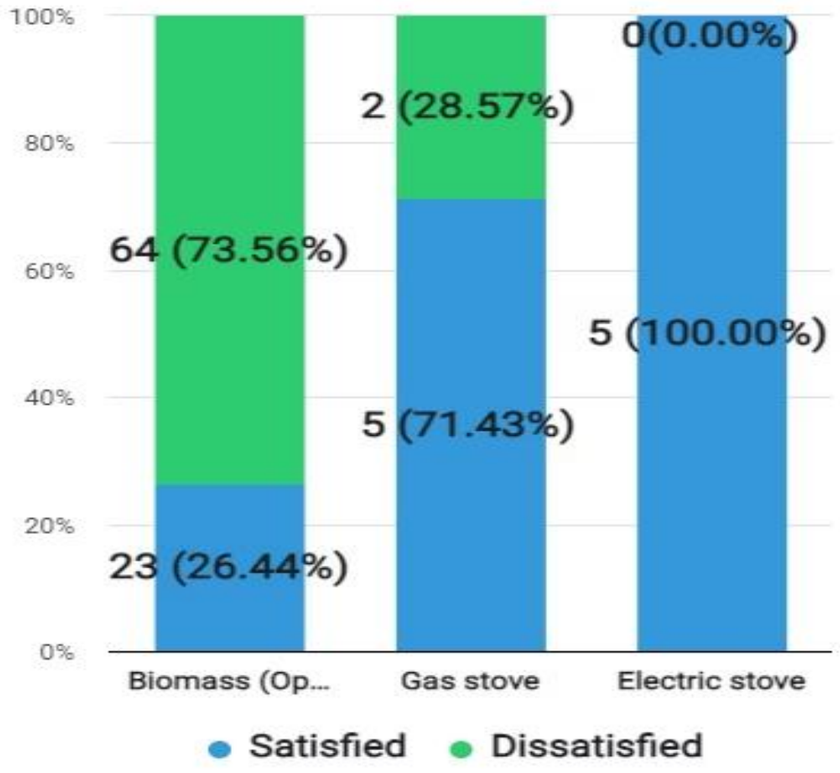
Motivators for Adoption



Dissatisfaction with Biomass

- **73%** of biomass users are unhappy
- **95%** of those spending over $30/month dissatisfied

Electric Cooking Satisfaction

- **0%** dissatisfaction among electric stove users

Perceived Benefits of EPCs

- Recognition of EPC health & time saving advantages

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Recommendations

Targeted Campaigns

Focus on older, less-educated groups

Clear Communication of Incentives

Improve visibility and messaging on cooking tariff

Respect Traditions

Show EPC compatibility with local dishes

Community Demonstrations

Use satisfied electric stove users as EPC ambassadors

Address Affordability

Promote subsidies and installment options

Leverage Dissatisfaction

Market EPCs to the **73%** unhappy with biomass fuels

Conclusion and next steps

- Slow adoption of EPCS is driven by limited awareness, misconceptions about cost, satisfaction with biomass fuels, and ineffective communication of government incentives
- Older individuals and less educated groups remain uniformed about EPCs and their advantages
- Younger individuals show greater awareness of EPCs and their advantages
- Dissatisfaction with biomass fuels is highest among individuals who spend more on them
- Targeted sensitization with communication strategies tailored to different demographics alongside financial incentives will be crucial in promoting EPC adoption

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