FOSTERING INCLUSIVE ELECTRIC COOKING ADOPTION IN NEPAL:

Barriers, Impacts, and Pathways for Disadvantaged Groups

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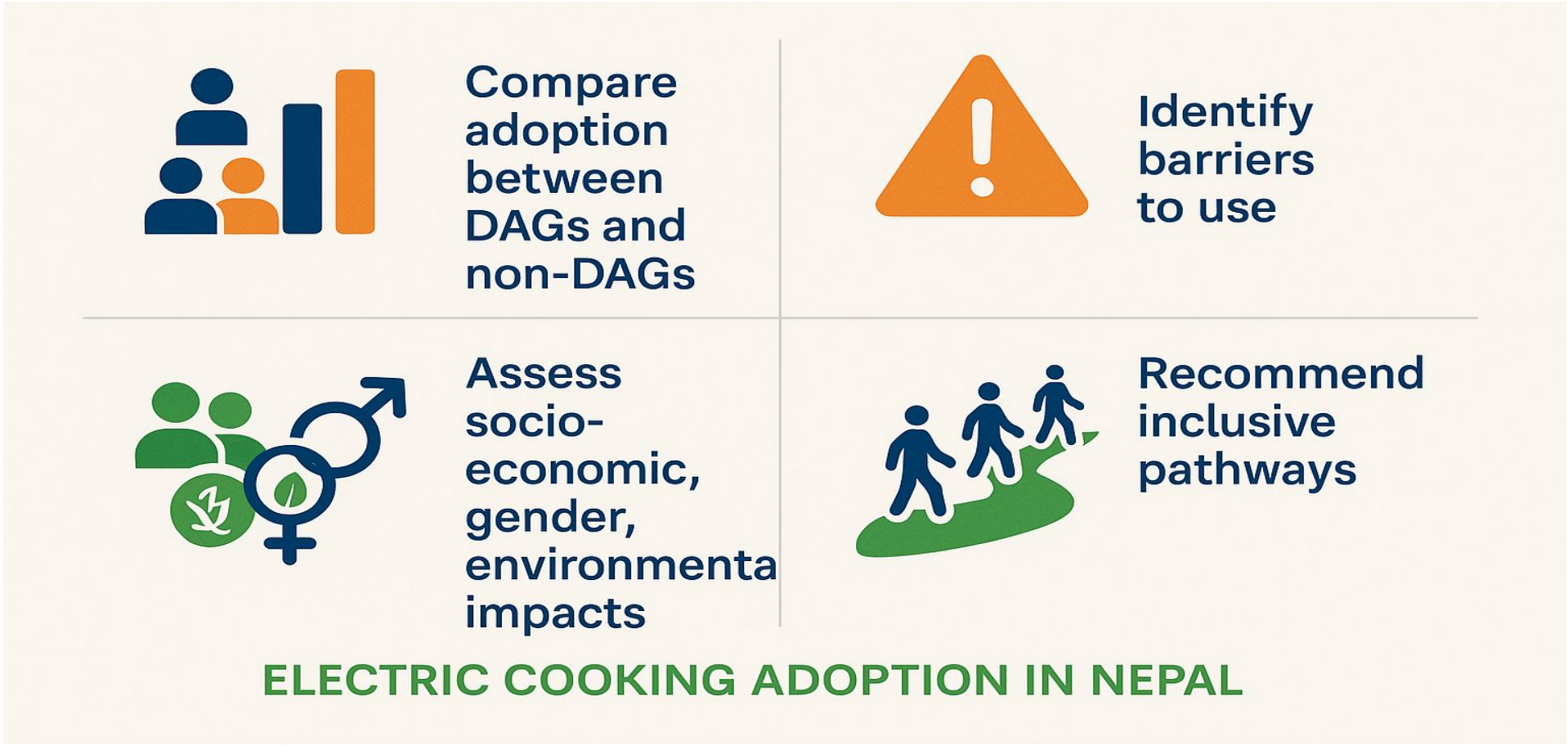
Practical ACTION

Background

- The majority of households in Nepal still rely on polluting cooking methods.
- Over 95% of households are electritciy access; eCooking offers a clean, safe, and time-saving solution.
- With support from donors and the government, eCooking promotion is expanding—but adoption among the most vulnerable remains low.
- Disadvantaged groups (DAGs) face greater barriers to adoption.
- Understanding these gaps is key to achieving a just and inclusive energy transition.

Research Objectives



Methodology

- The study encompasses a 400-household (DAG: 224, Non-DAGs: 176) survey across two provinces in Nepal.
- 23 Key Informant Interviews & 15 Focus Group Discussions.
- Probit, Tobit, and Propensity Score Matching (PSM) models for analysis.

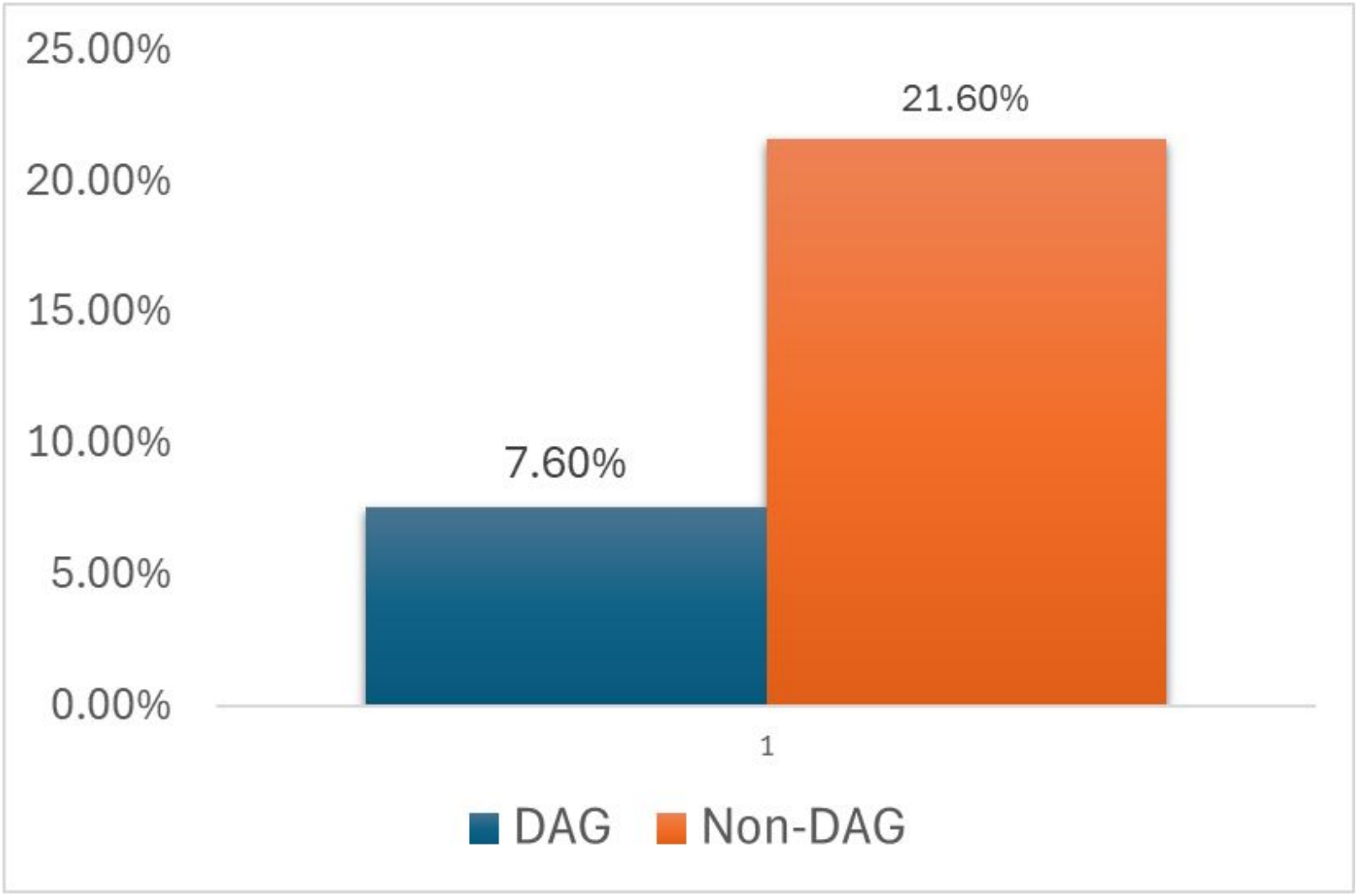
Legend	
	Sampled survey locations

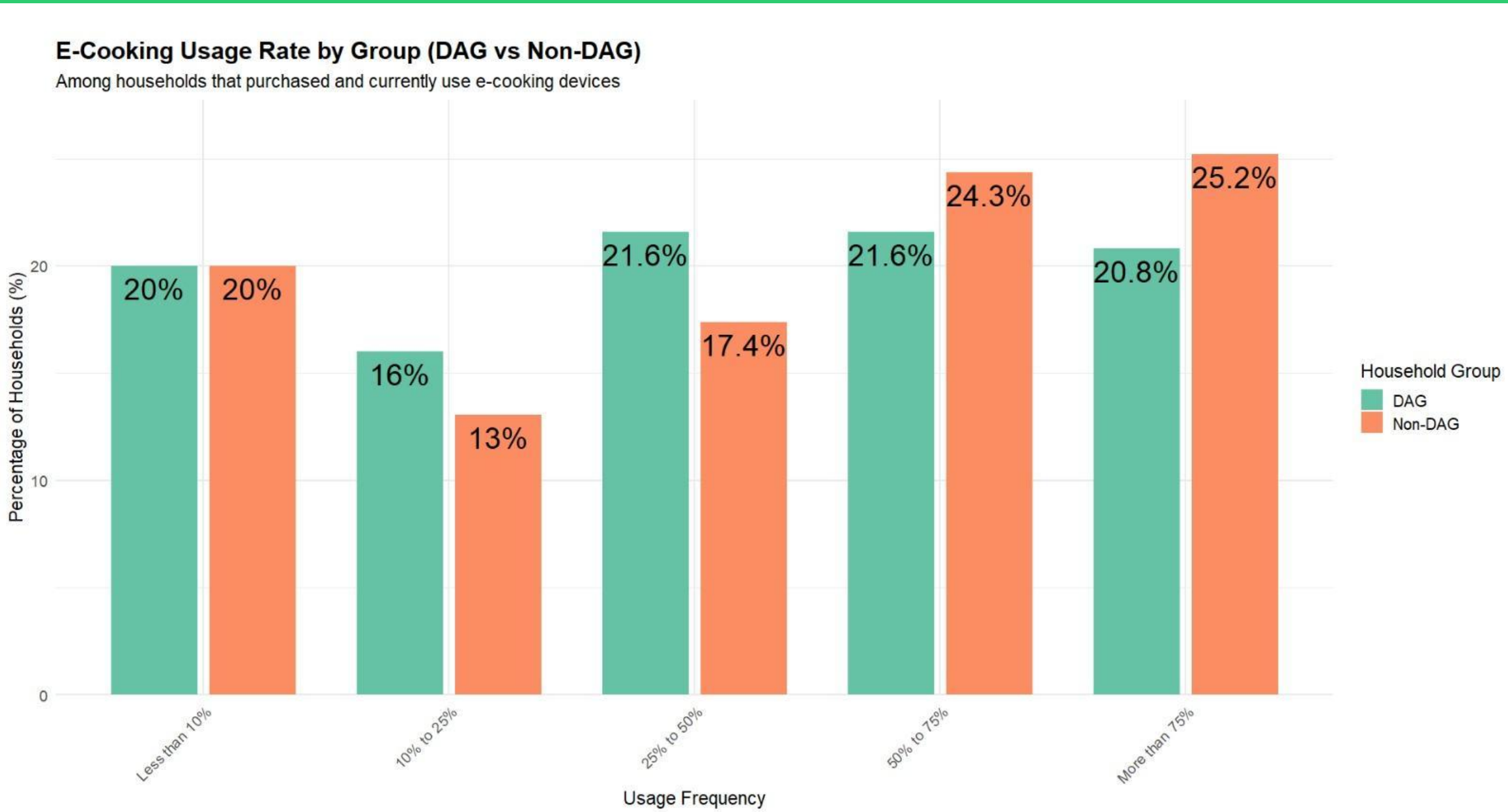
About the case study project

- **Donor:** Energising Development (EnDev)
- **Project implemented by:** Practical Action
- **Partner Organisations:** NACEUN, DCRDC, NCDC
- **Main objective:** Develop Sustainable Electric Cooking Market in Nepal
- Supported more than 35,000 HHs to adopt eCooking and the number is increasing

Findings

Purchase rate - Among DAG and Non-DAG




E-Cooking Usage Rate by Group (DAG vs Non-DAG)
Among households that purchased and currently use e-cooking devices
Percentage of Households (%)
0
10
20
20%
20%
16%
13%
21.6%
17.4%
21.6%
24.3%
20.8%
25.2%
Less than 10%
10% to 25%
25% to 50%
50% to 75%
More than 75%
Usage Frequency
Household Group
DAG
Non-DAG

Barriers to Electric Cooking Adoption among DAG

Technical & Infrastructure Barriers

- Unreliable Electricity Supply
- Inadequate Household Wring
- Voltage Fluctuations
- Traditional Meal Preferences

Economic Barriers

- High Upfront Costs
- Lack of Compatible Cookware

Awareness & Behavioral Barriers

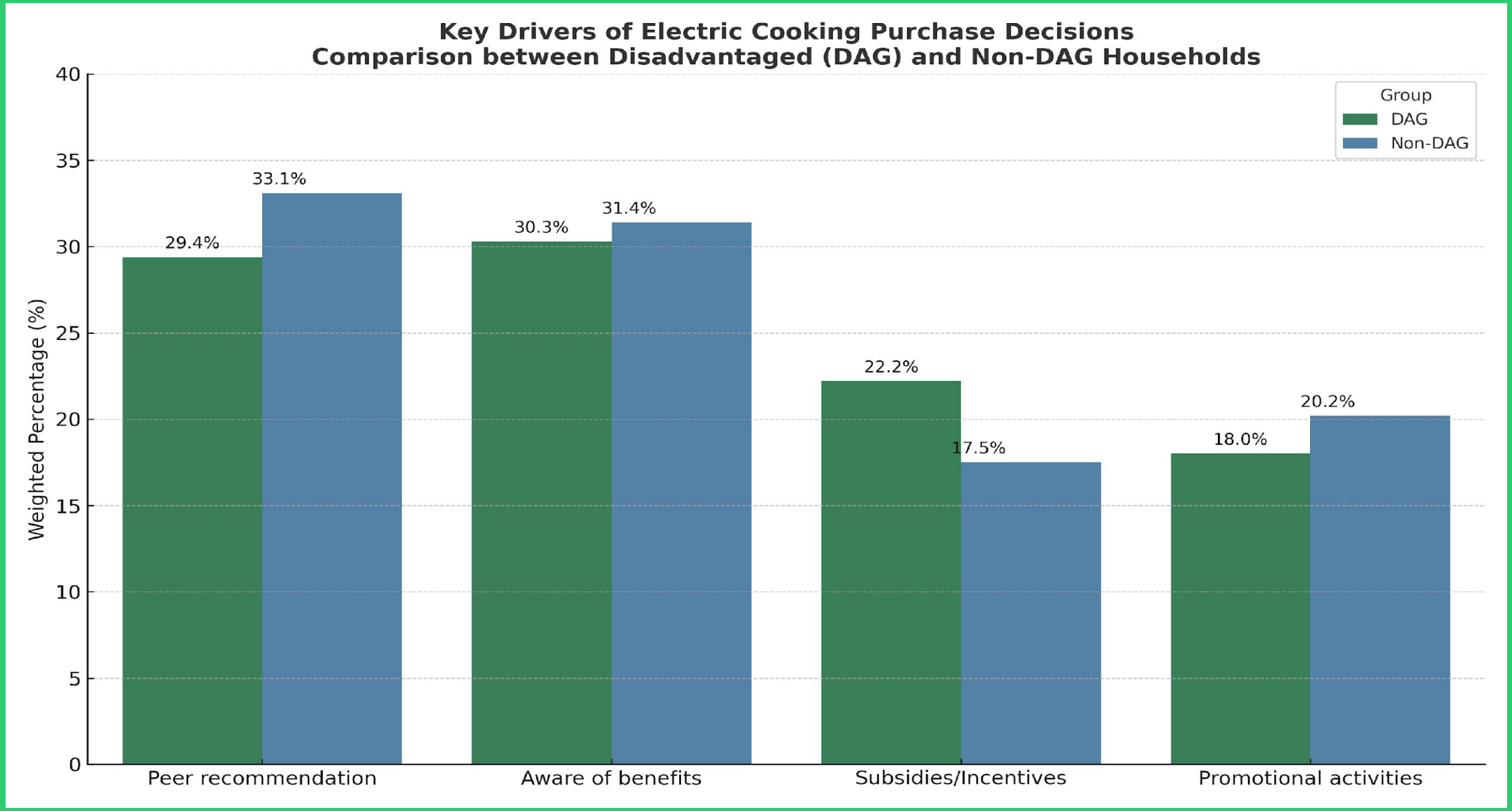
- Low Awareness of eCooking
- Traditional Meal Preferences

Social & Gender Barriers

- Restrictive Gender Norms
- Limited Household Decision Power

Service & Market Barriers

- Poor After-Sales Support
- Persistent Power Outages


Key Drivers of Electric Cooking Purchase Decisions
Comparison between Disadvantaged (DAG) and Non-DAG Households
Group
DAG
Non-DAG
Weighted Percentage (%)
0
5
10
15
20
25
30
35
40
29.4%
33.1%
30.3%
31.4%
22.2%
17.5%
18.0%
20.2%
Peer recommendation
Aware of benefits
Subsidies/Incentives
Promotional activities

Key Policy Recommendations

Targeted subsidies:
Subsidies for disadvantaged groups to enhance equity and accessibility.

Electricity reliability:
Through strategic investments and infrastructure improvements.

Electric Cooking policies:
To ensure the effective implementation to promote sustainable solutions.

Women led enterprises:
Targeted support for fostering growth of business and repair centres.

Behaviour change and financial inclusion:
For broader socio-economic impact.

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- **Funding support:** Energising Development (EnDev) programme

- **Project partner NGOs:** NACEUN, DCRDC & NCDC

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