

Empowering Rural Communities: Energy Access, Gender and Modern Clean Cooking Solutions

SAARC Webinar on
“Modern Clean Cooking Technologies for Rural Households”
Friday, 18th October 2024

“With a smoke-free kitchen,
I feel great about cooking
here. Now, I’m helping my
wife, and I really like this
technology 😊”



Access to Clean Cooking

Global Access to Clean Energy:

- 2.3 billion people lack access to clean cooking
- 760 million people lack access to electricity

(World Energy Outlook, 2023).

Situation in Nepal:

- 23 million people in Nepal do not have access to clean cooking

(ADB, 2018).

Challenges with Electricity Supply:

- Reliability and quality of electricity supply may limit access to lighting, entertainment, and mobile charging.

Nepal Scenario: Cooking

- **Biomass Usage:** Over 90% of biomass is utilized in households for cooking and heating purposes.
- **Shift to LPG:** Increasing reliance on LPG to meet cooking energy demands, reducing dependence on biomass (notably in India and Nepal).
- **Import Trends:** Import of LPG increased by 11.5%, while imports of kerosene decreased by 30.5%.
- **Electric/Induction Cooking:** Only 23,000 households currently use electric or induction cooking methods

WECS, 2023

Electricity Access and Bottlenecks

- Significant increases in repair and maintenance costs for distribution networks (NEA 2016).
- Challenges in managing peak load effectively.
- Low public confidence in the reliability of electricity supply.
- Residential consumers often have low-capacity connections (5 A meters), limiting their use of heavy appliances and electric cooktops.

Government Commitment

- The 15th plan approach paper highlights the government's initiative to implement the concept of "Smokeless Kitchen" by replacing solid biomass with electrical energy.
- The 2018 White Paper articulates the government's vision of achieving "Electric Stove in Every House."
- Ambitious clean cooking targets set in NDC:
 - Ensuring 25% (over 1.5 million) households use electric stoves as their primary cooking option by 2030
 - Installing 500,000 improved cookstoves in rural areas by 2025
 - Installing 200,000 household biogas plants and 500 large-scale biogas plants by 2025 (GoN,2020)
- The government prioritizes promotion of electric cooking throughout the country

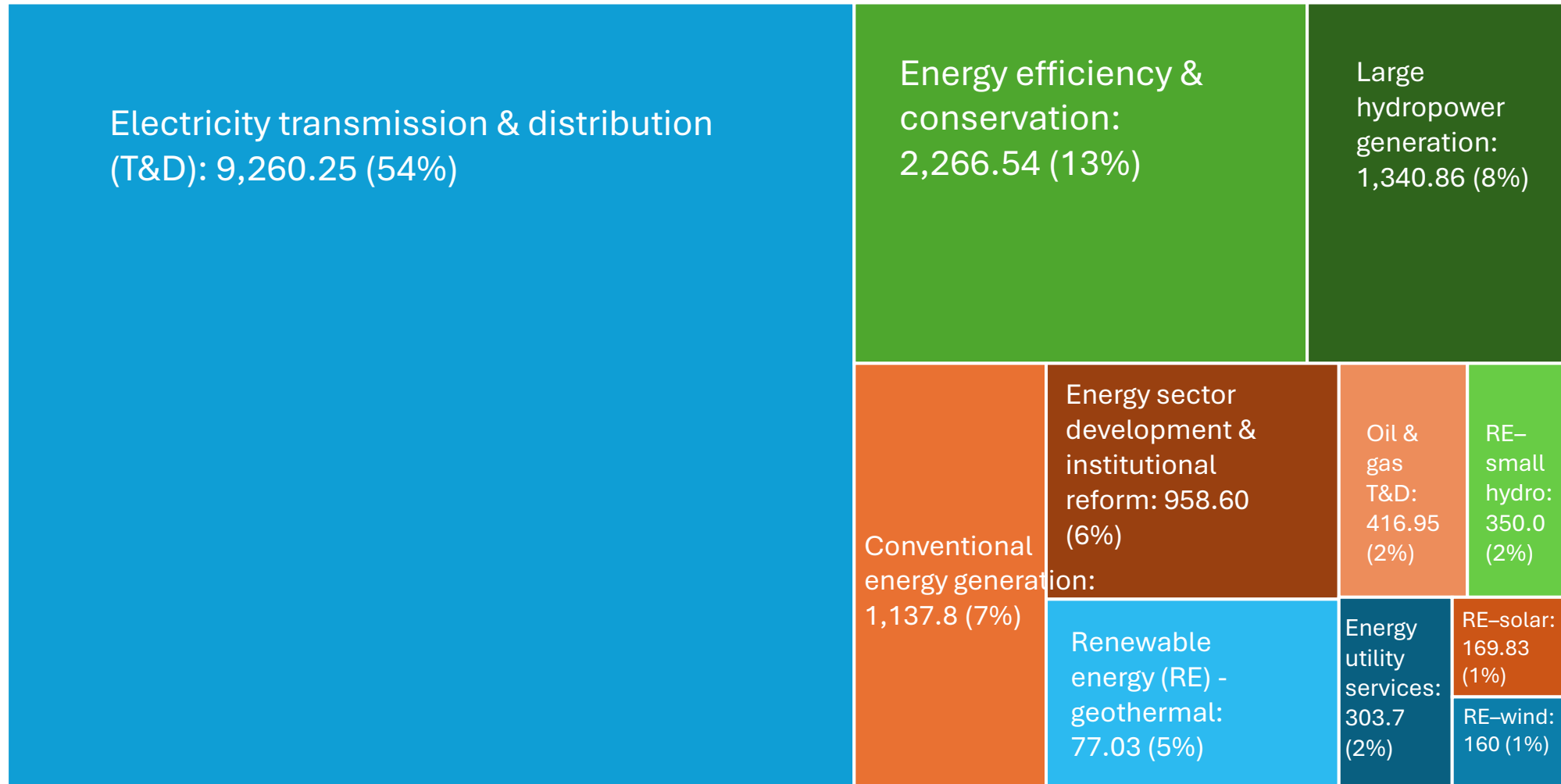
ADB Energy Policy 2021: 5 Principles

Energy access and security, climate change and environmental sustainability

Principle 1	<i>Securing Energy for a Prosperous and Inclusive Asia and the Pacific</i>
Principle 2	Building a Sustainable and Resilient Energy Future
Principle 3	Supporting Institutions, Private Sector Participation, and Good Governance
Principle 4	Promoting Regional Cooperation and Integration
Principle 5	Integrated Cross-Sector Operations to Maximize Development Impact

Principle 1: ADB will help its DMCs secure energy for development by supporting electrification programs; promoting cleaner cooking, heating, and cooling; improving energy efficiency across supply and consumption chains; and promoting social inclusion, gender equality, and partnerships.

ADB's Energy Sector Portfolio



TA 6526: A Case

Loan SASEC Power Transmission Distribution System Strengthening Project

- Power system transmission capacity increased.
- Distribution system in the Kathmandu Valley, Bharatpur, and Pokhara, and consumers awareness on energy efficiency and safety improved.
- Distribution network and capacity of women to use electricity for energy-based enterprises development in Province 2 improved

TA Attached to Loan

- Strengthened capacity of NEA to implement approved strategy, operational guidelines and manuals of GESI.
- Increased capacity of women, poor and the marginalized to use electricity efficiently and productively.

Empowering Rural Communities



ENERGY BASED LIVELIHOOD

- Enterprise Development
- Job Creation for Women, Youth and Disadvantaged

Do You Know..??



MASS AWARENESS

- Innovative Media Approach
- Community Level Engagements



LAST MILE ELECTRIFICATION

- Support NEA in Electrifying Unelectrified Clusters



ELECTRIC COOKING

- Model for Promoting Electric Cooking

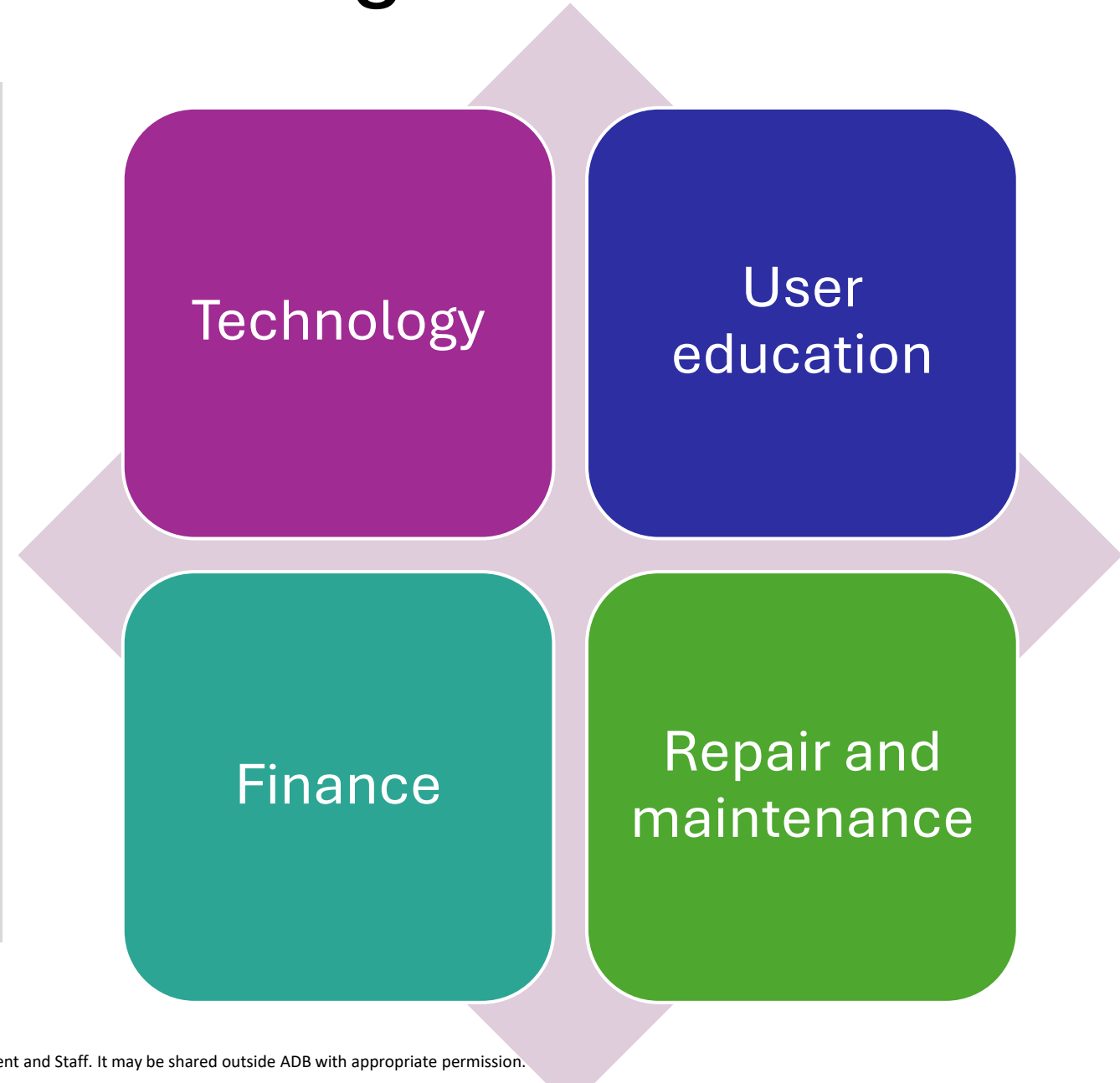
Empowering Rural Communities: Energy-based Livelihoods

- Creation of an ecosystem for sustainable energy-based enterprise development.
- Establishment and scaling up of energy-based enterprises operated
- Job placements facilitated for vocational trainees.
- Ongoing support for entrepreneurs through hand-holding initiatives.
- Assurance of employment and counseling support for vocational training trainees.
- Empowerment through agency-based approach.



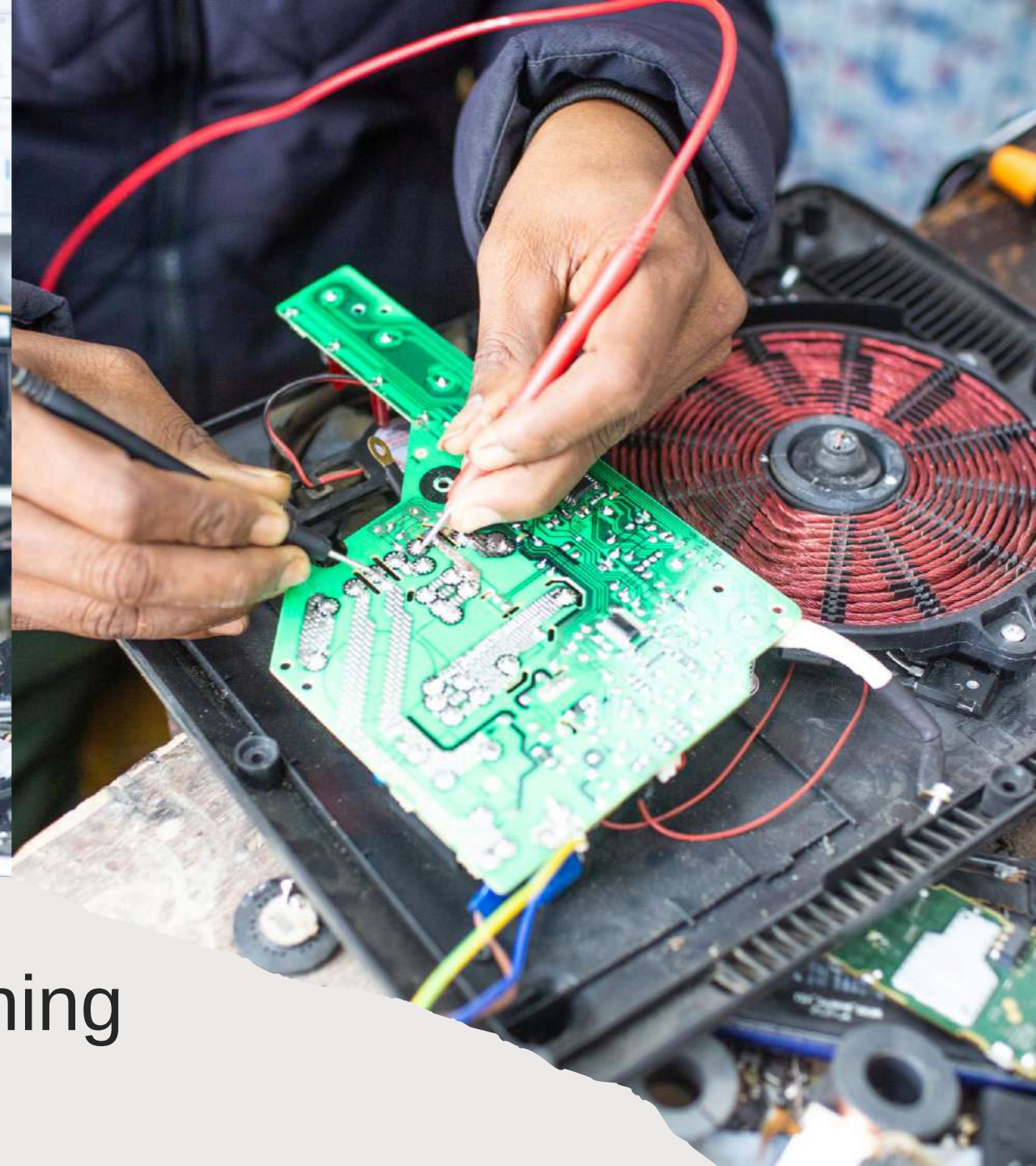
Electric Cooking

- Piloting and implementing locally appropriate business models.
- Engaging local stakeholders:
 - Mass media campaigns
 - School campaigns
 - Face-to-face campaigns
- Advocacy efforts with local municipalities
- Household improvements
 - Meter capacity upgrades
 - House wiring improvements
 - Installation of power sockets
- Adoption of electrical safety devices





Awareness Campaigns



Repair and Maintenance Training

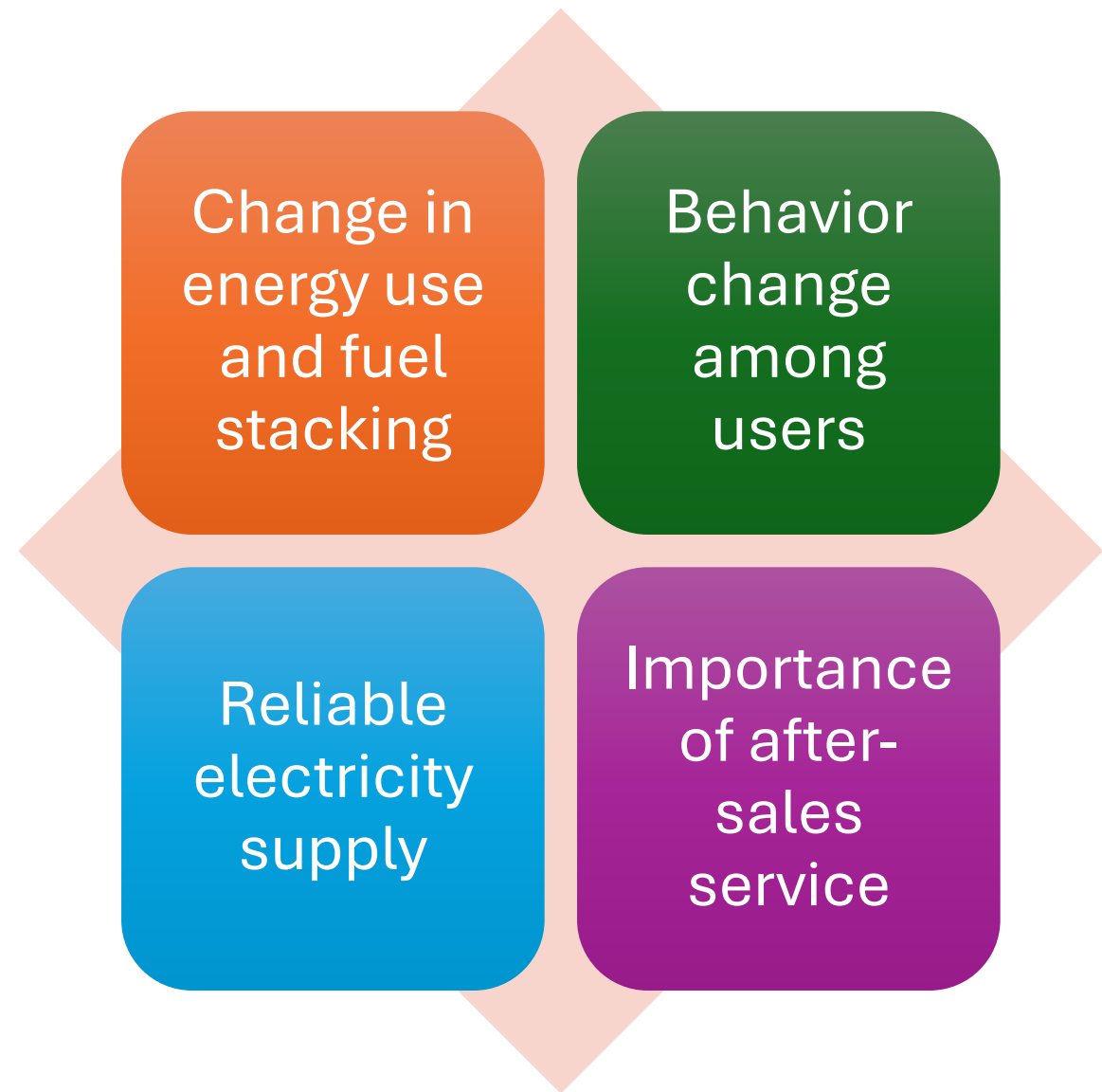
Voice of Rural Community on E-cooking

- Ease of cooking
- Enhanced safety features
- Easier cleaning process
- High initial costs
- Irregular electricity supply
- Need for adaptation to new cooking methods

“It has become easier to manage my household chores and my business. It’s much more time-efficient and cleaner.” ... a woman entrepreneur



Observations and Lessons



Thank You

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