Asia-Pacific Perspectives on Clean Cooking

Hongpeng Liu,
Director Energy Division, ESCAP

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Clean cooking: Sustainable Development Goal 7

**Energy access**

Target 7.1: “By 2030, ensure universal access to affordable, reliable and modern energy services.”

Indicators:
(a) The proportion of population with access to electricity; and
(b) The proportion of the population with primary reliance on clean cooking fuels and technologies.
Clean cooking in Asia and the Pacific: the region is not on target........

% population with access to clean cooking

38%

74.4%

1.2 billion people still don’t have clean cooking
Clean cooking in Asia and the Pacific: Urban-rural divide exists…..

Urban vs. Rural

Urban dwellers have higher access but progress is stalling
Clean cooking in Asia and the Pacific: .....a matrix of challenges

**Technical** – multitude of technologies that vary by feedstock, application and national context

**Economic** – fragmented markets, limited ability to pay, lack of viable business models, limited public finances, key benefits are not monetized.

**Policy** – low visibility of clean cooking problem, responsibility divided across ministries.
Why electric cooking?

**Technical** – modular technology, high efficiency, high reliability, versatility.

**Economic** – low operating cost, carbon credit opportunities, utilize domestic electricity surpluses, most populations unserved by clean cooking already have electricity.

**Policy** – replicability, link to emissions reduction through RE and EE, applicability for wider population.

Electric cooking challenges

- Can electric cookstoves adapt to all cultural styles of cooking?
- Upfront costs.
- Local repair and maintenance.
- Clustering of loads in time and space—leading local distribution network capacity limitations.

Image courtesy: Modern Energy Cooking Services (MECS)
ESCAP’s work in clean cooking:
- A systematic review of interventions

Assess whether clean cooking interventions to date have been successful in:

(a) increasing users’ adoption of clean cooking fuels and technologies (CFTs), and
(b) improving a subset of long-term health impacts based on the use of CFTs.

Review also examines the comparative effectiveness of various interventions and aims to identify specific challenges in the causal pathway.
ESCAP’s work in clean cooking:
- Regional Policy Dialogues on Clean Cooking

Bringing together experts and policymakers to understand the latest developments in the field

1. 2019, Bangkok Thailand (in person)
2. 2022, Thimphu, Bhutan (hybrid)
3. 2023, Kathmandu, Nepal (hybrid)
4. 2024, Vientiane, Lao PDR (hybrid)
ESCAP’s work in clean cooking:

- The National Expert Sustainable Development Goal 7 Tool for Energy Planning (NEXSTEP)

SDG 7 Roadmaps include detailed clean cooking analysis and recommendations

Roadmaps with clean cooking component

- Bhutan
- Nepal
- Pakistan
- Indonesia
- Fiji
- Tonga
- Georgia
- Kazakhstan
- Kyrgyzstan
- Viet Nam
- Lao PDR
- Mongolia
- Thailand
- Micronesia
- Kiribati
ESCAP’s work in clean cooking:
- NEXSTEP (cont’d)

Technology options
• Electric stoves
• Improved biomass cookers
• Biogas digesters
• Natural gas and
• LPG

Criteria
• World Bank Multi-Tier Framework
• Affordability (annualized cost)
• Availability
• WHO Guidelines for emissions
• Contextual factors: culture, energy security etc.

Images courtesy ATEC, IndiaMART, MECS
ESCAP’s work in clean cooking:

- Closing the Gap on Clean Cooking in Bhutan

A partnership of Royal Government of Bhutan, ESCAP, MECS and United Nations Capital Development Fund to apply electric cooking technologies to close the remaining clean cooking gap.

**Phase 1** - Identification and trialing of applicable electric cooking technologies and business models.

**Phase 2** – Piloting selected e-cooking technology in 650 households.

**Phase 3** – Scaleup of e-cooking technology across remaining households (several thousand)

E-cookbook developed under the project
Clean cooking is changing lifestyle in Bhutan

About 13% population (100,000 people) is to be connected by 2030 to clean cooking technologies.

Electricity supply in Bhutan is 100% emissions free from large hydropower makes it perfect condition for electric cooking.

Internet of Things (IoT) enabled electric cookstoves allow for high-quality monitoring making eligible for carbon finance.

Cleaner, safer and sustainable cooking technologies to improve health, environment and lifestyle.

Before

After
Asia-Pacific Clean Cooking Forum 2025

- A regional forum on clean cooking in the Asia-Pacific region planned for 2025
- A platform to bring together policymakers, experts, private sector, financing institutions and donors
  - Develop partnerships to drive rapid uptake of clean cooking in the region and beyond
- Showcase technologies and innovations, share success stories, facilitate fund raising and encourage policy development
- Identify gender and public health aspects

Image courtesy: www.ajummery.com.np
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