

# Clean Cooking Solutions for All - Ensuring indoor air pollution free Nepal

## -ICIMOD's Contribution

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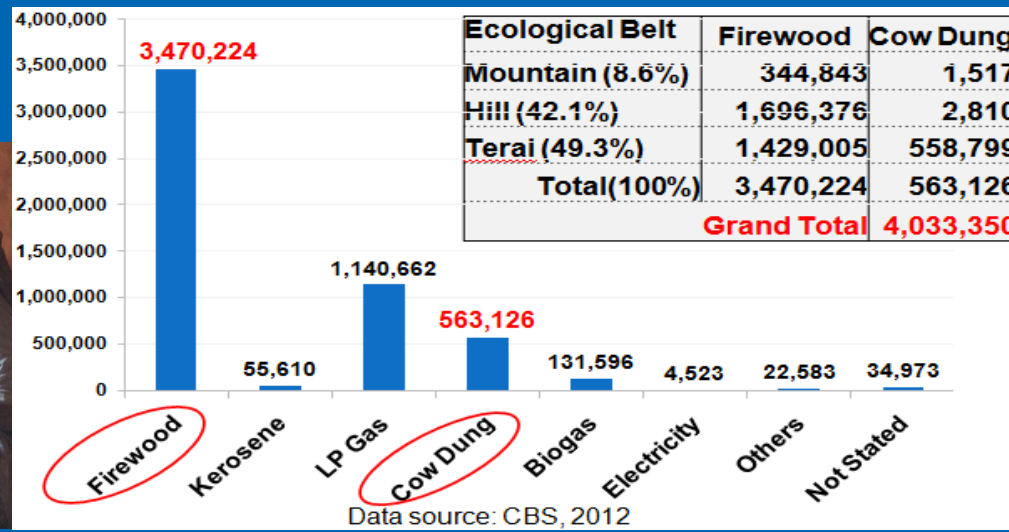
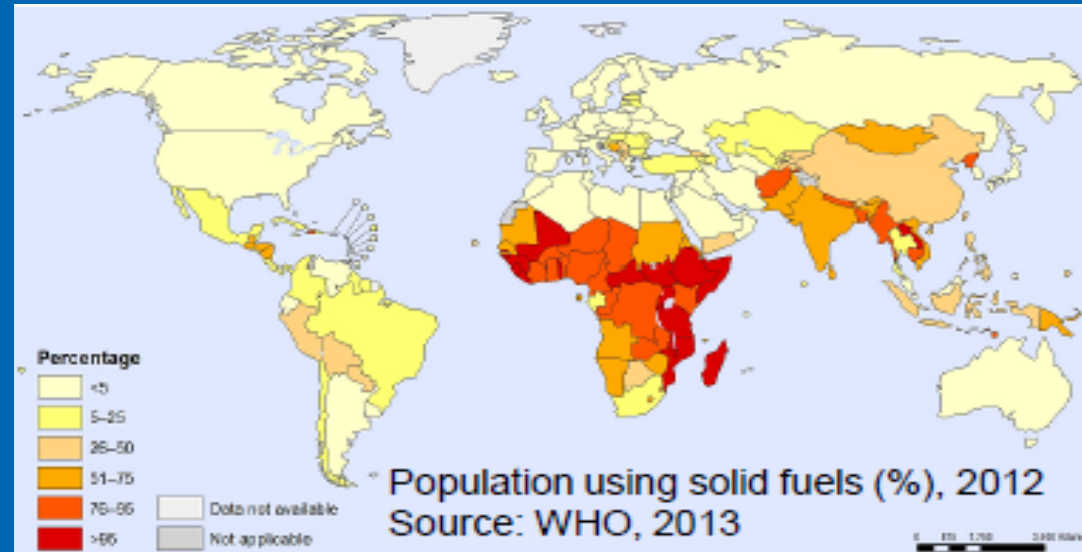
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International Centre for Integrated Mountain Development

Kathmandu, Nepal

# Biomass Energy

- 2.7 billion people in world rely on solid biomass for cooking
- Out of 5.42 million HHs 4.03 million HHs use solid biomass for cooking in Nepal (CBS,2012)
- Globally 4.3 million die by IAP (WHO, 2014)
- Nepal - More than 7,500 die annually are due to high IAP levels



# Renewable energy program initiatives and challenges in Nepal

- Improved CookStoves introduced since 1950s
- Biogas introduced since 1980s
- Introduces solar cooking and electricity based cooking system
- Establishment of Alternative Energy Promotion Centre(AEPC) 1996
- Formation of Nepal Alliance Clean Cookstoves 2013

## Challenges in Adoption

Technical Barriers  
Institutional Barriers  
Policy Barriers  
Socio-economic barriers  
Information barriers  
Behavioral and Cultural factors

- Key Renewable Energy Policies

- Rural Energy Policy, 2006
- Renewable Energy Subsidy Policy, 2013
- Renewable Energy Subsidy Delivery Mechanism, 2013

- Awareness on smokeless & fuel wood efficient ICS
- •Emphasis on research, development & dissemination (R,D&D) of household & institutional ICS suited to geographical & cultural needs
- •ICS technology transfer in rural areas

# Clean cooking solution for all (CCS4ALL)

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Announcement: “Clean Cooking Solutions for All by 2017 thereby ensuring indoor air pollution free Nepal” (20 Jan 2013)

Formalization through GoN's Policy & Program for FY 2014/15 : "Every household in Nepal will be made Indoor Air Pollution Free bright household in next three years“

GoN' s Budget Speech for FY 2014/15: National target of 800,000 ICS



Government of Nepal  
Ministry of Science, Technology & Environment  
Alternative Energy Promotion Centre

“नेपाल सरकारले  
सन् २०१७ सम्म देशका सम्पूर्ण  
घरहरूमा स्वच्छ ऊर्जाका प्रविधिहरू  
पुऱ्याई 'घरभित्रको धुँवाँमुक्त' गर्ने लक्ष्य  
निर्धारण गरेको औपचारिक घोषणा गरिन्छ ।”

डा. बाबुराम भट्टराई  
प्रधानमन्त्री  
नेपाल सरकार  
७ माघ २०६८

“I hereby announce  
clean cooking solutions  
for all by 2017 thereby ensuring  
indoor air pollution free Nepal !”

Dr. Baburam Bhattarai  
Prime Minister  
Government of Nepal  
20 January 2013

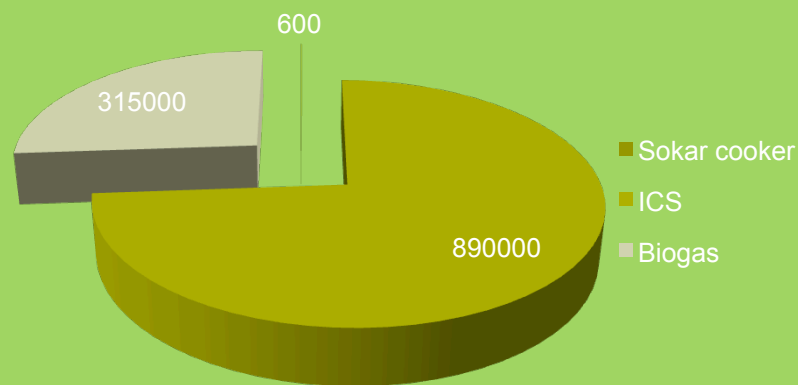
Nepal Alliance for Clean Cookstoves(NACC) is made active for coordinated efforts in achieving CCS4ALL goal



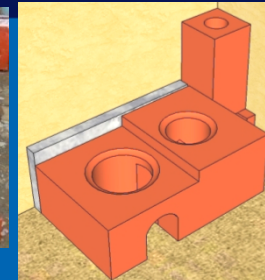
# Way to 2017....

- AEPC new programs and approach to meet 2017 target
- Promoting Biogas, Improved cook stoves and solar cooker

Total Installations of Renewable Energy Technologies



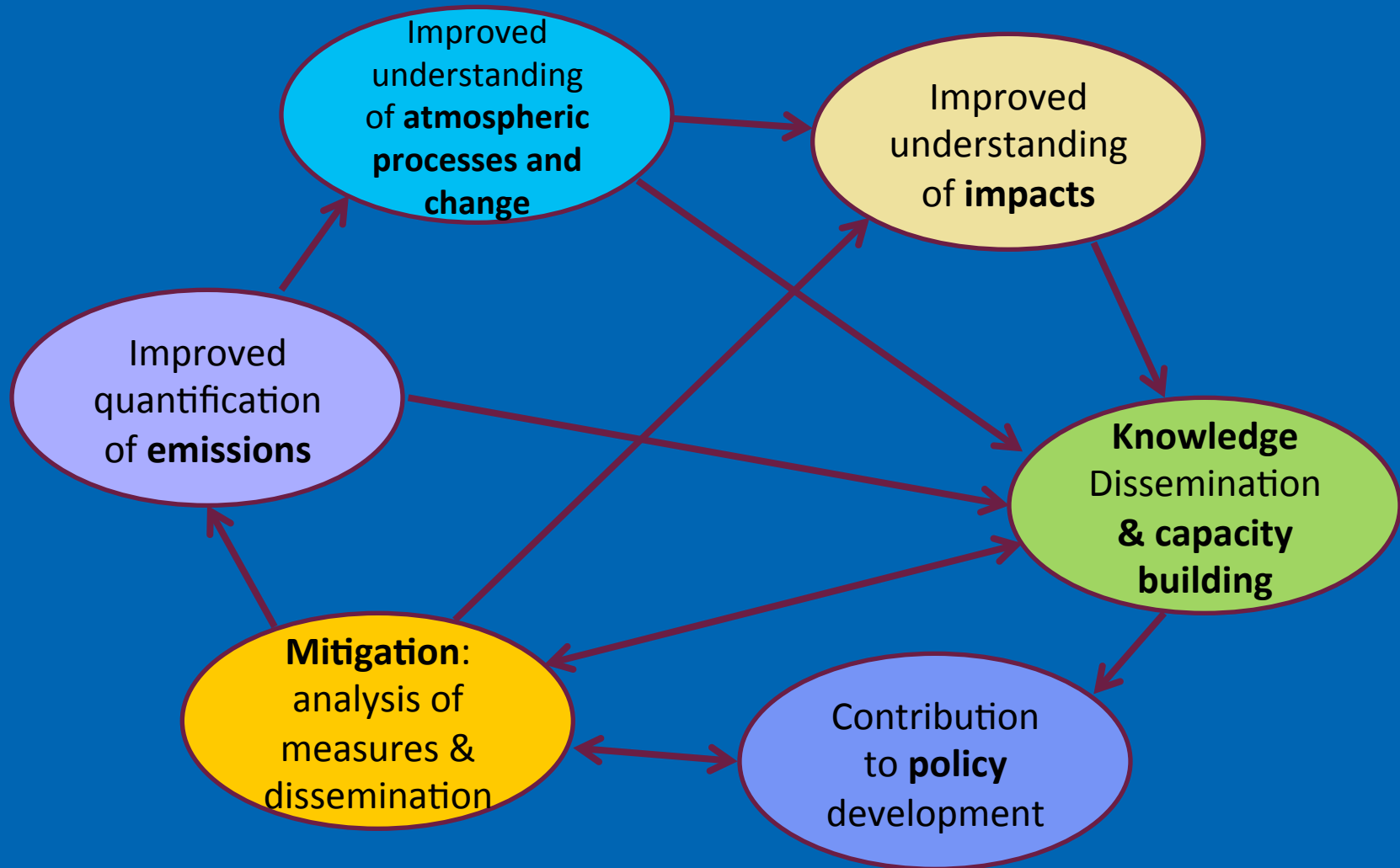
- Declare 170 VDC as indoor as air pollution free VDC



**“ICS is 1<sup>st</sup> choice to reach another ~3 million HHs !”**

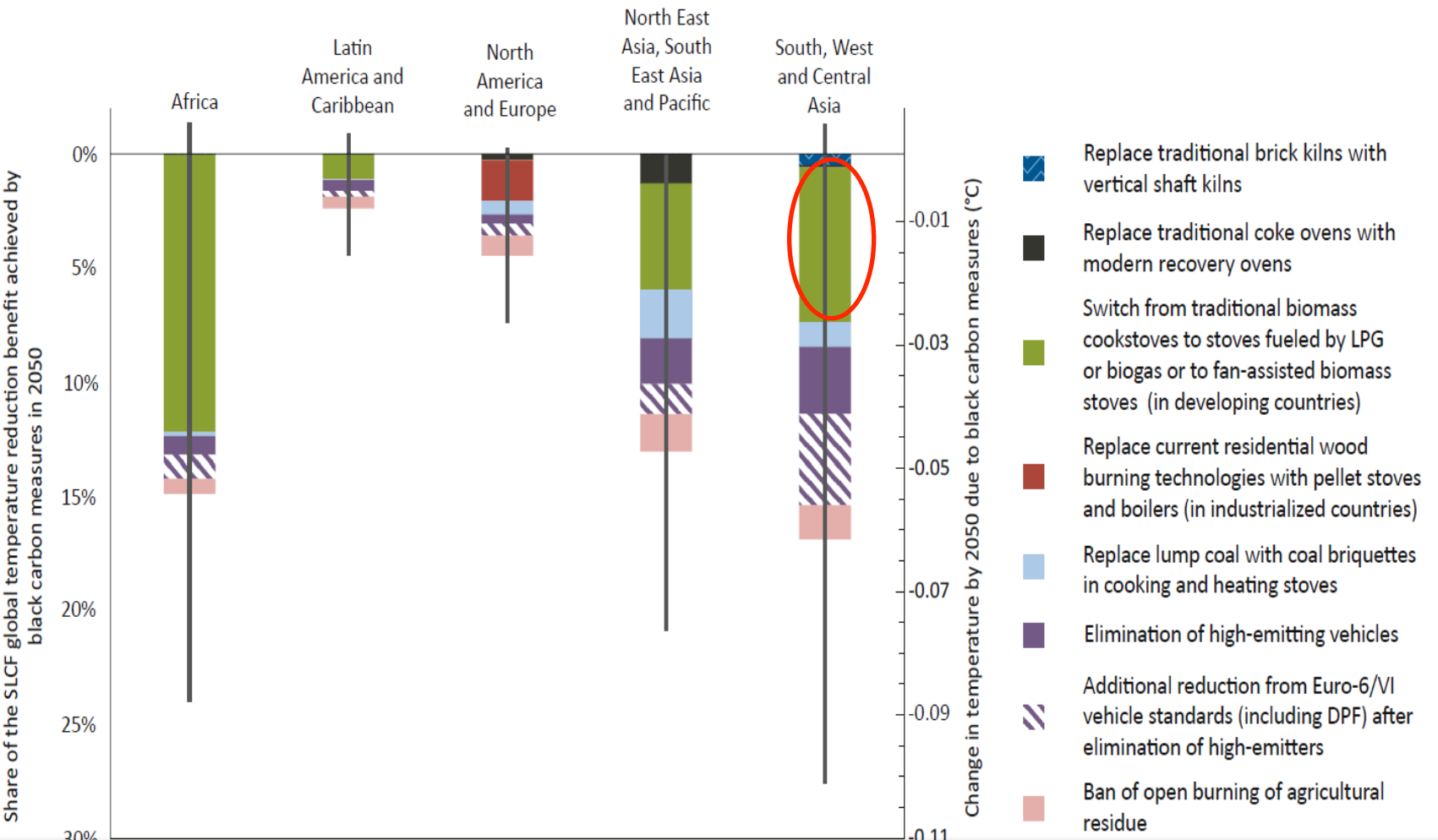
- **Universal coverage through coordinated approach: collaboration with partners, stakeholders & initiatives with overlapping objectives**
- **Active engagement of all partners including private sector, DPs, Gos & I/NGOs**
- **Standardization of technology & procedures: national standard & benchmark for ICS & institutionalized stove testing**
- **Continuous R&D/adaptive research for technology improvement, contextualization & cost reduction**
- **Resource mobilization at all levels**

# The Atmosphere Initiative – *Reducing the Impact of BC and other atmospheric pollutants*





# The share of global temperature reduction from black carbon measures



BC is one of the short lived climate pollutant and is formed through the incomplete combustion of fossil fuel and biomass burning

# Pilot study on Fan assisted ICS

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- 2 very similar valleys, in Bajrabarahi (intervention) and Chitlang (control).
- Working with medical school to monitor health and local women's group to distribute best available fan-assisted biomass cookstove in 700 households of Bajrabarahi.
- Monitoring of indoor & outdoor air quality, and people's health Study
- User needs study - Gender, cultural, social, economic and sustainability aspects of distributing manufactured fan-assisted cookstoves.
- Scalability: scalable through markets mechanisms.





# Thank You

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Acknowledgement: AEPC