

# Mitigation of air pollution from cooking/heating

Social & Gender Perspective

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International Centre for Integrated Mountain Development

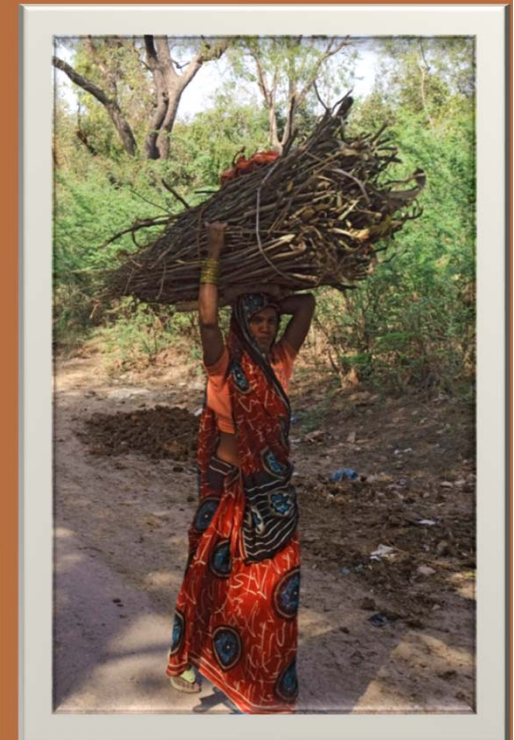
Kathmandu, Nepal

# Key facts

- Around 3 billion people cook and heat their homes using open fires and simple stoves burning biomass (wood, animal dung and crop waste) and coal.
- Over 4 million people die prematurely from illness attributable to the Household Air Pollution (HAP) from cooking with solid fuels.
- HAP is responsible for over 1.3 million deaths per year in Asia, of which almost half occur in South Asia.
- More than 50% of premature deaths among children under 5 are due to pneumonia caused by particulate matter (soot) inhaled from household air pollution.

# Key facts continued:

- 5% of all female deaths in the developing world due to indoor air pollution
- Women in this region are also spending more than 20 hours per week for firewood collection
- Residential solid fuel burning accounts for 25% of global black carbon emissions, about 84% of which is from households in developing countries.
- More than half of black carbon come from cook stoves in South Asia



# Mitigation options available

- Improved Cooking Solutions/Stoves and Clean Cooking Solutions
- ICS ( compared to what? and what are the benefits? Fuel, time saving and other economic co-benefits to the communities, health benefits difficult to assess)
- Clean Cooking Solutions ( Health and environmental benefits e.g. Biogas, LPG or Electricity)



# Applying gender/social inclusion lenses

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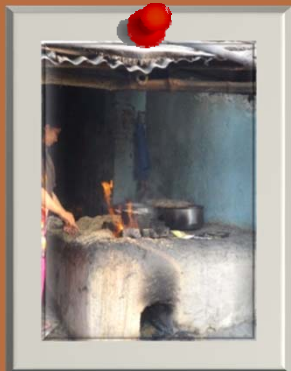
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- Who among the population use biomass as basic energy source? (energy poverty and income poverty is linked!)
- What choices are available for the 2.9 billion population using biomass ?
- In south Asia, cooking is dominantly a female role, are they therefore they are disproportionately affected by household air pollution?
- They are also spending more than 20 hours per week for firewood collection. Given alternatives would they be able to use their time for income generation, skill development etc.?



## Applying Social Inclusion and Gender lenses

- If women were financial decision makers at home would they opt ICS or CCS adoption?
- Although women are the primary targets and users of ICS or CCS they are insignificantly involved in design and research
- Women in South Asian countries generally have lower access to credit facilities, information and skill building opportunities)
- Women's needs, views and participation have been persistently excluded from larger energy policy and practice



While extremely beneficial from an economic, social, environmental, and health perspective, why is the adoption rate slow ?

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Barriers on :

- Demand side
- Supply side
- Financing
- Policies and Act



Home in Megere, cooking over open campfire, inside.



Same home, 10 minutes after installing clean CookStove.

<http://www.himalayanstoveproject.org/?qclid=Cj0KEQIA4LCyBRCY0N7Oy-mSgNIBEiQAvq39ttk1SWjzW2cSdTziWTFh2UtouUFT-SzZ1IppDRMUSkaAnxs8P8HAQ>

# Positive indications

- New models are more promising , provisions for testing and certifying exists (Safer, durable, efficient and clean burning)
- The advanced biomass cook stoves are mostly driven by private-sector interest in developing a commercially-oriented business (meant to be available off the shelf)
- National institutions are involved in scaling up cook stove deployment and have set national targets
- New initiatives and coalitions are established propelling ICS to a higher level policy agenda



## Way forward:

- Wide variety of cook stoves suitable for different target groups meeting at least minimum standards
- A stable reliable financing scheme for tested and certified improved cook stoves
- Explore more into availability of climate funds
- Establish monitoring and evaluation protocols that follows up beyond the project period
- Performance based financing schemes for local implementers

# Role of Media

- Awareness
- Information
- Demand Accountability –policy makers and implementers
- What would be useful at present?
- Case studies in story form of successes and failures both
- Update of the government's endeavor
- Involvement of women and target community at different stages of these endeavor
- Users view
- Role of local governments and institutions

# Thank you

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