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National Policies and Challenges to Reduce Indoor Air Pollution in Bangladesh

M. Khalequzzaman
Senior Adviser
Sustainable Energy for Development
GIZ Bangladesh

Sources of Indoor Air Pollution (IAP)

- Kerosene for lighting
  - 30% - 40% households for 3-4 hours
  - 2%-3% IAP
- Cooking
  - 97% - 98% IAP

Fuels and Stoves used for Cooking

- Fuel
  - 92% HHs: biomass (wood, straw, cow dung, dry leaves, etc.) (poorer HHs low quality fuel)
  - 6% HHs: natural gas (mostly urban)
  - 1% HHs: LPG (well off)
  - 0%-1% HHs: kerosene, electricity
  - 0% - 1% HHs: rice husk briquette, saw dust
- (Stove depends on fuel)
- Biomass stove
  - 97% traditional stove
  - 3% improved cook stove with chimney: almost no IAP

IAP due to Cooking

- Average IAP: 600 µg/m^3, during cooking much higher

  EPA guidelines: 150 µg/m^3

  Bangladesh Standard: 200 µg/m^3

- Poorer HHs both rural and urban (slums) more exposed to IAP
  - Low quality fuel: more pollution
  - No separate kitchen
  - Poor ventilation
  - (during dry season prefer to cook in the open)

Impact of the use of traditional stoves

- Traditional stoves cause IAP
- IAP cause diseases: eye ailment, bronchial diseases, headache, even cancer
  - Around 50,000 women and children die every year [WHO]
  - Around 2.5 million Asthma patients
  - Eye ailment and headache are common by many women

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Government's Role to Reduce IAP

• The Government of Bangladesh is aware about the impact of the use of traditional stoves and IAP

- health service is very expensive
- macro-economic cost is very high
- (fuel scarcity, forest, climate issue)

• The Government supports reduction of IAP through intervention

➢ Fuel side: Introduction of cleaner fuel
  - natural gas supply
  - LPG production & import

➢ Stove side: Introduction of non-polluting efficient stove
  - funded R & D on improved cook stove (since 1980s)
  - initiated projects for dissemination (also with GIZ)

Policy Framework

- **National Ambient Air Quality Standard**
- National Energy policy / Renewable Energy Policy
- National Women Development Policy
- Bangladesh Climate Change Strategy and Action Plan
- **Sustainable and Renewable Energy Development Authority (SREDA) Act**
- Energy Efficiency Action Plan/Energy Efficiency and Conservation Rules
- The Climate and Clean Air Coalition (CCAC)
- **Country Action Plan for Clean Cookstoves (2013):**
    - Target: 30 million clean cookstoves by 2030
    - Household Energy Platform

Lessons Learned

- Replacement of traditional stoves by improved ones needs awareness building, acceptance, affordability and adaptation to cooking tradition
- Joint efforts are necessary
- Should not wait for the best clean cook stove, but optimum for the current situation
- Different stoves should be available
- Local entrepreneurship development is necessary for sustainability
- (Business is important, but should not be the driving force)

Challenges

- Fund for implementing Country Action Plan

- Different donors (and Government and private sector) work together

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