

House hold (Indoor) air pollution in India

Presentation by IAAPC Delhi chapter

On 04 Mar 2014

Background

- Presently only 48% household in India are supplied clean cooking fuel that is LPG(Reference - Ministry of petroleum and natural gas)
- 52% of the household (mostly at rural areas) are using cow dung cake, agro residue and other polluting fuel as cooking fuel –resulting emission of toxic air pollutant like PAH,PM2.5,NOx, etc
- Global Burden of disease (GBD) report issued by WHO, indicates that in India the **2'nd largest killer is indoor air pollution (1st High Blood Presurre 2nd Indoor air pollution 3rd Tobacco smoking 4ht poor nutrition 5th outdoor air pollution)**
- Present LPG subsidy is 55,000Cr and Diesel subsidy is 60,000 cr, which indicates that only upper middle class and rich people are benefitted from Govt policy. Rural poor people are least benefitted.

Comparison of Indoor air pollution vs Outdoor air pollution

Pollutant	Typical Indoor air concentration (rural areas)	Typical outdoor air concentration (traffic areas and critically polluted areas)	Ambient air quality standard notified by CPCB and MOEF
Benzo (a) Pyrene	10-60 ng/m ³	2-6 ng/m ³	1 ng/m ³
PM 2.5	600-2000 µg/m ³	30-140 µg/m ³	60 µg/m ³
PM 10	900-3000 µg/m ³	80-300 µg/m ³	100 µg/m ³
NoX			
CO			

Health impact study on household air pollution

Following health impact studies are available in literature:-

1. Papers/reports published by prof Kirk Smith and Sumi Mehta of University of California, Berkley.
2. Study done by Ramachanrda medical college ,Chennai – Dr Bala Krishnan et al
3. Study done by Chittranjan national cancer research insitute , ICMR , Kolkatta – Dr Manas Roy
4. Study done by NIOH (Dr A L Agarwal et al)
5. Study done by TERI – Dr Sumit Saxena and Dr Veena Joshi

Suggested Issues to be discussed in the workshop

1. What policy reforms are required to reduce household air pollution?
2. Requirement of Household (Indoor) air quality standard and also emission standards /guidelines for various stoves/chullas.
3. Agency who will implement those standards.
4. Measurement techniques for household air pollutants
5. Suggestion on requisite pollution control system to reduce household air pollution.