

Pathways to clean cooking 2050 – leaving no one behind



Thematic
presentation-
Lessons from
India

Svati Bhogle
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Cooking in rural India – in numbers

- 170 million, predominantly rural households cook using a hazardous combination of traditional cookstoves and locally collected, unprocessed biomass fuels.
- 1,085,867 people in India affected by disease burden in India in 2016, attributable to HAP*.
- Limited success in country in addressing HAP and clean cooking in spite of 30 years of Government efforts
- Over 60 million new households connected to LPG but no proportionate increase in LPG consumption
- LPG used extremely sparingly in rural areas. Awareness, affordability and access emerge as key barriers to shift to clean cooking.

*([https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196\(18\)30261-4/fulltext](https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(18)30261-4/fulltext))

- Stove stacking reality not easily accepted by energy planners

How clean should clean cooking be?

Wide variation in the definition of clean

Agency	CO	PM
BIS		TPM) (mg/MJd) $\leq 150 - 350$
ISO (in tiers)		
WHO (in tiers)	≤ 0.42 to >0.97 (mg/min)	

Wide variation in the stakeholder priorities in clean cooking interventions

priority	Key indicator
Health	Indoor air quality, household air pollution
Climate	Low CO2 emissions, arrested deforestation, country commitments to Paris agreement
Gender	meeting women's needs like time saving, opportunity for social and economic empowerment,



Achievement of the programmes of the Govt.*

Programme	Period	Achievement
National programme on improved chulha (NPIC)	16 years (1986 to 2002)	35 million stoves
Unnat Chulha Abhiyan	4 years (2014 – 2017)	37 thousand
Ujjwala	2015 - ongoing	60 million new LPG connections

- Ujjwala: Only 21% new connections under Ujjwala have gone for refilling in 2017-18. LPG subsidy budget is growing and is now unsustainable.

* 170 million rural households require an intervention in clean cooking



Alternate non govt. approach - Women stove builders of TIDE



- Launched in 2002 as a grant driven bottom up approach in contrast to the Govt.'s top down model.
- An improved stove Sarala stove (mud stove with chimney) installed only after the traditional stove is removed.
- Women stove builders construct 50,000 smokeless stoves in Karnataka, India
- More than 80% of the stoves in use 1 year after construction
- Replication in 5 states of India through partnerships with very high user acceptance.

Government's expenditure on LPG subsidy for one year, would be enough to provide all 170 million needy households with a moderately improved stove that uses sustainably harvested agro residues and eliminate IAP.



Leave no one behind when you invest in



- Technology and create stove design expertise in the country
- Incubation services for cookstove enterprises using renewable fuels
- Build an enabling eco-system where standards are designed for positive impact
- Develop and implement a robust framework for monitoring and rewarding success
- Use grant funds for awareness creation, market development, skilling, technical training
- Enable low interest enterprise and consumer financing for scaling



3 Key takeaways

- First focus in eradicating the traditional stove and enable behaviour change for subsequent upgrades of biomass stoves. Slowly take the poor consumers up the stove and fuel ladder to cleaner, affordable solutions
- **Nobody's baby** - No clear mandate to a national agency or ministry. A government endorsed private sector initiative may be a likely pathway.
- Government designated and financially supported non government entities must be identified to be responsible, ecosystem builders



Thank you for
listening & regret not
being with you in
person.

Technology Informatics Design
Endeavour (TIDE),

Website: www.tide-india.org

Mail: svati.bhogle@gmail.com
Svati.bhogle@tide-india.org

