

A woman with dark hair, wearing a vibrant sari with a blue, yellow, and red pattern, is seated and focused on her work. She is holding a piece of dough, likely preparing flatbread. In front of her is a traditional wood-burning stove (chulha) with a fire burning in its base. A flatbread is cooking on the top surface of the stove, and a pot is placed on a side burner. The background is a rustic, textured wall made of mud or brick. The overall scene is dimly lit, emphasizing the fire and the woman's activity.

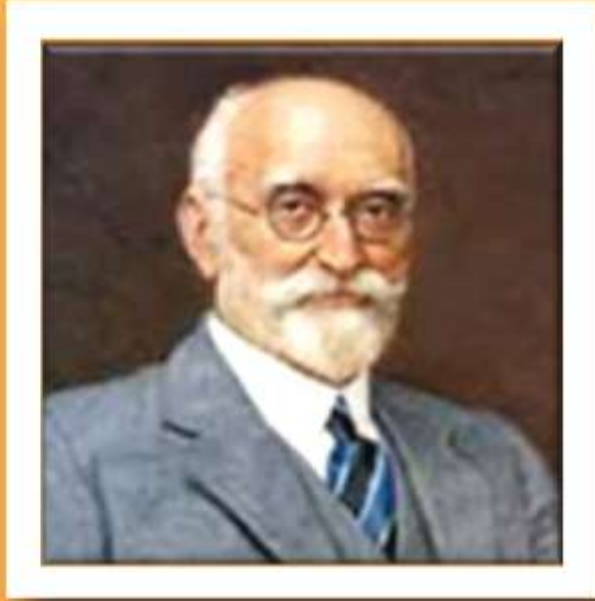
The Recipe for Improving Cooking Experience for Rural India

*User Experience Assessment Study to Understand Cooking
Behavior and Stove Preferences in Rural India*

TATA TRUSTS

11 November, 2014 | New Delhi

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Sir Dorabji Tata Trust &
Allied Trusts, 1932



Sir Ratan Tata Trust & Allied
Trusts, 1919

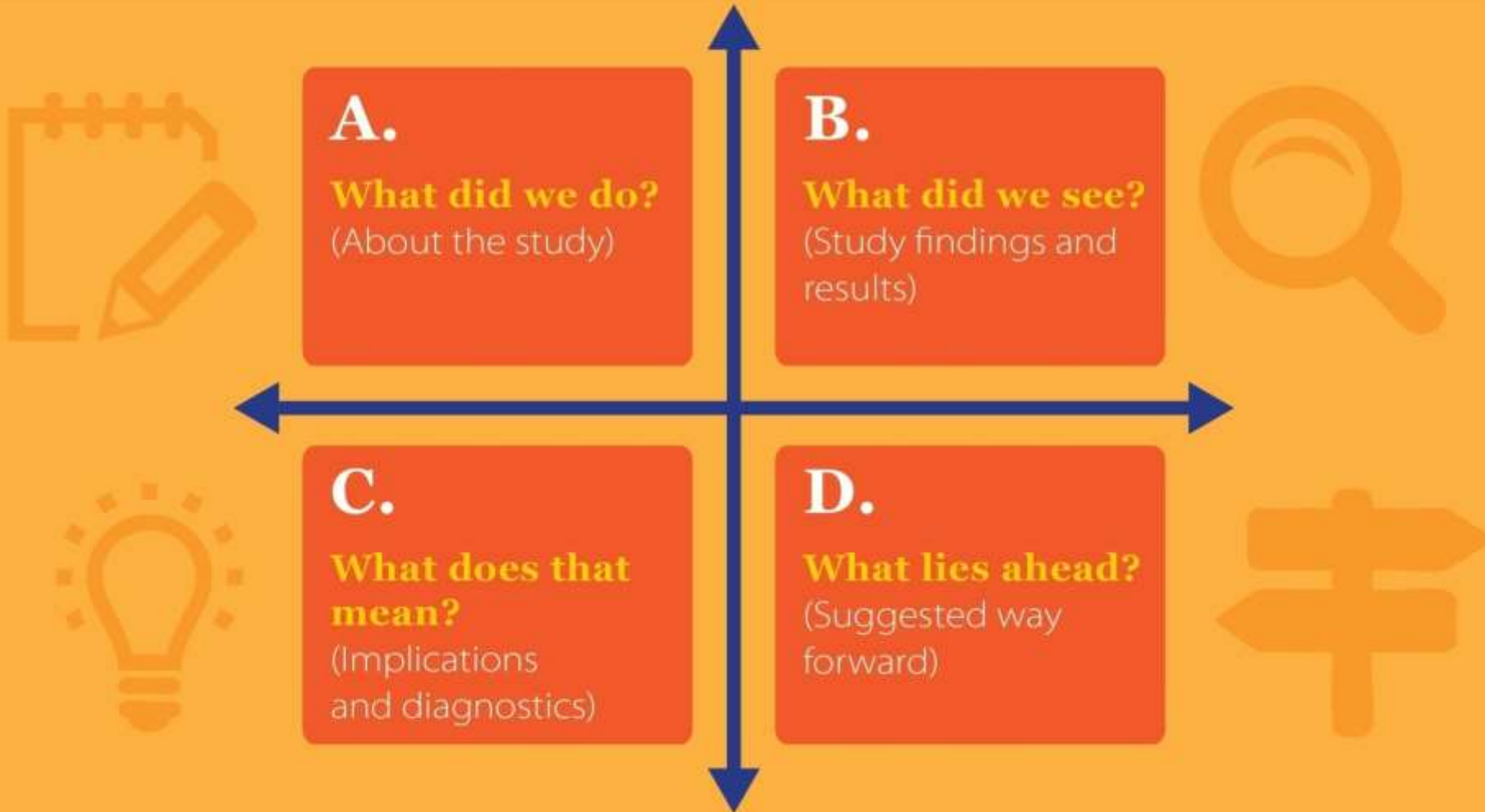
Annual Investment : **INR 5.5 Bn**

Outreach : **4 Mn Households**

Geographic Spread



Presentation structure



Study objective

WHAT

“Assessing user cooking experience and preference for different types of improved cookstove (ICS) technologies and models and the readiness to pay for them”

WHY

“Understanding the key features that households prefer to traditional cookstoves as well as to the ICS in order to understand the factors that matter to rural households for an ideal cooking experience”

HOW

“In-depth study of an representative sample across 2 locations for a period of 2 weeks at each location using 2 ICS models”

Study objective

WHAT

"Assessing user cooking experiences and preferences for different types of improved cookstoves (ICS) technologies and models and the willingness to pay for them"

WHY

"Understanding the key features that households prefer in traditional cookstoves as well as in the ICS, in order to understand the factors that matter to rural households for an ideal cooking experience"

HOW

"In-depth study of an representative village across 4 households for a period of 2 weeks at each location using 2 ICS models"

Study objective

WHAT

"Assessing user working experiences and preferences for different types of improved workstations (IW) technologies and models and the readiness to pay for them"

WHY

"Understanding the key features that households prefer in traditional workstations as well as in the IW in order to understand the features that matter to most households for an ideal working experience"

HOW

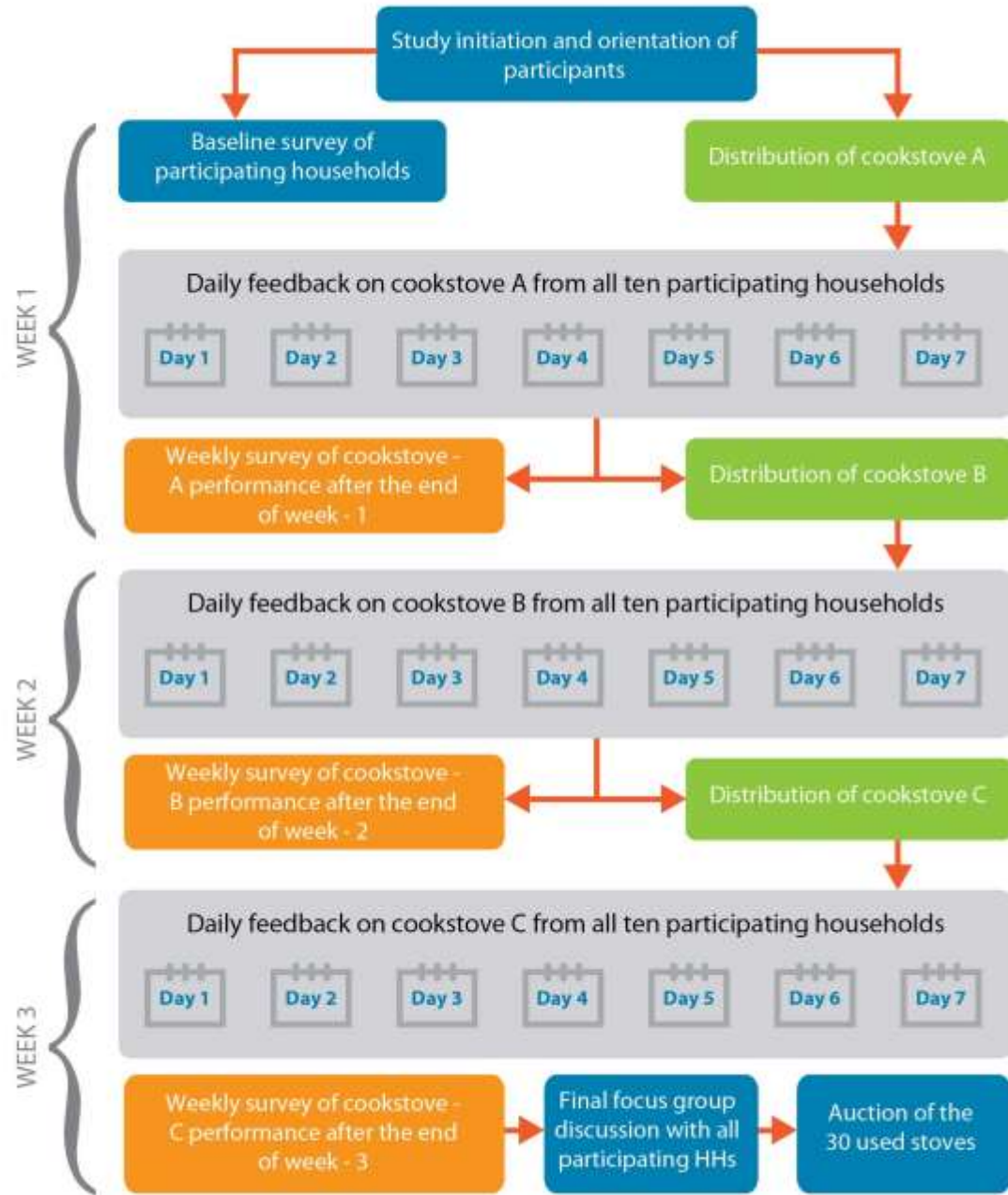
"In-depth study of 40 representative units across 4 locations; for a period of 3 weeks at each location; using 3 ICS models"

Research design



- **Multi-sited ethnographic method**
- **Anthropological approach to understand consumer behavior**
- **Mix research design**
- **Primary data and participatory observations**
- **Triangulation of findings**

Research methodology



Household surveys

- Baseline survey
- Daily feedback recording
- Weekly feedback recording



Focus Group Discussions (FGDs)

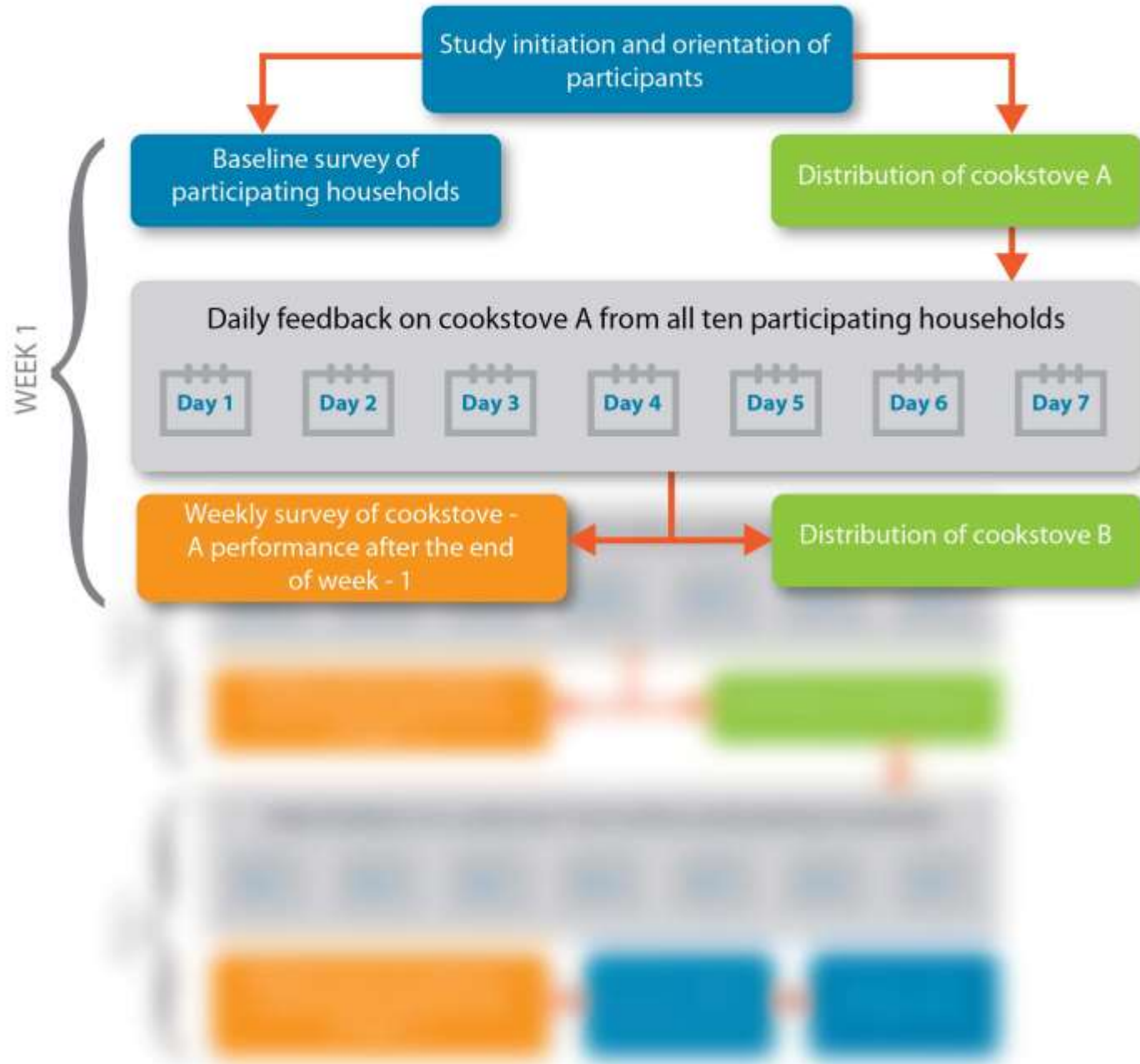


Weighted Ranking / Scoring



Auction

Research methodology



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Focus Group Discussions (FGDs)

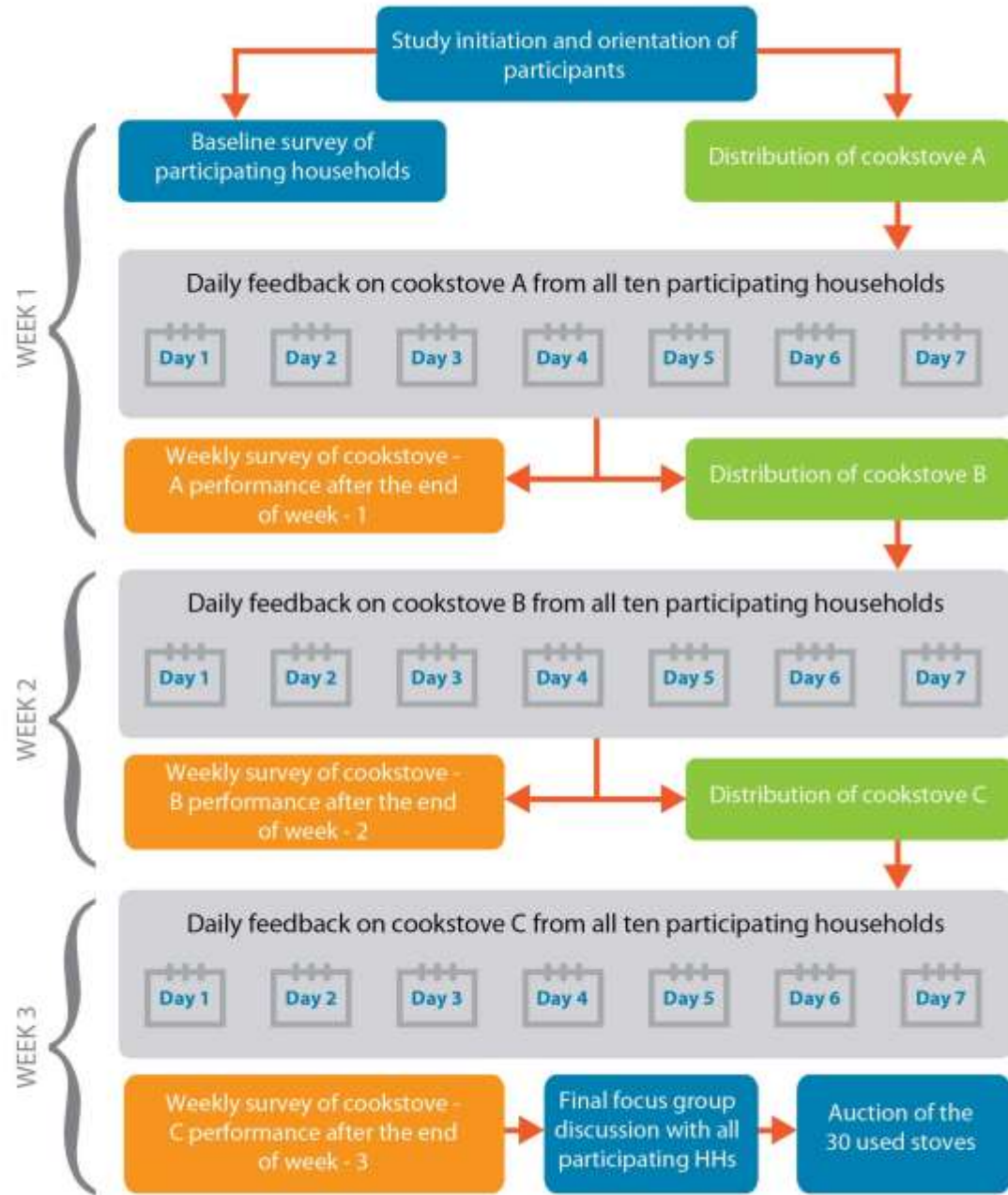


Weighted Ranking / Scoring



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Household surveys

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Focus Group Discussions (FGDs)



Weighted Ranking / Scoring



Auction

Scope of the study



Traditional cookstoves vs. Improved cookstoves (ICS)

- Problems with the existing stoves
- Acceptance and value addition of the ICS
- Relative advantages of the ICS as well as traditional stoves

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Comparison of stove models

- Preferred model(s) and reasons
- Features liked / disliked / desired / expected
- Feedback on ICS

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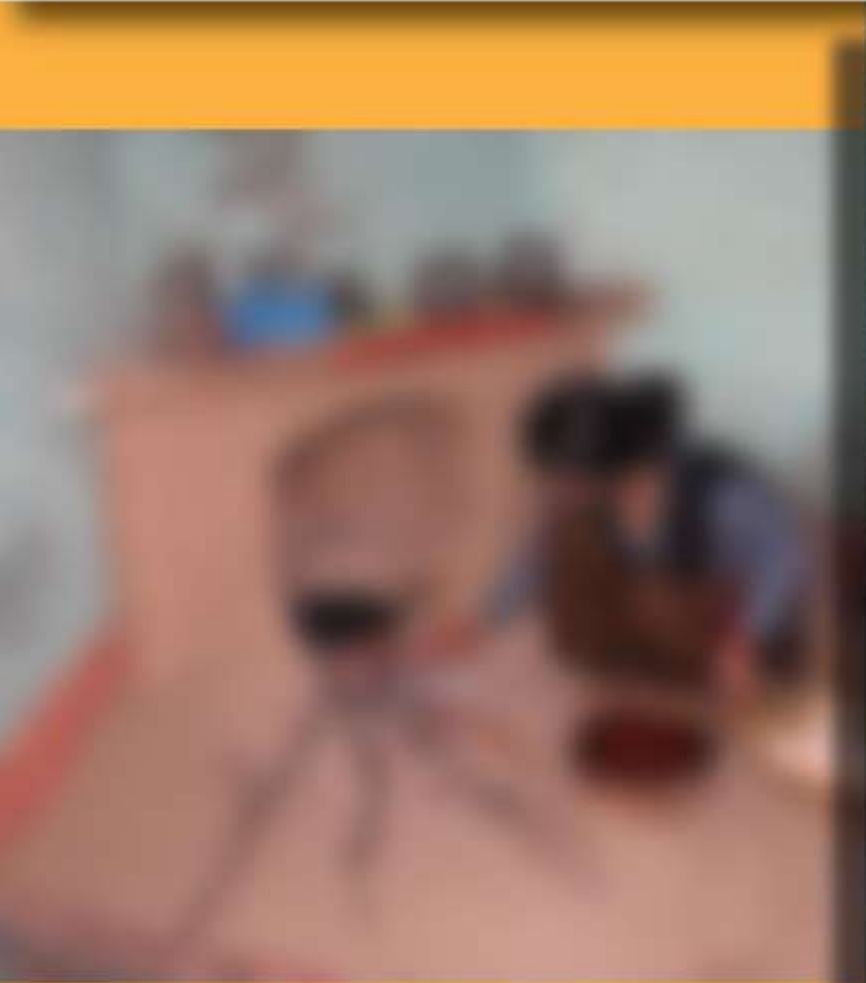


Socio-economic or geographic difference

- Variation (if any) in user preference, behavior and demand pattern across locations
- Variations within the same region, because of socio-economic factors



Traditional Cookstove



Traditional Cookstove with chimney



Traditional cookstove vs. Improved cookstove



Very high smoke emission



Fuel consumption 5-7 kg/day



Time taken per meal is 3 hours average



Smoke emission reduced by 50-60%



Fuel consumption reduced by 40%



Time taken per meal reduced by 50%

Traditional cookstove vs. Improved cookstove



Advantages of traditional stoves

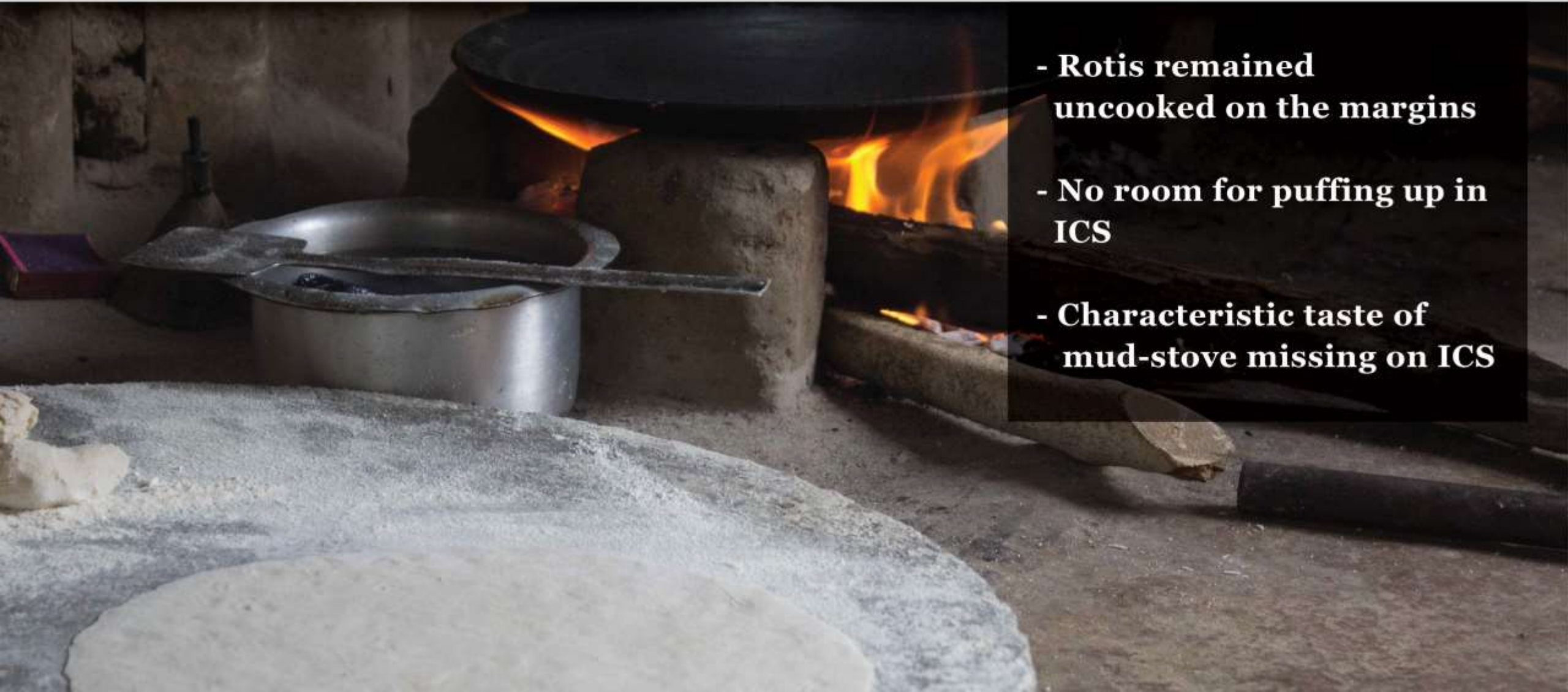
- Familiarity
- Ease of roti-making
- Free of cost
- Could be made new each time by plastering mud



Advantages of ICS

- Reduction in smoke
- Lesser time taken to cook
- Lesser wood consumption
- Portable
- Safe

Making rotis: Why did the traditional stove fare better?



- Rotis remained uncooked on the margins
- No room for puffing up in ICS
- Characteristic taste of mud-stove missing on ICS

Stove portability



- Flexibility to cook indoors as well as outdoors
- Cook under brighter indoor lighting
- Can multitask with other chores indoors
- Ease of cleaning by lifting
- Can cook near the television

Summing up the 'wish list'



Convenient shape and design (similar to mud-stoves)

- Appropriate height
- Proper pot-holding support for vessel



Durability and robustness



Smoke reduction



Efficient wood consumption



Time saving in cooking



Consistent flame



Affordable price

What mattered where?

Dahod

Medium awareness on ICS but never used

Average annual income: INR 1,20,000

Proportion of BPL Households: 30%

“Wood availability not a concern; distance is”

Mukteshwar

Awareness and exposure quite high

Average annual income: INR 1,50,000

Proportion of BPL Households: 40%

“Wood availability not a concern; distance is”

Yadgir

Extremely poor awareness levels

Average annual income: INR 40,000

Proportion of BPL Households: 100%

“Wood availability not a concern; distance is”

Dholpur

Medium awareness

Average annual income: INR 90,000

Proportion of BPL Households: 100%

“Wood availability not a concern; distance is”

What mattered where?

Dahod

Product design and ease of usage
Perceived durability / robustness
Performance (time taken in cooking)

Mukteshwar

Product design and ease of usage
Perceived durability / robustness
Performance (time taken in cooking)
Aspirational value

Yadgir

Product design and ease of usage
Perceived durability / robustness
Affordability and pricing

Dholpur

Perceived durability / robustness
Performance (time taken / smoke)
Group behaviour and peer pressure

And what did not matter?

Dahod

Fuelwood consumption and smoke emission did not factor in decision making

Mukteshwar

Price not a factor

Yadgir

Health benefits of the stoves were not appreciated

Dholpur

Pricing did not play much role

Understanding supply-side preparedness



- **Need for market building**

- **Strong need for IEC**

- **Also focus on people's aspirations**

- **Smoothing of all supply chain and distribution issues**

- **Need for stimulating and incubating more product and technology innovations**



Low cost technologies such as customized retrofits in the existing stoves

Going forward

- **Promoting ICS at scale in defined geographies**
 - *Broad demand assessment*
 - *Ensuring supply of good quality and affordable ICS models to ensure consumers get a range of options to choose from*
- **Can not fully substitute traditional cooking systems; substitution can only be partial and gradual**
- **Role of IEC and engagement of men as well as women essential**



“We want a stove that has a flame like an LPG stove, appearance like the ICSs and the ease of usage as that of a mud stove.”

