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RAJASTHAN CONSUMER SEGMENTATION STUDY

FINAL REPORT

Prepared by
Nielsen India Pvt. Ltd.,
March 2016



INTRODUCTION

- This study was commissioned by the Global Alliance for Clean Cookstoves (Alliance). The Alliance was launched in 2010 with a mission to catalyze the uptake of clean and efficient cookstoves and fuels through a market-based approach to save lives, improve livelihoods, empower women, and protect the environment.
- This study is one of a series of studies commissioned by the Alliance to develop a better understanding of the consumer base for clean and efficient cookstoves and fuels, in particular to identify key consumer segments and their needs and preferences around cookstoves and fuels, as well as other factors related to effective marketing and sales of stoves and fuels, including messaging and promotion, pricing and payment schemes and distribution channels.
- This study was conducted by Nielsen (India) Private Limited, the India affiliate of the Nielsen Company, the world's leading provider of marketing information, audience measurement, business media products and services.
- The study geography was Rajasthan India; We'd like to thank the Rural Development and Panchayati Raj Department, Government of Rajasthan who granted permission to undertake the study to assess the current usage patterns of biomass, LPG and induction stoves in Rajasthan.

ABBREVIATIONS

SEC	Socio Economic Classification
CWE	Chief Wage Earners
SDG	Sustainable Development Goal
FGD	Focus Group Discussion
Chulha	Traditional mud cookstove
LPG	Liquid Petroleum Gas
MFI	Micro Finance Institutions
PDS	Public Distribution System

Presentation Overview

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- Recommendations

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- Fuel / stove usage pattern
- Cooking practices

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- Identification of priority segments

Detailed profile of the Early Adopters segments

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- Usage of LPG
- Usage of Induction stove

Identification of demand enhancing strategies for the adopters

- Recommendations and Conclusions



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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY - KEY INSIGHTS

Rajasthan, the largest state in India by geographical size, is situated in the north-western region of the country. Around 76% of all households in the state use solid fuel and hence the cookstove initiatives targeted at the state can have a significant impact on improving the efficiency of solid fuel use in India. (India- Cookstoves and Fuel Market Assessment - GACC 2013) The consumer segmentation study for clean fuel and improved cookstoves was conducted in twenty districts of the state. Total number of respondents covered in the study survey was 6077 across these districts, in addition qualitative discussions were conducted with around 100 respondents

Profile of the respondents:

- A notable proportion (12%) of the respondents were reported in the youngest age group i.e. less than 25 years and little less than half of the respondents (45%) belonged to the age group of 25-35 years, which confirms a significant proportion of young married women in the state. By and large the respondents were “Wife” of the chief wage earners (CWE), mainly responsible for cooking in the selected households, only 3% of Chief Wage Earners reported as female.
- Low literacy rates were reported; around 41% of the CWEs were reported as illiterate, only around 4% households reported CWE as graduate / post graduate. Close to 62% respondents were also reported as illiterate, literacy rate didn't vary across rural and urban area of the state. Close to half of the CWEs (46%) were involved in agriculture sector, cultivation, agricultural labour etc. and around one third of the CWEs (32%) reported primary occupation as skilled / unskilled (non agricultural labour).
- Predominantly Hindu population; 90% of the total households practiced Hindu religion, followed by 9% Islam, and 1% Sikh. Around 43% of the total households belonged to Other Backward caste, 28% Scheduled Caste and 15% Scheduled Tribe community.
- The average family size reported across study districts was 5.3, large proportion of joint and extended families living together. Average monthly household expenditure around Rs.6950/- (Rural - Rs.6699/ month and Urban - Rs.7715/ month). Close to 93% households reported having access to banking services, only 4% households reported having access to Self Help Groups.
- Around 98% of the households reported ownership of their house; around 54% households reported owning agricultural land. Around 61% households reported owning livestock and close to half of these households (47%) reported owning cattle
- Only 16% of households reported borrowing money over last one year. Out of these, 21% reported taking loan for buying agricultural input and a similar proportion took loan to meet health expenses. Only one fourth of these households reported taking loan from Bank and SHG. Majority of households reported taking loan from money lenders, friends and relatives and other informal sources.

EXECUTIVE SUMMARY - KEY INSIGHTS

- **Socio- Economic Category (SEC) Classification:** SEC system is used to classify households in India based on two variables Education of Chief Wage Earner and number of consumer durables owned by the family. There are 12 grades ranging from A1 to E3, with A1 representing the highest economic strata. Around 86% of households surveyed were found to be in SEC C, D and E categories i.e. lower socio economic strata, of which around 30% of all sample households reported in SEC E category, lowest SEC category.
- **Access to fuel/stoves:**
 - Different types of cook-stoves and fuel types were found in the households in the study districts, which were- Open fire / three stone fire, Traditional mud cookstove (fixed / portable model), Electric / Induction cookstove and LPG cookstove.
 - Close to 24% of households reported access to LPG stove, however very few households reported access to electric / induction stove. Around 85% of households reported having access to traditional fixed model mud stove, around 19% households reported access to portable mud stove.
 - Majority of the households (74%) used only solid fuels for cooking. Others reported using a mix of both solid and non-solid fuel, in almost all cases this was solid fuels and LPG.
- **Cooking pattern of the households:**
 - Around 96% of the households reported cooking twice in a day and remaining households reported cooking either once / thrice in a day. Average cooking time was reported as 142 minutes in a day and maximum cooking time reported during morning 70 minutes. Average 3-4 types of dishes were prepared on a day in a typical household, and similar practices were observed in rural and urban areas. More than 98.5% households reported cooking Roti daily with either dal / curry (85%) or boiled / fried vegetables (41%). Around 90% households prepare Roti twice a day. Around 45 minutes to prepare roti every time.
- **Solid fuel usage pattern:**
 - **Three major** types of solid fuels were reported being used by the household in Rajasthan are firewood, agricultural crop residue and cow dung cake. Majority of households (87%) reported using firewood, a notable proportion (22%) of households reported using agricultural crop residue, around half (50%) of all households reported using dung cakes. Average monthly consumption of firewood 120 Kg (for all households), on an average 4 Kg of firewood used in a day. Average monthly consumption of dung cakes 146 pieces (for all households), on an average 4-5 pieces of dung cakes are used in a day.

EXECUTIVE SUMMARY - KEY INSIGHTS

Firewood purchase practices:

- Around 35% of all firewood users reported purchasing firewood (14% reported only purchase and 21% reported both purchase and collection). On average the wood is purchased around 10 times in a year. The last purchase of wood was reported as 235 Kg (average) and amount paid last time was Rs.1020 (average), which means about Rs.4-5 / Kg. As average consumption was found as around 4kg per day, the households who are only purchasing firewood (14%) are spending Rs.480-600 per month on firewood.

Firewood collection practices:

- Firewood collection is normally a weekly practice and almost all households collected firewood twice in a week (7-8 times over a month). Every collection occasion for firewood takes about two hours i.e. about 14 - 16 hours in a month (nearly 2 working days). Almost 78% of households collect firewood from the farm and forest area around their villages (average distance travel around 3-4 Km). Responsibility of collecting firewood lies with the adult female members of the households (81.2% households reported the same). Dung cakes are collected and prepared almost 6-7 times in a month. Every such occasion takes about 1 hour 15 minutes. This means women spend on average 21-25 hours per month on fuel collection and preparation.

Improved Cook Stove:

- Penetration of improved cookstove was found as nil and awareness of improved cookstove was reported as negligible.

Induction/ electric stove:

- Negligible proportion of households reported owning induction/electric stove, those who did own them reported using them mostly for making tea / coffee or reheating.

LPG stove:

- 24% of the sample have access to LPG; 75% of these connections are less than five years old and more than two third (68%) of these connections are single cylinder connection. On average one single cylinder gets consumed over two months, indicating that LPG is used only for limited cooking tasks. It takes only 6 days to get the refill cylinder from the day of booking and this didn't change across geography. Average amount paid for purchasing a cylinder was reported as around Rs.610/. A very small proportion of households reported paying extra money while purchasing cylinder.

EXECUTIVE SUMMARY - KEY INSIGHTS

Segmentation

Segmentation analysis was conducted based on 20 qualitative statements identified from qualitative research and four segments are identified as follows:

- **The Discerning Affluent Segment** - This segment is of highest SEC and base their decisions on convenience and traditional belief. Segment is governed by the eco-systems, do not lack the purchasing power but continue using solid fuel due to traditional and cultural rigidity and taste preferences. Predominantly mixed fuel users, they use solid fuel stove primarily for cooking roti and other traditional food items and use LPG for cooking all other items.
- **The Struggling Maximisers Segment** - The segment is at medium level SEC, trying to balance both ends, large family size and convenience factor plays key role, traditional orientation plays a small role in selection of fuel. A good proportion of these households reported access to LPG, however usage of LPG remain limited. Although these households reported health issues and other inconvenience of using solid fuel, they consider LPG usage as a costly alternative and keep on using solid fuel.
- **The Wishful Segment** - The segment has low SEC profile and affordability is the issue, however there is a strong desire to come out from the condition. Predominantly use solid fuel at present however strongly reported the inconvenience of using solid fuel, the segment reported their purchasing power as marginally better in comparison to strapped segment.
- **The Strapped Segment** - The segment has the lowest SEC profile, doesn't have disposable income, continue using solid fuel in absence of affordable alternative fuel, purchasing power remains the key constraint.

EXECUTIVE SUMMARY - KEY INSIGHTS

- **The four segments were analyzed to identify those most poised to transition to near exclusive use of clean fuels for cooking in the near term and those better positioned to adopt clean and efficient biomass stoves.**

The Discerning Affluent Segment – are identified as those most poised for exclusive use of clean cooking fuel. Around 33% of the households have already adopted clean fuel, but currently only use it for limited cooking tasks like making tea and reheating - it takes about 52 days for them to consume one full cylinder, Close to 32% of the remaining households in this segment have also reported willingness to purchase LPG in next two years. More than two third (68%) of these households reported eagerness to pay in instalment. Most all these households reported being comfortable paying the monthly instalment of around Rs.500 – 600 for cooking fuel. Hence with increased awareness on the health issues related to solid fuel, and appropriate finance option, this segment would adopt LPG and gradually shift to exclusive use.

Segments poised for Improved Cookstove –

The Struggling Maximisers Segment, The Wishful Segment and The Strapped Segment - are identified as priority segments for Improved Cookstove. All three segments belong to middle and lower economic strata and would prefer the convenient and most economic options of improved cookstove with possible handholding through consumer finance model.

In general, consumers in Rajasthan are looking for the following features in an improved cookstove:

- Stove which can fry and bake roti most efficiently
- Stove which reduce smoke emissions
- Works on any biomass fuel including cow dung etc.
- Stove which can reduce cooking time would be preferred
- Stove which reduce fuel requirement would be preferred
- Stoves which can be cleaned and maintained easily, collecting ashes should not be a difficult process
- Stove which won't require continuous attention and allow multi tasking along with cooking, flame can be controlled effectively

Key recommendations:

Communication about the benefits of cleaner cooking would help to overcome some of the identified barriers for households to make the transition to more exclusive use of clean fuels and improved cookstoves; consumer financing options should be explored to address the affordability barriers.

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RESEARCH BACKGROUND



GLOBAL ALLIANCE FOR
CLEAN COOKSTOVES

INTRODUCTION

Four out of every five rural and one out of every five urban households in India primarily depend on direct burning of solid biomass fuel like fire wood, crop residue and cattle dung in traditional mud stove/ three stone fire for cooking.

The United Nations and its member states, including India, met in September 2015 to adopt the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs). There is recognition now that access to modern energy — clean cooking and electricity — has a critical impact on the quality of life. Thus, access to affordable, reliable, sustainable and modern energy is Goal 7 under the SDG framework.

India has the largest population without access to modern energy: close to 800 million continue using firewood, dung cakes, charcoal or crop residue for cooking. Cooking has proven to cause one of the biggest health hazards in India, with the WHO reporting that indoor air pollution causes over 1 million premature deaths in India per year.

In India, attempts to deploy clean cooking interventions — improving the efficiency of biomass stoves or replacing biomass with cleaner fuels have faced many challenges, particularly in rural areas.

While the Government of India is making impressive strides in expanding the usage of LPG for cooking among the population, recent reports suggest that as many as 30 million households will continue to use solid fuel for cooking in 2040, highlighting the importance of considering improved biomass stove solutions alongside clean fuels like LPG.¹

¹ Center for Study of Science, Technology and Policy (CSTEP), “Quality of Life for All: A Sustainable Development Framework for India’s Climate Policy”, 2015; International Energy Agency, “India Energy Outlook”, 2015

GLOBAL ALLIANCE FOR CLEAN COOKSTOVES

The Global Alliance for Clean Cookstoves (Alliance) was founded with the goal of enabling the adoption of clean and efficient cookstoves and fuels in 100 million households by 2020.

The Alliance is a public-private partnership that brings together a diverse group of actors across government, development, NGOs, academia and the private sector to work towards a common goal.

The Alliance uses a market based approach and has commissioned a series of market research studies to develop a better understanding of the consumer base for clean and efficient cookstoves and fuels, in particular to identify key consumer segments and their needs and preferences around cookstoves and fuels.

Nielsen India Pvt. Ltd. undertook the consumer segmentation study for clean fuel and cookstoves in Rajasthan. The Ministry of Rural Development, Government of Rajasthan supported the study.

STUDY OBJECTIVES

- Analyze consumer segments in Rajasthan and identify priority segments for clean and efficient fuels and cookstoves
 - Closely examine all of the existing (solid fuel using) consumer segments in Rajasthan
 - Identify those with the greatest potential to reach scaled adoption of clean and efficient cookstoves and fuels (and exclusive use of clean fuels where applicable)
- Develop detailed profiles of each of the priority segments and identify key barriers and enablers for transitioning to cleaner stoves/fuels
 - Undertake primary research to understand each consumer segment's relationship with cookstoves and fuels
 - Conduct analysis to identify appropriate segmentation criteria and sizing

WHY CONSUMER SEGMENTATION?

Individuals differ from one another, some more different than others

These individual differences translate into differing ways in which consumers interact with a product / brand - what they want, how they buy, where they buy from, how do they use/consume

Not all CUSTOMERS have IDENTICAL NEEDS....Focus 'Marketing Efforts to fully Satisfy' the needs of a few customer subsets - 'segments'

Appealing to everyone means being very broad and unfocused, segmentation leads to more focused marketing



THE OVERALL FRAMEWORK: PROJECT FLOW

A sequential approach of qualitative leading to quantitative module was followed

Qualitative

To peep into consumer's life,
To understand the relationship
of each consumer segment with
cookstoves and fuel;
To assess various attitudes and
behaviors towards improved
cookstoves and clean fuel

Quantitative

Identify various segments and
estimate segment size
Identify the priority segments

Synthesize findings

*Build a comprehensive
understanding of the priority
segments*

Initiated the project July 15th 2015



Completed the project : December 2015

RESEARCH APPROACH

Research Task I

Desk Research

Research Task II

FGD with the target groups

Research Task III

Ethnographic immersion / In-depth interview with observation of cooking practices

Research Task IV

In-depth interviews with experts and other stakeholders

Research Task V

*Structured interviews with the target group households
~6,000 household sample size*

Focus Group Discussions

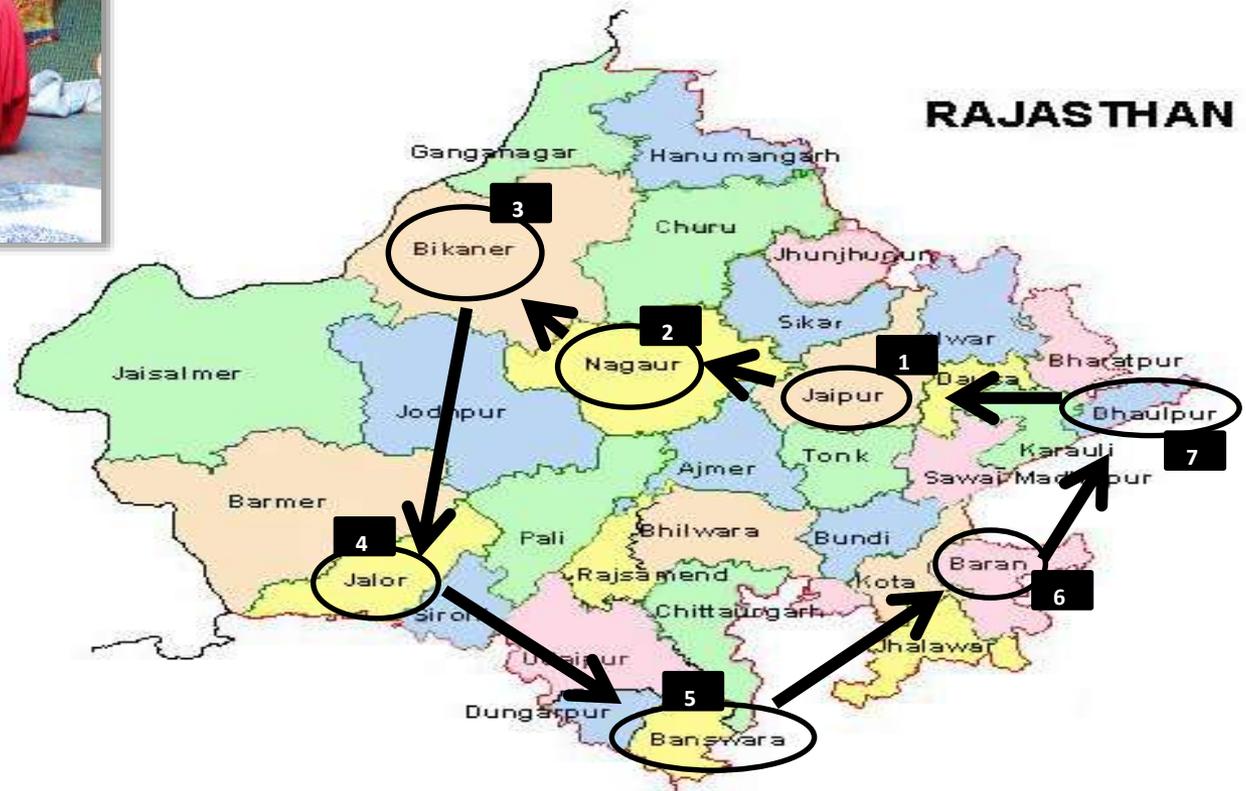
SAMPLE COVERAGE

QUALITATIVE

Ethnographic Immersions



A total of 14
FGDs and 7
ethnographic
observations
across 7
districts



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CONSUMERS WE MET



GLOBAL ALLIANCE FOR
CLEAN COOKSTOVES



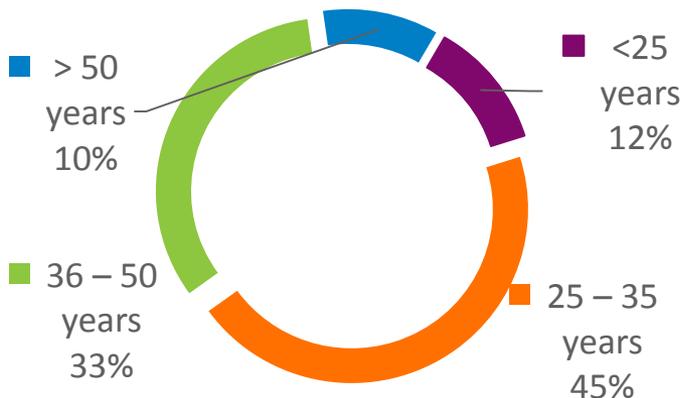
PROFILE OF RAJASTHAN STATE

- Rajasthan is located in the north western part of India.
- Largest state in India by geographical size (comprising 10% of the total land area of India) and has the eighth largest population at over 73 million (6% of the total population in India).
- The state is largely rural in nature, more than 75% of total population is from rural area.
- More than 60% of the state is desert and there is low population density.
- Drought and scarcity conditions are common, as are food shortages.
- The population is growing at a faster rate compared to national average (Growth rate 2001-2011 for Rajasthan was 21%, total for India was 18%)
- Sex ratio (926) and literacy rate (67%) are lower than total India average (940) and (74%)
- Per capita income is lower compared to the national average, during 2010-12 nominal per capita income grew at around 14% for all-India but only at 12% in Rajasthan.
- 15% of households are below the poverty line. Poverty line calculated based on 2011-12 Tendulkar Methodology, with monthly per capita consumption expenditure below Rs.1446 (Rural), Rs.2207 (Urban)

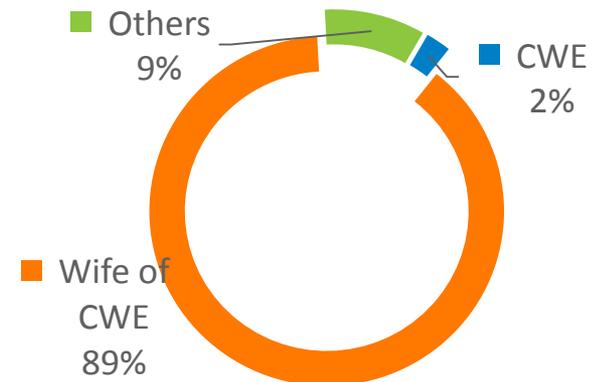
DEMOGRAPHIC PROFILE OF THE HOUSEHOLDS

- Only 3% Chief Wage Earners (CWE) are reported as female, similar proportions reported in both rural and urban areas.
- 89% of the Respondents were wives of CWE and most all of them (90%) were found in the below 50 years age group, which suggests younger households
- Average family size of 5.3 suggests that the state cling on to joint / extended family (more than one married couple staying together)
- Average family sizes didn't vary across rural and urban areas of the state, Jaipur, Dhaulpur and Bikaner districts reported having more than 6 members in a household

Age group of the Respondents



Relationship with CWE



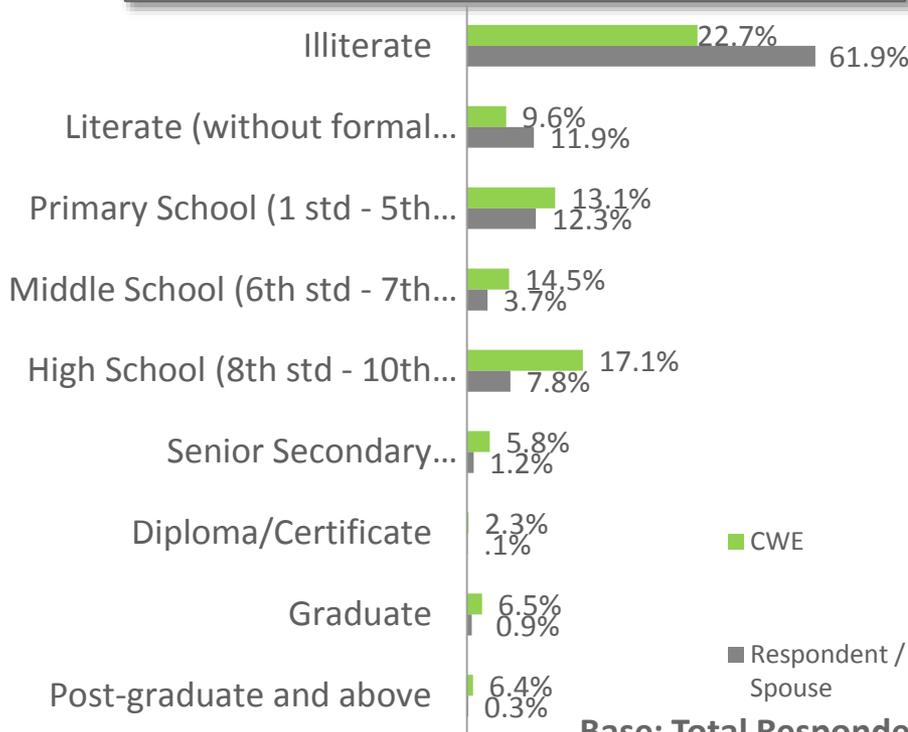
Base: Total Respondents - 6077

CWE = Chief Wage Earner, CWE is the member who earn maximum wage in the household.

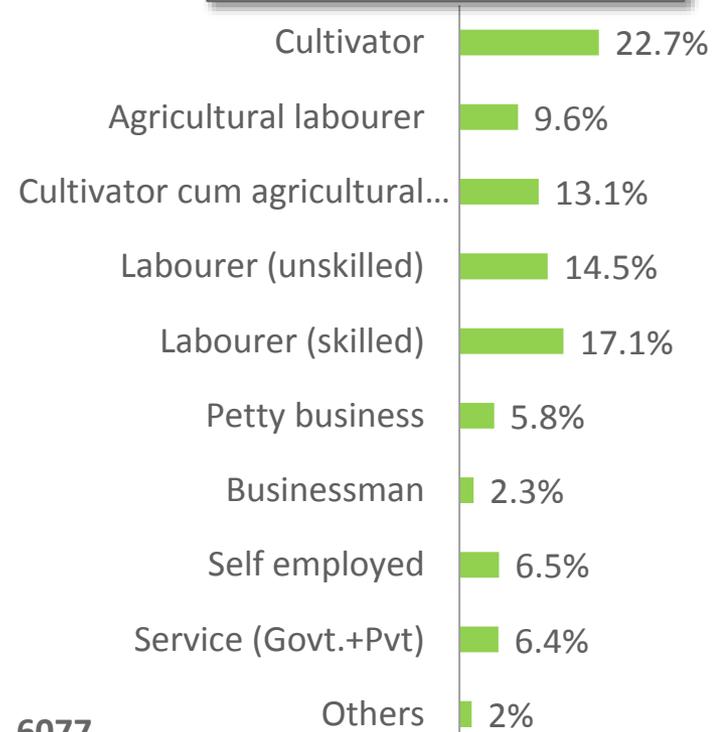
DEMOGRAPHIC PROFILE OF THE HOUSEHOLDS

- 41% of the CWEs were found as illiterate, and around 16% have completed only primary level of education.
- Literacy rate didn't vary across the households from urban and rural area of the state
- Jaipur, Ganganagar and Jhunjhunun districts reported comparatively higher level of education
- Dausa, Ajmer, Sawai Madhopur districts reported lower level of education.
- Close to half of the CWEs are involved in the agricultural sector (45.5%)
- Bhilwara reported highest proportion in agriculture sector while Jaipur reported least proportion of households involved in this sector

Education profile of CWE & respondent

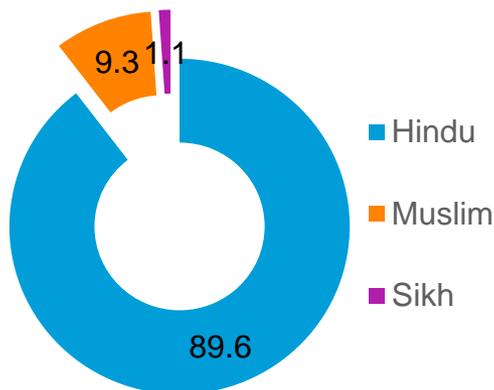


Occupation of CWE

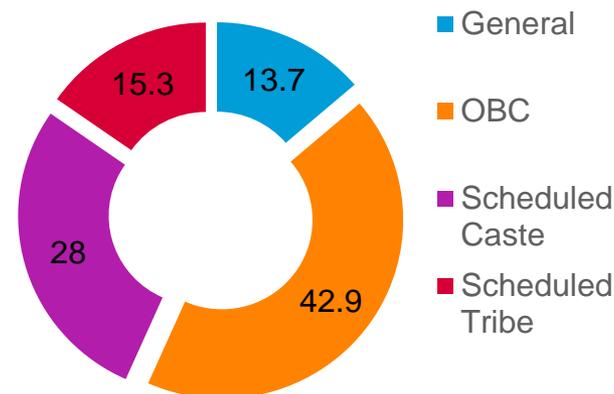


DEMOGRAPHIC PROFILE OF THE HOUSEHOLDS .CONTD.

Religion



Caste



Base: Total Respondents - 6077

- Monthly expenditure – Average monthly expenditure is around Rs.6950/- (Rural - Rs.6699/ month and Urban - Rs.7715/ month)
- Access to Public Distribution system - Around 96% households reported having access to Public Distribution system*. Around 69% households reported having APL (Above Poverty Level) Cards and the remaining households reported having BPL / AAY (Below Poverty Level/ Antyodaya Anna Yojana) Cards
- Access to Banking services – 92.4% households reported having access to banking services, none of the study district reported less than 80% penetration of banking services

Public Distribution System in India facilitates the supply of food grains to the poor at a subsidised price, Wheat, Rice, Sugar and Kerosene Oil are distributed across states through Fair Price Shops. The quantity of goods with fixed prices are given to the consumers on the basis of type of Ration Cards possessed by them.

PARTICIPATION IN SHG / COMMUNITY BASED GROUPS

- 4% households reported having access to Self Help Groups (SHG), 96% households reported other community based groups (religious / caste based groups)

Participation - Household members	Self-help Group (%)	Community Based Organisations (%)
Ajmer	0	100
Bhilwara	5.6	93.7
Nagaur	0.3	99.3
Bharatpur	0	100
Dhaulpur	0.3	99.3
Sawai Madhopur	1	99
Bikaner	1	99
Alwar	1.6	98.4
Dausa	0	99.7
Jaipur	6	92.4
Jaisalmer	0.6	99.4
Jalor	0.7	97.7
Ganganagar	0	94.7
Sirohi	0.7	98
Baran	9.4	89.3
Jhalawar	18.3	79.3
Jhunjhun	1	98.7
Banswara	5.4	94.6
Dungarpur	16.6	82.7
Udaipur	5	95
Total	3.6	95.6

“As per Rajasthan Micro finance report 2013 -14’ - There is still a huge gap between demand and supply of microfinance services in the State, 23 out of the 33 districts are low on SHG coverage and only 4 districts are women SHG districts. Districts in western and southern Rajasthan still do not have reasonable outreach of quality SHGs and there is limited presence of agencies which have a focus on SHGs to expand the outreach. As per 31 March 2014 Dungarpur (1270 SHGs), Dholpur (993 SHGs), and Udaipur (887 SHGs) lead the SHG movement under the RRLP (The World Bank funded Rajasthan Rural Livelihood Project)

PARTICIPATION IN SHG.... CONTD.

- Out of 170 SHG members close to half of the SHG members have joined the group recently i.e. in last two years
- By and large all SHG members (88% of the SHG members) are saving regularly in the group.
- **Around 100 SHG members (out of 170 members)** reported taking out a loan in last two years, loans taken from these groups has been used for livelihood based activities as well for other household consumption expenses, e.g. to:
 - Buy a tailoring machine
 - Open a chappal (shoe) store
 - Start a kirana (Grocery / convenience) store
 - Pay for family marriages / festivals
 - Miscellaneous household expenses
- Amount of loan varies between Rs.1000 – Rs.50,000
- More than half of the SHG members reported discussing income generation activities.
- A notable portion of the SHG members (23%) reported discussing health related issues, children and their well being during meetings.
- *“As per Centre For Microfinance Rajasthan - People's Education and Development Organisation (PEDO) is the biggest oraganisation working with a total of almost 1,500 SHGs in a very difficult and secluded terrain of Dungarpur, PRADAN in Dholpur, and Sirohi; Ibtada in Alwar; ASSEFA in Baran and Banswara; URMUL in Bikaner; SevaMandir in Udaipur; Navyuvak Mandal and Bhoruka Charitable Trust in Churu; IIRD in Baran; CECOEDECON in Tonk, Jaipur and Baran; and SRIJAN in Tonk and Bundi are the organisations, which have been promoting large number of SHGs for their respective microfinance programmes (CMF 2011).”*

ACCESS TO CREDIT, CONSUMER FINANCE

- Accessing credit - Only 16% households reported borrowing money over last one year (17.5% in rural and 10.3% in urban reported borrowing money)
- Purpose of loan: three most prominent purposes for taking loan were buying agricultural input (21%), meeting health expenses (21%) and meeting miscellaneous household expenses (19%)
- Only 17% of loan were taken from bank and overall less than one fourth of all loans were obtained from formal financial institutions
- Rest of the loans were obtained from money lenders, friend and family members
- Very few households reported taking loan to buy consumer durables/ buying two wheelers

Few mentions of not believing in taking loans as it is not easy to repay the loan amount as well as the interest

DECISION MAKING AT THE HOUSEHOLD LEVEL

- Consumers in Rajasthan normally make their purchase decisions based on whatever information they gather about the product/services through news paper, neighbours etc.
- In rural area, panchayat president / members are also considered by the consumers for guidance because of the respect they have for these members, In urban area, much less influence from outsider as an influencer was reported
- More than 80% households reported key decisions are taken by the Chief Wage Earners, however about half of all these households also reported that female members take part in the decision making,

Decision making at the household level:

- Whether or not to buy cooking utensils – 43% households reported that women can decide this on their own.
- Whether or not to buy asset like land, house, etc. – 34% households reported that only husband decides, however 52% households reported that both husband and wife decide and only 5% households wives can decide this on their own.
- Whether or not to buy durables like TV, refrigerator, washing machine, etc. - 32% households reported that only husband decides, however 55% households reported that both husband and wife decide and only 6% households wives can decide this on their own
- **Only 27% of households reported women having money which they can spend on their own.**

PURCHASE OF ASSETS, CONSUMER FINANCE OPTIONS

Most of the households reported they are not aware of any consumer finance options

Purchase of assets was made through one time payment through savings, similar phenomenon reported in both rural and urban area

	Bought bicycle in past three years	Bought Motorcycle/scooter in past three years	Bought Pressure cooker in past three years	Bought Mobile telephone in past three years
Rural	29.4	34.5	23.3	43.3
Urban	23.6	28.1	23.5	41.1
Total	28	32.9	23.4	42.8
Base – Households having these assets	2042	1880	1125	5668
One time -Payment made				
Rural	98.5	78.5	98.7	98.6
Urban	99.1	87.8	98.1	99.3
Total	98.6	80.5	98.5	98.8
Base reported purchase in last three years	572	619	263	2425
Average one time payment made	Rs.3000	Rs.15000	Rs.600	Rs.1000

MEDIA HABITS

- 5.5% households reported access to newspaper (Rural 4.6% and urban 8.5%)
- 32% households reported access to television (28.4% in rural and 41.5% in urban)
- Media Habits –exposure limited to the elder and the male members in the family

Base: Total Respondents - 6077

NEWSPAPERS :

- Mostly Dainik Bhaskar and Rajasthan Patrika are being followed across both rural as well as urban areas
- Read mostly by male members of the family
- If time permits, few women read the newspaper else, they prefer taking a download of the happenings by the husband

“जोह मोटे मोटे अक्षर में लिखा है वह पढ़कर भागजाते हैं” - We only read the headlines of the newspaper!!

TELEVISION :

- Not all the households have television because the family finds it to be an useless expense - ‘फ़ालतू खर्च’
- Again mostly followed by the elders or the male members of the family. News channels are limited to: Aaj Tak, News 24, Etv Rajasthan
- Few women watch serials on Star Plus, Star Utsav, Zee TV, Sab TV, Colours, Aastha and Sanskar
- Attitude towards having television at home - *“पति मना नहीं करेंगे लेकिन आमदनी देखकर सोचना पड़ता है” – “Our Husbands will not say ‘No for television’ however we decide this considering the income of the family”*

RADIO :

- Very limited exposure, not considered in a necessary set of things to have for the house

TYPE OF HOUSES



- Around 35% households reported staying in Pucca houses (49% in urban and 30% in rural)
- Close to 38% households reported staying in semi pucca houses
- 27% households reported staying in Kutcha houses
- Almost all households (98%) reported ownership of their house

Pucca House: A pucca house is one which has walls and roof made of specific materials. Wall material: Burnt bricks, stones (packed with lime or cement), cement concrete, timber, ekra etc. Roof Material: Tiles, GCI (Galvanised Corrugated Iron) sheets, asbestos cement sheet, RBC, (Reinforced Brick Concrete), RCC (Reinforced Cement Concrete) and timber etc.

Kutcha House: walls and/or roof of which are made of material other than those mentioned above, such as un-burnt bricks, bamboos, mud, grass, reeds, thatch, loosely packed stones, etc. are treated as kutcha house.

Semi -Pucca house: A house that has fixed walls made up of pucca material but roof is made up of the material other than those used for pucca house.

LAND / ASSET HOLDING PATTERN

- 53.6% households reported ownership of agricultural land (66% households in rural area and 16% households in urban area), Bhilwara district reported highest land holding
- Though agriculture in Rajasthan is primarily rainfed, majority of the sample households (80% of the households who owned agricultural land) reported access to irrigated land, this revealed the significant progress made by the state in providing irrigation facilities
- Marginal and small land holding categories (less than 10 acres of land) were common.
- Majority of households (81%) reported having functional electricity connection
- Major sources for drinking water: Piped water (23%), Public tap / stand pipe (23%), Tube well / bore well /hand pump (38%)
- Majority of households (69.5%) reported not having access to latrine and practicing open defecation

Type of area	Refrigerator (%)	Television with Dish or cable connection (%)	Mobile phones (%)	Computer (Desktop / Laptop) (%)	Internet connection (%)
Rural	11.1	24.1	93.3	0.8	1
Urban	21.1	32.4	93.2	0.9	1.6
Total	13.6	26.1	93.3	0.8	1.1

SEC (SOCIO ECONOMIC CLASSIFICATION)

- The SEC system is used to classify households in India. It's based on two variables: Education of chief wage earner, Number of "consumer durables" (from a predefined list)-owned by the family. The list has 11 items, ranging from 'electricity connection' and 'agricultural land'- to cars and air conditioners.
- There are 12 grades in the new SEC system, ranging from A1 to E3,
- Little more than one third of all households (37%) belonged to SEC A, B and C categories,
- Around one third of all households were found in SEC D and little less than one third of these households were found in SEC E categories
- Jaipur, Jhunjhunun, Ganganagar and Bharatpur reported having majority of SEC A category households, Bikaner, Dungarpur and Udaipur reported having majority of SEC E category households

	A (A1+ A2+ A3) (%)	B1 (%)	B2 (%)	C1 (%)	C2 (%)	D1 (%)	D2 (%)	E (E1+E2+E3) (%)
Rural	3.6	4.4	5.6	11.9	11.4	13.3	19.2	30.6
Urban	3.1	4.3	6.2	12.5	12.4	12.6	20	28.9
Total	3.5	4.3	5.8	12	11.6	13.1	19.4	30.2

Base: Total Respondents - 6077

KITCHEN CONSTRUCT IN RAJASTHAN

During summer 27% households reported cooking in open and 37% cook in semi enclosed areas.



Cooking in open area



Cooking in semi-enclosed area

During rainy season around 30% households reported cooking in a kitchen inside the house, another 29% reported cooking inside a dwelling room, however around 32% continued cooking in semi enclosed area



Kitchen inside the house



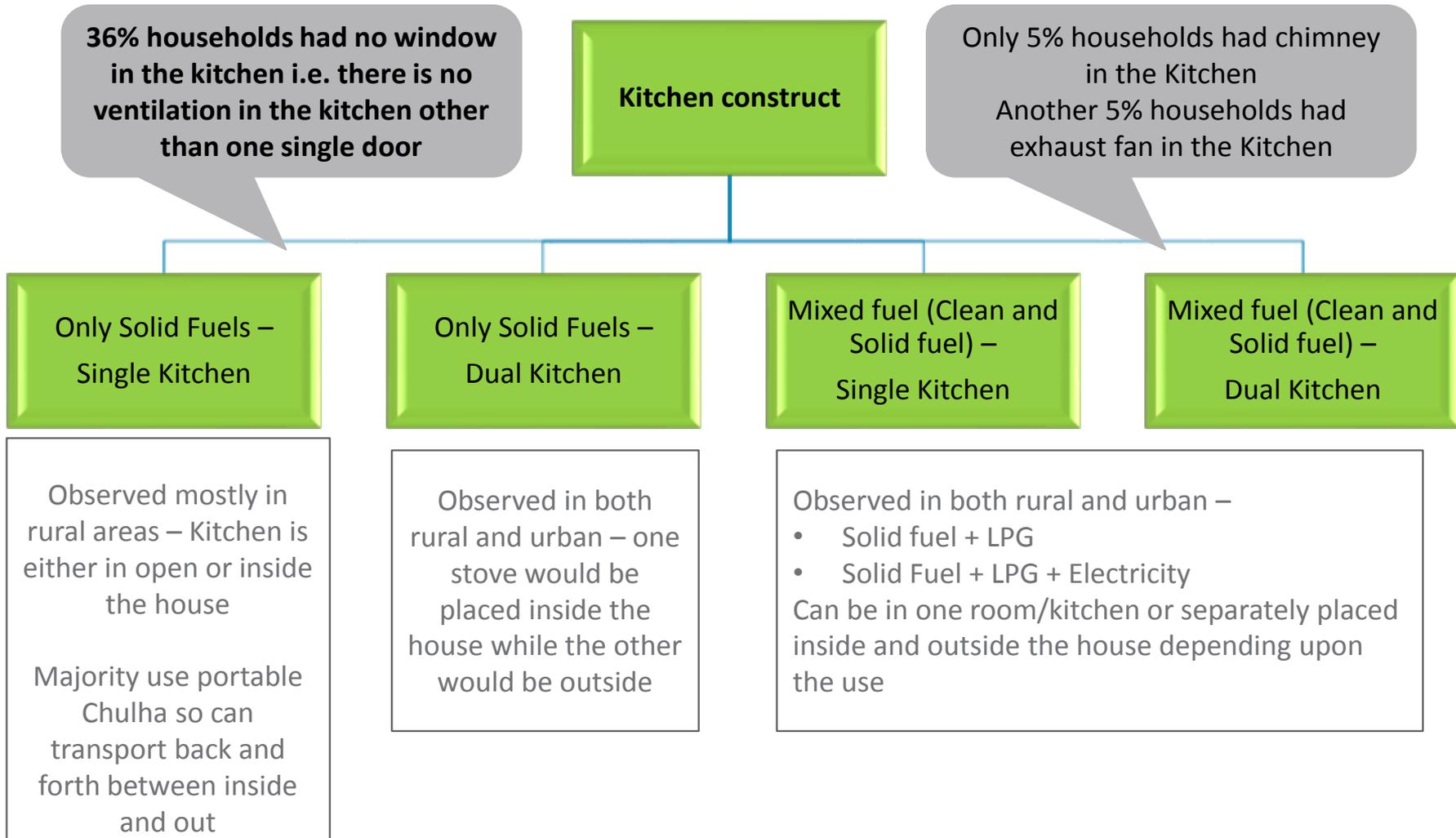
Cooking inside a dwelling room

during winter 46% cook in kitchen inside the house, however another 34% still cook in semi open area and 18% cook in open area.

Only 17% households had cooking platform

Total Respondents -
6077

KITCHEN CONSTRUCT IN RAJASTHAN



ONLY SOLID FUELS – SINGLE KITCHEN



- Notable portion of these households are using portable chulha made out of cement or mud. (19% of the sample households reported the same)
- Portable chulha gives the leverage to move the same based on the weather. If it is raining the household would place the chulha inside the house etc..
- In most cases, the **chulha are placed in open space with dry grass roof** made on it so that the smoke does not harm the walls of the house and the kitchen
- **Only required fuel is stocked beside the Chulha**, other utensils are kept in the store room



“When it rains then we have to take the Chulha inside, then when rain stops then we have keep it outside again as it creates too much smoke inside”

ONLY SOLID FUELS – DUAL KITCHEN



- Traditional mud chulha fixed at one corner of the kitchen, 85% of all households reported using traditional mud chulha (fixed model)
- Most of these kitchens had no window for ventilation, the breeze entering from the entrance door would lead to circulation of smoke in the entire kitchen
- Houses have a separate Chulha outside of the house for cooking in summers to survive through the heat
- The walls of the kitchen turn black because of the smoke as well as the utensils kept in the kitchen covered with dust
- Needed ingredients are stored in plastic bottle on cement slab placed on top of Chulha
- Women prefer to cover their head while cooking as the smoke would dirty their hair.
- Mostly kitchen which have Chulha inside are not well maintained and not good to look at



MIXED FUEL (CLEAN AND SOLID FUEL) – SINGLE KITCHEN



- Have two / three different types of cooking stoves in one kitchen for different purpose attached with each
- Traditional fixed chulha, electric and LPG stove placed together in the same kitchen.
- Only needed ingredients are placed on chimney platform and shelf next to it – other utensils are places outside the kitchen in a different room
- The wall near the Chulha black because of the smoke, however the wall of the rest of the kitchen was painted
- Chulha is mainly used for preparing roti, LPG is used for remaining cooking, Electric stove is used to heat water or as a back up when LPG runs out

“Roti tastes good when made on Chulha, hence, I use it to cook chapatti's for the family”

MIXED FUEL (CLEAN AND SOLID FUEL) – DUAL KITCHEN

URBAN



- **Urban houses**, kitchen inside house for LPG and on terrace a portable mud Chulha kept for making Chapattis
- **Steel vessels on LPG stove and mud vessels on Chulha**

RURAL

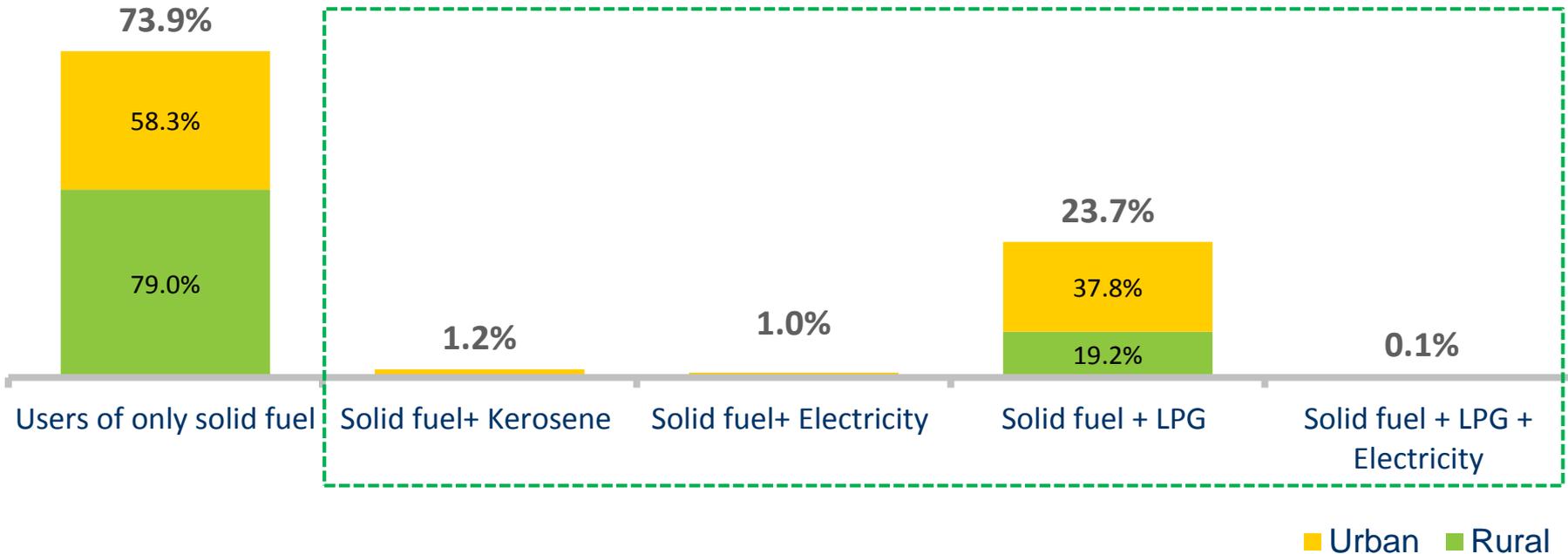


- **In rural area**, LPG is inside kitchen, Chulha is outside in open space with dry grass roof on top.
- Utensils are kept separate for both LPG and Chulha
- Brick wall near Chulha turns black because of the smoke



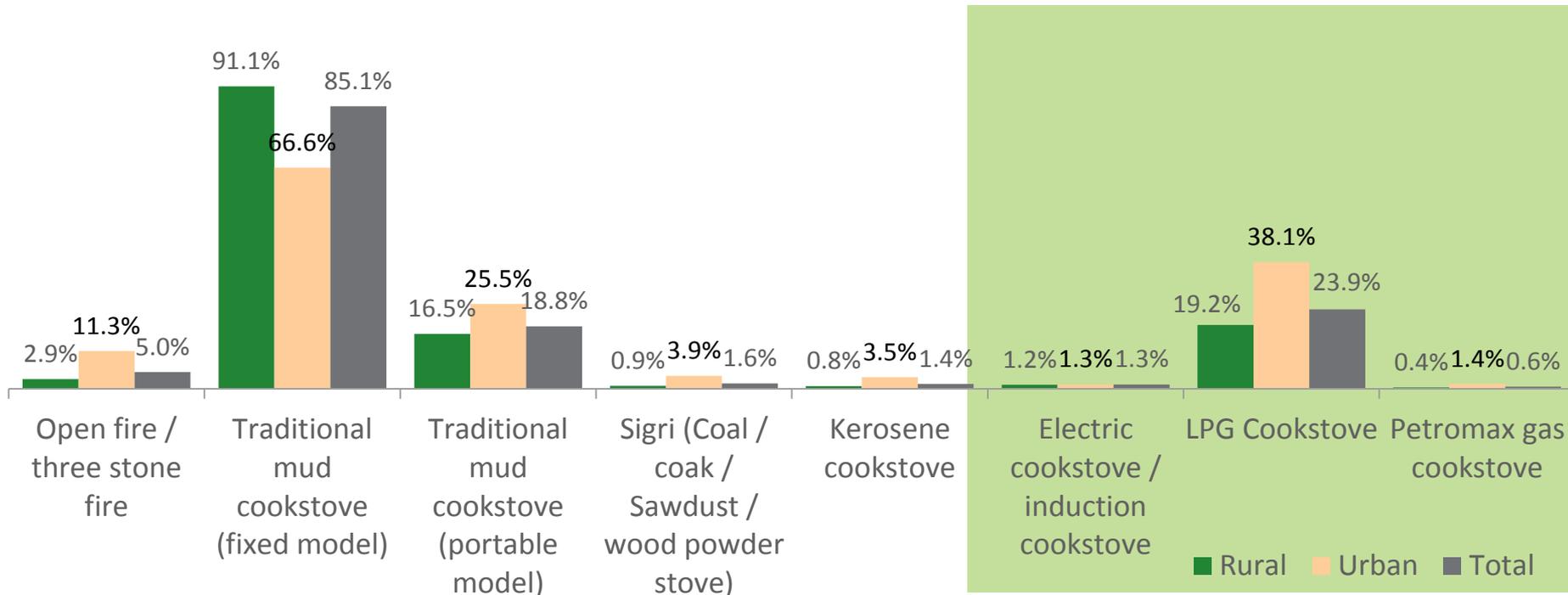
USAGE OF FUEL

- Close to three fourth of all households (74%) reported using solid fuel, remaining households reported using mixed fuel.
- Close to one fourth (24%) of the households reported using solid fuel and LPG
- Usage of solid fuel, LPG and electricity was found as nearly absent
- Negligible proportion of households reported using solid fuel and kerosene



ACCESS TO FUEL/STOVES

- Small proportion (5%) reported using open fires
- Almost all households (85%) reported using traditional mud cookstove (fixed model)
- A notable proportion (19%) of households used traditional cookstove portable model
- 24% households reported having access to LPG cookstove (19% in rural and 38% in urban areas)
- Penetration of electric stove / induction cookstove was found as negligible
- Improved biomass stoves were not found



Base: Total Respondents - 6077

COOKING PATTERN

- 95.6% households reported cooking twice per day, about 2.8% reported cooking three times and remaining 1.5% households cooked only once
- Average cooking time was reported as 70 minutes in the morning as well as in the evening. Total cooking time in a day is around 142 minutes.
- On an average 3 - 4 types of dishes are prepared on a day
- More than 98.5% households reported cooking Roti daily with either dal / curry (85%) or boiled / fried vegetables (41%). Around 90% households prepare Roti twice a day.
- Less than 5% households reported cooking meat / fish on a given day
- 74% households reported not cooking rice on a given day
- Common type of vessels- Steel vessel (91%), Aluminum vessels (47%), iron vessel (36%) and earthen vessels (29%)
- About 80% Respondents reported family members do not help in cooking
- **About 33% households (having children below 5 years) reported that the children are present in the kitchen during cooking – always / most of the time**

FOOD ITEMS COOKED VS. TYPE OF STOVE

Usage of traditional stoves

84% households reported cooking roti using solid fuel stove

Average time taken in cooking roti every time is 42-44 minutes

80% of all households reported cooking side dishes like (dal & vegetables) by using traditional stove

Usage of LPG stoves (LPG penetration 24%)

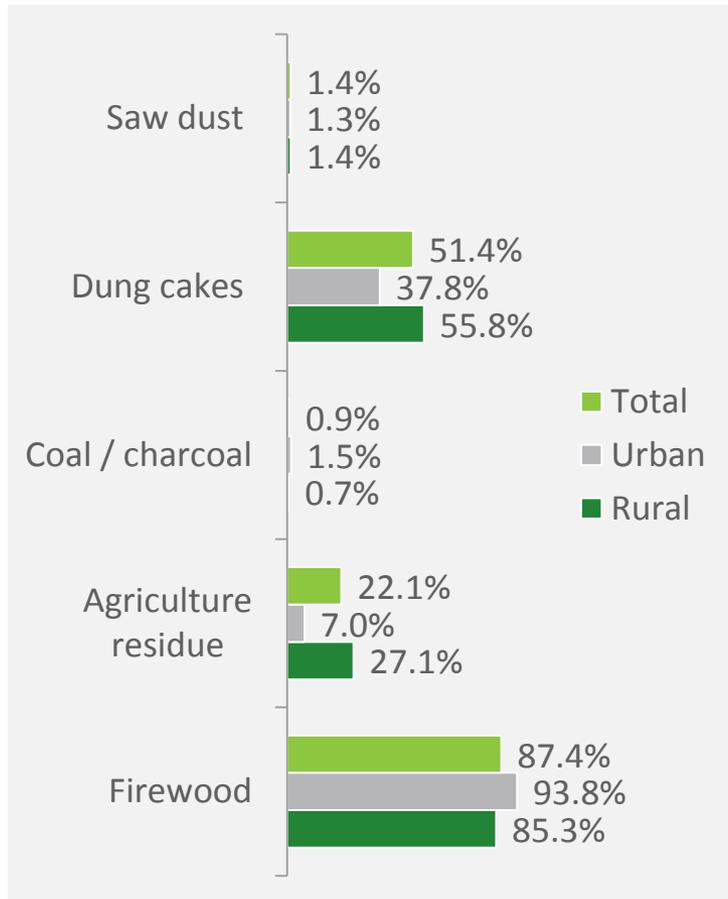
LPG stoves are used for preparing roti by 17% of all households it takes on an average 34 minutes.

Close to 20% of all households used LPG stove to prepare dal & vegetables.

All households reported having access to LPG are using the same for making tea and coffee

In case of Rajasthan, close to 24% households, have access to LPG, and 20% are using it regularly for cooking main dishes

TYPE OF SOLID FUEL USED



Total Respondents - 6077

- Majority of households (87%) reported using firewood,
- A notable proportion (22%) of households reported using Agricultural crop residue
- Around half of all households reported using dung cakes, including over one third of urban households in the sample.
- Average monthly consumption of firewood was 120 Kg (for all households), (128 Kg for rural area and 99 Kg for urban area) – On an average 4 Kg of firewood used in a day
- Average monthly consumption of dung cakes 146 pieces in numbers (for all households), (152 pieces in numbers for rural area and 118 pieces in numbers for urban area) - On an average 4-5 pieces of dung cakes are used in a day

SOLID FUEL PURCHASE VS. COLLECTION PRACTICES

- 65% of the households, who used firewood, reported procuring it only through collection. (Urban 40% and Rural 74%)
- In case of agriculture crop residue and dung cakes, collection practices are more common in comparison to purchase, households in urban area reported purchasing such fuel more often in comparison to households in rural area
- Districts with higher economic status reported larger proportion of households reporting only purchase of firewood, e.g. Jhunjhunun (36%), Jaipur (35%) and Dhaulpur (39%) districts notable proportion of households reported only purchase of firewood

	Both Collection and Purchase (%)	Only Purchase (%)	Only Collection (%)
Firewood			
Rural	16.9	8.9	74.1
Urban	31.5	28.3	40.2
Total	20.8	14.1	65.1
Agriculture - crop residue			
Rural	5.2	0.2	94.7
Urban	29.5	1.9	68.6
Total	7.1	0.3	92.6
Dung cakes			
Rural	4.5	3.1	92.4
Urban	20.9	20.9	58.1
Total	7.5	6.3	86.2

Base: Households reported using Firewood, Agriculture crop residue and dung cakes

SOLID FUEL PURCHASE PRACTICES

No. of times purchased
10 times in a year (urban
area purchase more often)

Average amount of wood
purchased around 235 Kg /
last purchase (urban area
purchase in smaller quantity
– 150 Kg)

Rs.1020 paid last time for
firewood
i.e. about Rs.4-5 / Kg
For about Rs. 480-
600/month

60% of the households (those
who are purchasing
firewood) purchasing from
the same neighbourhood

44% of the households (those
who are purchasing
firewood) paying
transportation charges –
Rs.310/

14% of the households (those
who are purchasing
firewood) paying additional
labour charges for loading /
unloading / stacking/ cutting
– Rs.288/

Dung cakes are purchased
about 14 times in an year on
average

Around 200 Dung cakes are
purchased every time,
average cost around Rs.1.5
per piece

More than 80% households
reported purchasing Dung
cakes from the same
neighbourhood

Base: Total Respondents purchasing firewood - 1851
Base: Total Respondents purchasing dung cakes - 414

SOLID FUEL COLLECTION PRACTICES

Firewood collection is normally a weekly practice and almost all households collected firewood twice in a week (7-8 times over a month)

Every collection occasion for firewood takes about two hours i.e. about 14 - 16 hours in an month (nearly 2 working days)

In case of Sirohi and Udaipur districts firewood gets collected every alternate day i.e. (14 – 16 times in a month)

Almost 78% households collecting firewood from the farm and forest area around their villages (Average distance travel around 3-4 Km)

Responsibility of collecting firewood lies with the adult female members of the households (81.2% households reported the same)

Dung cakes are collected and prepared almost 6-7 times in a month

Every such occasion take about 1 hour 15 minutes

About 61% collected the cow dung from their own premises only – households having cattle

Adult women are only responsible for collecting and preparing dung cakes

Hands pricked with thorn while getting wood



Base - Total number of households collecting firewood – 3798
Base - Total number of households collecting cow dung – 2145

ENABLERS FOR USING FIREWOOD FOR COOKING

Easy availability

- Firewood is easily available from nearby woods for free or at abandoned places.
- Most households have agriculture land, hence easy access to woods
- Residue of mustard crops and left over sticks are used, corn sticks called as Raade are also used in Chulha
- During winters households collect dry twigs from 2 – 3km away and stock for whole year
- 3 – 4 women get together, chat and walk 3km to a canal to collect dry twigs

Economical option

- If households do not have time to collect, they buy 10 – 12 kg for Rs 250 and transport in auto for minimal charge from nearby mill
- Some households also buy wood from adivasis (tribal communities), Rs 120 for 1 bundle (40kg) which will sustain for 8 – 10 days
- Vendor gets wood stocked on camel's back which costs them Rs 500 – 1000 and it can be utilized for 2 months period.

Accessibility of clean fuel

- Perception that LPG gas takes too many days to deliver once the order is placed
- To buy one cylinder in open market (black market) costs around Rs.1000, which the households are not comfortable in paying at bulk
- Consider ordering and getting a cylinder as a tiring process – visiting the agency and standing in queue for a very long time etc.

“My husband will say, you earn then you will know how much expenditure it is to buy LPG”

“My mother in law scares me telling that gas will burst”

TRIGGERS FOR USING FIREWOOD FOR COOKING...CONTD.

Taste preference

- Association with a better taste of food when cooked on Chulha using firewood
- Bajra roti, bajre ki khichdi can be made only on Chulha, hence usability of Chulha for cooking traditional food is higher than other cooking methods
- Dal baati has to be made on Chulha

Emotional connect

- Since the ancestors have been using firewood for cooking, it has become a tradition.
- Using firewood is connected with respecting the tradition started by the ancestors
- The first Roti prepared in the household is offered to fire or Chulha
- It has become a habit of women in Rajasthan to cook using Chulha and they have now adapted to this routine

Allows multi tasking

- By the time the Chulha lights up, the women clean the house and the area around the Chulha
- Even other household work taken up regularly while cooking using Chulha.

“Khaane ka taste bahot achha hota hai. Humare ghar mein koi bhi gas ka khana nai khata”

Food taste much better while cooking using firewood, in my house no one take the food cooked on LPG / Gas stove

“If I am making sabji on gas stove then my sister in law will prepare roti on Chulha”

ENABLERS FOR USING COW DUNG CAKE FOR COOKING

Free availability

- Consumers who have a cow at home, easily take cow dung from there and prepare the cow dung cake
- In rural areas as well as urban area, cow dung is available for free on roads.
- Women of the house collect the same and make cakes of the cow dung before allowing them to dry
- Normally drying the cow dung cake is done on the terrace of the house
- However if there is a need to purchase - It is either bought at the time of preparing dal baati or when a seller comes.
- During Teja Dasvi, a festival time, people from tribal community come to urban areas to sell them

Perception of increasing longevity of other fuels

- Cow dung cake is mixed with fire wood and used in Chulha
- Some mentions of burning it along with paper, plastic, kerosene.
- In some places cloth pieces are used along with cow dung and firewood to light the Chulha as cloth catches fire faster.
- Hence, in order to retain the fire for longer, consumer believe in using combination of fuels



Acts as a catalyst for lighting up Chulha

- Cow dung cake is used as a catalyst to fire wood as it catches fire very soon
- Perceptions that cow dung cake provides heat for a long time

I make the cakes and keep this for drying on the terrace, it doesn't take much time for drying

"It catches fire very quickly and hence it is always better to use it. Else I will spend all my time trying to light up fire for cooking"

BARRIERS AROUND USE OF SOLID FUEL

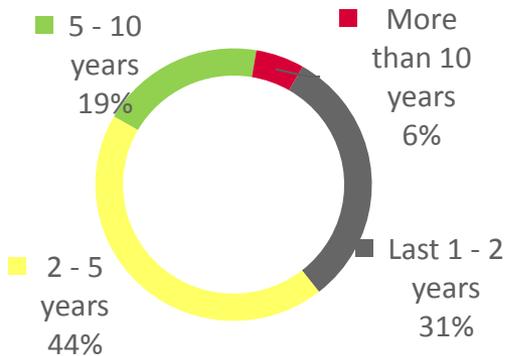


- Use of solid fuel / Chulha is considered as an arduous task by most of the households
- Interiors of room turns black, when Chulha is kept inside the room / kitchen
- Mentions of cow dung cake emitting excessive black smoke which affects the walls and the utensils of the house
- Tea smells smoky, roti has ashes on it and sabji also does not taste good.
- Plastic used in Chulha smells bad and its smoke is bad on health
- During rainy season, it takes 3 hours to light Chulha and 1 complete match box is utilized.
- Health affects like headache, chest pain, perspiring, heat pimples, skin allergy etc. were spoken about
- *"It takes a lot of effort in washing vessels as they turn black"*
- *"More time is spent on lighting the Chulha than even cooking food on it"*
- *"Clothes turn black , sari pallu with which we cover our head so that hair does not get spoilt also turns black"*
- *"My back starts hurting sometimes when I am making cow dung cake as it takes time depending on the quantity of cow dung I have"*

LPG USAGE

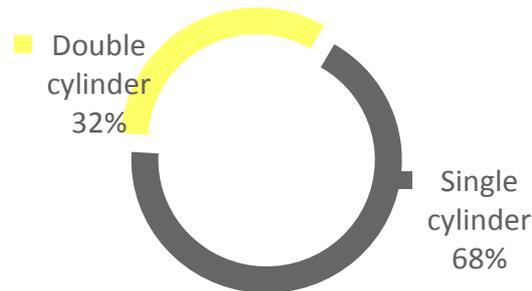
- 24% households reported having access to LPG in Rajasthan
- Three fourth of these connections are less than five years old and more than two third of these connections are single cylinder connection

Duration of LPG Connection



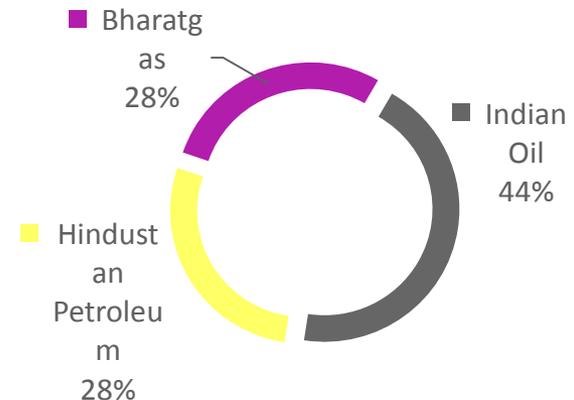
Base - Total Respondents 1449

Type of LPG connection



Base - Total Respondents - 1449

Name of LPG distributor



Base - Total Respondents - 1449

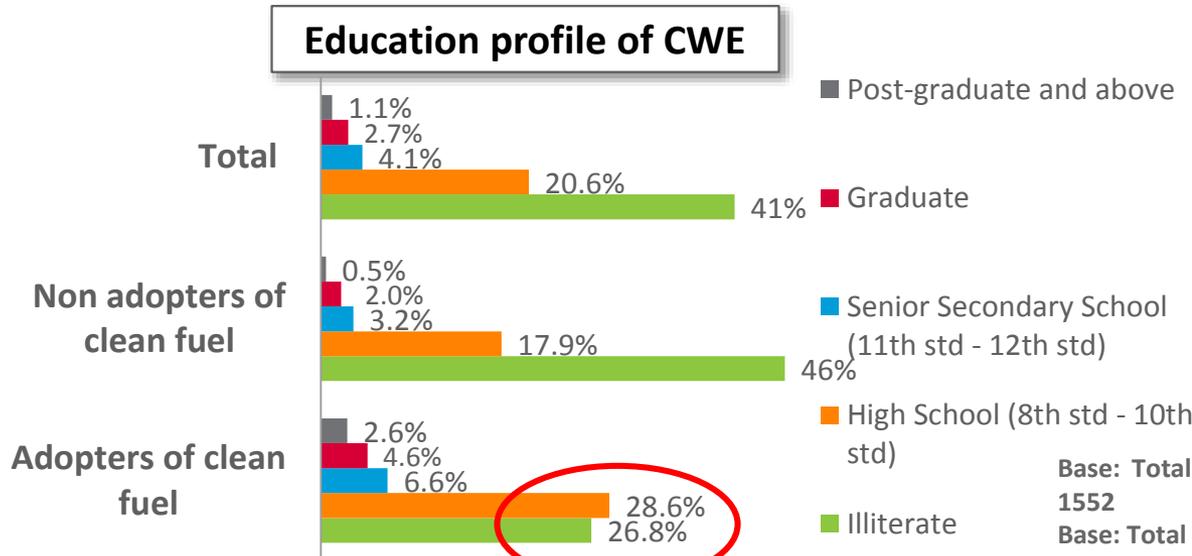
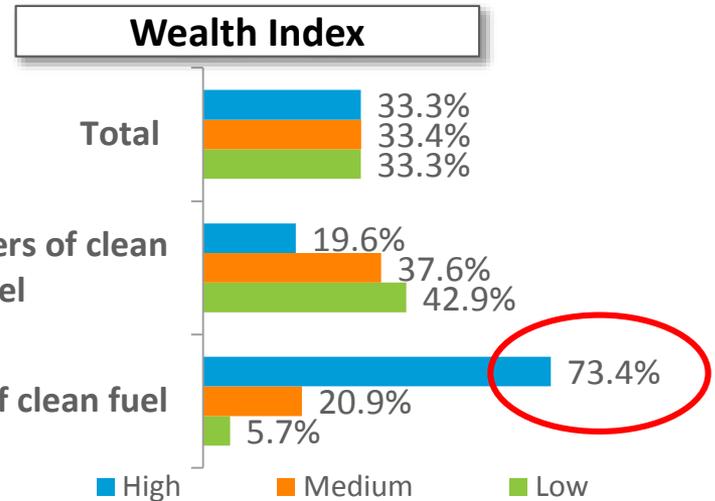
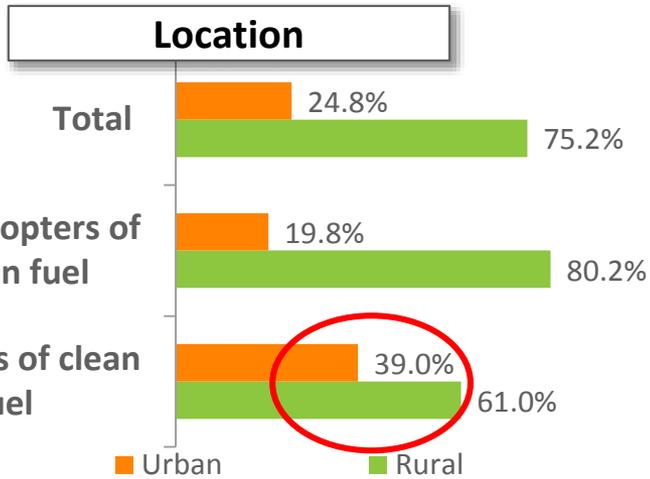
Stacking behaviour

Wealth Index	Number of days it takes to consume one full cylinder?)
Average no. of days	
Low	61.3
Medium	61.6
High	59
Total	59.6

Time taken to get the cylinder from the day of booking	6 days (Average)
Average amount paid while purchasing last cylinder	Rs.610
Paid any extra amount other than the receipt – Reported yes	1.4%
Registered for transfer of subsidy amount to your bank	80.2%
Receiving the LPG subsidy amount in your bank regularly	96.1%

ADOPTION OF CLEAN FUEL VS. NON ADOPTION

- Adoption of clean fuel has a positive correlation with urban area and wealth index of the household and education profile of Chief Wage Earners



Base: Total Respondents adopters of LPG / clean fuel - 1552

Base: Total Respondents adopters - 4525

Base: Total Respondents all - 6077

CASE STUDY - 1



“My name is Jyothi, I have 2 children, one is going to school and other one is a toddler. My husband has a government service and my mother-in-law works as help in other places”

*“I wake up by 5.30am and clean our house. Only after taking bath we light the gas stove to prepare tea. **Cooking on this is fast and clean. Breakfast has to be packed in my sons lunch box by 8am hence, after filling water, cleaning house and all, I cannot spend time on lighting Chulha.***

“Cooking on Chulha is used only for making roti, and now, as it is rainy season all the firewood is wet”

“I am preparing for a competitive exams so, I prefer to finish all work as fast as possible. I don't get time to watch TV or go out also”

*“As children are very small, attention has to be paid towards them also. **In such circumstances LPG is the best option for safe, fast and clean cooking”***



CASE STUDY – 1...CONTD.

- Aspirational, wants to bring a change for herself and her family



“Mein gharwalo ke liye naashta banane ke baad, humara jo ek group hai mahilao ka unke saath samaye bitati hun”

After I finish preparing food for my family, I would prefer to spend time for women self help group in my community

THEM:

- Secondary level education, earning to meet her personal needs. Involved in tailoring etc.
- Mostly staying in a nuclear family and have an equal say in the family
- Opinions, responsibilities and decisions are equally shared with husband

THEIR LIFE:

- Doing daily home chores as well as involved in some occupation to contribute for the family sustenance as well as well being
- Morning starts with cooking for the family, packing lunch for children as well as husband followed by going for work. Evenings are spent with children or neighbors before cooking dinner for family
- Temple visit, market or mela, visiting relatives place and sometimes family going out on a trip is the ‘out of home time’ for them

THEIR ASPIRATIONS:

- Supporting family economically
- She makes an extra effort by working to contribute the total income of the household

THEIR TENSIONS:

Tensions revolve around managing the expenses of the house such that everyone is able to get the basic necessities

RECREATION FOR THEM:

- TV news or daily soaps is accessed only if time permits or children permit from their cartoon time

CASE STUDY 2



"I am Farzana, living with my 3 children, mother in law, brother in laws and their family. My husband passed away while working on duty"

"As per government rules I had to get his job, but as I have studied only till 3rd standard, they did not it to give me. They got my signature on a paper which read as, I am not interested in that job anymore. I am waiting for my son to turn 18, so that I can fight in court for that job"

"This is my kitchen and bedroom, we have all our clothes and things kept in that box behind me. We sleep here only in night"

"Mornings I prepare tea and roti on gas stove as my kids have to leave for school. Then roti for rest family members is made on Sigrī (traditional stove). In mean time my sister in law prepares sabji for lunch on gas stove"

"My mother in law handles everything and because of her only our family is united. Her 2 sons only earn but money management and purchasing is left to her"



CASE STUDY 2

- Her life revolves around her family and their needs – minimal exposure outside the four walls of the house



*“Humare bachhe khush rahe,
wo hee kaafi hai”*

*“Mein apni bachhi ko padhana
chahti hun”*

*Our children are happy, that’s
my only aspiration in life . I
want to get my children
educated*

THEM:

- Basic literacy, working in an unorganized sector
- Culturally rooted and suppresses her wishes under tradition and sustaining livelihood

THEIR LIFE:

- Life revolves around her duty of looking after family and their happiness.
- She wakes up to a mechanical life of cleaning, cooking, and maintaining house hold chores within the four walls
- Stepping outside home has to be with other women or a family member. Going out alone is not permitted

THEIR ASPIRATIONS:

- Wants the children to study and contribute to the family. They don’t want their children to have the same lifestyle as them.

THEIR TENSIONS:

All her tensions revolve around her children and family- their happiness means everything to her

RECREATION FOR THEM:

- TV is either for religious preach or time filler with serials
- Newspaper is not meant for them, Radio is extinct

ENABLERS FOR USING LPG STOVE

Faster cooking

- Faster cooking is a clear trigger for consumer for adopting LPG in their cooking practices. However food cooked on Chulha remains the gold standard
- Not much effort is needed while cooking on LPG stove

“For preparing tea, it used to take so much time, getting the Chulha on used to only take more time than making tea”

Clean and smoke free cooking

- Cleaner cooking – as the walls of the house do not get affected and turn black
- There is hardly any smoke emission while cooking using LPG stove, consumers prefer buying LPG stove if there is proper awareness of how to use it as well as about the costing

“Kitchen is clean now, eyes don’t water due to smoke and food also doesn’t have smoke smell”

ENABLERS FOR USING LPG STOVE

Health Associations

- Since the amount of smoke involved while cooking is less, LPG stoves are considered to be health friendly unlike Chulha's and Sigri's
- Since LPG allows the consumer to place the stove over a platform, it does not lead to back pains while cooking

"My eyes use to start watering and so does my daughter's eyes when she is sitting next to me"

Generation change

- Women of the household have now started demanding for a LPG stove because of the problems attached with using Chulha
- There are a few households which have heard the woman's voice, however there are still a lot of households where this demand is not given importance

"My daughter cooks on LPG stove only, she doesn't prefer to make anything on Chulha"
"My parents gifted me stove in my wedding, as they knew that I would take too much time to cook on Chulha"

Even though consumers are aware about the advantages of using LPG Stove, perception that it will be costly and low awareness of how to use/order the stove reduces the overall appeal of using it

FEARS ASSOCIATED WITH LPG COOKING



Constant Attention

- Small children have to be paid attention
- 1 case observed where a kid opened the stove nob while mother was washing clothes

Fear of gas explosion

- In newspaper / community they read / hear the stories of gas burst, and elders with tradition of using Chulha scare their daughter / daughter in laws, and stop them from shifting to clean fuel.

Subsidy money

- Few mentions of the recent subsidy system (direct transfer of money to Bank account) that it is not user friendly and the reasons stated were :
 - Given that these consumer live on a hand to mouth existence, there is no excess money at disposal. And the subsidy would come only after a certain period, which is difficult

“This subsidy thing is problematic we feel Chulha was only better’.

Refilling Cylinder

- People with 1 cylinder find it a problem, and fear that if their cylinder gets over, they have to travel till agency, stand in queue despite there being an facility of ordering on phone



SUMMARY – LPG STOVE

Advantages

- Perception of cooking being faster, cleaner and hygienic for children and family members if LPG is used
- No pre-preparation for cooking as compared in Chulha is required like collecting woods, cloth pieces or spending time in lighting the stove
- Cooking in presence of guests is convenient as it does not take much time and looks more presentable
- Health side effects while using Chulha is nullified by usage of LPG since the smoke emission is not involved
- Maintain house aesthetics

“People who can afford it will obviously buy LPG stove as it is very easy to cook food using it”

“I used to feel scared when my children used to sit next to me while I cooked using Chulha”

Disadvantages

- Food cooked on LPG has taste and nutrition missing, according to these users.
- Perception that - subsidy procedure of paying the full price of cylinder (direct transfer of subsidy to bank account later) is a hassle and is seen as waste of money – acts as a hindrance to shifting to clean fuel
- People relocated from other state and not having permanent address are compelled to buy cylinders from open market (black market) by paying extra amount – issues of Ration card
- Single cylinder users perceived that timely delivery of the cylinder would be difficult and hence always keep some alternative
- In joint families, LPG cannot be the only fuel used as it would get over very soon due to the amount of food cooked. Perceived as a very expensive source of cooking.

“We use it only for heating water and making tea. My family is very big we can not cook proper food on it”

HEALTH ORIENTATION

Reported Health issues : Cough, cold and asthma

Cough and cold (Households reported Adult suffered in past six months) – 17%

Cough and cold (Households reported Children suffered in past six months) – 29%

Asthma (Households reported - Adult household members suffering) – 3.4%

Asthma (Households reported Children suffering) – 4%

Respondents perceived usage of chulha/fire wood is connected to cough and cold -25%

Respondents perceived usage of chulha/fire wood is connected to asthma - 37%

Base: Households reported such health issues

Watery eyes, burning sensation leading to poor eye sight

Skin allergy due to washing vessels with mud, ash

Blowing continuously leads to chest pain and breathing problem

Back pain, shoulder pain, and leg pain because of sitting in front of the Chulha, collecting firewood's etc..

ATTITUDE TOWARDS HEALTH

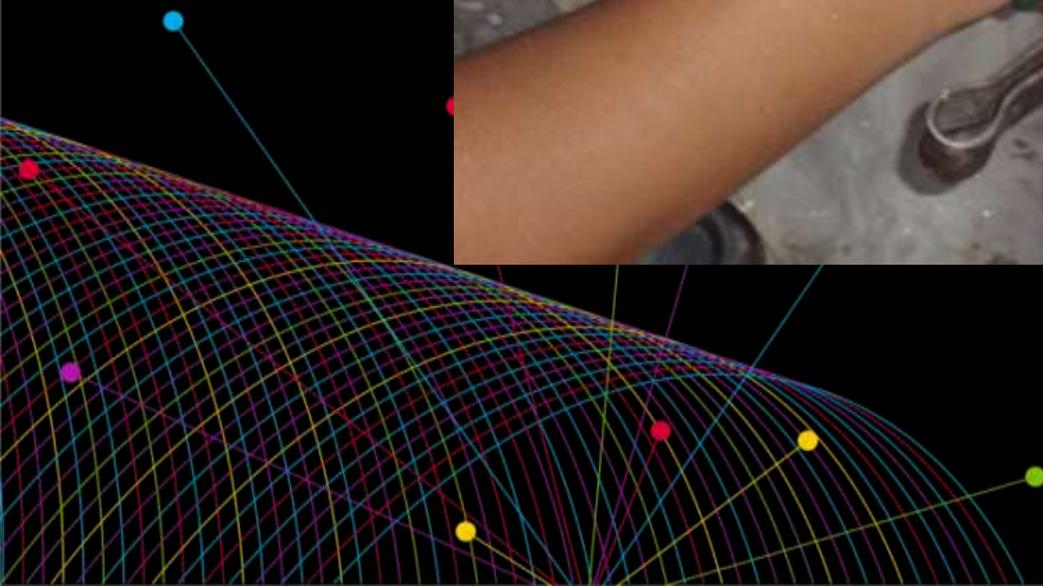
The Ignorant

- Child's health is known to be important, but overlooked due to situation of life, without any option.
- Perception that cold or cough is because of climate effect only. Very few realised that cold/cough can be because of inhaling smoke
- Women have to wait for their husbands to return home for taking their sick child to a doctor
- Self health is not taken serious by women either in Urban or rural area

The Conscious

- Good healthy food, milk and complete snacks or variety of food cooked for a child is what health means to them

While they acknowledge the importance of health very few act upon it in immediacy



SEGMENTATION ANALYSIS

RAJASTHAN - SEGMENTS

Discerning affluent – 15%



'Chapati / Roti tastes good when made on Chulha , hence, we have to use it to cook chapati's for the family

My in-laws / family members like the food cooked on Chulha, they will not have food cooked in LPG

- Easy on life and decisions are convenience based.
- They do not lack the purchasing power but continue using mud-stove due to traditional and cultural rigidity and taste preferences.
- Lack of sensitivity on health impacts further adds to the behaviour patterns and choices.

Struggling maximisers - 20%



In case of large family it's important to have Chulha which allows simultaneous cooking of multiple dishes

People who can afford it will obviously buy LPG stove as it is very easy to cook food using LPG

- Already adopted clean fuels and stoves, yet continue using solid fuels as well.
- The main reason to do so is to save more expensive fuels.
- Affordability is concern, perceived that use of LPG for all cooking is a waste of money
- Health orientation is relatively less but not absent.

RAJASTHAN - SEGMENTS

Wishful- 33%



“Cooking using LPG is a much cleaner and healthier method of cooking and women who uses LPG get more time for themselves”

- Strongly connect with the inconvenience of firewood
- Aware about the benefit of using LPG and keen on adoption of cleaner option
- However affordability and access to alternative fuel remain the key challenge

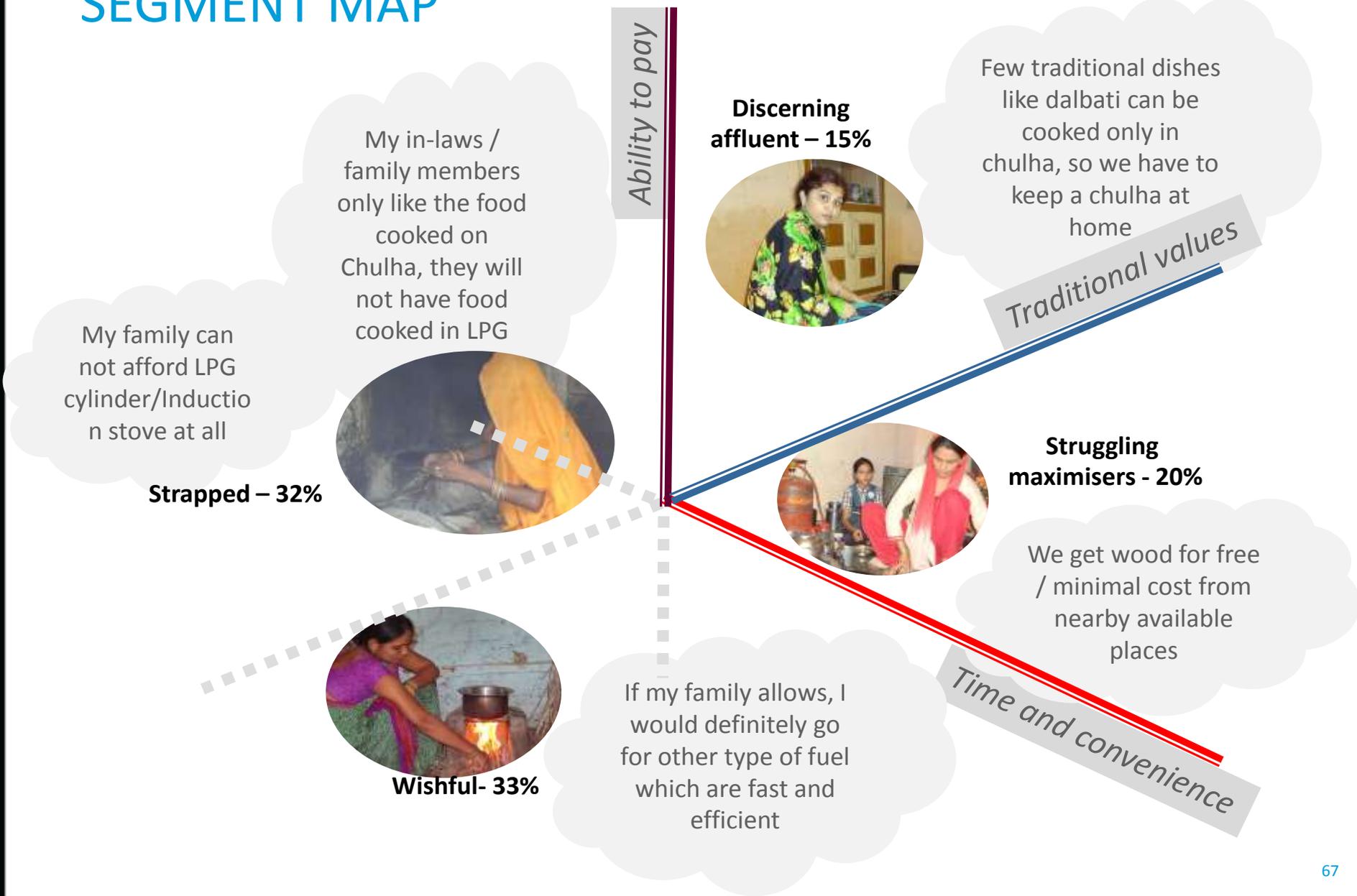
Strapped – 32%



My family can not afford LPG cylinder/Induction stove at all
We get wood for free from nearby available places

- There is absence of disposable income.
- They can use only solid fuels and Chulha.
- Due to lack of purchasing power there is no alternative as Chulha is “easy on pocket”.
- Health orientation plays no role

SEGMENT MAP





Discerning affluent – 15%

THE DISCERNING AFFLUENT SEGMENT

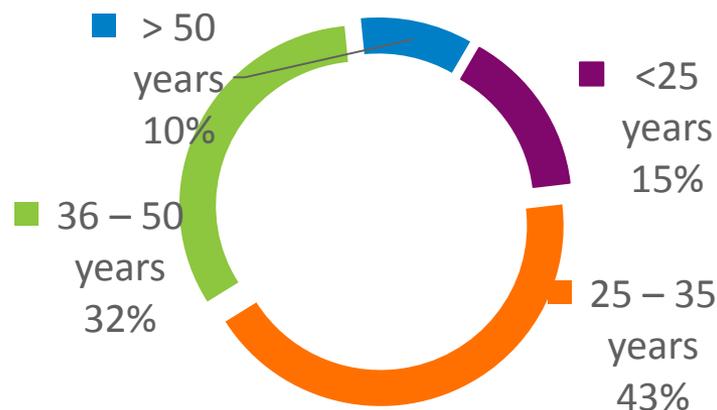
Location

Rural	70%
Urban	30%

Districts reported majority of the segment

Ajmer	13%
Bharatpur	12.2%
Nagaur	11.7%
Dhaulpur	9.9%
Jhunjhunun	8.3%

Age group of the Respondents



- Located mostly in urban areas of the state*
- Most commonly reported in Ajmer, Bharatpur, Nagaur, Dhaulpur and Jhunjhunun districts (55%)
- Lower age group of the CWE and spouses,
- Better education profile more number of graduates and post graduates
- Majority of Chief Wage Earners engaged in service sector, petty business and other formal sectors of employment

* - Sample hhs selected with a ratio of 75:25, Urban: Rural



Discerning affluent – 15%

THE DISCERNING AFFLUENT SEGMENT...CONT

- 44% reported in SEC A, SECC B and SEC C category
- Average monthly consumption expenditure around Rs.8000*
- 1.8% household members reported participation in SHG
- Only 13% of these households reported borrowing money in last one year and a notable proportion of these households took loan to meet expenses related to marriage and other social obligation
- Around 50% of these households are staying in pucca houses and remaining reported staying in semi pucca houses,
- Almost all households reported having functional electricity connection.

District / Socio-Economic Classifications	Proportion of households - across SEC categories (%)							
	A	B1 B2 C1 C2 D1 D2						E
	(A1+A2+A3)	B1	B2	C1	C2	D1	D2	(E1+E2+E3)
Rural	5.8	6.5	6.3	13.8	11.6	12	14.6	29.8
Urban	7.2	6.5	6.3	13.8	11.6	12	14.6	27.3
Total	6.2	6.5	6.3	13.8	11.6	12	14.6	29.1

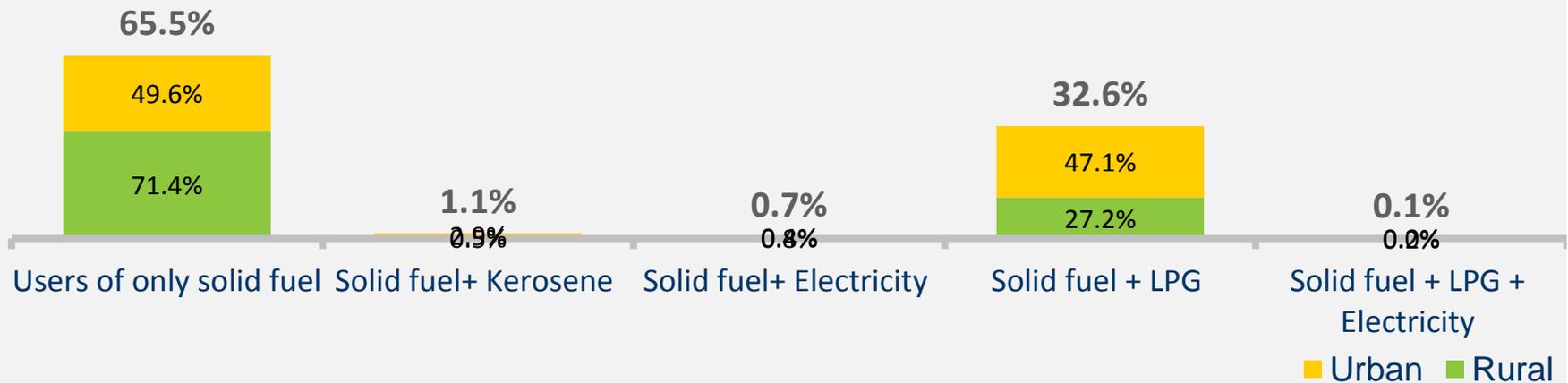
* - this is a tentative figure as reported by the Respondents and not to be used for further analysis

THE DISCERNING AFFLUENT SEGMENT.. CONTD.



Discerning affluent – 15%

- Close to one third households are mixed fuel users and have access to LPG
- 20% of these households reported only purchasing of firewood, another 15% reported both purchase and collection of firewood.
- Easily available in the premises / neighbourhood and preferred by family members are the two key reasons for continue using firewood
- Average monthly expense on fuel is around Rs.600/



THE DISCERNING AFFLUENT SEGMENT.. CONTD.



Discerning affluent – 15%



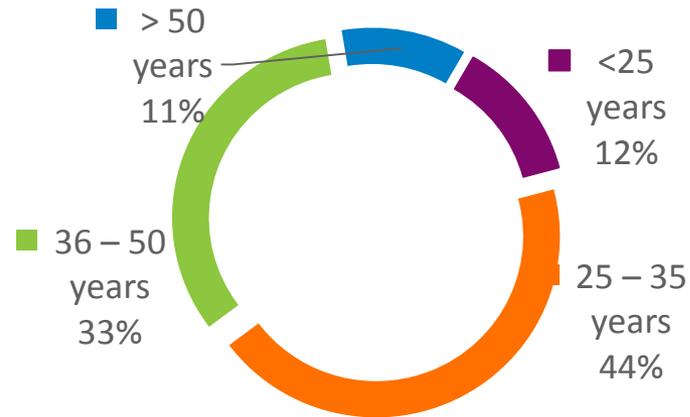
THE STRUGGLING MAXIMISERS



Struggling maximisers
- 20%

Location	
Rural	73%
Urban	27%
Districts reported majority of the segment	
Alwar	16.8%
Bharatpur	10.6%
Dhaulpur	8.3%
Nagaur	7.4%
Jaipur	7%

Age group of the Respondents



- Located mostly in urban areas of the state*
- Most commonly reported in Alwar, Bharatpur, Dhaulpur, Nagaur, Jaipur (50%)
- Middle age group – almost three fourth of the respondents (wives of CWEs) reported the age group of 25 - 50 years
- Average family size slightly bigger in comparison to other segments 6.1
- Comparatively more educated at least one third of these households have completed secondary level of education

* - Sample hhs selected with a ratio of 75:25, Urban: Rural

THE STRUGGLING MAXIMISERS ...CONTD.



Struggling maximisers - 20%

- Close to 40% households belong to skilled / unskilled labour community
- Around two third of the households found in SEC C, SECC D category
- Average monthly consumption expenditure around Rs.7000*
- 20% households reported borrowing money in last one year, most of these households have borrowed money to meet health expenses
- Almost all households (82%) reported staying in pucca / semi-pucca houses and 84% of these households reported have functional electricity connection

District / Socio-Economic Classifications	Proportion of households - across SEC categories (%)							
	A							E
	(A1+A2+A3)	B1	B2	C1	C2	D1	D2	(E1+E2+E3)
Rural	3.7	5.3	5.6	13.7	11.7	15.3	22.1	22.6
Urban	2.6	2.9	5.1	14.5	11.3	14.1	21.2	28.3
Total	3.5	4.7	5.5	13.9	11.6	15	21.8	24.1

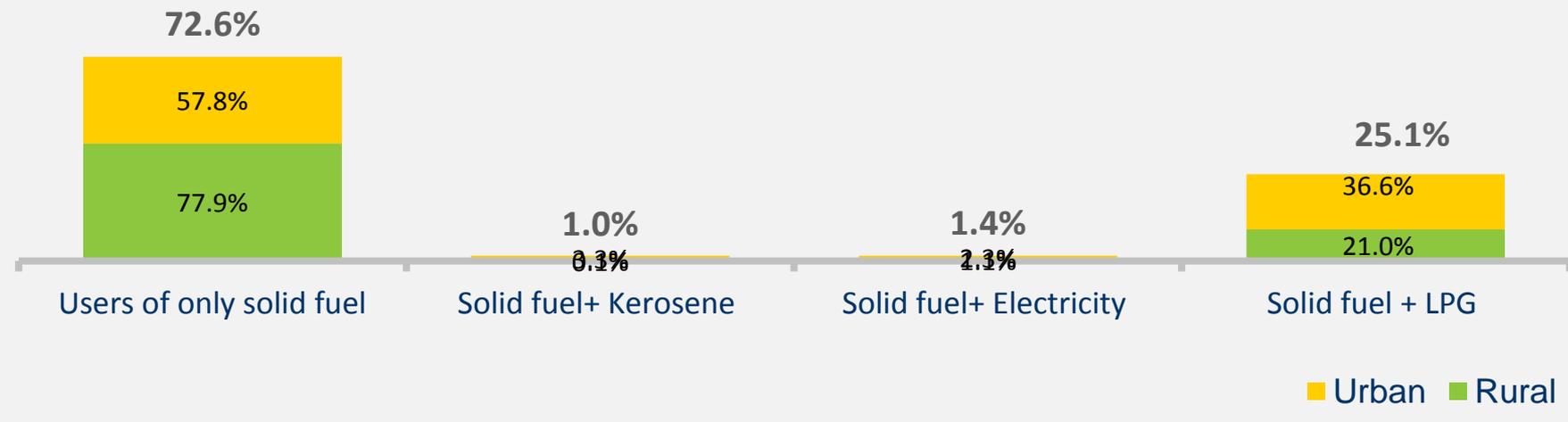
* - this is a tentative figure as reported by the Respondents and not to be used for further analysis

THE STRUGGLING MAXIMISERS ...CONTD.



Struggling maximisers - 20%

- About 25% mixed fuel users and have access to LPG
- Notable proportion 20% of all households reported purchase of firewood. (13% rural and 39% households in urban area reported the same)
- Perception that the fire wood is cheap and should be used to save LPG is the key reason for using firewood
- Monthly expense on fuel is around Rs.500/



THE STRUGGLING MAXIMISERS ...CONTD.



Struggling maximisers - 20%



THE WISHFUL SEGMENT



Wishful- 33%

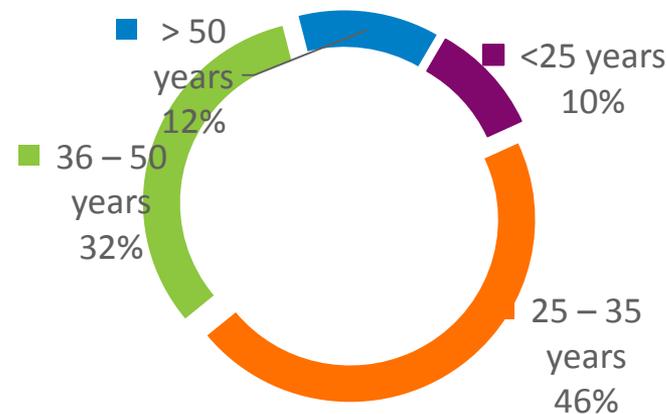
Location

Rural	77%
Urban	23%

Districts

Sirohi	10.8%
Jalor	10.6%
Baran	9.8%
Ganganagar	8.6%
Udaipur	7.8%
Banswara	7.2%
Bikaner	6.9%

Age group of the Respondents



- Mostly found in the rural area of the state
- Most commonly reported in Sirohi, Jalor, Baran, Ganganagar, Udaipur, Banswara and Bikaner districts of the state
- Both low and middle age group – 56% of the Respondents (wives of CWEs) reported the age group of < 35 years
- Close to two third (60%) of CWEs are engaged in cultivation, agricultural labour, unskilled labour
- 42% of the Chief Wage Earners were reported as illiterate



Wishful- 33%

THE WISHFUL SEGMENT...CONTD.

- 88% reported in SEC C, SECC D and SEC E category
- Average monthly consumption expenditure around Rs.7000 *
- Nearly 15% households reported borrowing money in last one year, many of them reported borrowing to buy agricultural input
- More than one third of the respondents reported staying in Kutcha houses
- Around to 55% households reported land holding
- Almost 90% households reported having access to mobile phones

District / Socio-Economic Classifications	Proportion of households - across SEC categories (%)							
	A	B						E
	(A1+A2+A3)	B1	B2	C1	C2	D1	D2	(E1+E2+E3)
Rural	3.3	3.9	4.9	10.5	10.2	13	19.6	34.6
Urban	1.9	3.4	7.5	11.4	12.9	13.6	25.4	23.8
Total	3	3.8	5.5	10.7	10.8	13.1	21	32

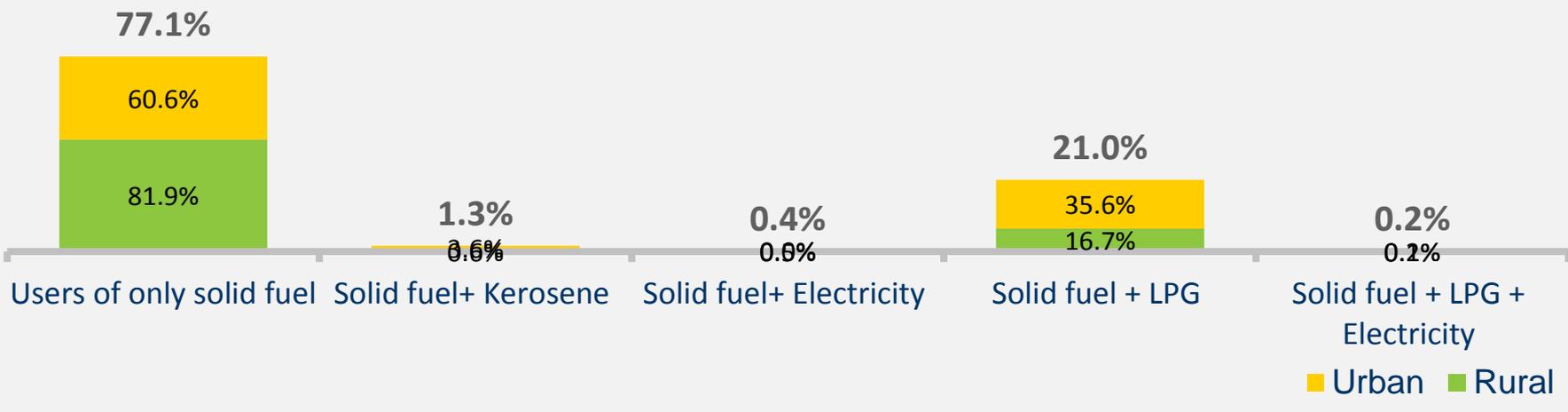
* - this is a tentative figure as reported by the Respondents and not to be used for further analysis



Wishful- 33%

THE WISHFUL SEGMENT...CONTD.

- Only 21% households reported as mixed fuel users and have access to LPG
- Almost all households reported using firewood, 93% households reported the same
- Usage of agriculture crop residue was used more often (one fourth of all households reported the same)
- Around 66% households reported collection of firewood.
- Low livestock ownership and relatively less dung cake usage
- Easily available in the premises / neighbourhood are the two key reasons for continue using firewood
- Average consumption of firewood reported as 131 Kg / month, average monthly fuel expense was reported as Rs.450 .
- No. of days for consuming one single cylinder (Households having access to LPG) is around 70 days.



THE WISHFUL SEGMENT...CONTD.



Wishful- 33%



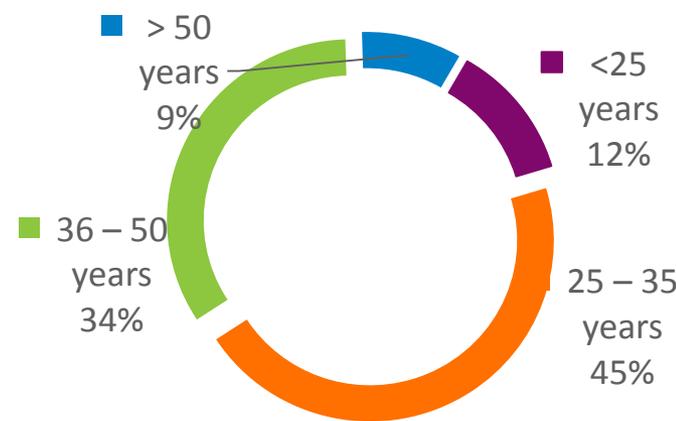


Strapped – 32%

THE STRAPPED SEGMENT

Location	
Rural	75.8%
Urban	24.2%
Districts	
Jaisalmer	10.4%
Dausa	9.4%
Sawai Madhopur	8.5%
Jhalawar	8.1%
Ajmer	6.3%

Age group of the Respondents



- Found in both rural and urban area of the state
- Most commonly reported in Jaisalmer, Dausa, Sawai Madhopur, Jhalawar, Ajmer districts (42%)
- Majority of the respondents (wives of Chief wage earners) reported in the middle age group (25 – 50 years)
- Low literacy rate, about 44% Chief Wage Earners reported as illiterate
- Most of the Chief Wage Earners involved in agriculture and non agriculture unskilled labour , mineral based industry , agro based industry and Khadi based industry (woollen garments etc.) were commonly reported.

THE STRAPPED SEGMENT...CONTD



Strapped – 32%

- 88% reported in SECC C, SEC D and SEC E category
- Average monthly consumption expenditure around Rs.6700
- 6% household members reported participation in SHG, higher than all households
- Higher proportion of households staying in Kutcha houses
- Lower proportion of households reported having electricity connection (78%)
- Only around half of all households reported agricultural land holding, lower than all households

District / Socio-Economic Classifications (A1+A2+A3)	Proportion of households - across SEC categories (%)							E (E1+E2+E3)
	A	B1	B2	C1	C2	D1	D2	
Rural	2.8	3.5	6.6	11.6	12.2	12.7	19	31.6
Urban	2.5	4.6	4.4	11	13.5	11.6	17.5	34.8
Total	2.7	3.7	6	11.5	12.5	12.4	18.6	32.4

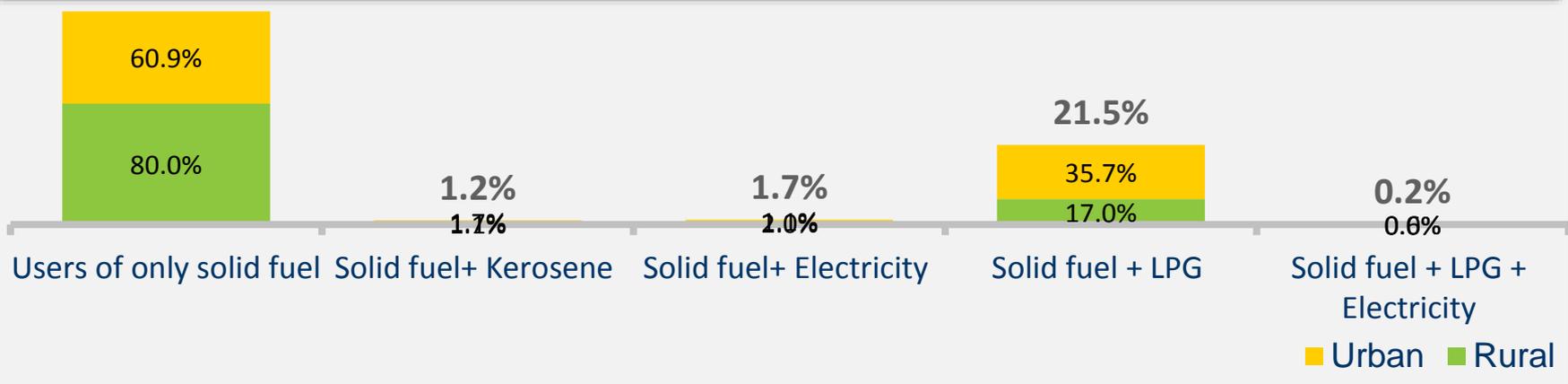
* - this is a tentative figure as reported by the Respondents and not to be used for further analysis



Strapped – 32%

THE STRAPPED SEGMENT...CONTD

- 77% households reported using solid fuel and don't have access to LPG
- The households reported having access to LPG, don't use this as primary option, LPG stacking was found as very high, more than 80 days to consume one single cylinder
- More likely to collect fire wood rather than purchase, around 10% households reported only purchase of firewood, mostly reported by the households in urban location.
- Easily available and less expensive were reported as key reasons for using firewood
- However it was found that the household has been spending around Rs.400/ month for fuel use.
- More number of households reported using other agricultural crop residue.



THE STRAPPED SEGMENT...CONTD



Strapped – 32%



Discerning affluent – 15%



- Located mostly in urban areas of the state*
- Lower age group of the CWE and spouses,
- Better education profile majority of Chief Wage Earners engaged in service sector, petty business and other formal sectors of employment

Struggling maximisers - 20%



- Located mostly in urban areas of the state
- Middle age group, average family size slightly bigger in comparison to other segments
- Mostly reported - secondary level of education
- Belong to skilled / unskilled labour community

Wishful- 33%

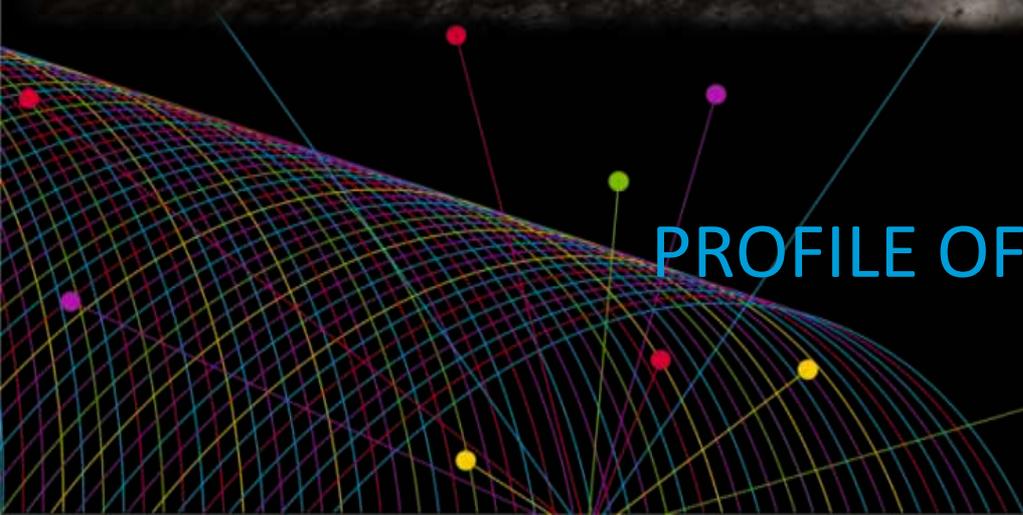


- Mostly found in the rural area of the state
- Both low and middle age group,
- Close to two third (60%) of CWEs are engaged in cultivation, agricultural labour, unskilled labour
- High level of illiteracy

Strapped – 32%



- Found in both rural and urban area of the state
- Highest level of illiteracy
- Most of the Chief Wage Earners involved in agriculture and non agriculture unskilled labour , mineral based industry , agro based industry and Khadi based industry (woollen garments etc.) were commonly reported



PROFILE OF THE PRIORITY SEGMENTS

PRIORITY SEGMENTS FOR CLEAN FUEL

Discerning affluent – 15%

- The segment is having the highest SEC profile, affordability is not a concern
- Needs 'convenient' life, comparatively more educated
- Having significant health awareness
- Clean fuel / stove usage likely to grow with improved health awareness and suitable communication initiative

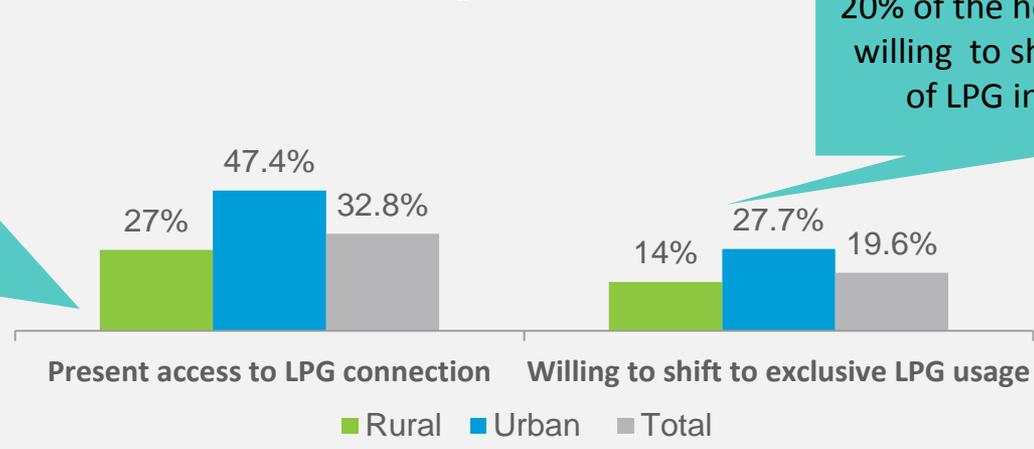


EARLY ADOPTERS FOR CLEAN FUEL

33% of the households have already partially adopted clean fuel, 54% single cylinder and 46% double cylinder, it takes about 52 days to consume one full cylinder, Fuel stacking is less prominent

32% of the remaining households have also reported willingness to purchase LPG in next two years
More than two third (68%) of these households reported eagerness to pay in instalment
Almost all these households reported comfortable paying the monthly instalment of around Rs.500 – 600.

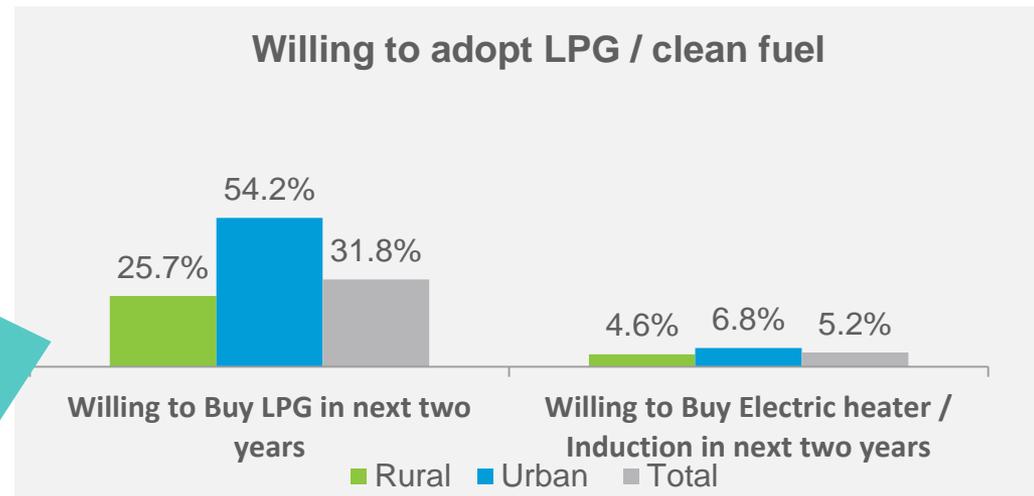
Current usage of LPG



20% of the households reported willing to shift to exclusive use of LPG in next two years

Base: 908 households

Willing to adopt LPG / clean fuel



Base: 610 households – not having LPG connection at present
Base – 907 households – not having electric stove / induction stove at present

SUMMING UP

Discerning affluent Segment

- About one third of these households have adopted LPG and another one third of these households reported their willingness to adopt LPG in next two years
- The respondents, those who reported not willing to adopt LPG / clean fuel in next two years, mostly felt that their husband / family members may not be willing to procure the same.
- Behavior Change Communication message should definitely target entire family
- 'Health for entire family' can be a strong platform'
- 'Saving time and money' should be the other key message for the segment and 'good for kids' could be touched upon



EARLY ADOPTERS FOR IMPROVED COOKSTOVE (ICS)

The Struggling Maximisers Segment – 20%



- Middle income profile, LPG penetration is already present, high fuel stacking, (63 days for consumption of one cylinder – instead of having a large family)
- Managing the household expenses by using different type of solid fuel stove, traditional stove, sigri (saw dust stove) etc.
- Although having little health awareness, completely reluctant to shift to complete use of LPG due to various reasons
- Improved cookstove usage likely to grow with availability of convenient affordable options

The Wishful Segment 33%



- Low income profile, the largest segment
- Strongly associated with the challenges for firewood usage, but both affordability and availability of alternatives are the determining criteria for this selection
- LPG penetration is low, willing to purchase LPG but affordability is only around Rs.400 / month
- Improved cookstove usage likely to grow with availability of convenient affordable options
- Health awareness is low

The Strapped Segment - 32%



- Affordability is the key factor determining the choice of fuel and stove
- The segment is also connected to traditional beliefs
- LPG penetration is low, do not have any intention to purchase LPG as well
- Improved cookstove usage likely to grow with availability of consumer finance options

SUMMING UP



The Struggling Maximisers Segment

- Will adopt high end improved cookstove model as affordability is not the key concern
- Handholding in terms of product demonstration and post marketing support would be important

The Wishful Segment

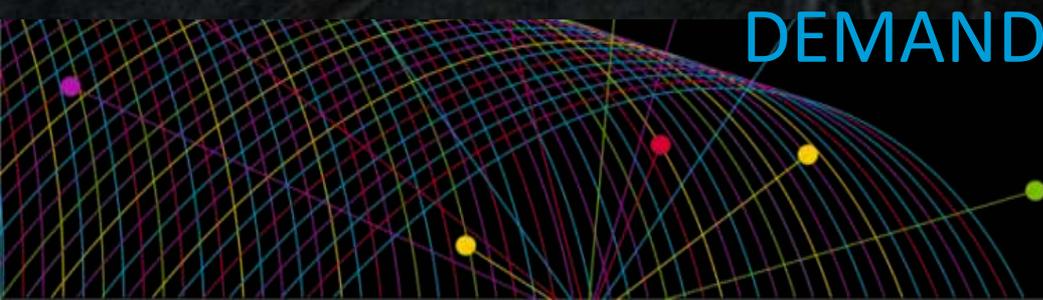
- Will adopt improved cookstove model (the models which are most convenient to use and affordable.
- Handholding in terms of product demonstration and post marketing support would be important

The Strapped Segment

- Will adopt improved cookstove low end model with the help of consumer financing model



DEMAND ENHANCING STRATEGIES



KEY RECOMMENDATIONS – IMPROVED COOKSTOVES

Product

- Consumers in Rajasthan will adopt improved cookstove with following features
 - a) Stoves which can be used most efficiently for frying and baking roti / other traditional food items like dalbati etc.
 - b) Portable models would be preferred to accommodate multiple location of cooking
 - c) Works on any biomass fuel including agriculture crop residue and cow dung etc.
 - d) Stove which emits lesser smoke
 - e) Stove which can reduce cooking time would be preferred
 - f) Stove which reduce fuel requirement would be preferred as well
 - g) Stove which can be lighted quickly
 - h) Stoves which can be cleaned and maintained easily, collecting ashes should not be a difficult process
 - i) Stove which won't require continuous attention and allow multi tasking along with cooking
 - j) Stoves which are aesthetically appealing would do good for some segments
 - k) Product demonstration is important for adoption and sustained use

KEY RECOMMENDATIONS – IMPROVED COOKSTOVES

Price

- Ability to pay varies across consumers, in the range of Rs.1000 - 2000 for improved cook stove
- Easy monthly instalment of Rs.300 – 400 should be preferred.

Place

- Distribution of cookstoves through MFI / Self Help Group network won't be very effective so other retail marketing channel can be utilised for distribution of Improved cookstove
- Government health infrastructure can be used for awareness generation as well as distribution of cookstove
-

Promotion

- Improved cookstove should be promoted with the key messages around time and convenience along with the health related messages
- Instead of mass media, innovative business model like advertisement/ demonstration in popular festivals / fairs / marriages etc. would create great impact.
- Advertisement through local cable channel would be helpful.

CONCLUSIONS

- Behaviour Change Communication (BCC) strategy to be designed targeting the consumers and decision-makers in the household
- BCC strategy should address several of the barriers to purchase and consistent use of clean and efficient cookstoves and fuels identified in this study
- For sustained adoption of Improved Cookstove, better designs are also needed, designs need to be finalised in close interaction with users.
- Promotion and distribution strategy should respond to the highly dispersed geography of Rajasthan.



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AN UNCOMMON SENSE
OF THE CONSUMER™

ANNEXURES

ABOUT NIELSEN

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SAMPLE COVERAGE

QUANTITATIVE

	District wise households covered																			
	Ajmer		Bhilwara		Nagaur		Bharatpur		Dhaulpur		Sawai Madhopur		Bikaner		Alwar		Dausa		Jaipur	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Rural	230	74.9	229	75.6	227	75.4	224	74.7	227	74.7	231	75.5	232	75.6	230	75.4	234	75	225	74.5
Urban	77	25.1	74	24.4	74	24.6	76	25.3	77	25.3	75	24.5	75	24.4	75	24.6	78	25	77	25.5
Total	307	100	303	100	301	100	300	100	304	100	306	100	307	100	305	100	312	100	302	100
	Jaisalmer		Jalor		Ganga nagar		Sirohi		Baran		Jhalawar		Jhunjhunun		Banswara		Dungarpur		Udaipur	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Rural	241	76	227	74.7	227	74.7	229	75.3	226	75.8	224	74.7	231	75.2	227	76.7	226	75.1	225	75.3
Urban	76	24	77	25.3	77	25.3	75	24.7	72	24.2	76	25.3	76	24.8	69	23.3	75	24.9	74	24.7
Total	317	100	304	100	304	100	304	100	298	100	300	100	307	100	296	100	301	100	299	100

	Rural		Urban		Total	
	N	%	N	%	N	%
Rajasthan	4572	75.2	1505	24.8	6077	100

Qualification criteria for Households and Respondents

- Households reported using any one type of solid fuel; Firewood / Any other agriculture residue / Coal / charcoal / Dung cakes / Sawdust / Wood powder etc.
- The spouse of the Chief Wage Earner* / the female member mainly responsible for household cooking in the age group of 20 – 70 years and the Chief Wage Earners .

* - The Chief Wage Earner is the member who earn maximum wage in the family / household.

LIVESTOCK HOLDING PATTERN

- 61% households reported owning livestock and around 47% of all households reported owning cattle
- Ownership of livestock was reported as more common in rural area in comparison to urban area.

Districts	Owning any livestock (%)	Goats (%)	Sheep (%)	Cows / Bulls / Buffaloes (%)	Horse/Mule/Donkey (%)
Ajmer	56	22.8	0	43.6	0.3
Bhilwara	75.6	23.4	1	66.3	0
Nagaur	73.8	54.8	1.3	37.5	0
Bharatpur	70	2.3	0	68.3	0
Dhaulpur	68.8	6.6	0	64.1	0.7
Sawai Madhopur	61.1	16.3	1	46.1	0
Bikaner	68.7	33.9	1	54.1	0
Alwar	78.4	9.5	0	74.1	1.6
Dausa	34.3	14.7	1.6	18.3	0
Jaipur	50.7	33.1	0.3	26.5	0.7
Jaisalmer	61.2	33.4	4.1	41	0
Jalor	45.4	14.5	5.3	31.3	0
Ganganagar	68.1	12.5	0.7	62.8	0
Sirohi	40.8	13.5	3.9	30.9	0
Baran	55	12.4	0	43	0.7
Jhalawar	59.3	23.3	0.3	43.7	0.3
Jhunjhunun	53.7	28.3	0.7	33.2	0.7
Banswara	71.6	28.4	0.3	52.7	1.4
Dungarpur	66.8	46.2	1	51.8	0.3
Udaipur	62.5	32.1	2	45.2	0.3
Rural	71.2	26.4	1.6	56.4	0.3
Urban	30.2	13	0	17.1	0.6
Total	61	23.1	1.2	46.7	0.3

ACCESS TO FUEL/STOVE DISTRICTS

	Open fire / three stone fire (%)	Traditional mud cookstove (fixed model) (%)	Traditional mud cookstove (portable model) (%)	LPG Cookstove (%)	Electric cookstove / induction cookstove (%)
Ajmer	1.3	84	16.9	16	0
Bhilwara	0	96.4	8.3	23.8	0
Nagaur	2.3	87	21.3	31.6	0.3
Bharatpur	0.7	83.7	44	18	1.7
Dhaulpur	1.3	90.8	13.5	14.5	2.3
Sawai Madhopur	1	95.1	41.5	14.1	0.6
Bikaner	14.4	79.4	5.9	7.2	0
Alwar	0	83	25.2	19	0
Dausa	1	93.6	7.4	10.3	0.6
Jaipur	3.3	85.1	17.5	49.3	1.3
Jaisalmer	24.3	76	0.6	46.7	0
Jalor	3.6	87.2	16.4	28.9	0.6
Ganganagar	5.3	91.8	14.8	44.7	0
Sirohi	2.3	93.1	5	15.2	0
Baran	0.3	58.3	57.3	21	1.3
Jhalawar	2.7	78.7	21	25.7	4.6
Jhunjhunun	1.6	88.2	11.8	59.8	0
Banswara	6.8	80.7	16.9	8.5	4.7
Dungarpur	14	90.6	12.4	11.4	5.4
Udaipur	13	77.6	19.7	10.7	1

TYPES OF UTENSILS USED

- STEEL, ALUMINUM VESSELS OR MUD TAWA/HANDI IS USED FOR COOKING ON TRADITIONAL CHULHA USING FIREWOOD



Iron tawa and kadai
(non veg) – observed in
a few households

SEC (SOCIO ECONOMIC CLASSIFICATION) – DISTRICTS

	A (A1+ A2+ A3) (%)	B1 (%)	B2 (%)	C1 (%)	C2 (%)	D1 (%)	D2 (%)	E (E1+E2+E3) (%)
Ajmer	3.6	3.6	4.2	9.1	14.3	12.7	18.2	34.2
Bhilwara	1.6	3.6	10.2	16.5	17.8	17.8	17.5	14.8
Nagaur	5	4	4.7	18.6	14	12.3	22.3	19.3
Bharatpur	7.4	5	7.3	15.7	9.3	16	19.7	19.6
Dhaulpur	1.6	2.6	2.6	6.6	6.6	8.6	16.4	55
Sawai Madhopur	3.9	5.2	9.2	15	14.1	12.7	19.3	20.6
Bikaner	1.6	3.6	4.6	7.2	10.1	8.5	17.6	46.9
Alwar	3.3	6.6	7.5	15.4	12.1	17.4	21.6	16
Dausa	0.9	3.5	9	14.1	13.1	9.6	10.3	39.4
Jaipur	5.3	9.9	6.3	15.2	11.9	11.9	24.2	15.3
Jaisalmer	3.7	6.6	7.9	13.6	12.9	7.6	15.5	32.2
Jalor	0	1.3	3.6	9.2	19.7	13.2	22.7	30.2
Ganganagar	9.9	11.5	10.2	13.8	13.2	12.8	11.2	17.4
Sirohi	0.6	2.3	3.3	7.6	9.2	12.8	24.7	39.4
Baran	0.6	3.7	5.4	11.7	9.7	17.4	21.5	29.8
Jhalawar	3.3	2	6	15.3	13.7	21	23.3	15.3
Jhunjhunun	13.8	8.1	9.1	17.9	10.4	17.9	14	8.8
Banswara	2.1	0.3	0.3	5.4	6.8	10.5	24.3	50.3
Dungarpur	1	1.3	1.7	7.3	7.6	11.6	21.9	47.5
Udaipur	0	1.7	2.3	5.4	5.7	10	23.1	51.8

Districts reported having higher socio economic profile

Districts reported having lower socio economic profile

Base: Total Respondents - 6077

Every end is beginning of a new
journey...

THANK YOU

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