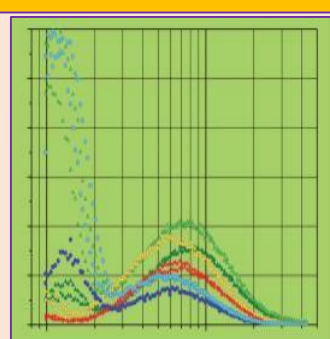




# Understanding the Current Usage Pattern of Residential Biomass Fuel and Its Implications In Northern Indian Region.

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## Introduction:

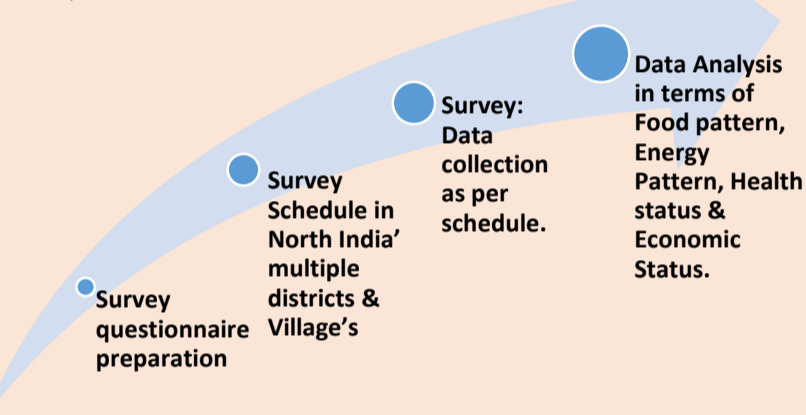
- Presently in most of the middle-income countries meals are cooked with traditional stoves or open fires using biomass fuel as a source of energy as well as for heating purposes.
- It is estimated that as many as 70% of households in developing countries use fuels such as wood, dung and crop residues for cooking.
- Many researchers have reported with exhaustive data that solid biomass fuels emit substantial amounts of climate and health-damaging pollutants.
- Apparently the so far 'free' availability of biomass fuels from nature and at a very varied low cost are the obvious reasons behind their being used as a primary fuel source for household purposes.

## Objective:

- The objective of the study was to determine the pattern and determinants of household sources of energy for cooking and heating in rural regions of north India. The present study is based on a structured questionnaire survey used for evaluating the cookstove and fuel usage pattern and identifies the knowledge gaps in previously conducted household level surveys.
- The primary data is collected from more than 500 households in many categories ranging from cooking energy, cookstove preferences, educational background and financial status and also the health related issues.
- These survey based data are then analysed comprehensively which could be primarily used in the refinement of activity data for further emission estimate of aerosol and gaseous pollutants in the future.

## Methodology:

Questionnaire Design, Field Survey, Data Collection & Analysis



## Questionnaire:

Literature, Pilot(Site) Study, Final questionnaire

House ID:	Village:	Date:	Time:
No. of Male/Female	(0-5 yrs Child) (6-10 yrs) (11-15 yrs) (16-18 yrs) (19 and above)	MP	
Total members			
Stove used for cooking	Traditional mud stove Improved stove LPG stove Electric stove Kerosene stove		
Fuel used for cooking?	Firewood Crop residue Cow dung cake Mixed fuel (FW+CD) Coal Kerosene LPG Others (specify)		
Amount of each cereal type used per month (in Kg)	Rice Dal Beans Grams Pulses & Grains Vegetables		

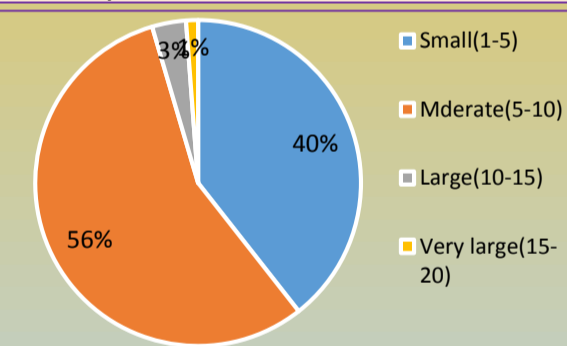
## Field Survey:

Random Sampling: Randomly selected Household

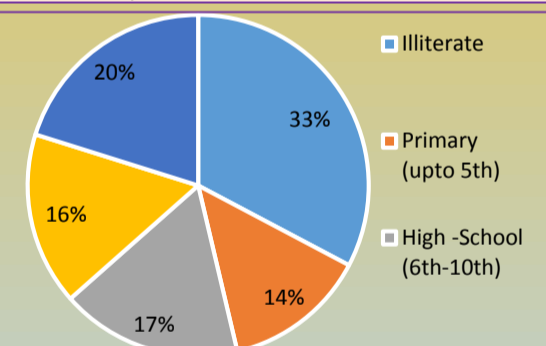


**Results:** 500 Random Samples from Northern India region.

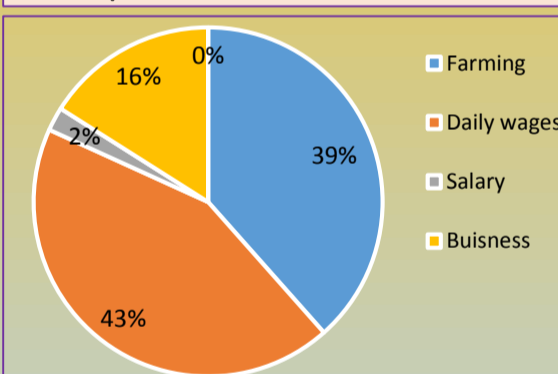
### Family Size



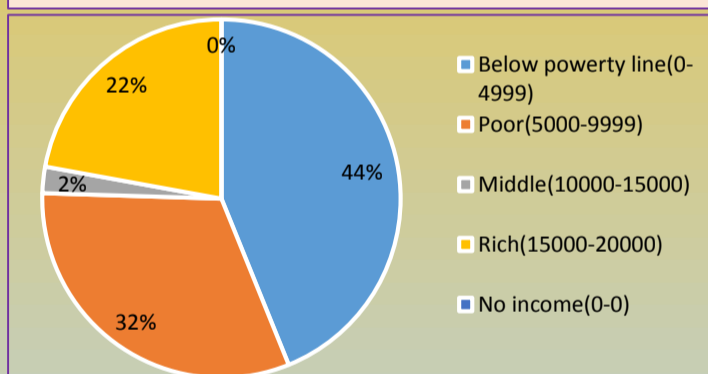
### Literacy Pattern



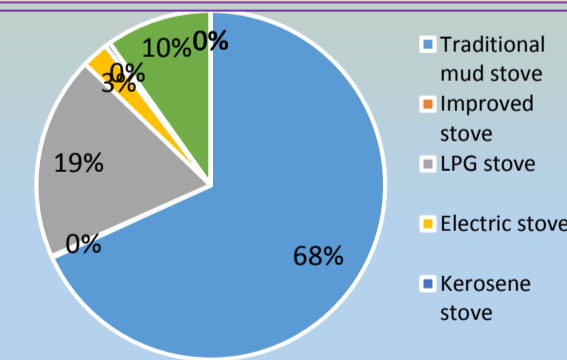
### Occupation Pattern



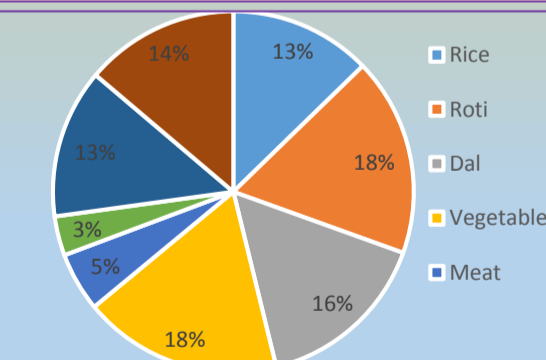
### Economic Status



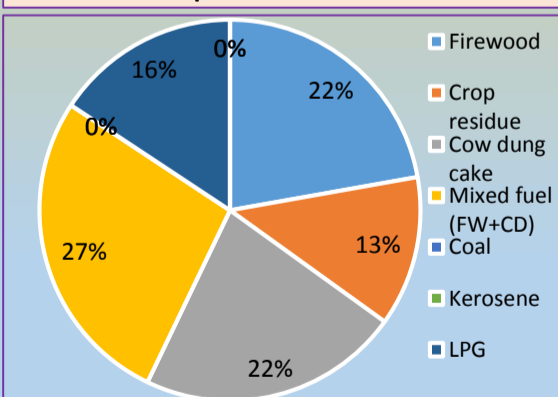
### Cook Stove Used Pattern



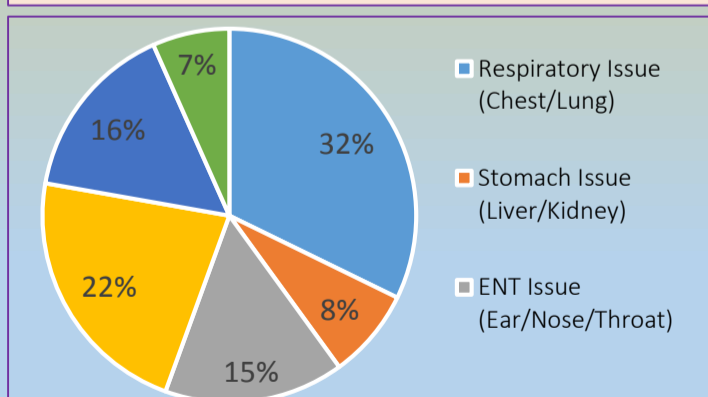
### Eating Food Pattern



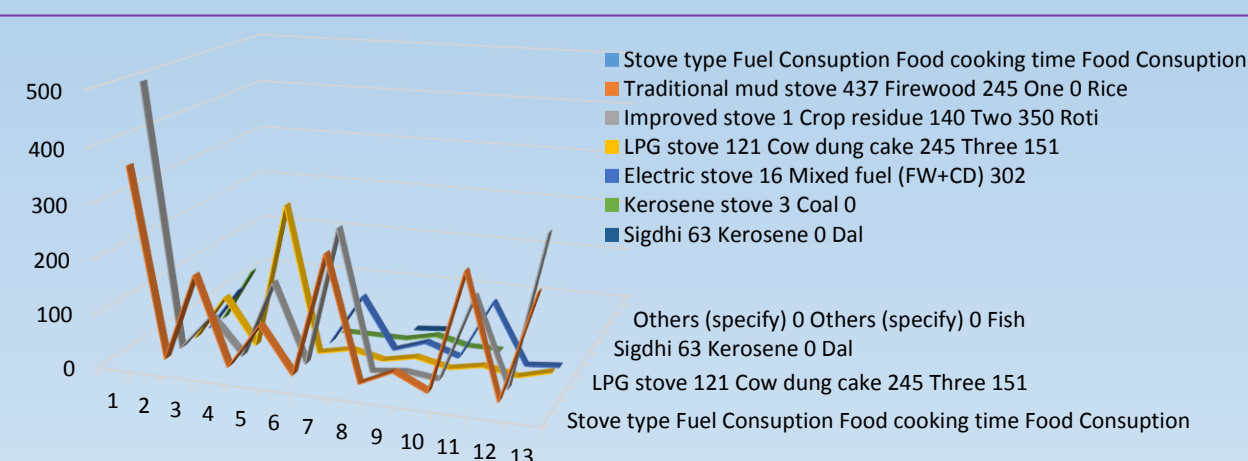
### Fuel used pattern



### Health Status



**Conclusion:** Correlation between usage of Energy & Life style.



## Acknowledgement:

We are grateful to target population of regions in northern India for letting their precious time to accomplish the survey with success.

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