

Awareness About Firewood Cook Stove And Save Energy

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ABSTRACT

The burning of biomass fuels result in exposure to high level of indoor air pollution, with consequent health effect. The objective of this study is to determine awareness of women in rural area to the harmful effect of cooking smoke and to assess their willingness to change cooking practices. Indoor air pollution is lacking(1), lack of training in new cooking method (2), poor quality and inadequate maintenance(3), traditional three stone open fire causes of illness in women especially among rural families (4),fire wood cook stove increasing both deforestation and greenhouse gas effect(5).

It is essential to assess awareness of the impact of indoor air pollution on health and willingness to change. This is our knowledge the first study addressing these issues.

Keywords: Improved cook stoves, Wood stove history, Cleanest cook stove and smoke free solar cooking.

INTRODUCTION

Firewood is not new to human being .still there are some careless behavior and some ones economic advantages are responsible for such fire wood¹. In India fire wood cook more than half of the world's population. Three billion peoples cook their food Indoor using open fires or of solid fuels releases toxic pollutants including particulate matter and carbon monoxide (CO) .These harmful cook stove causes 1.9 million premature death annually².

METHODOLOGY

Formation of team arrange map of village. Every Saturday and Sunday from March survey all such 200 hundred houses with the help of 50 students with

Women must walk for hours to find firewood³. Biogas, solar cooker never required firewood fuel as that of traditional cook stove .The burning of biomass fuels result in exposure to high level of indoor air pollution⁴. Traditional three stone open fire causes of illness in women especially among rural families; women associated smoke more commonly with eye diseases, TB, throat problems, cough or other respiratory problems⁵. Firewood cook stove increasing both deforestation and greenhouse gas effect⁶. In India finding nonconventional energy source for cooking is major problem because major population has been used the conventional energy source in villages⁷.

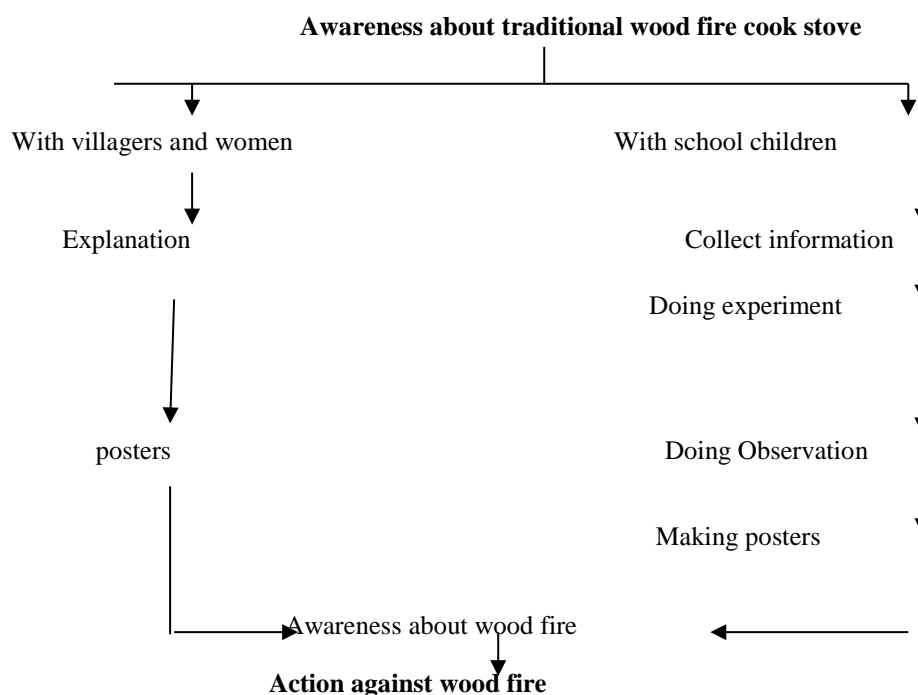
With above data, I am prompted to study of health problem of rural women and deforestation

OBJECTIVES :

- 1) To improve the awareness of students and villagers towards fire wood cook stove and their effect
- 2) To create awareness of women to the harmful health effect of cooking smoke and to assess their willingness to change cooking practices.
- 3) To eradicate blind beliefs about wood fire cook stove .
- 4) To make environmental link between school and society.
- 5) To assess awareness of the impact of indoor air pollution on health and willingness to change.
- 6) To create awareness about deforestation.
- 7) To give information about appropriate rural technology and institute (ARTI biogas plant).

posters , Three to four hours were spend for each allotted colony of village

INFORMATION FLOW DIAGRAM



Houses covered in village

Askhedha. Tal. Baglan, Dist : Nasik ,all houses identified using traditional wood fire cook stove.

A) At school level (Students level)

In month of March and April 2018,Secondary students were to nearby village. This was controlled area, students has been done experiment.

1. They calculated the measure of number of families
2. They measure number of families, Where women prepare their food with the help of wood fire cook stove
3. They find out number of families, Where women prepare their food with the help of L.P.G. gas cook stove.
4. They determine number of families, Where women prepare their food with the help of solar cook stove
5. They measure number of families, Where women prepare their food with the help biogas cook stove
6. They evaluate number of families, Where women prepare their food with the help electric cook stove
7. Students collect statistical data
8. Graphs were prepared by students

Student group and their work

Performer group	Posters group	Observer group	Experiment student group	Extinguisher group
10	10	10	10	10

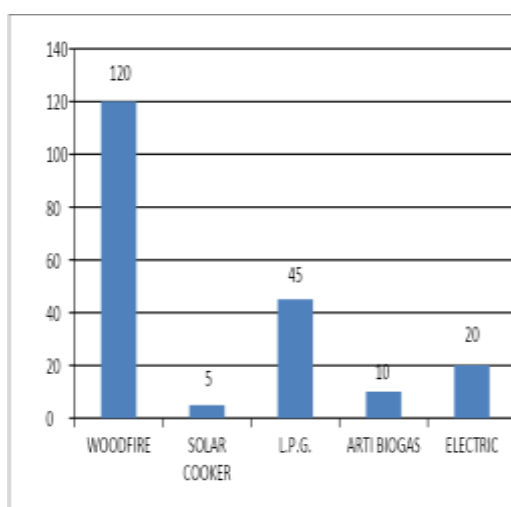
• **Performers group members**

Slogan like

1. Save Energy , save Environment
2. Save Forest, Save Earth
3. Save trees, save Life
4. Pollution is injurious to health
5. Raise awareness our environment
6. Unite to make planet earth pollution-free
7. Pollution is our silent enemy, just finish it silently.
8. Let's save our mother earth.

Observations

Sr.no.	Types of cook stove	No. of users
1	Wood fire cook stove	120
2	Solar cook stove	5
3	L.P.G. cook stove	45
4	Biogas cook stove	10
5	Electric cook stove	20



TYPE OF COOK STOVE

AT VILLAGE LEVEL

In selected village Askheda. Tal. Baglan, Dist. Nasik , at last two week of April 2018 Student were awareness about wood fire stove cook with one loudspeaker and posters ,each colony has given two hours for this campaign .Each members

of the team has to do some work ,When the student entered village in suitable colony.

1. Some campaigners collect people from home to home to that point.
2. Some campaigners draw posters about loss in wood fire.
3. Some campaigners draw posters about Pradhan Mantri Ujwala LPG Yojana
4. Some campaigners paste these posters in village at various point. At same time some students announces some slogan related with effect of wood fire cook stove, electric energy losses, Environmental losses and blind beliefs about wood fire cook stove.
5. People gathered by listening slogan and dialogs.
6. In this process student discussed with especially Household women.

Disadvantages are explained with Photos and Posters

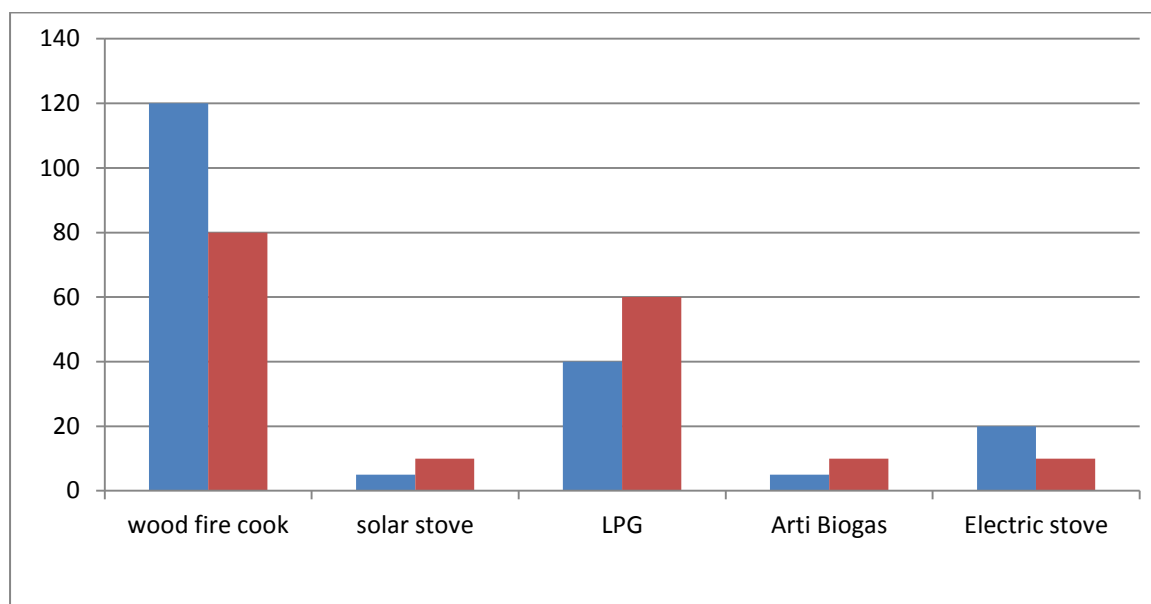
1. Wild animal shifts towards villages due to increasing deforestation
2. Wood fire cook stove causes several diseases ,e.g. Respiratory tract ,TB, cough and throat problem.
3. Increase in global warming process
4. It causes premature death
5. Loss of electric energy
6. Loss of Biodiversity
7. Disturbance of food chain

RESULT AND DISCUSSION

1. Number of wood fire and electric energy cook stove are found to be decreased.
2. Most families use ARTI Biogas plant and solar plant.
3. People became alert and aware about loss of forest wood and electric energy.
4. Student, Youth and people participate themselves in extinguishing wood fire and electric energy cook stove.

RESULT EXPRESSED BY COMPARITIVELY GRAPHICAL REPRESENTATION BEFORE AWARENESS

AFTER AWARENESS



Above graph shows that, after awareness number of wood fire cook stove and electric cook stove are found to be decreased and instead of that number of LPG, ARTI biogas and solar cook stove are found to be increased

Conclusion

It is concluded that a compact biogas system which uses starch or sugar as feedstock .Just 1kg.of starch or sugar yield the same amount of methane as 40 kg. of cattle dung. Whereas cattle dung requires about 40 days to get converted in to gas, the gas in just 6 to 8 hrs. Waste starch in the form of rain damaged grain, banana rhizomes, non edible seed or various tree species.

ARTI biogas system required only 1 to1.5 kg.feedstalk and any starchy material reaction time for full utilization of feedstock within 48 to72 hrs.

Scope for future work

1. Improve health and protect the environment today.
2. Health benefits to women and children.
3. Improved stoves can save up to 20 to 60% of fuel.
4. Biodiversity conservation and reduced forest degradation through reduced pressure on forest.
5. Hope to provide energy services as clean as LPG, but through the use of biomass.

ACKNOLEDGEMENT

I have been selected the topic after full consideration and pondering over the same and realizing its need in the present day .this has been

selected with a view that it might be of same use to my other fellow friends who are working in this field. This project has been completed with help of students, Youth and household women. I am also thankful to Hon.Principal Shri Somavanshi S.D. K.B.P.Vidyalaya,Askheda Tal.Baglan , Dist : Nasik.

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