

Smokeless Chulhas: A Step towards Energy Conservation

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ABSTRACT

Over the 150 years, we are developing our country by developing in science and technology, even we are fail to develop the conditions of rural areas (villages), living style of peoples of villages remains same. So government of India launches many program of rural development. Our workshop is one of the part this development program. All innovation cannot be used by the population uniformly; there are only a few which are advantageous to the deprived especially rural and tribal people. In Rajasthan wood is the most common fuel used in rural homes for which the farm women possess the traditional chulhas which causes health hazards to them. It was therefore felt essential to introduce smokeless chulha in the villages.

A project was undertaken with technical support of "NITTTR" (National Institute of Technical Teachers Training and Research), Chandigarh and financial support of R.V.I.T., Bijnor. A tribal village, "Chaukपुरi" block of "Bijnor" District was selected. Each household was provided smokeless chulha. Repeated demonstration were made and villagers were also counseled personally.

I. INTRODUCTION

Wood is the most common fuel used in rural homes of Uttar Pradesh because women get them from forest free of cost. Due to continuous deforestation women have to go to far off places which cause considerable drudgery in terms of time and energy. Smokeless chulha is an improved version of traditional chulha and has many advantages over it. Its proper use and care relieves an individual from different problems like smoke free kitchen which is safe for eyes as well as lungs of the user. Fire sparkles do not come out so safe for human beings, no need to plaster it frequently & saves fuel. These chulha have thermal efficiency of 20-35 percent as compared to traditional chulha which have efficiency not more than 8-10 percent. The present investigation was conducted with following specific objectives:-

1. To assess the impact of training on gain in knowledge & skill of farm women about Smokeless Chulha.

2. To find out the appropriateness of Smokeless Chulha as perceived by farm women.
3. To assess symbolic adoption of Smokeless chulha.



Fig 1.1 Smokeless chulha

II. METHODOLOGY

The present study was conducted in village "Chaukपुरi" of District "Bijnor". It is a village of approximately 60 families and about 400 people. Smokeless chulha was demonstrated to the villagers. In this workshop, training for making smokeless chulha was given to the selected villagers who are below poverty line, no land, labour etc. Also some students of this village were selected for this workshop. Firstly our college take the survey of the village by dividing the college students and college faculty into five groups then they visited in different families of different caste for collecting the real data so that we can choose the family who really need these type of chulha and we also trained the one person of selected families for making these type of chulhas.

After this we measured the impact of smokeless chulhas.

III. RESULT AND DISCUSSION

Table 3.1 Survey of Chaukpuri Village by RVIT College

S. No.	Caste	Visited House	Need
1.	Jaat	34/60	Water Purification
2.	Valmiki	10/10	Smokeless Chullah, Sanitation, Toilet
3.	Pal	12/12	Smokeless Chullah
4.	Bhuiyar	18/35	Toilet, Smokeless-Chullah
5.	Saini	16/40	Smokeless-chullah, Toilet
6.	Harijan	45/50	Toilet, Smokeless Chullah
7.	Dhumar	23/40	SmikelessChulla h, Sanitation

ADVANTAGES OF SMOKELESS CHULHAS

- 1:Reduced the health hazards.
- 2:Minimize Pollution .
- 3:Clear and Green Enviroment.
- 4:Reduced drudgeries of women.
- 5:Save Wood.
- 6:Save energy in cooking.



Fig.3.2 Process of making smokeless chulha by RVIT College, Bijnor



Fig.3.3 Process of making smokeless chulha by RVIT College, Bijnor

3.2 Consumption pattern of wood by families in (k.g)

Sr.no.	Categories	Traditional chulha	Smokeless chulha
1.	Per day	6	3.8
2.	Per month	180	114
3.	Per year	2160	1368

By table 3.2 we said that in comparison to traditional chulha smokeless chulha consume less wood and also smoke-free with fewer health hazards.

IV. CONCLUSION

The results of the study show that there is a need of more efforts to make people aware about smokeless chulha . People must be aware about the benefits of

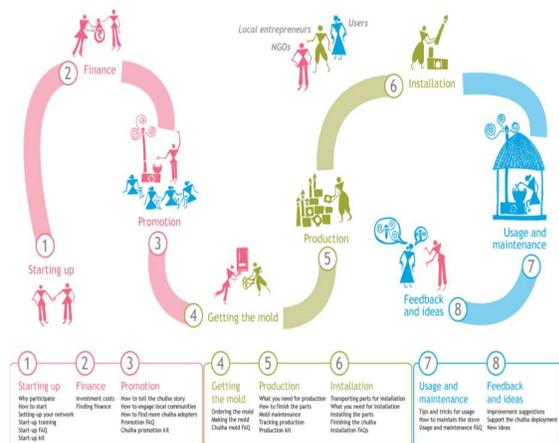


Fig.3.1 Process diagram of smokeless chulha

using smokeless chulha over traditional chulha . There is need of imparting more knowledge to women about smokeless chulha and its usefulness like its non-hazardous effect on health of all family members because if people are healthy then only society will progress. More programmes are needed to be launched by government for adoption of smokeless chulha by rural people. If people become aware then there will be more adoption of smokeless chulha. Thus, there is need of launching more and more programmes by government.

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