

## Solar lantern: A cheap and best technology for rural household

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Received: 05.12.2011; Revised: 24.01.2012; Accepted: 26.03.2012

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■ **ABSTRACT** : Energy is a life line of modern society and its requirement is increasing as the population is growing. As all sources of energy is limited, therefore, to fulfill the growing need of energy, it is essential to look for renewable energy resources especially 'Solar energy', which is clean and available in India. the study was undertaken to promote the use of solar lantern in the village Aurawatand of Naugarh block of Chandauli district. It is a small village having forty one families. A solar lantern was given to each family of the village and impact was seen after a gap of five to six months. It was significant to observe that this solar lantern brought a qualitative change in the life of the villagers, as it is smoke free, easy to use and time is utilized fruitfully due to its five and six hours uninterrupted light. It not only provides light but saves money spent in purchasing of kerosene oil and saves from ill effect of kerosene.

■ **KEY WORDS** : Solar lantern, Smoke free, Rural household

■ **HOW TO CITE THIS PAPER** : Bishnoi, Indira and Verma, Sarita (2012). Solar lantern: A cheap and best technology for rural household. *Asian J. Home Sci.*, 7 (1) : 38-41.

An energy crisis is a major social and environmental issue (Jain). Scientists all over the world have come out with several technological options for mitigating the gravity of the problem. One such technological option that made its formal entry into the Indian rural homes is the "solar energy". Vigorous efforts during the past two decades are now bearing fruit as people in all walks of life are more aware of the benefits of solar energy (Grover and Verma, 1996). In view of this, a study was undertaken with the following objectives :

- To study the socio-demographic background information of the respondents.
- To analyze the impact of solar lantern in the life of respondents.

### RESEARCH METHODS

The present study was undertaken in the village Aurawatand, Naugarh block of Chandauli district. It is a small village of having 41 families which are mostly schedule caste and schedule tribes except few Yadavas and Muslims. Each family of the village was given one solar lantern, this way 41 lanterns were distributed. Villagers were exposed towards

different solar equipments through an 'exhibition on solar equipments'. The equipment kept for the exhibition were solar lantern, solar home light, solar street light, solar dish cooker, solar box cooker and solar drier (Fig. 1). All these equipments are still there, placed in the central place where is run a Junior High School. All villagers men, women and adolescent boys and girls were trained about their uses and advantages. Since it was a project sponsored by Department of Science and Technology, New Delhi, therefore team of the project often visited the villages and stayed there on regular basis, therefore any problem in their lantern was rectified. If it was not possible to repair the defect there, lanterns were brought at NEDA centre Varanasi to repair. In each visit, one or two lanterns were brought and got repaired. To observe its impact, data were collected after six months of giving the lanterns through structured interview schedule and was analyzed by using appropriate statistical tools.

### RESEARCH FINDINGS AND DISCUSSION

The findings of the study were discussed under the following points:

- Socio-economic background information of the