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# DEVELOPMENT OF A SOLAR BOX TYPE COOKING DEVICE FOR SUSTAINABLE LIVELIHOOD OF RURAL AREA

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*Abstract-* Generally in Rural area, people cook foods by using conventional methods such as Chulha which produces lots of smoke. This results respiratory problem. The present research objective is to develop a solar operated box type of solar cooker as an alternative and cleaned energy solution for rural area. The main component of this cooker is a folding type reflector made up of Aluminium (highly glazing material) which transmits all radiation and focus into the cooking chamber. There were six numbers of reflector integrated and focuses incident radiation individually to one point so that heating effect was increased. It is light weight and can be easily handled. The maximum temperature found as 100°C and cooking power and standard cooking power were calculated as 17.5 W and 17.09W respectively which are sufficient enough for cooking.

*Keywords-* Sustainable, Reflector, cooking device, cooking power, glazing material

### 1. Introduction