

**SOCIO ECONOMIC IMPACT OF SOLAR HOME SYSTEM ON THE RURAL PEOPLE
OF NEPAL**

(A Case Study of Jogimara Village Development Committee, Dhading District)

A thesis

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Abstract

This study was conducted in Jogimara VDC of dhading district. The general objective of the study was to find the socio economic impact of Solar Home System and the specific objectives were to find out the accessibility of the rural people towards solar technology, to find out the status of the SHS in the study area, to study the socio-economic characteristics of the SHS users, to find out the extent of utilization of the solar technology by rural people and assess the energy and other benefits from the installed SHS, to identify the obstacles, challenges of local community for the solar technologies, to suggest the possible effective measures so that the obstacles can be reduced, to provide recommendation for possible programs related to the solar technology, and to find out local idea to solve the existing problem and to promote the solar energy technology. Households data were collected from purposively selected 15 user's households form 29 users of solar home systems and 15 non user's household using semi structured interview schedule. Besides, data required was also collected from the installing company especially regarding the installation of system and its socio economic impacts. Focus group discussion was also conducted to collect the common data and to verify the data gathered form household survey. SHS of 20 w were most popular in the study area. Solar Home System has been mainly used for lighting and radio playing in the study area. SHS has been found well functioning in the study area, with good lighting facility.

Children were the most benefited group through improvement study environment. Better lighting has prolonged study time and also facilitated the guardians in tutoring the children. It has enabled female members to accomplish more household chores. Chatting and interaction among the family members, which is important developing better understanding, also increased. On the average, SHS has increased wake up duration of the family members approximately by two hours via alternation in bed time and wake up time. Tuki was widely used lighting device before installation of SHS and distantly followed by lantern and battery. Kerosene was prevalent used fuel for lighting and dry cells for radio and tape recorder. SHS saved monthly fuel expenditure to maximum extent. SHS has been helpful for reducing work load and increasing leisure time of women through better lighting provision in substantial proportion of cases. It has also improved women's level of awareness and knowledge through access to TV and radio.

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ACRONYMS/ ABBREVIATION

AEPC	- Alternative Energy Promotion Center
AH	- Ampere Hour
AMP	- Ampere
BSP	- Biogas Support Programme
CBS	- Central bureau of Statistics
CFL	- Compact Fluorescent Light
DC	- Direct Current
DDC	- District Development Committee
Fig	- Figure
GoN	- Government of Nepal
HH	- Household
HMG/N	- His Majesty's Government of Nepal
IG	- Income Generating Activities
INGO	- International Non Government Organization
ISPS	- Institutional Solar PV System
KWp	- Kilo Peak Watt
NEA	- Nepal Electricity Authority
NGO	- Non Government Organization
NPC	- Nepal Planning Commission
NTC	- Nepal Tele Communication

PCRW	- Production Credit for Rural Woman
PV	- Photo Voltaic
PVSHS	- Photo Voltaic Solar Home System
SE	- Solar Energy
SFDP	- Small Farmer Development Program
SHS	- Solar Home System
TL	- Tube Light
TV	- Tele Vision
VDC	- Village Development Committee
W	- Watt
Wp	- Peak Watt