

**Socio-Economic Impact of Bio-Gas Plant: A Case study of Keroun V.D.C;  
of Morang District.**

**A Thesis**

**Submitted To:**

**Central Department of Rural Development**

**Faculty of Humanities and Social Sciences**

**In Partial Fulfillment of the Requirement for the Degree of Master of Arts  
in Rural Development**

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**T.U. Regd. No. 6-1-350-79-98**

**April, 2010**

## **RECOMMENDATION LETTER**

This thesis entitled "**Socio-Economic Impact of Biogas Plants: A Case Study of Keroun VDC, Morang District, Nepal**" has been prepared by Mr. Chiranjibi Nepal under my supervision. I hereby recommend this thesis for evaluation by the thesis committee as a partial fulfillment of the requirement for the degree of Master of Arts in Rural Development.

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## **Approval Sheet**

This is to certify that the thesis entitled “**Socio- Economic Impact of Bio-Gas Plant; A Case Study of Keroun V.D.C. Of Morang District**” Submitted by **Mr. Chiranjibi Nepal** has been examined. It has been declared successful for fulfillment of the academic requirements towards the completion of Masters of Art in Rural Development.

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## **ACKNOWLEDGEMENT**

First of all, I am very much grateful to my thesis supervisor Prof. Dr. Pradeep Kumar Khadka (Head of Central Department of Rural Development) TU, Kirtipur for his valuable inspiration and guidance throughout my study without whose continuous guidance and creative suggestions this task would have never been completed. I am also deeply indebted to all my respected teachers for their valuable information and suggestions.

I would like to extend my sincere gratitude to all plant owners who unhesitant responded in course of data collection. During the course of writing this thesis, I received help and suggestion from various people's institutions and friends. I would like to thank BSP, AEPC, and DDC Morang for their kind co-operation.

Similarly, I would like to thanks my friends Kamal, Jiwan, Bipin, Nandraj, Yubraj, Umesh ,Basu ,Mandira, Niraj, Parkash, Laxman, Navaraj, Nahakul, Santosh, Krishna and Mr. Nandraj Gyawali for their useful suggestion and valuable help to complete this thesis and my special thanks goes to Mr. Praveen Ghimire for his technical support.

I would like to thanks my parents Mr.Madhav Prasad Nepal and Mrs. Usha Nepal for their continued encouragement and inspiration throughout my life and the study period and also thank my brothers Mr. Umesh Nepal, Kamal Nepal, Nahakul Nepal and Jiwan Nepal.

Finally, I am alone responsible for errors of judgment or of analysis, if exists any.

**April, 2010.**

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## ABSTRACT

*This study deals with the “Socio- Economic Impact of Biogas in Keroun VDC of Morang District”. The general objective of the study is to find out the 'socio economic impact of Biogas plant in Keroun VDC of Morang District, whereas the specific objectives are to assess the Socio-Economic characteristics of bio-gas users, to study the bio-gas as an alternative fuel source to forest recourses and to study the benefit of biogas Slurry. For the study, the extensive field visit was conducted in Keroun VDC of Morang district. Before selecting a topic, a brief review of the literature related to the impact study of biogas on users has been studied. Primary as well as secondary data have been used in this study.*

*In this VDC, there were 2541 households. In the study area there were 469 households (in selected wards-5 and 6). About 50 households have been taken as sampled households out of 469 households. Sampled households were those who had installed biogas plant. Simple random sampling technique has been used to select sample. In this study data were collected from field survey by applying household survey questionnaire and observation method.*

*This study found that majority of the households (50%) out of total interviewed reported that they had adopted agriculture as a main occupation. Average family size of the sampled household was 5.6 per household. About 84 percent plant owners out of total interviewed were literate whereas only 16 percent were illiterate. Average landholding size is 2.46 Bigha per household. About 50 percent out of total interviewed reported that they were from Brahmin caste.*

*Out of total sampled biogas plant owners, majority of the households (84%) had taken loan from financial institutions. About 46 percent households reported that the main reason behind the installation of biogas plant was easy*

*and smokeless cooking. Around 3 percent plant owners had attached toilet with the biogas plant. Average livestock population size of sampled household was 4.3 per household. Average dung production was 45 kegs per household. Majority of the respondents (82%) reported that the agricultural production had been increased. Total average time saving was 3 hrs per day per household. Average saving amount of money was Rs.7000/- per year per household.*

*It was found that from the study, majority of the respondents (38 %) has used saved time on farm activities. This study also revealed that improvement was found in health and sanitation situation. Majority of the respondents (76%) out of total interviewed reported that their social status was raised. It was also found that women were highly benefited by the biogas plant (32. %). About 66 percent households out of total interviewed accepted that the overall energy, environmental and economic condition had been improved.*

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## **ABBREVIATIONS**

ADB/N	:	Agricultural Development Bank/Nepal
AEPC	:	Alternative Energy Promotion Center
BSP	:	Biogas Support Programme
DDC	:	District Development Committee
FY	:	Fiscal Year
GDP	:	Gross Domestic Product
GON	:	Government of Nepal
GGC	:	Gobar Gas Company
HHs	:	Households
LPG	:	Liquefied Petroleum Gas
MA	:	Master of Arts
MOF	:	Ministry of Finance
NBPG	:	Nepal Biogas Promotion Group
WECS	:	Water and Energy Commission Secretariat
No.	:	Number
NPK	:	Nitrogen, Phosphorus, Kalium
CNP	:	Chitwan National Park
RD	:	Rural Development
RETRUD	:	Rural Energy Technology for Rural Urban Development
SNV/N	:	Netherlands Development Cooperation/Nepal
Sq.	:	Square
TU	:	Tribhuvan University
VDC	:	Village Development Committee
WDR	:	World Development Report