Socio-Economic Impact of Peltric set

(A case study of Dhamikhola settlement at Gotikhel VDC in Lalitpur district)

A Thesis

Submitted to

Central Department of Rural Development

Faculty of Humanities and Social Science

Tribhuvan University

Kirtipur, Kathmandu

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Kirtipur, Kathmandu

April, 2011

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Letter of Recommendation

This is to certify that Mr. Bishnu Shrestha has completed thesis entitled **" Socio-Economic Impact of Peltric set, A case study of Dhamikhola settlement at Gotikhel VDC in Lalitpur district"** under my guidance. This is his independent work for the fulfillment of Master's in Rural Development. I recommend this thesis for final evaluation.

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Approval letter

Date……

This is to certify that the thesis entitled **"Socio-Economic Impact of Peltric Set , A case Study of DhamiKhola Settlement at Gotikhel VDC in Lalitpur district"** Submitted by Mr. Bishnu Shrestha has been examined. It has been declared successful for fulfillment of the academic requirements toward the completion of Masters of Arts in Rural Development.

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Acknowledgement

I would like to express my sincere gratitude to my thesis supervisor Prof. Dr. Pradeep Kumar Khadka, Head, the Central Department of Rural Development, T.U, Kirtipur. His patience, enthusiasm, cooperation, suggestions and keen interest in this study area is memorable. His vigorous effort efforts made up me present this research work in the present form. His brilliant skill of supervision makes this study enrich higher than my expectation. This research work wouldn't be possible without his simulation, inspiration and co-operation.

Similarly, my special thanks go to my inmate friend Devendra Adhikari for his direct and indirect cooperation and regular cooperation. I would also like to give heartful thanks to the people of my study area, i.e. Dhamikhola settlement, Gotikhel VDC, Lalitpur district. Last but not least, I must sincere grateful to my father Krishna Bahadur Shrestha and other Shrestha family for their continuation support and inspiration.

Finally I would like to thanks Mr. Suresh Shrestha of Shrestha Communication Deurali -4 Gorkha for his computer work.

April, 2011
Bishnu Shrestha

Abstract

Peltric set is an important alternative energy producing technology. Energy can be generated from falling water through the use of Peltric set through the use of motor dynamo which can be used as mechanical power. Electricity generated in this way can be used for lighting, heating, operating machines. In Nepal projects up to 5kw or benefiting house holds 40 are classified as Peltric set project.

It has been found that the rural people are highly benefited from the electricity generated through Peltric set projects. These benefits include the rise in literacy rate, increase in social activities and awareness development, declining adverse effects of polluting energy sources on health, sanitation, environment etc. These benefits are, however, of intangible nature. Rural people need tangible benefits. However due to several problems being encountered at present they are still deprived of them. Some of the problems are of techno social nature such as water rights reluctance in payment of energy, conflicts among the consumers as well as consumers and entrepreneurs, low salary to the operators, poor management, low maintenance , poor system efficiency, frequent power interruption, etc. Because of this majority of Peltric set projects are suffering of economic problems. These problems, however, have not yet been studied thoroughly and hence need immediate attention to make the Peltric set projects sustainable in the long run.

Realizing this fact a study was carried out which first reviewed the problems being faced by the projects and analyzed their economic sustainability by taking one of the representative projects as a sample. *The study has mainly focus on primary and secondary data. It has been limited on Dhamikhola settlement at Gotikhel VDC of Lalitpur district. It will collect data from the government related agencies, INGOs, its policy makers and individual basis of the study site.*

Since the study is applicable mainly to hilly and mountainous region with the correct land topography i.e. the water head must be at 30-50m height and the water flow must be 3-10 liter per sec. More over there may be some socio-cultural and economic issues regarding the Peltric set due to local social stratification and culture along with the policy hurdles from the law makers side .So the findings of the study may not be applicable to other society and geographic locations in total.

Electricity seems to be purely scientific phenomena associated with positively and negatively charged particles of matters at rest in motion individually or great. But still, the knowledge based on technical and other socio economic aspects of Peltric set is not much broad. With this limited knowledge base, it is difficult chart out exclusive strategies for its development. Hence more is needed to be done in the areas of research and development. Involvement of academia like engineering institution would be important role in preparing of technical need of the rural community. They can play important role in the preparation of technical guidelines and code of practices. Likely, social research is required to find the niche of Peltric set in overall energy sector, explore its potential as the complementary means of national grid electricity, identify existing policy hurdle if any propose more conducive policies and strategies.

Finding of this study will be useful for recommending planning and policy maker to formulate appropriate plans for further constructions of Peltric sets in rural villages.

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Abbreviation/Acronyms

AEPC/N	=	Alternative Energy Promotion Center, Nepal
B.S	=	Bikram Sambat
CBOs	=	Community Based Organizations
CBS	=	Central Bureau of Statistics
CRT/N Nepal	=	Centre of Rural Technology,
DDC	=	District Development Committee
FY	=	Fiscal Year
GoN	=	Government of Nepal
HHs	=	Households
INGOs	=	International non-government organizations
NGOs	=	Non-government Organizations
NPC/N	=	National Planning Commission, Nepal