

Role of Rural Electrification in Rural Development
(A Case Study of Bhujung Micro Hydro Project in Lamjung District, Nepal)

Project Report

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

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LETTER OF RECOMMENDATION

It is certified that the project work entitled **Role of Rural Electrification in Rural Development: A Case Study of Bhujung Micro Hydro Project in Lamjung District, Nepal** is prepared by Mr. **Fanindra Baral** under my supervision for his partial fulfillment of the requirements for the Degree of Master of Arts in Rural Development. Therefore, this project report is forwarded for its evaluation.

Mr. Yogendra Bista
(Research Supervisor)

APPROVAL SHEET

It is to certify that the project report submitted by **Fanindra Baral** entitled **Role of Rural Electrification in Rural Development: A Case Study of Bhujung Micro Hydro Project in Lamjung District, Nepal** has been approved by this department in the prescribed format of the Faculty of Humanities and Social Sciences. This project report has been accepted in the partial fulfillment of the requirement for the Degree of Master of Art in Rural Development.

Evaluation Committee

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EXECUTIVE SUMMARY

This study has been carried out in the partial fulfillment for the requirement of the degree of Master of Arts in Rural development. This study is focused in Bhujung VDC of Lamjung District, Nepal.

The objective of this study is to find the role of rural electrification in rural development. However, the specific objectives of the study are to find out the use of electricity for different purposes, to examine the educational status, to assess the improvement in the health of the local people, to examine the on going economic activities in the study area and to find workload of the women of the study area.

For this purpose altogether fifty households were randomly selected from all wards of Bhujung VDC.

For the completing this work primary as well as secondary sources of data have been used. For collecting primary data structured questionnaires were prepared. Apart from this personnel interviews and observations, focus group discussions were also used to gather the necessary informations. Similarly, the secondary data were collected from CBS, ACAP, WECS, AEPC, previous journals and research papers, dissertations on micro-hydropower. The collected data were analyzed by using simple arithmetic tool like percentage and presented in various tables and figures.

This research is descriptive cum explanatory type and finds that rural electrification has different kinds of socioeconomic implications for men and women and for the community. For instance, rural electrification has been able to reduce women's workloads and save their time and energy. As per the findings of this research most of the respondents are using electricity for both household purposes. There are two agro processing mills at different locations of the VDC that have reduced the time allocated for different household works by women like Dhiki/Janto. The saved time has been used for sanitation, healthcare and looking after their children. Similarly there is a possibility

of women being involved in income-generating and social activities, with the possibility of time saved in agro processing.

Rural electrification has also provided different kinds of opportunities for men and women in terms of exposure to new technologies, although there have been very limited opportunities for women to be involved in social and economic activities for their self-enhancement and empowerment. From this research it was found that cent percent respondents have Radio sets whereas majority of them have TV sets. So they use electricity for operating them. The other findings of this research are that electricity has helped reduce the diseases like eye aching, head aching, black sooth and respiratory diseases in the study area. Similarly, this rural electrification has increased the average pass percentage, reduced the dropout ratio and increase the net enrollment in the local school. So has there is increment in the study hours and the performance of their children. But there is no reduction in the use of forest resources for firewood. Similarly, rural electrification has created very limited employment opportunity. And has not created any other rural development activities in the study area since its completion.

There have been some negative implications of rural electrification in Bhujung VDC, as young men seemed to be idle with radios and televisions and reluctant to go to work. Older people saw this as having a negative impact on their culture and their lives. The other negative implication of the MHP scheme for the household was that the available labor resource was reduced because of the tendency of young boys to hang around radios and televisions. And there was no change in men's labor, time, and resources.

As a conclusion of this research it can be said that no direct relationship can be seen to have been established between rural electrification and rural development in Bhujung VDC.

Whatever the changes (education, health, socio-economic etc.) we have found out from our research work is only from the electricity use perspectives. So this can be further researched from other perspectives and can be found out that whether these changes are only from the rural electrification as has been mentioned above.

TABLE OF CONTENTS

| | Page No. |
|--|-----------------|
| Recommendation | |
| Letter of Acceptance | |
| Executive Summary | i |
| Acknowledgements | iii |
| Table of Contents | iv |
| List of Tables | vii |
| List of Figures | viii |
| Abbreviations / Acronyms | ix |
| | |
| CHAPTER ONE: INTRODUCTION | 1-6 |
| 1.1 Background | 1 |
| 1.2 Statement of the Problem | 3 |
| 1.3 Objectives of the Study | 6 |
| 1.4 Significance of the Study | 6 |
| 1.5 Limitations of the Study | 6 |
| 1.6 Organization of the Study | 6 |
| | |
| CHAPTER TWO: LITERATURE REVIEW | 8-15 |
| 2.1 Conceptual Review | 8 |
| 2.2 Review of Related Studies | 9 |
| | |
| CHAPTER THREE: RESEARCH METHODOLOGY | 16-17 |
| 3.1 Selection of Study Area | 16 |
| 3.2 Research Design | 16 |
| 3.3 Universe, Sample Size and Selection Procedure | 16 |
| 3.4 Nature and Sources of Data | 17 |
| 3.5 Tools and Techniques of Data Collection | 17 |
| 3.6 Techniques of Data Analysis | 17 |
| | |
| CHAPTER FOUR: MICRO HYDRO PROJECTS IN NEPAL | 18-28 |
| 4.1 Definitions | 18 |
| 4.2 Technical Aspects | 18 |

| | | |
|---|---|--------------|
| 4.2.1 | Head and Flow | 18 |
| 4.2.2 | Power and Energy | 19 |
| 4.3 | Main Elements of the Scheme | 20 |
| 4.4 | Preliminary Power and Energy Calculation | 21 |
| 4.4.1 | Design Flow | 21 |
| 4.4.2 | Capacity Factor | 21 |
| 4.4.3 | Peak Power | 22 |
| 4.4.4 | Energy Output | 22 |
| 4.5 | Micro Hydro Power Project Development Trend in Nepal | 22 |
| 4.6 | Government and other Institutions Related to Micro Hydro Projects | 25 |
| 4.7 | Government Policies Related to Micro Hydro Projects | 26 |
| 4.7.1 | Rural Energy Subsidy Policy in Nepal | 26 |
| 4.7.2 | Subsidy in Micro Hydro Sector | 27 |
| 4.8 | Major Obstacles in Micro Hydro Project Development | 28 |
| CHAPTER FIVE: DATA ANALYSIS AND PRESENTATION | | 29-39 |
| 5.1 | Socio-economic Condition of Village | 29 |
| 5.1.1 | Population | 29 |
| 5.1.2 | Caste and Ethnicity | 29 |
| 5.1.3 | Education | 30 |
| 5.2 | Introduction of Bhujung Micro Hydro Project | 31 |
| 5.3 | Analysis of Questionnaire Survey | 32 |
| 5.3.1 | Composition of Respondents According to Gender | 32 |
| 5.3.2 | Composition of the Respondents by Profession | 33 |
| 5.3.3 | Use of Electricity for Different Purposes | 34 |
| 5.3.3.1 | Use of electricity by purpose | 34 |
| 5.3.3.2 | Use of electricity for household purpose | 34 |
| 5.3.3.3 | Use of electricity for agro processing | 35 |
| 5.3.3.4 | Use of electricity for different economic activities | 35 |
| 5.3.3.5 | Use of electricity for different instruments | 36 |
| 5.3.3.6 | Electricity for battery charging | 36 |
| 5.3.3.7 | Electricity for education | 36 |
| 5.3.3.8 | Electricity for health | 37 |
| 5.3.3.9 | Electricity for employment generation | 38 |

| | |
|---|--------------|
| 5.3.3.10 Workload of women | 39 |
| CHAPTER SIX: SUMMARY CONCLUSIONS AND RECOMMENDATIONS | 41-44 |
| 6.1 Summary | 40 |
| 6.2 Conclusion | 42 |
| 6.3 Recommendations | 42 |
| BIBLIOGRAPHY | 45-47 |
| ANNEX | |

LIST OF TABLES

| Title | Page No |
|---|----------------|
| Table 4.1 Classifications of Hydro Systems | 18 |
| Table 4.2 Capacity Factors | 22 |
| Table 4.3 Growth Trend of Micro-hydro Electrification Schemes | 23 |
| Table 4.4 Growth Trends of Turbine Mills | 24 |
| Table 4.5 Growth Trend of Improved Water Mills | 24 |
| Table 4.6 Subsidy Policies for Micro Hydro in Nepal | 28 |
| Table 5.1 Composition of Castes / Ethnicity | 30 |
| Table 5.2 Educational Status | 31 |

LIST OF FIGURES

| Title | Page No. |
|--|-----------------|
| Figure 4.1 The Gross Head | 19 |
| Figure 4.2 Main elements of Micro Hydro Scheme | 21 |
| Figure 5.1 Population of Bhujung VDC | 29 |
| Figure 5.2 Composition of Castes/Ethnicity | 30 |
| Figure 5.3 Educational Status | 31 |
| Figure 5.4 Composition of Respondents according to Gender | 33 |
| Figure 5.5 Compositions of Respondents by Profession | 33 |
| Figure 5.6 Use of Electricity for Household Purposes | 34 |
| Figure 5.7 Educational Status Before and After Electrification | 37 |
| Figure 5.8 Health Condition Before and After Electrification | 38 |
| Figure 5.9 Employment Generation | 39 |
| Figure 5.10 Reduction in Drudgery/Workload of Women | 40 |

ABBREVIATIONS /ACRONYMS

| | |
|--------|--|
| ACAP | Annapurna Conservation Area Project |
| ADB | Asian Development Bank |
| ADB/N | Agricultural Development Bank, Nepal |
| AEPC | Alternative Energy Promotion Center |
| BS | Bikram Sambat |
| CBS | Central Bureau of Statistics |
| CES | Center for Energy Study |
| CIDA | Canadian International Development Agency |
| CO | Community Organization |
| DCS | Development Consultant Services |
| DDC | District Development Committee |
| DOED | Department of Electricity Development |
| GDP | Gross Domestic Products |
| GJ | Giga Joules |
| GTZ | German Agency for Technical Cooperation |
| HMG/N | His Majesty's Government of Nepal |
| I/NGO | International /Non Government Organization |
| ICIMOD | International Center for Integrated Mountain Development |
| IOE | Institute of Engineering |
| IPP | Independent Power Producer |
| ITDG | Intermediate Technology Development Group |
| JBIC | Japanese Bank for International Cooperation |
| KW | Kilo Watt |
| KWH | Kilo Watt Hour |
| MHP | Micro Hydro Power |
| MOF | Ministry of Finance |
| MOLD | Ministry of Local Development |
| MOR | Ministry of Water Resources |
| MW | Mega Watt |
| NEA | Nepal Electricity Authority |

| | |
|--------|--|
| RADC | Remote Area Development Center |
| RECAST | Research Center for Applied Science and Technology |
| REDP | Rural Energy Development Program |
| SATA | Swiss Association for Technical Cooperation |
| TOE | Tons of Oil Equivalent |
| UMN | United Mission to Nepal |
| UNDP | United Nations Development Program |
| US | United States |
| VDC | Village Development Committee |
| WECS | Water and Energy Commissions Secretariat |