

**ECONOMIC CONTRIBUTION OF GANDAKI HYDRO
POWER PROJECT: A CASE STUDY OF REVAN VDC,
KASKI DISTRICT**

A Thesis

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in Partial Fulfillment of the Requirements for the Degree of

MASTER OF ARTS

in

ECONOMICS

Submitted by

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LETTER OF RECOMMENDATION

This thesis entitled “*Economic Contribution of Gandaki Hydro Power Project: A Case Study of Revan VDC, Kaski District*”, has been prepared by Prakash Chalise under my supervision. I hereby recommend this thesis for approval by the thesis committee.

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ABSTRACT

This study, in general attempts to appraise the importance of electricity in the development of Nepal. This research, however, focuses on the significance of the small hydropower project in the context of our country. Obviously Nepal has been facing many challenges due to lack of capital, infrastructure and technology to install large hydropower projects. In Such case, it is rather wise and practical to install small hydropower projects to fulfill our demand for electricity because it can be installed with small amount of capital to fulfill our demand for electricity because it can be installed with small amount of capital. So, we can encourage the private sector to invest on it. Likewise, it does not demand as sophisticated technology as the large projects to do. Moreover, it is free of hazardous environment impact. In all, it unlike the big projects, has more positive impacts than negative ones. So, the small hydropower projects can play a key role in the overall hydropower projects into the limelight through the study of impacts of Gandaki Hydropower Project in the overall sectors of the study area. Nepal has immense endowment of water resources. Theoretical and technical potentialities of hydropower are endowment of water resources. Theoretical and technical potentialities of hydropower are estimated to be 83,290 MW and 45,610 MW respectively. However economically viable capacity is accounted to be 42,133 MW. It is expected that electrification will create various opportunities of development activities in the rural areas. Neither traditional sources are in the position to meet the requirements of energy nor sustainable.

The hydropower plant of Zurich of Switzerland built in 1882 is the first hydropower plant in the world. In the context of Nepal, Fharping Hydro plant (500 KW) is the first hydropower plant. Nowadays, the demand for electricity is increasing day by day, the total hydro-electricity generate in Nepal is 846MW. The Gandaki Hydropower is based on run-off-river type project with 48000 KW capacities. The project has created abundant opportunities for knowledge and skill. So, their economic status has become better than before.

In conclusion, installation of small hydropower project like Gandaki is relevant/significant from various angle in the present context of Nepal to fulfill the national of electricity. The protect increase economic activities in the rural areas, uplift living standard of rural people, employment, and reduce regional imbalance of development.

TABLE OF CONTENTS

	Page No.
ACKNOWLEDGEMENTS	iv
ABSTRACT	v
LIST OF TABLES	viii
LIST OF FIGURES	ix
LIST OF ACRONYMS	x
CHAPTER 1. INTRODUCTION	1
1.1 General Background	1
1.2 Statement of the problem	3
1.3 Objectives of the study	4
1.3.1 General objectives	4
1.3.2 Specific objectives	4
1.4 Significance of the study	4
1.5 Limitations of the study	5
1.6 Organization of the study	5
CHAPTER 2. REVIEW OF THE LITERATURE	7
2.1 Introduction	7
2.2 Theoretical Review	7
2.2.1 Theoretical, Technical and Economical Hydropower Potential of Nepal	8
2.2.2 Energy Consumption in Nepal	9
2.3 Research Review	11
2.4. Research Gap	19
CHAPTER 3. METHODOLOGY	21
3.1 Research Design	21
3.2 Sources of Data Collection	21
3.2.1 Primary information	21
3.2.2 Secondary information	22
3.3 Sampling Technique	22
3.4 Data Processing	22
3.5 Data Analysis	23

CHAPTER 4. DATA ANALYSIS	.....	.....	24
4.1	Introduction	.....	24
4.2	Interpretation	.....	24
4.2.1	Ward wise population distribution of the study area	.....	24
4.2.2	Ward wise population distribution of the sample survey	.....	25
4.2.3	Age wise Distribution of Respondents and Their Family Members	.....	26
4.2.4	Change in study habits after SHP	.....	26
4.2.5	Teaching Methodology use in school after SHP	.....	27
4.2.6	Number of employed in family	.....	28
4.2.7	Main Occupation of Household	.....	29
4.2.8	Side occupation of Household	.....	31
4.2.9	Extra time spend in productive activities after the project	.....	32
4.2.10	Impact of project on human health	.....	33
4.2.11	Place of Treatment	.....	34
4.2.12	Change in expenditure after SHP per month	.....	35
4.2.13	Electricity using for various propose	.....	36
4.2.14	Advantage through SHP	.....	37
4.2.15	Uses of new instruments or Electronics devices after SHP	.....	38
4.2.16	Family who use internet	.....	38
4.2.17	Purpose for use internet	.....	39
4.3	Major Findings	.....	40
CHAPTER 5. SUMMARY AND CONCLUSION	.....	.....	42
5.1	Summary	.....	42
5.2	Conclusions	.....	43
5.3	Suggestions	.....	44
APPENDIX	.....	.....	46
BIBLIOGRAPHY	.....	.....	53

LIST OF TABLE

Table No.		Page No.
2.1	Theoretical, Technical and Economical Hydropower Potential of Nepal	9
4.2.1	Ward wise population distribution of the study area.	25
4.2.2	Ward wise population distribution of the sample survey	25
4.2.3	Age wise Distribution of Respondents and Their Family Members	26
4.2.4	Change in study habits after SHP	27
4.2.5	Teaching Methodology use in school after SHP	28
4.2.6	Number of employed in family	28
4.2.7	Main Occupation of Household	30
4.2.8	Side occupation of Household	31
4.2.9	Extra time spend in productive activities after the project	33
4.2.10	Impact of project on human health	34
4.2.11	Place of Treatment	34
4.2.12	Change in expenditure after SHP per month	35
4.2.13	Electricity using for various propose	37
4.2.14	Advantage through SHP	37
4.2.15	Uses of new instruments or Electronics devices after SHP	38
4.2.16	Family who use internet	39
4.2.17	Purpose for use internet	40

LIST OF FIGURE

Figure No.		Page No.
2.1	Energy Consumption in Nepal	10
4.1	Number of employed in family	29
4.2	Main Occupation of Household	30
4.3	Side occupation of Household	32
4.4	Family who use internet	39

LIST OF ACRONYMS

AREAP	:	Asian Regional Environment Assessment Program
CBS	:	Central Bureau of Statistics
CEDA	:	Centre for Economic Development and Administration
CO ₂	:	Carbon dioxide
DFID	:	Department of International Development
DOED	:	Department of Electricity Development
GHP	:	Gandaki Hydropower Project
GW	:	Gegawatt
HH	:	Household
HMG/N	:	His Majesty Government of Nepal
Hz	:	Hertz
ICSHP	:	International Centre on Small Hydro Power
INGO	:	International Non Government Organization
INSHP	:	International Network on Small Hydro Power
KW	:	Kilowatt
KWh	:	Kilowatt hour
KWp	:	Kilowatt, peak
l/s	:	litre/second
m ³ /s	:	Cubic metre per second,
MHP	:	Micro Hydro Power
MOWR	:	Ministry of Water Resource
MPWR	:	Ministry of Water Resource
MVA	:	Mega Volt Ampere
MW	:	Megawatt
NEA	:	Nepal Electricity Authority
NEFAS	:	Northeast Florida Astronomical Society

NGO	:	Non Government Organization
REDP	:	Rural Energy Development Program
Rpm	:	Rate per minute
SHP	:	Small Hydro Power
SHPDF	:	Small Hydropower Development Fund
SIA	:	Social Impact Assessment
Sq.mi	:	Square Mile
Sq. KM	:	Square Kilometer
SSWM	:	Sustainable Sanitation & Water Management
TW	:	Tega Watt
VDC	:	Village Development Committee
WB	:	World Bank
WECS	:	Water Energy Commission Sector