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

A Thesis

Submitted to the Department of Economics,

Faculty of Humanities and Social Sciences of Tribhuvan University,

in Partial Fulfillment of the Requirements for the Degree of

MASTER OFARTS

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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We certify that the thesis entitled **"***Economic Contribution of Gandaki Hydro Power Project: A Case Study of Revan VDC, Kaski District,"* submitted by Prakash Chalise to Department of Economics, Prithvi Narayan Campus, Pokhara Faculty of Humanities and Social Sciences, Tribhuvan University, in partial fulfillment of the requirements for the degree of *MASTER OF ARTS* in *ECONOMICS* has been found satisfactory in scope and quality. Therefore, we accept this thesis as part of the said Degree.

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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.

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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