

**Effectiveness of an Integrated WASH project: A case study of
Simaltar and Ikchung Villages,
Makwanpur District**

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**The Central Department of Economics,
Faculty of Humanities and Social Sciences,
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Submitted by

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2019

LETTER OF RECOMMENDATION

This thesis entitled '**Effectiveness of an Integrated WASH project: A case study of Simaltar and Ikchung Villages, Makwanpur District**' has been prepared by Mr. Samir Baidya under my guidance and supervision. I hereby recommend this thesis for the examination by thesis committee as a partial fulfillment of the requirements for the Degree of MASTER OF ARTS in ECONOMICS. I forward it with recommendation for approval.

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APPROVAL LETTER

We certify that this thesis entitled ‘**Effectiveness of an Integrated WASH project: A case study of Simaltar and Ikchung Villages, Makwanpur District**’ submitted by Mr. Samir Baidya to the Central Department of Economics, Faculty of Humanities and Social Science, Tribhuvan University, in the partial fulfillment of the requirements for the Degree of **MASTERS OF ARTS in ECONOMICS** has been found satisfactory in scope and quality. Therefore, we accept this thesis as a part of the said degree.

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DECLARATION

I hereby declare that the thesis entitled '**Effectiveness of an Integrated WASH project: A case study of Simaltar and Ikchung Villages, Makwanpur District**' submitted to the Central Department of Economics, Faculty of Humanities and Social Science, Tribhuvan University is entirely my original work prepared under the guidance and supervision of my supervisor. I have made due acknowledgements to all ideas and information borrowed from different sources in the course of preparing this thesis. The results of this thesis have not been presented or submitted anywhere else for the award of any degree or for any other purpose. I assure that no part of the content of this thesis has been published in any form before.

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ABSTRACT

The study entitled, '**Effectiveness of an Integrated WASH project: A case study of Simaltar and Ikchung Villages, Makwanpur District**' was conducted between two villages in the Makwanpur District of Nepal. Simaltar and Ikchung are economically poor and socially backward communities, with water scarcity after the 2015 earthquake. Villagers had to spend hours in long queues to get enough water for their household purposes. The objective of this study is to assess the effectiveness of an integrated WASH project which will reflect the situation and the economical effectiveness of the WASH project.

Descriptive research design has been adopted for this study. The study aims to emphasize the effectiveness of an integrated WASH project by comparing baseline and end line survey data before and after the project intervention in the study area. This study is based on primary data which was collected using questionnaire interviews with the head of each individual household. This study was conducted in Simaltar and Ikchung villages with a total combined household number of 131 and total population of 684 people. The baseline and end line surveys were conducted across 77 households (59% of total households) in total, ensuring that more than 50% of the households were covered in each village. All the data was aggregated, compiled and analyzed using pivot tables for both before and after survey data using Microsoft Excel. Later, all the related variables were analyzed using Stata statistical software. The statistical technique used to analyze this research was a paired t-test.

Paired t-test analysis was used among the same communities twice; to measure the effectiveness of WASH project in the study area and check the statistical significance of the outcome of a research on the same group before and after the research. As a result, the impacted communities have increased access (26% respondents acknowledged an increase in water access, with households needing to collect water less frequently, and spend less time collecting per day) and increased quantity of safe and reliable drinking water. Two safe water schemes were constructed, there is increased access to adequate sanitation facilities, improved hygiene practices in the communities and construction of handwashing stations and toilets. There were however inadequate improvements when it came to recognising public health and

hygiene campaigns. Through the analysis of baseline and end line data, the most significant impact can be seen to be a reduction of diarrheal incidents by 30% of respondents during the intervention period and access to increased water level resulted in time savings (26.19 minutes per day) for each household allowing them to not wait in long queues to collect water and hopefully use their time more efficiently to their economic benefit (approximately Rs 30.12, per day, per household). All of this was achieved by using an integrated approach from local youth, local community members, engagement with national and international volunteers and collaboration with a local NGO and CBO. Overall the project result demonstrates that in a short period of time the project has made a positive impact in the communities.

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LIST OF ABBREVIATIONS / ACRONYMS

CBOs	Community-Based Organizations
CI	Confidence Interval
DWSS	Department of Water Supply and Sewerage
GDP	Gross Domestic Product
IBM-WASH	Integrated Behavioural Model for Water, Sanitation and Hygiene
INGOs	International Non-Governmental Organizations
MDGs	Millennium Development Goals
MoFAGA	Ministry of Federal Affairs and General Administration
MoFALD	Ministry of Federal Affairs and Local Development
MOU	Memorandum of Understanding
MOWSS	Ministry of Water Supply and Sanitation
NGOs	Non-Governmental Organizations
NMIP	National Management Information Project
PPP	Public Private Partnership
RWSSP	Rural Water Supply and Sanitation Fund Development Board
SDG	Sustainable Development Goals
SHWM	Sanitation, Hygiene and Water management
SPSS	Statistical Package for The Social Sciences
STATA	South Texas Art Therapy Association'
TX	Texas
UNICEF	United Nations Children's Fund
USA	United States of America
VDC	Village Development Committees
WASH	Water, Sanitation and Hygiene
WinS	WASH in schools
WTSS	Women Technical Support Service
WWAP	World Water Assessment Programme

WWDR

World Water Development Report